OFFICE OF THE PARLIAMENTARY BUDGET OFFICER
BUREAU DU DIRECTEUR PARLEMENTAIRE DU BUDGET

The cost differential between three regimes of Veterans Benefits

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The Parliamentary Budget Officer (PBO) supports Parliament by providing economic and financial analysis for the purposes of raising the quality of parliamentary debate and promoting greater budget transparency and accountability.

PBO was requested to prepare a cost estimate of veteran's benefits under the three different regimes that have existed: the *Pension Act,* the *Veterans Well-being Act* and *Pension for Life*.

This report presents the overall fiscal costs to the government on a net present value basis for the existing cohort of beneficiaries and for projected new beneficiaries during the period 2019-2023. It also provides the benefits received by veterans or their survivors under these regimes and presents scenarios.

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Abbreviations and acronyms

AA	Attendance Allowance
APSC	Additional Pain and Suffering Compensation
CIA	Career Impact Allowance
CIAS	Career Impact Allowance Supplement
CPI	Consumer Price Index
CRB	Caregiver Recognition Benefit
DEC	Diminished Earning Capacities
EIA	Exceptional Incapacity Allowance
ELB	Earnings Loss Benefit
FCRB	Family Caregiver Relief Benefit
IRB	Income Replacement Benefit
NPV	Net Present Value
OCA	Office of the Chief Actuary
PBO	Parliamentary Budget Officer
PSC	Pain and Suffering Compensation
RISB	Retirement Income Security Benefit
SRB	Supplementary Retirement Benefit
VWA	*Veterans Well-being Act*

Executive Summary

The Government of Canada has had three different regimes for veteran's benefits since 2006: the *Pension Act* (up to 2006); the *Veterans Well-being Act* (from 2006 to 2019); and, *Pension for Life* (which takes effect on April 1, 2019).

Several parliamentarians requested that the Parliamentary Budget Officer (PBO) prepare an estimate of the fiscal cost of each of these regimes over the medium term.

Using data from Veterans Affairs Canada (VAC), PBO estimated the overall fiscal costs to the government on a net present value (NPV) basis for the existing cohort of beneficiaries and for projected new beneficiaries during the period 2019-2023.

As presented below, PBO found that the *Pension Act* regime is the most generous for the veterans and the most expensive for the federal government. The *Pension for Life* regime is slightly more generous than the *Veterans Well-being Act* regime.

Summary Table 1 Total Net Present Value of Lifetime Costs of Veterans Benefits

billions $	**Scenario 1: *Pension Act***	**Scenario 2: *Veterans Well-being Act***	**Scenario 3: *Pension for Life***
Present Clients	40	22	25
New Entrants (2019–2023)	10	7	7
Total	50	29	32

Source: PBO calculations using data from VAC

From the perspective of the veteran, virtually all clients would be better off if they were to receive the benefits of the *Pension Act*. Under this scenario, the greatest gains would be received by veterans with a lower disability assessment, whereas the difference would be proportionally smaller for those with a high disability assessment.

Most, but not all, veterans will be financially better off under the new *Pension for Life* regime compared to the existing *Veterans Well-being Act*.

While all current recipients of disability benefits will receive an equal or greater amount with the new regime, PBO estimates that about 5 per cent of future recipients would have been better off under the *Veterans Well-being Act*. Moreover, 3 per cent of new entrants would be greatly disadvantaged under *Pension for Life* as they would, on average, have received around $300 thousand more in financial support from the existing regime.

This is in part related to the elimination of the Career Impact Allowance Supplement (CIAS), which is offered to veterans with severe and permanent impairment and diminished earning capacities.

1. Introduction

This report responds to requests from parliamentarians to compare the three most recent regimes of veterans benefits: the *Pension Act;* the *Veterans Well-being Act;* and, *Pension for Life,* which takes effect on April 1, 2019.

Specifically, the Parliamentary Budget Officer (PBO) was asked to estimate the cost to the federal government of veterans benefits for each regime, had the others not existed.

Also, PBO received additional requests to determine which framework of benefits is more financially favourable for veterans.

1.1. Making the Comparison

To compare the costs of the three regimes, PBO evaluated the following three scenarios:

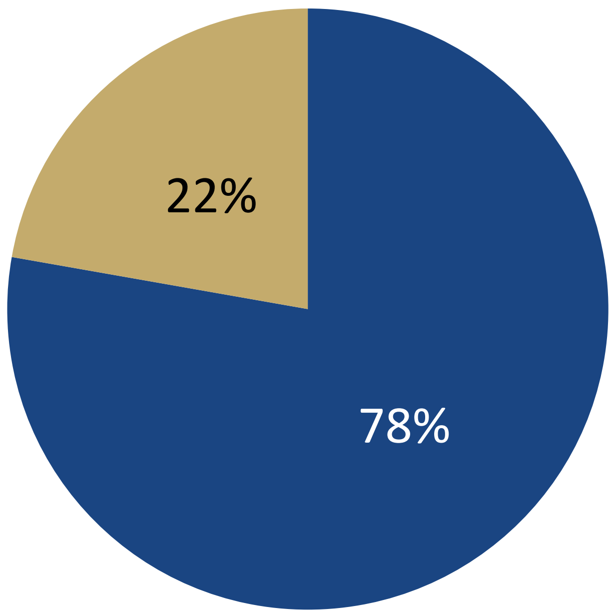
Scenario 1	All disabled veterans receive *Pension Act* benefits.
Scenario 2	Veterans who applied for disability benefits before April 1, 2006 receive the grandfathered *Pension Act* benefits. All others receive *Veterans Well-being Act* benefits.
Scenario 3	Veterans who applied for disability benefits before April 1, 2006 receive the grandfathered *Pension Act* benefits. All others receive *Pension for Life* benefits.[1]

This report presents the cost to the federal government of the three scenarios had they been in place in 2019. Specifically, PBO calculated the lifetime, net present value (NPV) (2019 dollars) of benefits for clients in the system as of 2018, as well as new entrants projected over the period 2019 to 2023[2]. PBO also uses examples to present comparisons of the lifetime, net-of-tax benefits that veterans would receive under any one of the benefit regimes.

Through this analysis, PBO highlights key factors determining the variation to benefit levels, from the perspective of both the federal government and veterans.

While many benefits are available to all veterans, we include only regime-specific benefits in our analysis. Figure 1-1 below presents the benefits included (in blue) and excluded (in gold). The programs included in our analysis represent 78 per cent of the 2017–2018 total costs associated with veterans benefits.

Figure 1-1 2017–2018 Veterans Affairs Canada Program Expenditures



Regime-specific (In scope)

- Disability Pensions
- Disability Awards
- Earnings Loss
- Career Impact Allowance (CIA)
- Retirement Income Security Benefit (RISB)
- Caregiver Recognition Benefit (CRB)*
- Family Caregiver Relief Benefit (FCRB)
- Supplementary Retirement Benefit

Available across all regimes (out of scope)[3]

- Canadian Forces Income Support
- Other Health Purchased Services
- Veterans Independent Program (VIP)
- War Veterans Allowance
- Rehabilitation & Veterans Well-being Act (VWA) Support Services
- Critical Injury Benefit

Source: Veterans Affairs Canada

Notes: * Previously called Family Caregiver Relief Benefit (FCRB)

To make the comparison, PBO performed the calculations on the same set of veterans, that is, Canadian Armed Forces veterans and survivors who were in receipt of, or eligible for, the benefits as of October 2018.[4] Appendix B provides summary information on this cohort.

1.2. Pension Act

Prior to April 1, 2006, benefits and services for disabled veterans and their families were provided through the framework established by the *Pension Act*.[5] Generally, this suite of benefits comprised a monthly disability pension as well as additional allowances (Table 1-1 below).

Table 1-1 Benefits Available under the Pension Act

	Description
Disability Pension	Monthly tax-free payments paid for life to disabled veterans. Additional amounts are also awarded for qualified dependents. The amount is based on the degree to which the disability is related to the military service and the extent of the disability.
Exceptional Incapacity Allowance	Monthly tax-free allowance for veterans who are permanently and exceptionally incapacitated. The amount of the allowance is based on the extent of the pain and loss of enjoyment or shortened life expectancy.
Attendance Allowance	Monthly tax-free allowance for veterans who have a disability pension or who receive prisoner-of-war compensation; are totally disabled, whether by reason of military service or not; and need help with daily livIng tasks. The amount payable is based on the degree of attendance, or attention by a caregiver, the veteran needs.

Source: Veterans Affairs Canada

1.3. Veterans Well-being Act

Since April 1, 2006, benefits and services for disabled veterans and their families have been provided through the framework established in the *Veterans Well-being Act* (VWA), previously known as the *New Veterans Charter*.[6] Table 1–2 provides an overview of benefits available explicitly under the VWA.

Table 1-2 Benefits Available under the Veterans Well-being Act, as of October 2018[7]

	Description
Disability Award	Tax-free lump-sum award for an injury or illness resulting from military service. The amount is based on the degree to which the disability is related to the military service and the extent of the disability.
Critical Injury Benefit	Tax-free lump-sum award to address the immediate impacts of the most severe and traumatic service-related injuries or diseases.
Earnings Loss Benefit	Taxable, monthly benefit that ensures that the total income of eligible veterans will be at least 90 per cent of the individual's gross pre-release military salary. Offered to veterans who received rehabilitation benefits and until the age of 65 for veterans who have a diminished earning capacity.
Retirement Income Security Benefit	Monthly taxable benefit that tops up a veteran's total annual income to at least 70 per cent of what he or she received in financial benefits from VAC before age 65.
Supplementary Retirement Benefit	Taxable, lump-sum benefit provided to individuals who were in receipt of earnings loss benefits on a long-term basis.
Career Impact Allowance	Taxable, monthly benefit payable for life to veterans who experienced a severe and permanent impairment for which they received a disability benefit. The amount is dependent on the severity of the impairment; a supplement is offered to veterans with a diminished earning capacity.

Source: Veterans Affairs Canada

1.4. Pension for Life

Budget 2018 announced a new regime of federal benefits for veterans referred to as the "Pension for Life" (Table 1–3 below) to be effective on 1 April 2019.[8]

Table 1-3

Benefits Available under the Pension for Life Regime

	Description
Pain and Suffering Compensation	Tax-free compensation for an injury or illness resulting from military service. The amount is based on the degree to which the disability is related to the military service and the extent of the disability. Beneficiaries can decide to receive it as a monthly payment for life or to cash out the benefit as a lump sum at any juncture. In the event of death, survivors are eligible to receive a cash out.
Additional Pain and Suffering Compensation	Non-taxable monthly benefit payable for life to veterans who have experienced severe and permanent impairments that have created barriers to establishing life after service. Levels of payment are determined by the extent of the veteran's impairment and barriers to re-establishment.
Income Replacement Benefit	Taxable monthly benefit designed to provide income support to veterans who experience barriers to re-establishment in post-service life because of a health problem resulting primarily from service. The amount payable is calculated by taking 90 per cent of a veteran's salary at the time they were released from the military, less offsets.* After the age of 65, veterans will instead receive 70 per cent of the amount, less offsets*. The survivor and/or orphan of the member or veteran may receive the IRB in the event of a member or veteran's death. For veterans who have a diminished earning capacity, their salary at the time of release will also be increased by 1 per cent every year until the veteran reaches what would have been 20 years of service or age 60.

Source: Veterans Affairs Canada

Notes: * Refers to amounts received from prescribed sources listed in section 22 of the *Veterans Well-being Act* such as employment earnings and other long-term disability payments, etc.

Box 1-1: Summary of the Main Changes Through Time

Since it was introduced, the benefits under the *Pension Act* offered disabled veterans tax-free monthly payments for life. Some extra allowances were also offered to veterans who had exceptional incapacities, or who needed help with daily needs.

When it was introduced as the *New Veterans Charter* in 2006, the *Veterans Well-being Act* eliminated the monthly disability payments and replaced them with a less generous lump-sum payment (disability award) to compensate veterans for disabilities related to their military service. New types of benefits were also introduced to compensate for diminished earnings resulting from their disability, such as the Earnings Loss Benefit, the Retirement Income Security Benefit and the Supplementary Retirement Benefit.

Monthly payments for veterans with serious conditions were transformed and made more generous, such as the Career Impact Allowance and Supplement. New rehabilitation and vocational programs were also introduced to facilitate the transition to civilian life.

With the implementation of the *Pension for Life* regime on April 1, 2019, veterans will have the choice of receiving compensation for their disability as a lump sum, or as a monthly payment for life. Income replacement benefits will be simplified and merged into a single program. The monthly payments for veterans with serious conditions will be renamed, for example, Additional Pain and Suffering Compensation, and will be made tax-exempt. However, the supplement for veterans with diminished earning capacities is to be eliminated.

Source: Parliamentary Budget Office

2. Methodology

Veterans Affairs Canada provided PBO with data of all veterans (made anonymous) who were currently in receipt of, or who had ever received, a VWA benefit as of September 2013, and as of October 2018. The datasets include demographic information and eligibility status about each specific client.

PBO then calculated the nominal value of benefits they would be eligible for under each of the three regimes, at their 2019 legislated values. Eligibility criteria for VWA and *Pension for Life* were available in the dataset. However, assumptions had to be made to assign eligibility for *Pension Act* benefits. Appendix A details those assumptions.

Benefits were indexed, and both the lifetime and annual amounts were calculated for that same cohort. To account for new clients, PBO estimated the cost associated with five years of projected new entrants. Appendix A describes the methodology in greater detail.

Unless indicated, the costs in this report are the net present values of the after-tax lifetime value of the benefits. This allows the comparison of monthly benefits and lump-sum benefits. Detailed assumptions regarding the net present value calculations are provided In Appendix A2.

2.1. New Entrants' Costs

To calculate the costs associated with new entrants, PBO used the annual average costs multiplied by the total number of new entrants. For the number of new entrants, PBO used the number of projected new entrants by benefit included in the Office of the Chief Actuary's (OCA) 2017 "Actuarial Report on the Future Benefits for Veterans".[9]

The average cost of each benefit is derived from the characteristics of the 2013–2018 new entrants.[10] The assumptions for each benefit are described in Appendix A.

3. Results and Analysis

3.1. Federal Fiscal Costs of Veterans Benefits

The federal net (net-of-tax) cost of veterans benefits under the three different regimes ranges from $29 billion to $50 billion. The *Veterans Well-being Act* is the least generous of the three regimes ($29 billion, Scenario 2). The *Pension for Life* regime is slightly more generous ($32 billion, Scenario 3). Having all veterans receive the *Pension Act* suite of benefits would be roughly 1.5 times costlier. ($50 billion, Scenario 1).

Table 3-1 Total Net Present Value of Lifetime Costs of Veterans Benefits

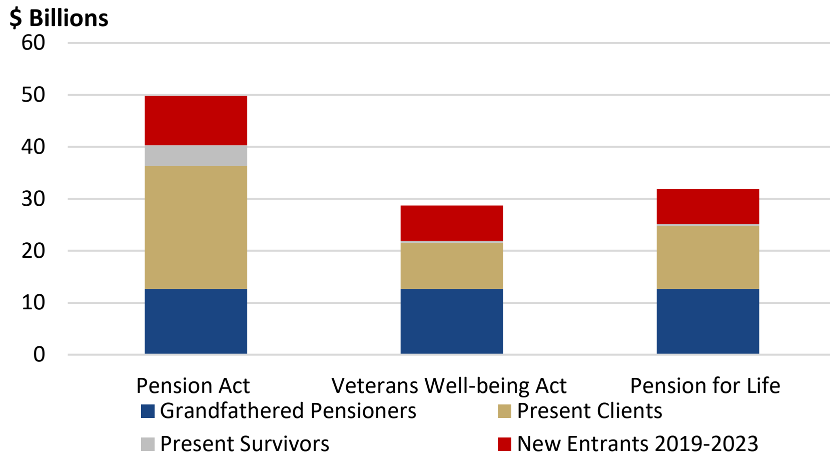
billions $	**Scenario 1: *Pension Act***	**Scenario 2: *Veterans Well-being Act***	**Scenario 3: *Pension for Life***
Present Clients	40	22	25
2019–2023 New Entrants	10	7	7
Total	50	29	32

Source: PBO calculations using data from VAC

Notes: Net present value of benefits In-scope payable to 2018 clients and new entrants presenting before the end of 2023, over their lifetime.

Figure 3-1

Total Net Present Value of Lifetime Costs of Veterans Benefits by type of client



Source: PBO calculations using data from VAC

Notes: Dual clients have *Pension Act* benefits included under the grandfathered pensioners category. The rest of their benefits is included under present clients.

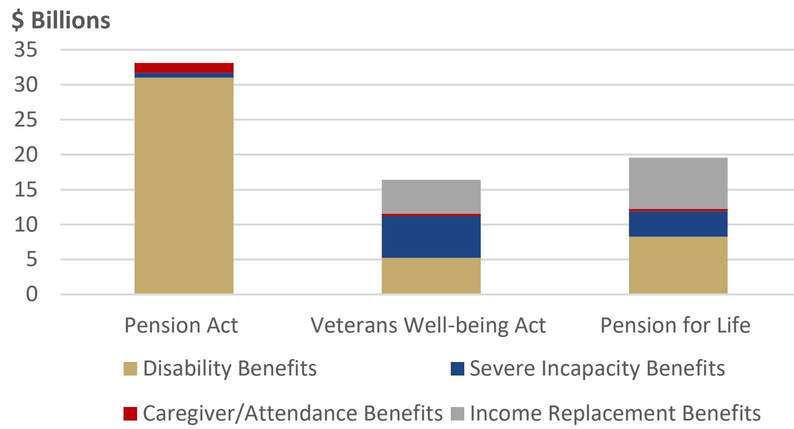
PBO also calculated the federal cost by client type (Figure 3-1). The net future cost associated with grandfathered pensioners (clients currently receiving *Pension Act* benefits) is roughly $13 billion, which represents respectively 44 per cent and 40 per cent of total costs under Scenario 2 and 3.

The policy rationale for the types of financial support also differs across the three regimes. To illustrate this, PBO classified them into different categories as detailed in Appendix D. A breakdown of the cost by type of benefit is also presented in Figure 3-2.

PBO estimates that disability pensions represent 95 per cent of the total costs associated with the *Pension Act* benefits. Under the newer regimes, direct financial compensations for disability through the Disability Award or the Pain and Suffering Compensation represent a much smaller portion of the total cost. A greater proportion of the money is directed towards programs that compensate exceptionally injured veterans, or programs for lost income due to disability.

With the transition to *Pension for Life*, costs related to disability and income replacement benefits will increase. With the elimination of the Career Impact Allowance Supplement, less money will be spent on severe incapacity benefits.[11]

Figure 3-2 **Breakdown per type of Benefits of Total NPV of Lifetime Costs**



Source: PBO calculations using data from VAC

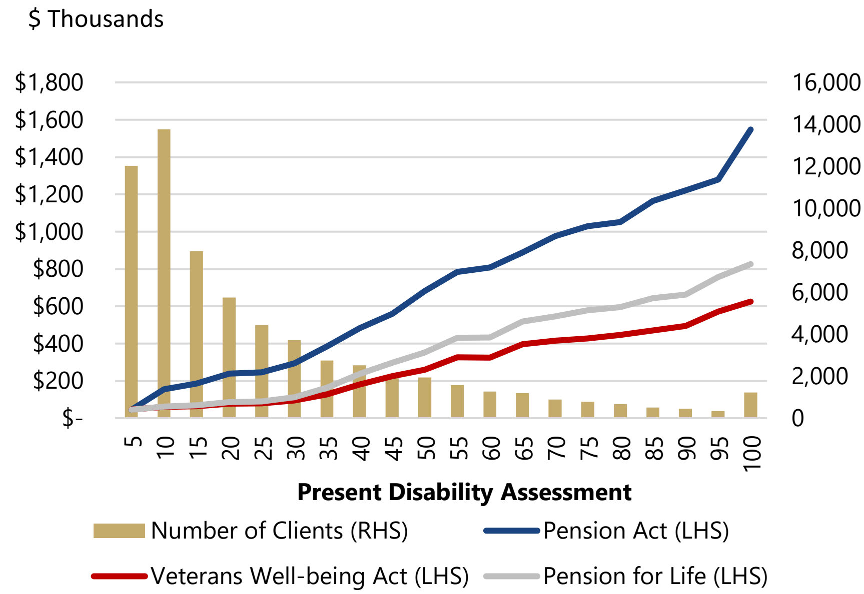
Notes: Source: Excludes grandfathered Pensioners

3.2. Veteran Distributional Analysis

To provide a complete analysis of these scenarios, PBO examined the projected costs payable to veterans according to various criteria. Figure 3-3 presents the average projected benefits payable (measured as the lifetime, net-of-tax net present value) to current clients according to their disability assessment.[12]

The bars represent the number of clients across the level of disability assessment, while the lines represent the benefits payable under each regime, across that disability assessment distribution.[13]

Figure 3-3 **Average NPV of Lifetime payments of Present Clients According to Disability Assessment**[14]



Source: PBO calculations using data from VAC

Note: Excludes survivors; includes existing clients as of 2018

PBO estimates that clients in receipt of VAC benefits prior to April 1, 2019 (that is, prior to the effective date of *Pension for Life*), will receive lifetime payments that are 24 per cent higher under the new *Pension for Life* regime compared to what they would have received under the *Veterans Well-being Act* regime. The biggest gains are received by younger veterans and veterans with higher disability assessments.

For every veteran in the dataset, PBO projects that the *Pension Act* regime is the most financially generous to veterans or their survivors over their lifetime.

Figure 3–4 presents the same numbers, but for new entrants, that is, veterans who applied for benefits after April 1, 2019.

Box 3-1 Disability Assessments

For many benefits offered by Veterans Affairs Canada, the amount payable is relative to the severity of the condition of the veteran. To determine those amounts, different classification systems and tables are used.

For disability benefits such as the Disability Award or Pain and Suffering Compensation, veterans are assigned a percentage; their compensation is directly proportional to this percentage. The attribution method is complex and very specific.

It is done using the Table of Disability. This is a comprehensive document that lists the established percentage per condition and stipulates the necessary calculations to be done. To summarize, the condition-specific percentages listed are a mathematical function of the loss of function by body part, the importance of said body part and the loss of quality of life associated with the condition.

For severe incapacity benefits such as the Exceptional Incapacity Allowance, the Career Impact Allowance and the Additional Pain and Suffering Compensation, the amounts are determined using a different system that assigns a grade that is associated with an amount. The grade assigned is relative to the extent of the permanent impairment.

The level of impairment is determined relative to the need for institutionalized care, the degree of the loss of use of a limb, the frequency of symptoms, the need for supervision and assistance with activities of daily living, all of which can impact the potential for employment and career advancement opportunities.

Using an example from this document, assume a client suffers from chronic sinusitis and hearing loss.

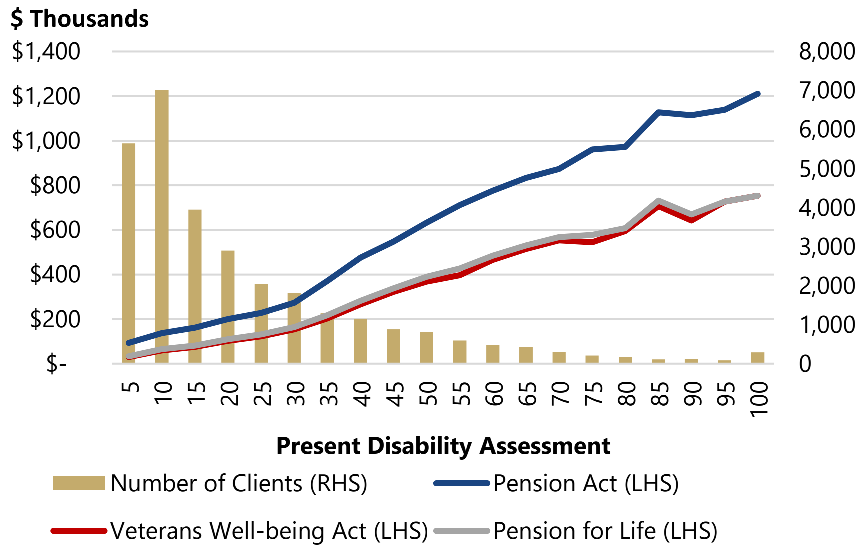
Using the Table of Disability, the Medical Impairment rating for chronic sinusitis is five. The Quality of Life rating indicated for chronic sinusitis at Level 1 is one. Adding the Medical Impairment with the Quality of Living rating indicates that the Disability Assessment for chronic sinusitis is 6 per cent.

Similarly, the Medical Impairment rating for hearing loss is 20; the Quality of Life rating indicated in the table at Level 1 is two. Adding 20 plus 2 indicates the Disability Assessment for hearing loss is 22 per cent.

The client would have a Total Disability of 28 per cent (6 per cent + 22 per cent).

Source: Veterans Affairs Canada[15]

Figure 3-4 Average NPV of Lifetime payments of New Entrants According to Disability Assesment [16]



Source: PBO calculations using data from VAC

PBO estimates that veterans who apply for VAC benefits after April 1, 2019 will receive lifetime payments 6 per cent higher because of the transition to *Pension for Life*. This smaller increase in lifetime payments for new entrants compared to present clients is mainly because the latter will continue receiving protected monthly amounts for the Career Impact Allowance Supplement, Earnings Loss Benefit and Retirement Income Security Benefit.

We estimate that around 5 per cent of new entrants would have received greater lifetime payments under the *Veterans Well-being Act* (VWA). Moreover, 3 per cent of new entrants would be greatly disadvantaged under *Pension for Life* as they would, on average, have received around $300 thousand more in financial support from the existing regime.

This is in part related to the elimination of the Career Impact Allowance Supplement. It offered monthly compensation to highly impaired veterans with diminished earning capacities. We estimate that the clear majority of veterans who would have been eligible for that benefit would have received greater compensation under the VWA regime.

As before, the *Pension Act* regime would be the most generous for new entrants.

3.3. Example Scenarios

PBO also projected the lifetime, net-of-tax net present value of benefits payable to veterans or their survivors for specific scenarios. This was done to provide concrete examples of how one regime differs from another, with respect to the benefits in the scope of this report.

Table 3-2 Main Determinants of Benefits' Eligibility and Payable Amounts

Date of Application	Used to determine amounts for Pain and SufferIng Compensation and eligibility for grandfathering of certain benefits
Gender	Used to estimate life expectancy
Age	Used to estimate life expectancy
Marital Status	Used to determine disability pension amounts
Dependent Children	Used to determine disability pension amounts
Age at Release	Used to determine the numbers of years since release to calculate the career progression increases made to the Income Replacement Benefit
Service Years	Used to determine the career progression increases made to the Income Replacement Benefit
Disability Assessment	Used to determine payable amounts for disability benefits
Diminished Earning Capacity (DEC)	Used to determine eligibility for the career impact supplement and to extend income replacement benefits (ELB, SRB, RISB, IRB)
CIA Grade	Used to determine eligibility and amounts payable for the Career Impact Allowance and Supplement
EIA Grade	Used to determine eligibility and amounts payable for the Exceptional Incapacity Allowance
AA Grade	Used to determine eligibility and amounts payable for the Attendance Allowance

Figure 3-5 Scenario 1: Average Client

Veteran's Characteristics

Date of Application: May 2019

Sex: Male

Age: 54 (Life expectancy: 28 years)

Marital Status: Married

Dependent Children: No

Age at release: 29

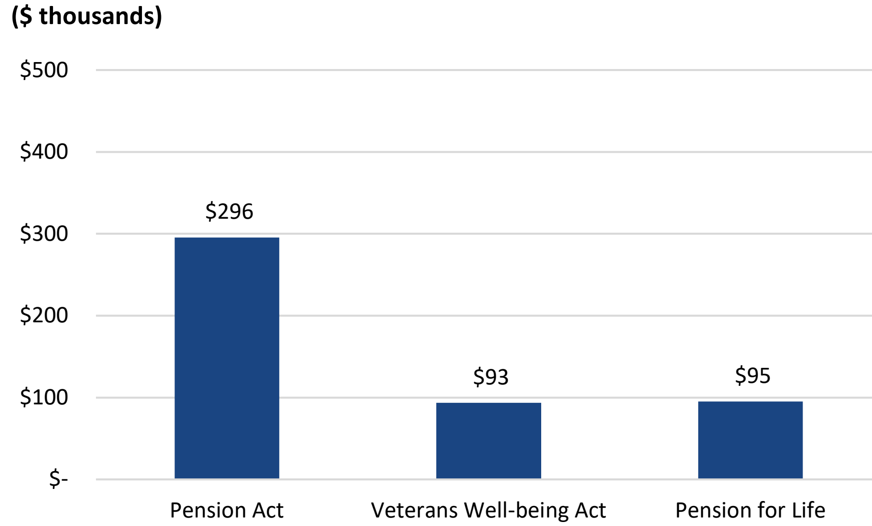
Disability: 25%

DEC: No

CIA grade: N/A

EIA grade: N/A

AA Grade: N/A



Source: PBO calculations using data from VAC.

We estimate that between 2013 and 2018, the average new recipient of VAC's benefits had a disability assessment of 25 per cent, was 54 years old and was married. In this case, the veteran is not eligible for severe incapacity benefits or income replacement benefits.

In this scenario, the veteran chooses to receive the Pain and Suffering Compensation benefit as a monthly payment. As a result, this veteran would receive marginally more in Pain and Suffering Compensation than they would have received from a Disability Award.

If the same individual had chosen the lump sum, the net present value of his benefit would have been identical under the *Veterans Well-being Act* and under *Pension for Life* (see Box 3-2).

Under the *Pension Act*, the same person would have received lifetime payments with a net present value equal to 3.1 times what he is to receive under *Pension for Life*.

Box 3-2: The Choice between a Lump-sum and a Monthly Payment

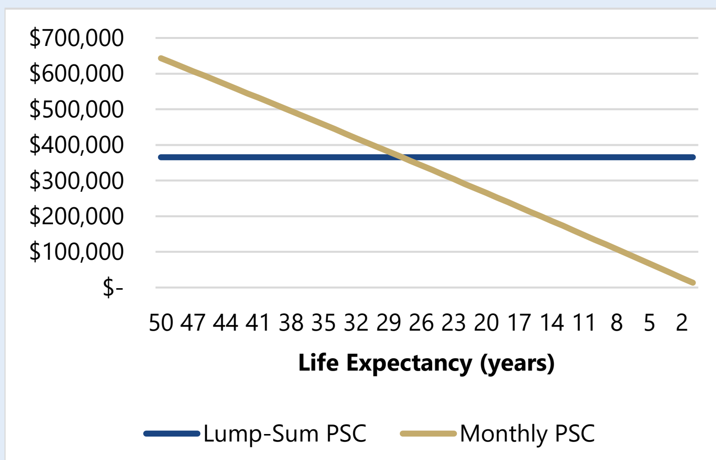
One of the main changes under the new *Pension for Life* regime compared to the *Veterans Well-being Regulations* is that veterans will have the possibility to choose between a lump sum and a monthly payment as compensation for their disability.

While other factors might influence which option is preferred by an individual, we assumed that everyone would choose the option that offers the greatest financial value.

Because the real value of a dollar declines over time, we used net present value calculations to compare both options. As a result, the only factor that influences the lifetime value of the monthly payments is the life expectancy of an individual.

Under our assumptions regarding discount rates and inflation, our model indicates that all individuals with a life expectancy above 28.5 years would be financially better off if they chose a monthly payment option rather than a lump sum under the new regime.

Net Present Value of the Pain and Suffering Compensation Benefit



If veterans chose the lump sum in greater numbers, the total costs would be lower than our estimation, as our method maximizes the net present value of Pain and Suffering Compensation.

Figure 3-6 Scenario 2: Younger Client; All Other Characteristics Set to the Average Value

Veteran's Characteristics

Date of Application: May 2019

Sex: Male

Age: 30 (Life expectancy: 51 years)

Marital Status: Married

Dependent Children: No

Age at release: 29

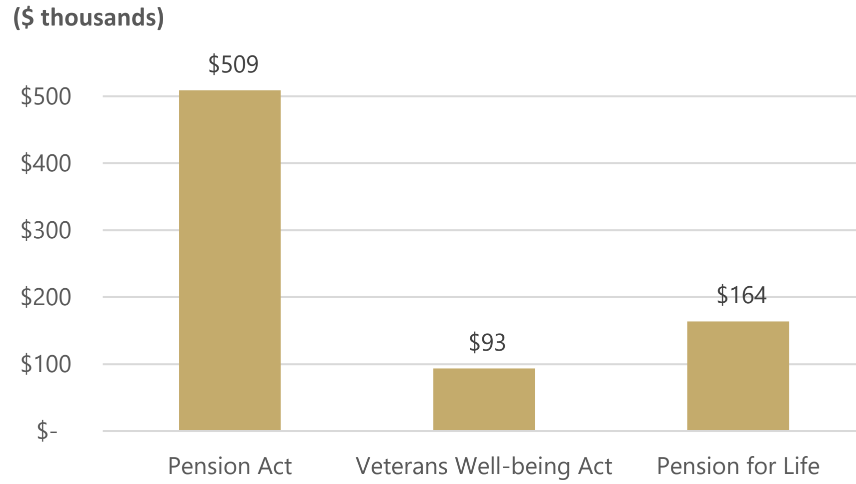
Disability: 25%

DEC: No

CIA grade: N/A

EIA grade: N/A

AA Grade: N/A



Source: PBO calculations using data from VAC.

In this scenario, the veteran has identical characteristics as the previous one, except that the assumed age is 30 (rather than 54).

We assume that this individual chooses to receive the Pain and Suffering Compensation benefit as a monthly payment. As a result, the net present value of his *Pension for Life* benefits is equal to roughly 1.75 times what he would have received under VWA.

The comparison with the first scenario illustrates that, in terms of the net present value of their total benefits, younger disabled veterans will benefit more from the latest change in regime than older veterans.

Under the *Pension Act*, the same person would have received lifetime payments with a net present value more than three times what he is to receive under *Pension for Life*.

Figure 3-7 Scenario 3: Highly Disabled Client, Applied In April 2017 [17]

Veteran's Characteristics

Date of Application: April 1 2017

Sex: Female

Age: 27 (Life expectancy: 58 years)

Years of Service: 7

Married: No

Dependent Children: No

Age at release: 25

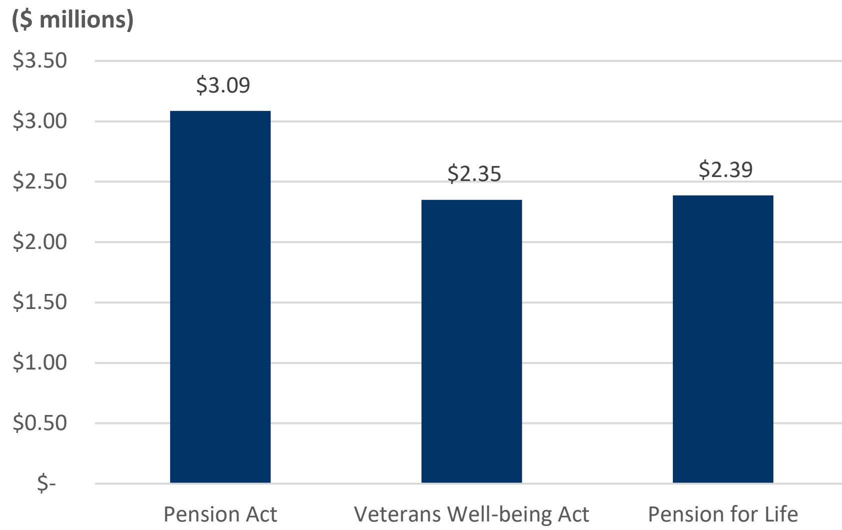
Disability: 100%

DEC :Yes

CIA grade: 2

EIA grade: 3

AA Grade: 4



Source: PBO calculations using data from VAC.

This scenario illustrates the case of a young, very disabled veteran who was discharged from the army following a traumatic incident in 2017. In this case, when the *Pension for Life* transition happens, the amounts for the Career Impact Supplement, the Earnings Loss Benefit and the Retirement Income Security Benefit will be protected.

The veteran would also start receiving a monthly amount on top of the disability award received in 2017. This new monthly payment explains the total difference between benefits payable under the VWA regime and the *Pension for Life* regime — after accounting for protected VWA benefits.

Under the Pension Act, the person would have received lifetime payments with a net present value of 1.3 times what he is to receive under Pension for Life.

Figure 3-8

Scenario 4: Highly Disabled Client, Applied in April 2019

Veteran's Characteristics

Date of Application: April 1, 2019

Sex: Female

Age: 25 (Life expectancy: 60 years)

Years of Service: 7

Married: No

Dependent Children: No

Age at release: 25

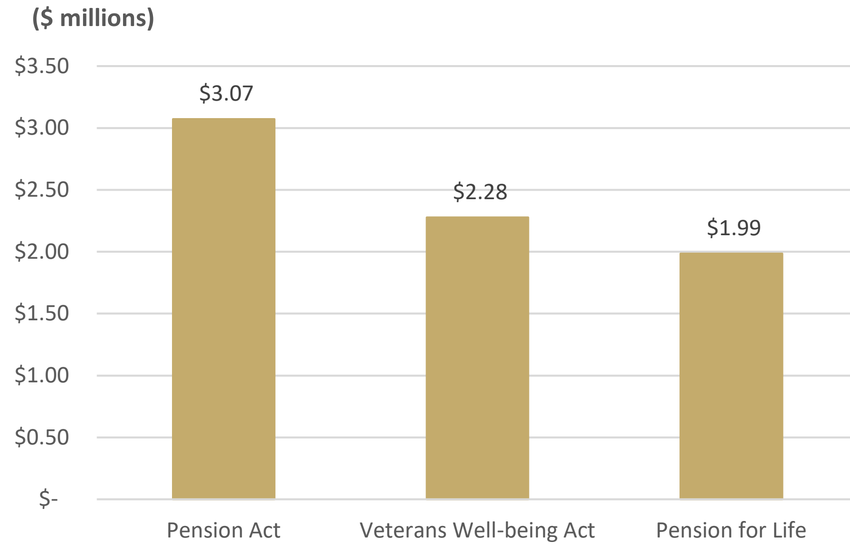
Disability: 100%

DEC :Yes

CIA grade: 2

EIA grade: 3

AA Grade: 4



Source: PBO calculations using data from VAC.

The veteran in this scenario has identical characteristics as in the previous scenario. However, in this case, we assume that the veteran applied for the disability benefits after the complete implementation of the *Pension for Life* regime.

In this scenario, the veteran would not receive protected ELB and CIA supplement amounts but would instead receive the full suite of *Pension for Life* benefits. This includes the career progression increases on the Income Replacement Benefit that replaced the CIA supplement.

The total payments for the disability benefit and for the Income Replacement Benefit prior to age 65 are greater than their equivalent under VWA. However, the total net present value of the benefits is higher under the VWA regime.

This scenario is representative of the cases (around 5 per cent of total) where new entrants will receive lesser financial compensation under the new *Pension for Life* regime.

Appendix A: Detailed Methodology

A.1 Dataset

We used two datasets in our analysis. VAC provided PBO with anonymized data of all veterans who were currently in receipt of, or who had ever received, a VWA benefit between September 2013 and October 2018. The information provided included eligibility criteria for the different benefits and demographic Information.

The 2013 dataset was used to identify the clients that had started receiving benefits between 2013 and 2018. This subset of the population was used to attribute characteristics to the projected future new entrants. It was also used to estimate the change in disability assessments of the veterans who started receiving benefits prior to 2013. This information was used to estimate the costs associated with the disability reassessments of veterans.

Net Present Value Calculations

In the report, costs are reported as net present values. This allows for the comparison of monthly benefits and lump-sum benefits. As the monthly veterans benefits are indexed annually, the following growing annuity formula is used to obtain the net present value of the benefits for each recipient.

$$NPV = \frac{P}{r-g}\left[1-\left(\frac{1+g}{1+r}\right)^{n}\right]$$

- p: total annual payment made to the veteran for a specific year
- r: discount rate
- g: for the annual growth rate of the payment
- n: numbers of years in which the veterans will receive a payment

In the case of veterans benefits, Statistics Canada's Consumer Price Index (CPI) is used as the yearly growth rate. In our model, the CPI is constant at 2.1 per cent as projected in our October 2018 Economic and Fiscal Outlook.[18] The discount rate used in our model is 2.3 per cent, reflecting PBO's view on future interest rates.

Many benefits are paid for life and for those cases, the number of periods reflects the life expectancy of the individual conditional on their age and sex. The 2014 to 2016 Life Tables from Statistics Canada were used.

In the case where the life expectancy of veterans was over- or under-estimated, the net present values of benefits payable monthly for life would themselves be over- or under-estimated.

A.2 Disability Benefits

A significant proportion of VAC clients will have their disability grade reassessed throughout their lives. This could be related to the emergence of a new service-related condition or the worsening of a previous condition.

To account for this reality, all individuals in our dataset were assigned a specific five-year increase in disability assessment ranging from 0 per cent to 95 per cent. This was based on probabilities of reassessment conditional on the disability assessment observed among existing clients as of 2013.

In other words, we created a matrix of probability based on the observed growth of disability assessments for veterans identified in both the 2018 and 2013 dataset. This matrix is presented In Appendix C.

Since reassessments are more likely to happen in the first few years after the initial application, the magnitude of the increases depends on when a veteran started receiving disability benefits. Veterans who were already receiving disability benefits prior to October 2013 received proportionally smaller increases.

The change in disability assessments in our model is done as a one-time adjustment at year five. While it is possible that veterans are reassessed on a different timeline, PBO was only able to observe growth for a five-year period.

As a result, PBO chose to limit the growth in disability in our model to that period. Consequently, this represents an upward risk on our projected costs. Appendix C presents a sensitivity analysis of variations in disability growth on the disability benefits costs.

The number of new entrants for this type of benefit is derived from the Office of the Chief Actuary (OCA) Report on veterans.[19]

Disability Pension

The Disability Pension offers additional amounts to veterans with a spouse and/or dependent. In our model, we assume that marital status is constant over time. We also assume that veterans receive the additional amounts for children until the average age of the children exceeds 22.5 years.

PBO did not know the age of each eligible child. Using the average age for all children reflects the fact that children are considered dependents until they are 18 or until they are 25 if they are enrolled in an approved academic program. We, therefore, implicitly assume that more than half of the children will be enrolled in school until 25 years of age. This may over- or under-estimate the total costs.

Our model also calculates that veterans who have a spouse with a longer life expectancy will start receiving the appropriate survivor pension one year after the death of the veterans.

For this benefit, the increases in disability are modelled as increases in the monthly amount proportional to the increase in disability that has been assigned.

Disability Award

For the Disability Award, our model assumes that clients have already received their Disability Award. As for the increase in disability, our model assumes a lump-sum payment of the appropriate amount at year five.

Pain and Suffering Compensation

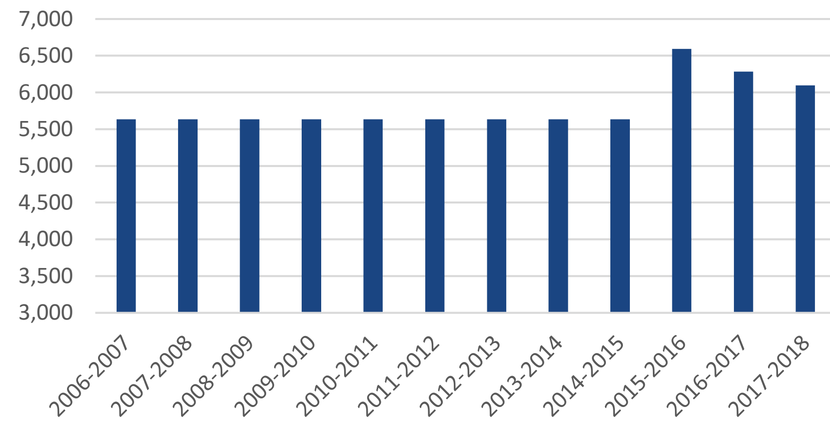
With the arrival of the new *Pension for Life* regime, veterans who have previously received a Disability Award will be eligible to start receiving the monthly Pain and Suffering Compensation benefit.

The monthly amount received is a function of when the Disability Award was received. One data limitation is that the date at which veterans received their Disability Award is unknown. Therefore, our model assigns a receipt date to each veteran in the following way:

- For veterans with a military release year prior to 2006, a receipt year was randomly assigned following the number of Disability Awards given out for each year between 2006 and 2018.
- For veterans with a release year post-2006, we assume that the Disability Award was awarded the first year of release. We then assume that awards were received halfway through the year for all veterans to obtain an estimate of the number of months since receipt.

Figure A-1 shows the distribution using these assumptions over time.

Figure A-1 **Estimated Annual Distribution of New Disability Award Recipients**



Source: PBO calculations using data from VAC Facts and Figures December 2017 and March 2018[20]

Note: Yearly breakdown not available prior to 2014–2015. New entrants held constant as per assumption.

Using the estimated number of months since receipt and an annuity factor, the model calculates the amount by which the Pain and Suffering Compensation monthly payment is reduced.

For the increase in disability, we assume that veterans receive the increase after five years. Our model assumes that each veteran chooses the option that will offer the greatest net present value at year five when choosing between an increase in the monthly payment or a lump-sum payment.

For new entrants, we assume that about 45 per cent of veterans will choose monthly payments over the lump sum. As it might not be the case when the benefit is introduced, this represents a downward risk on our cost estimates for this benefit.[21]

While survivors can be eligible to receive the benefit under certain circumstances, those scenarios are not included in our model.[22]

A.3 Severe Incapacity Benefits

Severe Incapacity Benefits Include the Exceptional Incapacity Allowance, Career Impact Allowance and its supplement, and Additional Pain and Suffering Compensation. For these benefits, our model assumes that the grade received for each benefit stays constant over the lifetime of the recipients. The costs are projected to grow at 2.1 per cent (PBO's long-term projected consumer price index) and are discounted with PBO's discount rate of 2.3 per cent. PBO used OCA projections to determine the number of new entrants over time.

Exceptional Incapacity Allowance

To cost the scenario in which all veterans receive *Pension Act* benefits, eligibility for certain benefits had to be assigned. For the Exceptional Incapacity Allowance (EIA), the recipients of the Career Impact Allowance (CIA) with a total disability assessment of 98 per cent or more were deemed eligible to receive the EIA. The specific grade attribution was done conditionally on the CIA grade and the proportion of each grade in the observed population of EIA recipients.

For example, veterans with a CIA grade III were assigned either an EIA grade IV or V. The actual criteria differ between the two regimes, and our approach may over- or under-estimate the costs associated with EIA.

It is also assumed that veterans with a spouse or a dependent with a longer life expectancy will receive the benefit for a year longer than their life expectancy.

To calculate new entrants' costs, it is assumed that the proportion of CIA recipients with a disability above 98 per cent stays the same as the one observed from 2013 to 2018. We also assume that the grade distribution stays the same as the one estimated for present clients.

Career Impact Allowance and Career Impact Allowance Supplement

As the eligibility criteria are detailed in our dataset, no assumptions are made about these benefits for the clients already in receipt.

As for the new entrants, it is assumed that the Career Impact Allowance grade distribution stays the same as the one observed for the 2013–2018 new entrants. The model also assumes that the proportion of CIA new entrants who also receive the supplement will stay the same as the one observed between 2013 and 2018.

Additional Pain and Suffering Compensation

For this benefit, the assumptions are the same as for the Career Impact Allowance. The only difference is the amounts and the fact that the benefit is non-taxable.

A.4 Income Replacement Benefits

Earnings Loss Benefit

The Earnings Loss Benefit (ELB), payable per month, is calculated using the following formula:

Variable “A” minus Variable “B” = “C” (ELB payable per month before taxes). Variable “A” is equal to 90 per cent of the present-year value of the veteran’s military salary at release. Variable “B” is the total sum of the monthly amounts from prescribed sources. The dataset provided all the necessary information to calculate the 2019 monthly and yearly amounts.

Veterans can be eligible for either temporary or extended ELB. For the veterans who receive temporary ELB, we assume that new entrants will receive it for six years and that current clients will continue receiving it for three more years. The model also assumes that veterans in receipt of the extended ELB continue to receive it until the age of 65.

For survivors, the calculations were made on an aggregate level because of missing data in the dataset. The assumptions are the same as for the veterans. The average characteristics used to calculate the total cost were derived from the available information in the dataset.

To calculate the lifetime net present value of the benefit, our model indexes both the imputed income and the offsets by the Consumer Price Index. However, it is possible that some veterans increase their earnings to the point where they stop receiving ELB payments. This, therefore, represents a downside risk for our results.

Supplementary Retirement Benefit

Our model calculates the Supplementary Retirement Benefit (SRB) as 2 per cent of the Variable “A” defined in the calculation of the ELB amounts. We assume that all veterans with a Diminished Earning Capacity (DEC) will receive the SRB.

Retirement Income Security Benefit

The monthly amount of the Retirement Income Security Benefit (RISB) is calculated using the following formula:

Variable “A” plus Variable “B” minus Variable “C” = the RISB monthly payment. Variable “A” is 70 per cent of the Earnings Loss Benefit to which the veteran would be entitled for the month in which they attain the age of 65.

Variable “B” is 70 per cent of the Career Impact Allowance including the supplement. Variable “C” is the total amount that is payable to the veteran for a month from prescribed sources as defined in subsection 46.3 (1) of the *Veterans Well-being Regulations.*[23]

In our model, all veterans with a DEC are eligible for this benefit. To calculate the amount, our model assumes that at age 65, long-term disability payments as well as employment earnings stop, and Old Age Security payments start. If the resulting amount is positive, we assume the veterans receive the benefit until the end of their life expectancy.

If the veteran has a spouse with a longer life expectancy, the model also calculates the amount received by the spouse for the duration of their remaining life expectancy. The amount is calculated by taking 50 per cent of the Variable “A” calculated for a specific veteran and deducting the eligible offsets. To estimate the survivor-specific offsets, all pensions are reduced by 50 per cent and Canada Pension Plan or Quebec Pension Plan payments are reduced by 40 per cent.

Income Replacement Benefit

For veterans under the age of 65, the Income Replacement Benefit (IRB) is calculated using the same formula as the Earnings Loss Benefit (ELB). However Variable “B”, which represents the deductions, only includes employment earnings in excess of $20,000. Our model follows the same assumptions used for ELB when calculating the IRB until the client reaches 65.

The other difference with the ELB is that the extended IRB amount is increased by 1 per cent every year until the veteran reaches what would have been 20 years of service or age 60. After one of those points is reached, the amount is indexed only by the CPI.

After they reach 65, instead of 90 per cent of the release salary, eligible veterans receive 70 per cent of the amount, less offsets. The change in offset is the same as the one described for RISB.

For survivors, the pre-deduction amount is the same as what is received by the veteran past the age of 65. For the survivor-specific deduction, our model makes the same assumptions for IRB as it does for RISB.

If a veteran dies before age 65, the calculations for survivor benefits are different. However, our model assumes that all individuals live until they reach their life expectancy, which in all cases is beyond the age of 65. Therefore, the alternative survivor scenarios for IRB are not included in our analysis.

A.5 Caregiver Benefits

Attendance Allowance

A veteran's characteristics were not found to be predictive of eligibility for the Attendance Allowance (AA) benefit. Therefore, AA grades were randomly attributed following the probabilities of receipt observed in the total pensioner population.

Caregiver Recognition Benefit

The 2018 dataset identified veterans whose caregiver was in receipt of the Caregiver Recognition Benefit. For our cost calculations, our model assumes that eligibility is constant over the lifetime of the veteran.

The number of new entrants was projected using the numbers indicated in the 2017 OCA report on veterans benefits.

Appendix B: Analysis of All Recipients as of October 2018

Table B-1 Characteristics of Recipients

	Veterans Under VWA	Veterans under Pension Act*
Average Disability Assessment	24	36
Average Age	58	63
Married or Common-Law	35%	43%
Average Age at Final Release	32	35
Average Service Years	14	17
In Receipt of Career Impact Allowance (CIA)	11%	NA
In Receipt of CIA Supplement	4%	NA
In Receipt of Exceptional Incapacity Allowance	NA	10%
In Receipt of Attendance Allowance	NA	36%
Afghanistan Service	24%	11%
Mental Health	28%	30%
PTSD	16%	19%

Source: PBO calculations based on VAC data

Note: * Includes dual clients

Table B-2 Characteristics of Subgroups of Recipients

	Veterans with Mental Health Disability	Veterans with Afghanistan Service
Average Disability Assessment	55	39
Average Age	51	43
Married or Common-Law	52%	45%
Average Age at Final Release	32	32
Average Service Years	13	16
In Receipt of CIA or EIA	39%	23%
In Receipt of CIA Supplement	18%	9%

Source: PBO calculations based on VAC data

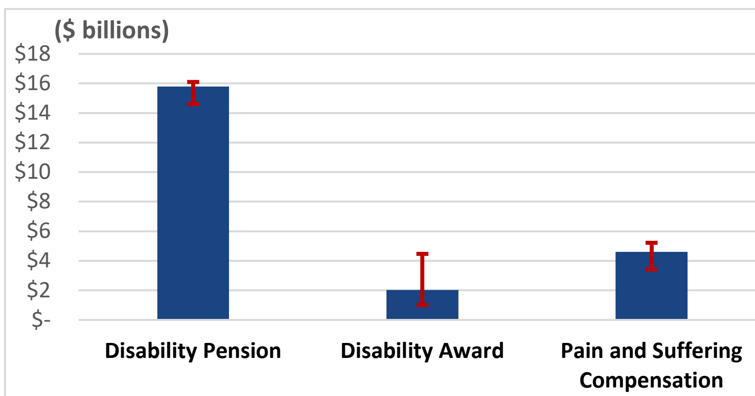
Appendix C: Increases in Disability Assessments

PBO observed that more than 40 per cent of veterans who received a Disability Award prior to 2013 had an increase in their disability assessment between 2013 and 2018. This demonstrates that increases in disability assessments represent a significant portion of the costs related to the Disability Benefit.

To account for this reality, PBO assigned reassessment probabilities to all veterans and new entrants. The probabilities used to assign reassessments in the model are detailed in Table C-1.

Considering that a period of only five years was observed, a sensitivity analysis was conducted on our assumptions about increases in disability. Figure C-1 below presents the net present value of the costs associated with disability benefits for present clients. The brackets represent scenarios where the assigned disability reassessments were, respectively, twice and half the size of the one used in our model.

Figure C-1 Sensivity Analysis of Disability Benefits Costs



Source: PBO calculations based on VAC data

For the Disability Pension, most recipients have been in the system for a long period of time and, therefore, are less likely to receive reassessments.

For the Disability Awards, changes in assessments represent the totality of the future cost of present clients. As a result, the range is much broader in comparison to disability benefits under the other two regimes.

As for the Pain and Suffering Compensation, the resulting changes would be less significant than for Disability Awards, as the discounted amounts would be unaffected by this change.

Table C-1 Probability of Disability Reassessment at Year 5 (%)

Disability Assessment at Year 1	Disability Assessment at Year 5																			
	5	**10**	**15**	**20**	**25**	**30**	**35**	**40**	**45**	**50**	**55**	**60**	**65**	**70**	**75**	**80**	**85**	**90**	**95**	**100**
5	65	11	7	4	2	2	1	1	1	1	1	1	1	1	0	0	0	0	0	1
10		61	9	7	4	3	2	2	2	2	2	1	1	1	1	1	0	0	0	1
15			59	9	8	5	3	2	2	2	2	2	2	1	1	1	1	1	0	1
20				55	9	8	5	4	3	2	2	2	2	1	2	1	1	1	1	2
25					58	9	7	5	3	2	2	1	2	2	1	2	1	1	1	3
30						54	10	8	5	4	4	2	2	2	2	1	1	1	1	3
35							49	9	7	6	5	2	3	2	3	2	2	2	1	6
40								49	8	8	6	5	4	3	2	3	2	2	1	6
45									47	11	8	5	4	4	3	3	3	2	2	9
50										47	11	8	6	5	4	3	3	3	3	8
55											45	10	9	7	4	4	3	2	3	12
60												45	9	9	8	5	4	4	3	12
65													44	11	8	7	6	5	5	15
70														47	9	10	7	4	4	19
75															43	13	11	6	4	23
80																46	10	11	9	25
85																	46	8	11	35
90																		43	13	43
95																			40	60
100																				100

Source: PBO calculations based on data from VAC

Notes: While lowered disability assessments are possible, they were excluded because of their improbability.

Appendix D: Classification of Benefits by Type

	Pension Act	***VWA***	***Pension for Life***
Disability	Disability Pension	Disability Award	Pain and Suffering Compensation
Severe Incapacity	Exceptional Incapacity Allowance	Career Impact Allowance and Supplement	Additional Pain and Suffering Compensation
Income Replacement	NA	Earnings Loss Benefit, Supplementary Retirement Benefit, Retirement Income Security Benefit	Income Replacement Benefit
Caregiver and Attendance	Attendance Allowance	Caregiver Recognition Benefit	Caregiver Recognition Benefit

Source: PBO classification

Notes

1. Some veterans are dual clients, meaning they are in receipt of both a Disability Pension (under the *Pension Act*) and a Disability Award (under the VWA). This can occur when a veteran's disability condition was assessed and payable under the *Pension Act*, and the veteran presented with a new condition after April 1, 2006, which was not related to the condition covered by the *Pension Act*. This new or unrelated condition will be covered by the VWA. In our analysis, the grandfathered *Pension Act* benefit and the new regime benefits are accounted in their respective categories where applicable.

2 The datasets provided to PBO cover a five-year period (2013–2018). The number of cohorts of new entrants was chosen to reflect the available information about new entrants.

3. Descriptions of all federal benefits available to veterans are available on Veterans Affairs Canada's website.

4. Retirees of the RCMP can be eligible for certain disability benefits. However, those clients were not included in our analysis.

5. *Pension Act* (RSC, 1985, c. P-6). Retrieved from the Justice Laws website https://laws-lois.justice.gc.ca/eng/acts/P-6/index.html

6. *Veterans Well-being Act* (SC 2005, c. 21). Retrieved from the Justice Laws website https://laws-lois.justice.gc.ca/eng/acts/C-16.8/FullText.html

7. Death and Detention Benefits and Critical Injury Benefits can also be offered under certain circumstances.

8. Regulations Amending Certain Regulations (Department of Veterans Affairs): SOR/2018-177, Canada Gazette, Part II, Volume 152, Number 18. Registration date: August 23, 2018. Retrieved from Government of Canada http://www.gazette.gc.ca/rp-pr/p2/2018/2018-09-05/html/sor-dors177-eng.html

9. Office of the Chief Actuary 2017. Actuarial Report on the Future Benefits for Veterans at 31 March 2017.

10. The datasets provided to PBO cover a five-year period (2013–2018). The number of cohorts of new entrants was chosen to reflect the available information about new entrants.

11. To replace the CIA supplement, the Income Replacement Benefit includes compensation for lost career progression. The costs related to this measure are included under the income replacement type of benefit.

12. To estimate the average amount that will be received by veterans who applied after April 2019, PBO calculated what the amounts would be for the veterans who have entered between 2013 and 2018 if they would have applied after April 1, 2019. This assumes that future cohorts will be identical to the 2013–2018 cohort.

13. These counts are as of 2018 for veterans who have received a Disability Award, and do not include projected increases to disability assessments due to reassessments.

14. Disability Assessments were rounded up to the nearest five. The clear majority of veterans have a disability assessment which is a multiple of five.

15. Veterans Affairs Canada, 2006 Table of Disabilities. URL https://www.veterans.gc.ca/eng/services/after-injury/disability-benefits/benefits-determined/table-of-disabilities

16. PBO used the data of the veterans who started receiving VAC benefits since 2013 to calculate what their average payments would have been if they had applied for their benefit after April 1, 2019. PBO assumes that future cohorts will have the same characteristics as the new entrants from the last five years.

17. Scenario 3 and 4 include payments from the SISIP long-term disability insurance which is available under the three regimes.

18. PBO used 2.1 per cent to grow veterans benefits from their 2018 legislated values to their 2019 legislated values. This was done notwithstanding the publication of the 2019 legislated values, to simplify the projected values. The difference is between projected and actual for 2019 is negligible.

19. Office of the Chief Actuary 2017. Actuarial Report on the Future Benefits for Veterans at 31 March 2017.

20. Veterans Affairs Canada, Facts & Figures. December 2017 Edition and March 2018 Edition. URL to March 2018 http://www.veterans.gc.ca/eng/about-us/statistics URL to previous editions https://open.canada.ca/data/en/dataset/bbc93ab8-3a92-44bd-a7e4-cb9cc40edeb3

21. Assuming instead that all veterans choose the lump sum, the cost for this benefit associated with new entrants will be equal to the equivalent disability award costs.

22. Our model assumes that all veterans live to their full life expectancy and that veterans choose only the monthly payment if it offers them more than the net present value of the lump sum over their expected lifetime. Therefore, our model assumes that there won't be any residual amount that can be received by the survivors.

23. Veterans Well-being Regulations (SOR/2006-50). Retrieved from Justice Laws website https://laws-lois.justice.gc.ca/eng/regulations/SOR-2006-50/