



# Costs and benefits comparison social enterprise employment and Disability Employment Services

White Box Enterprises

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21 June 2023

Commissioned by:



# 1

## Executive Summary

# Background & Approach

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Taylor Fry has been asked to review the costs and benefits of the White Box Enterprises Payment By Outcome (PBO) program, which places people with disability into employment with social enterprises. While still relatively early in the program (which commenced July 2022), some data exists – program retention appears strong and early outcomes are accruing.

We have projected outcomes for a prospective cohort participating in the program based on available data, and compared this to a counterfactual. The counterfactual used is the trajectory for the same cohort in the Disability Employment Service (DES). Cashflows considered include employment earnings, welfare benefits, income tax, DES program costs, PBO payments and additional GST.

Data used for the work includes summarised program data plus publicly available information related to the DES program and welfare receipt. We have not looked at linked DSS welfare data, which is expected to be part of the validation of PBO.

The projection involves setting assumptions for elements such as:

- Retention of employment for participants, and transition to competitive employment
- The distribution of income earned while employed as part of the program
- Welfare characteristics, such as the balance between Jobseeker and Disability Support Pension (DSP) beneficiaries
- Outcome rates and earnings for participants in the DES program
- Welfare and earnings trajectories for people who exit the PBO.

While there are significant uncertainties, in most cases we have attempted to be conservative in our assumption setting. This means that true benefits of the PBO could prove to be larger than currently projected.

Detail around assumptions and limitations are discussed in greater detail on p9 and p19.

# Main results comparison

## Personal income comparison (Welfare + Employment after tax)

	Counter-factual (baseline)	PBO	Diff., \$	Diff., %
Year 1	22,580	28,903	<b>6,323</b>	<b>28%</b>
Year 2	23,377	27,417	<b>4,040</b>	<b>17%</b>
Year 3	24,155	26,724	<b>2,569</b>	<b>11%</b>
Year 4	24,914	26,525	<b>1,611</b>	<b>6%</b>
Year 5	25,653	26,645	<b>992</b>	<b>4%</b>
<b>Total</b>	<b>120,680</b>	<b>136,215</b>	<b>15,535</b>	<b>13%</b>

Under the PBO, individual-level income is \$15,500, or 13%, higher over five years

## Fiscal impact comparison (Welfare + PBO + DES – Income tax – GST)

	Counter-factual (baseline)	PBO	Diff., \$	Diff., %
Year 1	23,516	18,224	<b>-5,292</b>	<b>-23%</b>
Year 2	22,263	19,651	<b>-2,611</b>	<b>-12%</b>
Year 3	21,208	16,495	<b>-4,712</b>	<b>-22%</b>
Year 4	20,239	16,958	<b>-3,281</b>	<b>-16%</b>
Year 5	19,345	17,109	<b>-2,236</b>	<b>-12%</b>
<b>Total</b>	<b>106,570</b>	<b>88,437</b>	<b>-18,133</b>	<b>-17%</b>

Under the PBO, fiscal costs are \$18,100, or 17%, lower over five years

# Main results - discussion

Based on current trends, the program appears to be delivering good results on the twin goals of improved personal income and reduced fiscal costs.

The results appear strong and are robust against changes to the assumptions used. Given some conservatism taken in the assumption setting, the model could be updated over time to recognise emerging evidence such as:

- Rising Continuance rates for longer-duration participants
- Income improvements for longer-duration participants
- Increased transitions to competitive employment
- ‘Better than DES’ trajectories after program entries.

## Impact of PBO versus counterfactual under selected assumption changes

Scenario	Impact, personal income (positive means PBO generates more money for the individual)	Fiscal impact (negative means PBO is less cost to government)
<b>Baseline</b>	<b>+\$15,500</b>	<b>-\$18,100</b>
High continuance - 99%	+\$22,700	-\$29,800
Low continuance - 95%	+\$10,300	-\$10,600
2x transition rate to competitive employment	+\$15,500	-\$17,300
DES outcomes doubled	+\$9,200	-\$17,100
DSP 50% of caseload (and counterfactual DES outcome rate reduced by 20%)	+\$17,300	-\$16,500

# Conclusions

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## Main themes

Our modelling shows that overall net fiscal costs are \$18,300, or 17%, lower over five years compared to DES participation. That is, the PBO appears to deliver better value to government. Including private benefits increase this further.

This result reflects, compared to DES:

- The value of **immediately placing people into employment**, leading to much higher rates of employment outcomes
- The **strong retention rates**, with trends suggesting higher conversions to continued employment at 26 and 52 weeks relative to DES
- The value of being able to measure income with **fortnightly income well above target thresholds** in some instances.
- Relatively low fiscal risk, since **payments are tightly aligned to sustained income**. Payments are only made if employment is sustained, which ensures that, under a variety of scenarios, government is ahead fiscally.

## Scaling individual-level results to potential program and system savings

The current program size of 150 people and a \$18,100 fiscal benefit per person implies a \$2.7m benefit to government over five years.

If the program could be scaled (noting the potential challenges of rapidly growing the social enterprise market), fiscal benefits would likely scale similarly. For example, a program that placed 10,000 people (about 3.6% of the Dec-22 DES caseload size) would see fiscal benefits of \$181m over a five-year period.

# 2

Introduction

# Background

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## Introduction to the PBO

- White Box Enterprises manages a Payment By Outcome (PBO) program for employment of people with disability. The program places people with social enterprise employers, where they may stay or transition to competitive employment. A series of outcomes are paid by the Department of Social Services (DSS) if people achieve the threshold number fortnights employed with income above a certain level.
- Employment outcomes are eligible for payments after 13, 26, 39 fortnights of employment. There are additional outcomes payments at for people who have transitioned to competitive employment (13 and 26 fortnights in competitive employment, above wage threshold), which can be paid concurrently with the other retention outcomes.
- Participants are required to meet eligibility criteria, including significant receipt welfare receipt, eligibility for the Disability Employment Service (DES), little employment in the previous year and currently receiving Jobseeker or Disability Support Pension (DSP) payments.
- The current program size has a target intake of 150 people. As at early May 2023 there were 86 people currently enrolled, across 15 social enterprises.
- The program has been running for 10 months, with early results visible.

## Scope of this report

Taylor Fry has been asked to review the costs and benefits of the PBO based on performance to date.

- The main comparison is to the equivalent costs and benefits under DES, for which the PBO can be regarded as a diversion.
- The scope includes consideration of both fiscal and private income benefits.
- We have modelled a **prospective cohort** over a five year period, rather than attempting to model detailed cashflow timings for the current cohort of participants. Results for the current cohort are expected to be similar, but staggered.

## Status of this report

This report is a first draft and is withdrawn upon the issue of a revised draft or final version.



# Comments on results

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## Limitations

As with any similar analysis, the results are subject to limitations. Some key points to note:

- **The program is still at a relatively early stage** – so employment continuity has been extrapolated. For instance, we are yet to observe any 26-fortnight milestones. Extrapolation has been done by applying observed experience to date (relating to earlier milestones).
- **There is uncertainty on the sustainability of employment beyond the PBO3 window.** However, a similar issue exists for the DES program (which tracks a shorter time period).
- **We have erred on the side of conservatism** for many assumptions where there is uncertainty. This is flagged throughout. Our largest source of conservatism is likely assuming that people who exit the PBO have a trajectory equivalent to the people with the same amount of time in DES, despite their more recent work experience.
- **We have not examined linked welfare data.** We understand that welfare savings are intended to be validated through linkage to DSS welfare data.

Further considerations and limitations around assumptions are discussed at the end of Section 3

# 3

Data and assumptions

# Data sources

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We have been provided with program data:

- Summary-level program details covering enrolment dates, outcomes, incomes, months active and transitions to competitive employment.
- An investor update report, dated 28 Feb 2022.

We have not attempted independent verification of the data provided, but found it reasonable and internally consistent. We have relied on the program data as supplied.

Additionally, we have drawn from publicly available information in the setting of welfare and DES trajectories:

- The DES mid-term review<sup>1</sup>
- Priority Investment Approach valuation reports<sup>2</sup>
- Budget portfolio statements<sup>3</sup>
- DES Caseload and demographic data.<sup>4</sup>

1 [https://www.dss.gov.au/sites/default/files/documents/05\\_2021/des-mid-term-review-august-2020-v2.pdf](https://www.dss.gov.au/sites/default/files/documents/05_2021/des-mid-term-review-august-2020-v2.pdf)

2 [https://aga.gov.au/sites/aga.gov.au/files/sites/aga.gov.au/files/publications/2022-04/2020\\_PIA\\_Valuation\\_Report.pdf](https://aga.gov.au/sites/aga.gov.au/files/sites/aga.gov.au/files/publications/2022-04/2020_PIA_Valuation_Report.pdf)

3 [https://www.dss.gov.au/sites/default/files/documents/05\\_2023/2023-24\\_pbs.pdf](https://www.dss.gov.au/sites/default/files/documents/05_2023/2023-24_pbs.pdf)

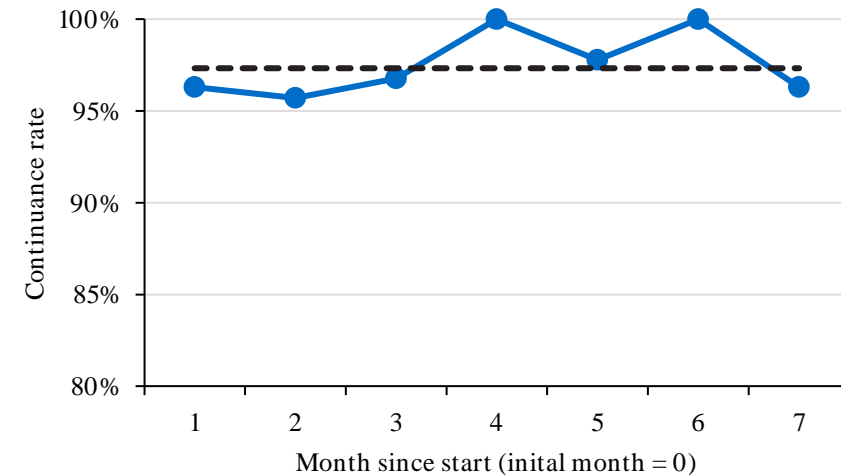
4 <https://data.gov.au/dataset/ds-dga-f0a105c0-8542-4720-9f6c-69769f7c4dee/distribution/dist-dga-47d09c68-e446-4111-b8b7-a570385b1bee/details?q=>

# Summary of experience to date, PBO3

We have been provided with data on performance to date:

- Enrolments began in July 2022, and have averaged 9 per month – 81 over the 9 months to March 2023.
- Of these, outcomes as at the 4<sup>th</sup> of May 2023 were:
  - 11 people have currently exited (including temporary pauses).
  - 19 outcomes attained for 13-fortnight (SRO1/TRO1) payments. About 35 is the maximum possible in the timeframe. Only 5 are paused/stopped, so most of the remaining 11 possible outcomes are expected (but slightly delayed).
- The monthly continuance rate (fraction of people in employment in month T+1, assuming they were employed in month T) is 97.3%, with a 90% confidence interval of (96.0%, 98.7%). This rate corresponds to about half of participants dropping out by the end of year 2.
- Interpreting a trend in continuance by duration is difficult with the small number of exits, but there is moderate evidence that the continuance rate over months 4-7 (98.8%) is higher than 1-3 (96.2%).

Probability that employment continues in that month, of those employed in the previous month



Assumption summary box

- Assumed monthly continuance rate for projection of 97.3%. This may well be **conservative**, since continuance will likely improve with duration.
- We assume an average of 16 elapsed fortnights to accrue a 13-fortnight outcome (implying some breaks/pauses), and similar for subsequent outcomes

# Competitive employment transitions

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- To date there have been four people who have moved to competitive employment.
  - Low rates are to be expected given the relatively short durations to date.
  - If we look as a fraction of person-months in the program, excluding the first three months, we see a monthly transition rate of 1.7%. This has a high degree of uncertainty. This is consistent with about half the people remaining in the program after two years being in competitive employment
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- We assume 1.7% of people in the program transition to competitive employment every month after the third. This could prove conservative, if transitions accelerate after some period of social enterprise employment to build skills.

# Income earned

Current income data was provided for 82 people who have commenced:

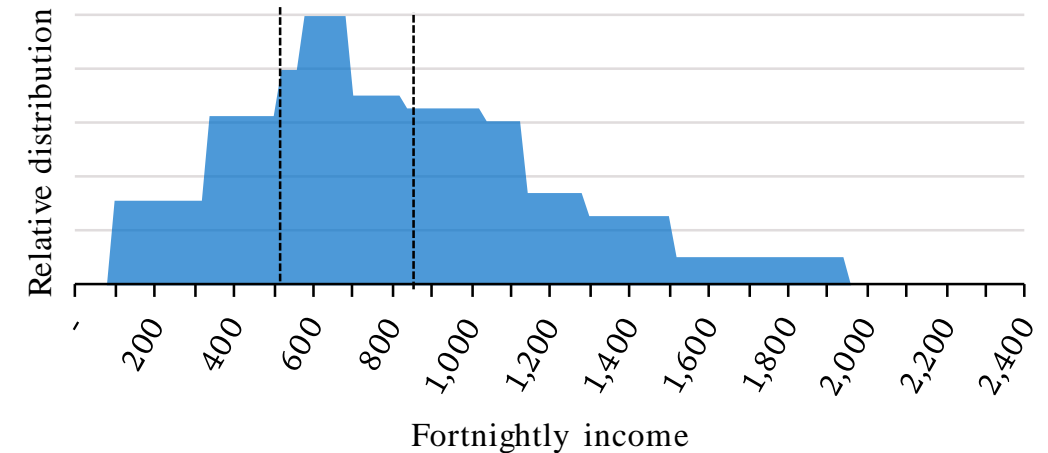
- 76% of people have an income above \$513.12, the minimum threshold for the first milestone payment
- 38% of people have an income above \$855.20, the minimum threshold for the later milestone payments.

We have used a more detailed employment income distribution to model welfare abatement, personal income and tax paid. This is shown on the right. Averaging across the distribution:

- Annualised average net income is \$19,300.
- Average annual income tax paid is \$830 per year.

We have not explicitly modelled wage rise mechanics. Threshold values change annual (in line with minimum wage changes), but we would similarly expect participant's incomes to increase over time, and arguably could expect a similar fraction above the thresholds.

## Assumed distribution of fortnightly income for those employed



- Assumed the income distribution fixed (in real terms) over time. This is **potentially conservative**, since income might be expected to increase as capability is built and people transition to competitive employment.
- Assumed a constant rate of 76% of people earn above the lower threshold and 38% above the upper threshold.
- Assumed a more detailed employment income distribution for modelling welfare, income and tax. Average net income per year is \$19,300 and average income tax is \$830.

# Cohort characteristics

In defining the target cohort for the PBO (and its counterfactual), we have assumed:

- A 90%-10% balance between Jobseeker and Disability Support Pension (DSP), consistent with the DES program.
- 20% of the cohort is receiving Commonwealth Rent Assistance. This is difficult to verify with public data but is probably conservative.

DES also includes participants not on income support, but PBO eligibility rules preclude this cohort from entering the program.

This assumed composition can be used to derive expected welfare receipts in the absence of employment. We have included the \$40 per week increase to Jobseeker (effective Sep-23) and the 15% increase to CRA, but not further CPI increases.

Under these assumptions, average welfare benefits for participants without employment for a full year are \$20,800 p.a.

We have not attempted to adjust for other demographic characteristics:

- **Age** – while about 20% of the DES cohort is aged under 30, 80% of the current PBO cohort is under age 30. This may be anti-conservative, as younger people tend to have better employment outcomes so the PBO cohort may naturally have more employment.
- **Partner status** – We have assumed single welfare rates. Welfare abatement is similar for those partnered, although benefits calculations are more complex as partner income would need to be accounted for.
- **Funding level band** – We do not have program information about what DES funding band participants would be in. Outcome rates can vary markedly by funding band, so in principle a skew should be accounted for.
- **Benchmark hours** – DES participants have a benchmark target of 8, 15, 23 or 30 hours per week, depending on functional capacity. 15 hours is most common. We have implicitly assumed a similar distribution for the PBO.

Additionally, the PBO program applies eligibility criteria (welfare receipt, absence of employment). These should make the target cohort 'tougher', adding a layer of conservatism compared to the general DES cohort.

# Counterfactual

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We have made a series of assumptions about how the DES cohort would have travelled through DES and the welfare system, in the absence of the PBO program. We refer to this as the counterfactual.

Note that DES outcomes tend to refer to weeks rather than fortnights.

We assume:

- About a quarter will see a 26-week full employment outcome over five years (slightly faster rate in the first two). This is designed to be consistent with numbers in the 2020 DES Mid-term review (for example see exhibit 20).
- Welfare receipt is assumed to decrease only slowly (5% in first year, 2.5% thereafter) – reflecting low outcome rates, plus high rates of welfare even after achieving an employment outcome. We've also been informed by the Priority Investment Approach exit rates.
- DES costs of \$3,800 in the first year, and decreasing thereafter. Designed to be compatible with the DES Mid-term review, budget statements and caseload data.

Income and tax information for the DES cohort is more problematic for assumption setting (as data is typically not well recorded on this, and certainly is not public):

- Currently we have a simple assumption that all decreases in welfare are generated by a sub-cohort earning about \$1,200 a fortnight. This would be enough to half welfare receipt.
  - This is likely to be **conservative**, in the sense that it does not explicitly allow for discouraged jobseekers dropping out of the workforce, and the \$1,200 is higher than the typical minimum wage of \$660 a fortnight for those on the 15-hour benchmark.
  - The assumption implies about 28% earning income in Year 5, compared to the cumulative 25% level of 26-week outcomes, which appears compatible.



# Counterfactual (2)

Combining counterfactual assumptions gives a schedule of different cashflows across five years.

DES outcome rates are relatively low – while consistent with program data, there may be some leakage in the estimates.

The low rate of outcomes mean that the program cost per outcome is relatively high, estimated above \$30k per 26-week outcome in the mid-term review.

Per participant outcomes and costs for the counterfactual

	Cumulative proportion of caseload with 26-week outcome	Welfare receipt (\$)	DES Costs (\$)	Net employment earnings (\$)	Income Tax Paid (\$)
Year 1	7%	19,855	3,760	2,725	99
Year 2	14%	19,359	3,196	4,019	292
Year 3	17%	18,875	2,716	5,281	384
Year 4	21%	18,403	2,309	6,511	473
Year 5	25%	17,943	1,963	7,711	560
<b>Total</b>	<b>25%</b>	<b>94,434</b>	<b>13,944</b>	<b>26,246</b>	<b>1,808</b>

We have assumed that if people were not in the PBO they would have welfare and employment tracks consistent with the table

We have not rounded results, but will for final report to reduce the impression of spurious accuracy

# Welfare, income and tax

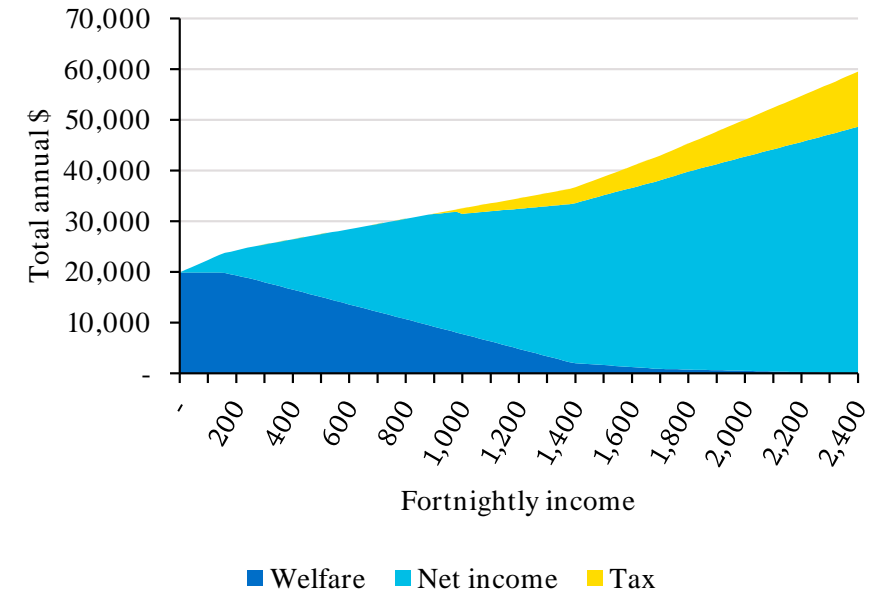
We have applied a schedule of welfare abatement (averaged across Jobseeker and DSP) and income tax (2023-24 schedule) to determine the allocation between welfare / income / tax as fortnightly income grows.

Our main simplifying assumption is that income persists over the full year. In practice part-years mean the tax take might be lower in the first year, which we have scaled down manually in main results table.

Income tax paid is minimal up to \$1,000 income per fortnight; this is reflected in the results.

We also assume 5% of additional income is collected as GST. The assumption is below the 10% to recognise exclusions (e.g. fresh food, rent) and saving behaviours.

**Balance between welfare, net employment income and income tax as a function of employment income**



- Used 2023-24 tax tables applied to income distribution
- Assumed no allowance for other benefits beyond income support and Rent Assistance (e.g. Family Tax Benefits)
- Assumed 5% of additional income recognised as increased GST receipt

# Further assumptions

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Some further assumptions and considerations:

- **People, once they drop out of the PBO, resume a track consistent with the counterfactual.** That is, the year 4 outcomes for a person who exits with three years of PBO employment has identical welfare and employment to someone in their fourth year after entering DES. This is likely conservative as the employment experience is likely to lead to better outcomes.
  - **We have assumed no selection effects.** Selection effects occur if enterprise employers select ‘better’ prospects among those they consider for referral. We have no direct way of verifying the degree of selection effects, but understand that the existing eligibility rules are the primary tool for assessing suitability for the program.
  - **We have not applied inflation and discounting effects.** Welfare and income would increase slightly over time, and it is also typical to discount future values for the time value of money. These are roughly offsetting and likely small relative to other uncertainties – but we are happy to add these if needed.
  - **We have extrapolated to a five-year window.** This is done in a fairly conservative way and results from a smaller number of years can be adopted if desired.
- **We have excluded DES costs while people participate in the PBO.** We understand that in reality some current participants remain enrolled in DES and additional fees are payable to the DES provider as outcomes accrue (even if they play a very limited role in support). However for our prospective analysis we have assumed that there are no DES costs while in the PBO, which is the intended design.
  - **We have not attempted a labour market adjustment.** The current labour market is significantly stronger than the past few years, altering some trajectories. However, this strength is likely to help both DES and PBO participants, so it is unclear how they are relatively affected by the change. We have included a scenario where the DES outcome rate is significantly higher.
  - **We have assumed no other earnings in our calculations** (e.g. investment, or second jobs).
  - **We have not considered employment substitution effects.** In our setup, we effectively assume that social enterprise employment are additional jobs. If the program was a substitution (e.g. an employer hires through the PBO where they previously received DES placements), this would alter results.

# 4

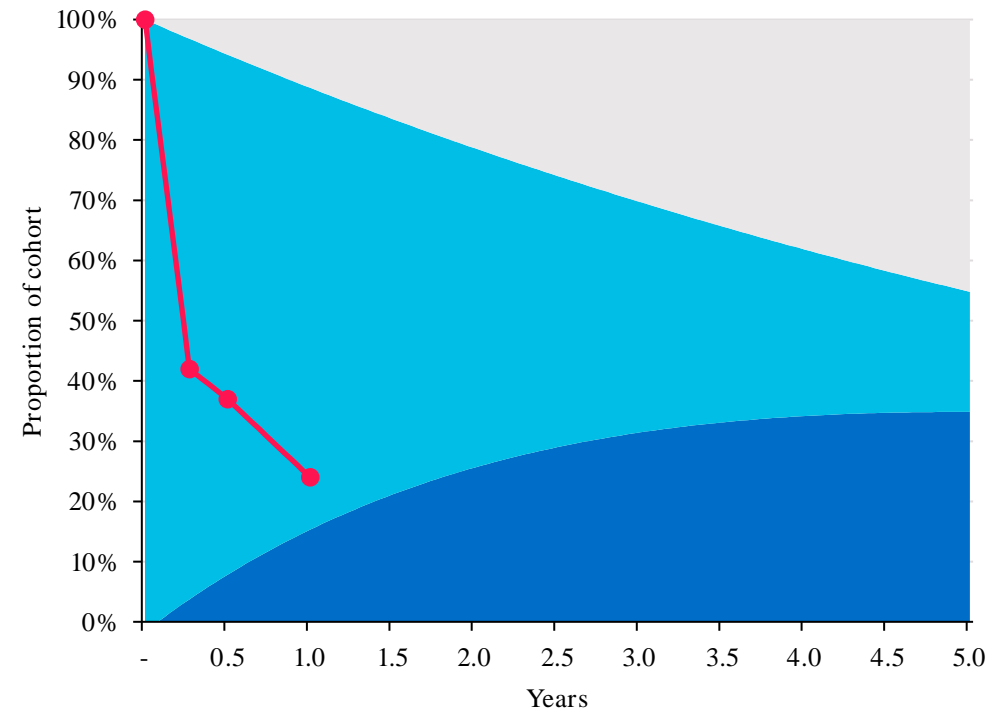
Results

# PBO3 projection

- We first project the status of the PBO participants, shown on the right – we project 72% remaining in program after a year, and 52% after two years.
- The implied outcome rates across milestones are shown in the table below. The current projection assumes relatively low rates of competitive employment outcomes CEO1/CEO2 – this is both the drop-off assumptions and the assumed fixed income distributions.

Milestone	Max	Average per person	Receipt rate
SRO1/TRO1	\$10,000	\$6,181	62%
SRO2/TRO2	\$10,000	\$2,542	25%
SRO3/TRO3	\$9,100	\$2,475	27%
CEO1	\$8,500	\$710	8%
CEO2	\$8,500	\$580	7%
<b>Total</b>	<b>\$46,100</b>	<b>\$12,487</b>	

## Projected employment status for PBO participants



■ Competitively employed
 ■ Other employed
 ■ Exit
 ● DES program

- PBO retention also appears much stronger than DES placements, based on the most recent annual report.

[https://www.dss.gov.au/sites/default/files/documents/10\\_2022/2021-22-annual-report.pdf](https://www.dss.gov.au/sites/default/files/documents/10_2022/2021-22-annual-report.pdf)

# PBO projection (2)

- As with the counterfactual, combining assumptions allows cashflows to be calculated for people in the PBO. The table of results is shown right.
- Compared to the counterfactual, we see significantly higher income earned, particularly in early years.
- By design, the numbers in later years are more similar to those of the DES counterfactual – the last column shows the fraction of participants who have exited the PBO and (by assumption) returned to the DES trajectory.

	Welfare receipt (\$)	PBO payt (\$)	DES costs (\$)	Net employment income (\$)	Income Tax (\$)	Additional GST (\$)	Fraction back on DES pathway
Year 1	12,054	6,330	553	16,849	362	351	15%
Year 2	14,077	5,187	1,244	13,340	621	236	39%
Year 3	15,281	433	1,521	11,443	581	160	56%
Year 4	15,963	112	1,577	10,562	587	108	68%
Year 5	16,289	-	1,514	10,356	622	72	77%
<b>Total</b>	<b>73,665</b>	<b>12,063</b>	<b>6,408</b>	<b>62,550</b>	<b>2,772</b>	<b>927</b>	

# Comparison of outcomes per participant

## Personal income comparison (Welfare + Employment after tax)

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## Fiscal impact comparison (Welfare + PBO + DES – Income tax – GST)

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# Discussion

- The result is very robust – modifying assumptions tends to still see significant positive impacts on personal income and fiscal costs.
- Ultimately this robustness is driven by three features:
  - Immediate placement into a job (compared to the slower rate for the DES program)
  - Outcomes being well tuned so that they only get paid when there is significant employment income, at a high enough rate to reduce welfare payments.
  - The ability to track incomes and that these appear to be substantial.
- We believe that there could well be significant conservatism in the modelling. The model could be updated to show revised savings as evidence emerges of:
  - Rising Continuance rates for longer-duration participants
  - Income improvements for longer-duration participants
  - Increased transitions to competitive employment (which increases later milestone payments)
  - ‘Better than DES’ trajectories after program entries.

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