

CASE STUDY · AUTOMATED DECISIONS

Robodebt and the cost of an unchecked automated decision.

How an Australian debt-raising scheme failed between 2015 and 2020, and what it teaches anyone who automates a decision about a person.

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ABOUT YOUR SPEAKER



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Twenty-five years leading digital and AI transformation across Asia and the Middle East: national smart-city programmes, critical infrastructure and enterprise operations. Today I help leadership teams put AI into production with controls they can show a board, an auditor and a regulator.

Built	A governed AI platform serving more than 6,000 engineers, with zero security incidents
Certified	ISO/IEC 42001 Lead Auditor Professional (BSI) · AIGP (SMU) · Registered Management Consultant
Serving	CTCB CPSC Advisory Board · UN ESCAP AI for Developing Countries Forum
Awards	CDO Vision Award 2026 · Singapore's Most Influential Data & AI Leaders 2026 · Google Trailblazer Transformation Award 2024

Independent analysis from public sources. The views in this session are mine.

THIS SESSION

Five years of automated debts, examined in eight parts.

01

How it began

A data-matching idea and a legal warning in 2014 and 2015

02

The mechanism

How income averaging produced debts that did not exist

03

Full scale

20,000 notices a week from September 2016

04

Seven warnings

Each one had an answer that let the scheme continue

05

The legal collapse

From the Solicitor-General to the Federal Court

06

People and money

The human cost and the A\$565 million net cost

07

The reckoning

Royal Commission, APSC, NACC and a second settlement

08

Lessons and controls

What boards and agencies can take from it

THE SHORT VERSION

An automated scheme raised debts with no basis in law.

794,000

debts raised, about, against
about 526,000 people

A\$4.772bn

savings budgeted when the
measure was funded

A\$406m

savings achieved, about, at
a total cost of A\$971 million

A\$565m

net cost to the
Commonwealth, about,
before two class action
settlements

[1] Royal Commission report, pp. 401 to 402. Figures differ by source and definition; the Commission's are used throughout.

WHY THIS CASE MATTERS FOR AI

Robodebt used automation. The Commission says it did not use AI.

It was a rules-based system that matched data, applied averaging and generated debt notices with little or no human review.

Its lessons carry to AI because the failures were in how decisions about the system were made: the legal basis was never settled, the human check was designed out, the burden of proof moved to the public, and five years of warnings went unheeded.

[1] Royal Commission report, p. 472.

2014 TO 2026

Twelve years from the first legal warning to the last finding.



[1] [2] [3] [4] [9] [24] Full chronology in the case study.

PART 1 • 2014 TO 2015

How the scheme began.

The idea was to use data the government already held. What was new was letting an annual figure stand in for fortnightly ones.

THE DATA IDEA

Two government records that measure income differently.



A mismatch might mean an overpayment. Comparing them was not new.

The new step was treating the annual figure as the fortnightly truth.

[1] Royal Commission report.

LATE 2014 TO MARCH 2015

The legal caveat was lost on the way to Cabinet.

Late 2014

Department of Social Services lawyers advise that averaging "might not be consistent with the legislative framework".

February 2015

The Social Services Minister, Scott Morrison, signs an executive minute noting that legislative change would be needed.

March 2015

The New Policy Proposal to Cabinet says legislation is not required and does not mention averaging.

[1] Royal Commission report. The Commission called the statement false and found Mr Morrison allowed Cabinet to be misled because he did not make the obvious inquiry.



2015 PILOT

The pilot gave a warning sign that nobody evaluated.

40%

About 40 per cent of people contacted in the 2015 pilot made contact back.

WHAT FOLLOWED

- The pilot was not properly evaluated.
- The online screens were never tested with users.
- The measure was funded in the 2015 to 2016 Budget as strengthening the integrity of welfare payments, and extended in later budget updates.

[1] Royal Commission report.

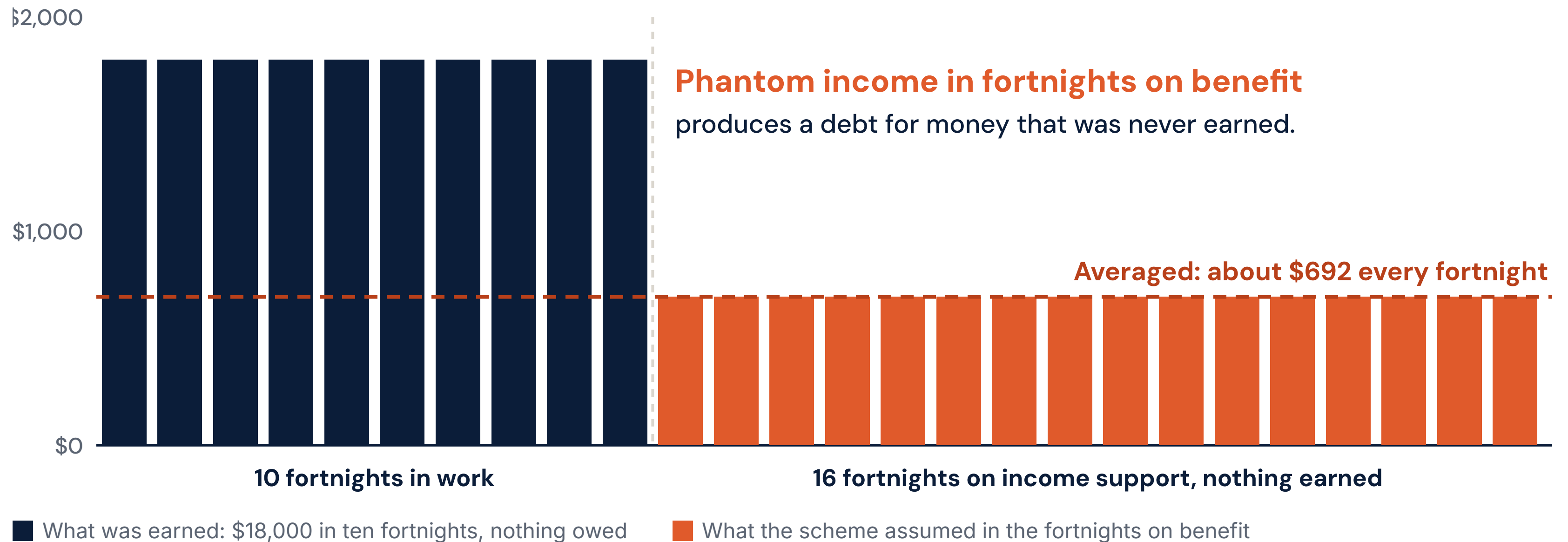
PART 2 · THE MECHANISM

How averaging produced debts.

Entitlement depends on what a person earned in each fortnight.
Averaging assumed the same amount every fortnight.

ONE YEAR, TWENTY-SIX FORTNIGHTS

Averaging put income into fortnights when none was earned.



Illustrative figures. The mechanism follows the Royal Commission's account of averaging ATO annual income across fortnights [1] [27].

FIVE CHANGES FROM THE MANUAL PROCESS

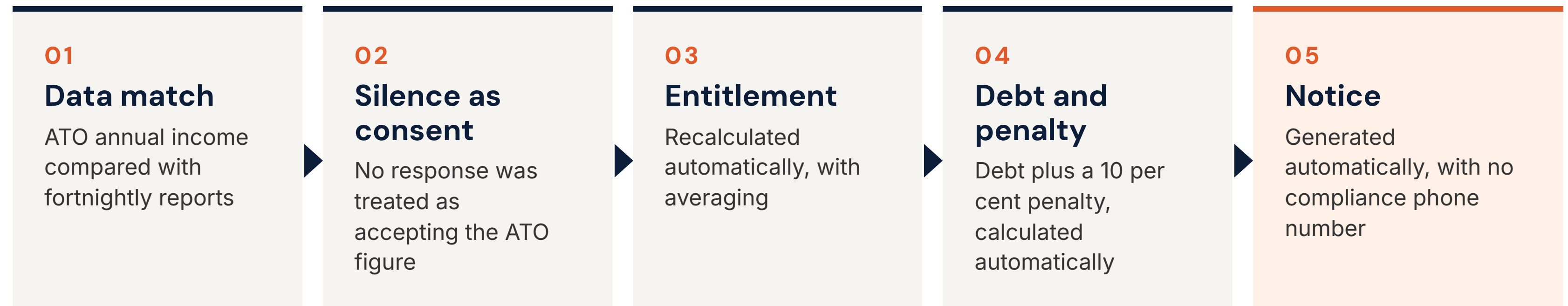
A lead for an officer became a notice generated by the system.

Before	Under the online scheme
ATO annual income data was a lead for an officer to check.	Unconfirmed ATO annual (PAYG) data became the primary evidence of income.
The department had to establish any debt.	The person had to disprove it, often with payslips several years old.
Entitlement was assessed on actual fortnightly income, as the law requires.	Annual income was averaged across fortnights automatically where the person did not supply records.
Compliance officers handled each case.	The process was designed to run online "to reduce (and preferably obviate) human involvement".
Reviews looked at recent periods.	Recovery reached back about five years.

[1] Royal Commission report, pp. xxiii to xxiv.

THE PROCESS MAPS

When a person did not respond, every later step ran automatically.



The letters left out a phone number by design, to push people online. The Commission described the penalty as a "euphemistically called" recovery fee and found no evidence anyone had considered its legal basis.

[1] Royal Commission report, process maps put before the Commission.

THE BURDEN OF PROOF

People had to disprove the machine with records they had been told to discard.

What was asked

Payslips going back years, to rebut a figure the system had estimated.

What the department had said

Its own website told people to keep payslips for six months.

What it did

Turned an estimate into a verdict that the person had to overturn.

[1] Royal Commission report.

PART 3 • 2016 TO 2017

The scheme at full scale.

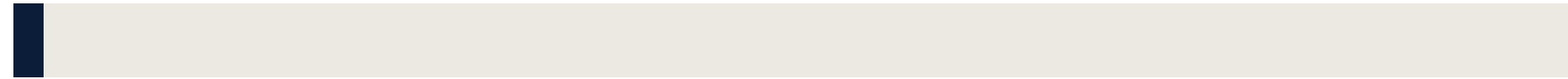
The Online Compliance Intervention began in July 2016 and was fully rolled out in September.

VOLUME

The online scheme issued in a week what the manual process handled in a year.

Manual process

about 20,000 a year, so about 385 a week



385

Online scheme

notices a week, from Sep 2016



20,000

Per week, the online scheme ran at about 52 times the manual rate. In November 2016 the Minister for Human Services announced that new technology was helping raise \$4.5 million in welfare debts a day.

[1] Royal Commission report. The weekly manual rate (20,000 divided by 52) is arithmetic on the Commission's figures.

DECEMBER 2016 TO JANUARY 2017

Within six months, three in four people in the online phase had averaged debts.

76%

of people in the online phase had debts raised from averaged earnings by 27 January 2017

99,404

people that 76 per cent represents

A\$11.6m

paid to private debt collectors, about, between 2015 and 2021

By December the news was full of people with debts they did not owe, and the Australian Council of Social Service wrote to the Minister. Debts went to collectors without checking that the person had received the notice.

[1] Royal Commission report. [27] The Conversation, January 2017.

PART 4 · 2014 TO 2019

Seven warnings.

The scheme ran for three more years after the first public alarm. Each warning had an answer that let it continue.

WARNING AND RESPONSE

Every warning was answered in a way that kept the scheme running.

When	Warning	Response
Late 2014	Department lawyers advise averaging may not be consistent with the legislation.	The March 2015 Cabinet proposal says no legislation is needed.
Dec 2016	Media saturated with stories of wrong debts; ACOSS writes to the Minister.	The scheme continues at 20,000 notices a week.
Apr 2017	Ombudsman reports on the system, without examining whether averaging is lawful.	Ministers cite the report as evidence the scheme is lawful.
Jun 2017	Senate committee recommends putting the scheme on hold.	The scheme continues.
2017	About 29 tribunal decisions reject averaging by the end of May.	Individual cases fixed; the decisions are not acted on more widely.
Aug 2018	Draft external legal advice says averaging is not permissible.	Never finalised or acted on.
Nov 2019	Commonwealth concedes in Federal Court that an averaged debt was not validly made.	Averaging-only debts stop. The scheme closes in June 2020.

WARNING THREE · APRIL 2017

The oversight body was given a partial picture and then used as cover.

What the Ombudsman received

- A 2017 internal view that averaging could be used "as a last resort", citing no law
- Not the 2014 legal advice

THE COMMISSION FOUND

Officers' explanation to the Ombudsman was untrue.

How the report was used

- It did not examine legality
- Ministers then cited it as evidence the scheme was lawful

[1] Royal Commission report. [14] Commonwealth Ombudsman, 10 April 2017.

WARNING FIVE · 2017

Twenty-nine tribunal losses were handled one case at a time.



29 decisions rejecting averaging by the end of May 2017. Each was fixed for that one person.

By the end of May 2017 about 29 first-tier tribunal decisions had rejected averaging. The department fixed each appealed case and otherwise carried on. An error report that arrives one case at a time can be absorbed indefinitely unless someone is required to read the pattern.

[1] Royal Commission report. [2] Prygodicz (No 2) [2021] FCA 634.

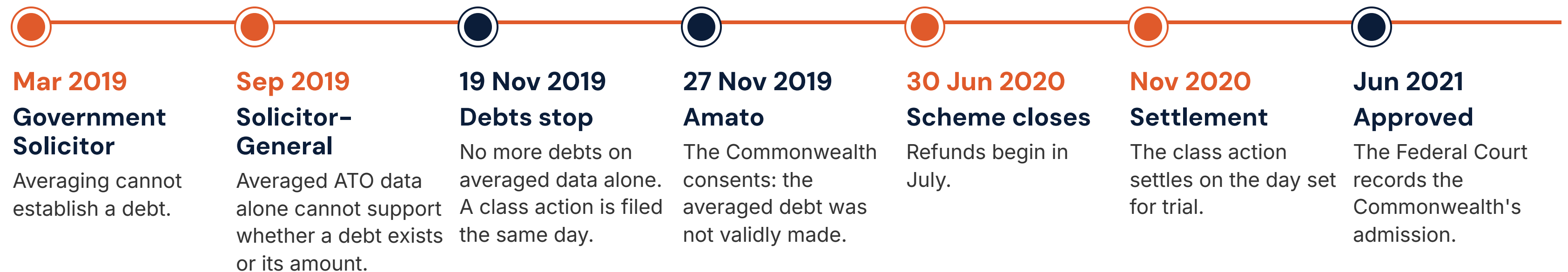
PART 5 · 2019 TO 2021

The legal collapse.

The legal position, known inside government since 2014, came out in court.

SEVEN STEPS IN TWO YEARS

Once the law was tested, the scheme fell within months.



[1] Royal Commission report. [2] Prygodicz (No 2) [2021] FCA 634.

FEDERAL COURT, JUNE 2021

The Commonwealth "did not have a proper legal basis to raise, demand or recover" debts based on averaging.

The Commonwealth's admission, as recorded by Justice Murphy in approving the class action settlement. The settlement added A\$112 million.

[2] Prygodicz v Commonwealth of Australia (No 2) [2021] FCA 634.

PART 6 · PEOPLE AND MONEY

The human cost.

The Commission heard from people who received debts they did not owe and could not disprove, and from families of people who had died.

WHAT THE COMMISSION RECORDED

The record includes deaths, and a minister who knew.

The Commission records that **Rhys Cauzzo**, aged 28, died in January 2017 after debts raised by averaging in the manual phase that preceded the online scheme had been referred to a debt collector.

It records that **Jarrad Madgwick**, aged 22, died in May 2019, and that his mother identified a debt notice as a precipitating factor. The Commission notes his debt does not appear to have come from averaging.

The Commission found that by July 2017 the Minister for Human Services, **Alan Tudge**, knew that at least two people had died by suicide, and that no comprehensive review followed.

FOR THE ROOM

Harm indicators were never reported beside the savings figures.

[1] Royal Commission report. If this topic affects you, support is available: in Australia, Lifeline 13 11 14; in Singapore, SOS 1767; elsewhere, findahelpline.com.

THE COMMISSION'S SUMMARY

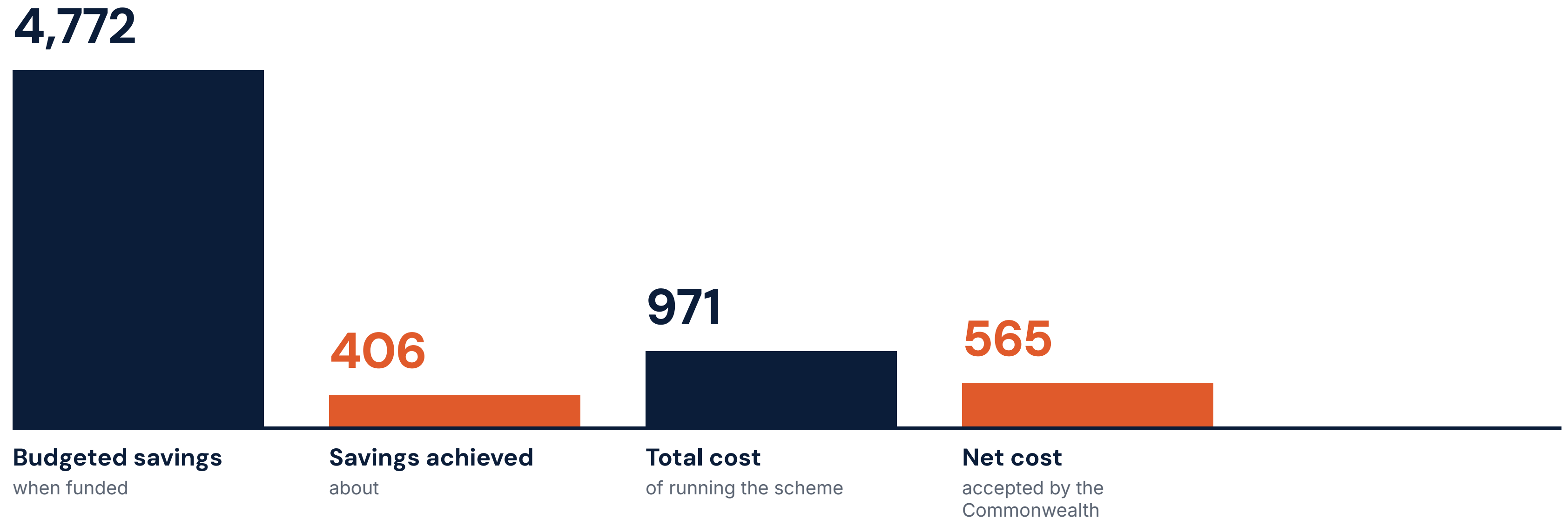
"Empathy could not be programmed into the Scheme."

Royal Commission into the Robodebt Scheme, 2023

[1] Royal Commission report.

THE MONEY · A\$ MILLIONS

A projected saving of A\$4.8 billion ended as a net cost.



[1] Royal Commission report, p. 401. Net cost is before the two class action settlements.
CASE STUDY · ROBODEBT

REFUNDS, WRITE-OFFS AND SETTLEMENTS · A\$ MILLIONS

A\$1.751 billion was written off, and the refunds are part of it.

Written off in total

Refunded, A\$746m to about 381,000 people

1,751

Settlement, 2021

class action

112

Settlement, 2026

A\$475m compensation plus costs

548.5

[1] pp. xxviii and 402 (the written-off total includes the refunds; never add them). [2] [24] [25] [26]. Bars share one scale.

PART 7 · 2022 TO 2026

The reckoning.

A Royal Commission, led by Catherine Holmes AC SC, was established in August 2022 and reported on 7 July 2023.

ROYAL COMMISSION, JULY 2023

The Commission's language was unusually direct.

"A crude and cruel mechanism, neither fair nor legal."

Report, p. xxix

"The automation used in the Scheme at its outset, removing the human element, was a key factor in the harm it did."

Report, p. 488

"A costly failure of public administration, in both human and economic terms."

Report

"A myriad of ways that things can go wrong through venality, incompetence and cowardice."

Report, closing

[1] Royal Commission report. A sealed chapter referred individuals to the APSC, the NACC, the Australian Federal Police and a legal regulator.

ACCOUNTABILITY

Six outcomes over five years.

Body	Outcome
Federal Court, 2021	Settlement approved. The Commonwealth admitted it had no proper legal basis to raise, demand or recover averaged debts.
Royal Commission, 2023	Adverse findings about ministers and officials; a sealed chapter of referrals to four bodies.
APS Commission, 2024	16 inquiries. 12 people found in breach of the Code of Conduct. Four still employed were sanctioned, from reprimands and fines to demotion; the rest had left the service.
NACC, 2024	Declined to investigate, saying new evidence was unlikely. The Inspector later found officer misconduct in that decision.
NACC, 2026	After independent reconsideration: two former senior officials engaged in serious corrupt conduct. No referral for prosecution: the decisive evidence was compelled and could not be used in court.
Federal Court, 2026	Second settlement approved 23 June: A\$475 million in compensation, about A\$548.5 million with costs, for about 125,000 registered people.

[1] [2] [4] [5] [6] [9] [10] [24] [25] [29] [30]

APS COMMISSION, SEPTEMBER 2024

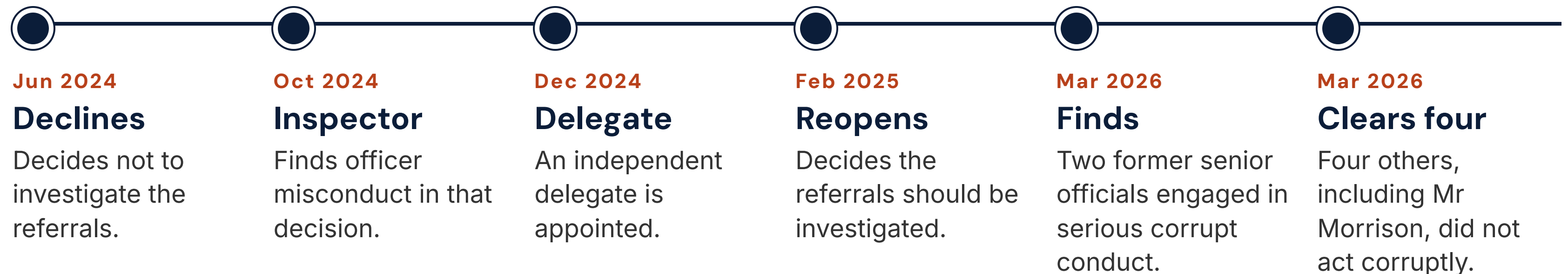
Twelve of sixteen public servants breached the Code of Conduct.



[4] Australian Public Service Commission, outcomes of 13 September 2024. [28] ACS Information Age. Individuals are not named.

NATIONAL ANTI-CORRUPTION COMMISSION

The anti-corruption finding took two attempts.



One official misled officers preparing the 2015 Cabinet submission; one misled the Ombudsman in 2017. No referral for prosecution. The Royal Commission's finding about Mr Morrison and the NACC finding apply different legal tests, and both stand.

PART 8 · AUTOMATED DECISIONS

What the Royal Commission recommended.

The government accepted all 56 recommendations in November 2023, in full or in principle. Two deal directly with automation.

RECOMMENDATIONS 17.1 AND 17.2

A legal framework for automation and a body to audit it.

17.1

A consistent legal framework

- A clear path to review
- Plain-language notice on agency websites that automated decision-making is used
- Business rules and algorithms "made available, to enable independent expert scrutiny"

17.2

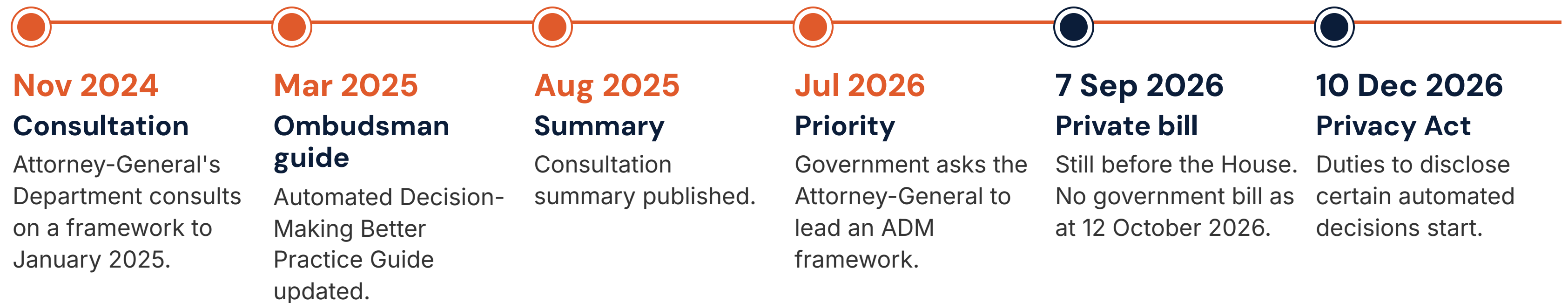
A body to monitor and audit

- Technical soundness
- Fairness
- Bias
- Usability

[1] Royal Commission report, pp. 486 to 488. [3] Government response, November 2023. The report's text refers to 57 recommendations; its numbered list and the government's response contain 56.

PROGRESS SINCE 2023

Three years on, the framework has not been legislated.



[16] [20] [21] [22] [23] [31] [32]

FOR AI

Every failure in Robodebt has a counterpart in AI deployment.

A rules engine that averages income and a model that predicts it both produce an estimate that someone has to decide whether to act on. Four questions apply to any AI system that decides or recommends something about a person.

01

Is there a legal basis for acting on this output?

02

Who checks it before it reaches the person?

03

Who carries the burden of correcting it?

04

Who reads the pattern of complaints and appeals?

MY READING

Two features make AI riskier on the same points.

01

Harder to explain

A probabilistic model is harder to explain than a formula, so the "business rules made available" that the Commission asked for are harder to produce.

02

Faster and larger

The speed and scale that made the online scheme attractive are greater with AI. An error reaches more people before anyone reads the pattern.

so

The Commission's recommendations were written for automation. They read as a minimum for AI.

LESSONS

What boards and agencies can take from it.

Eight lessons, each tied to a finding. The lessons are my reading of those findings.



LESSONS 1 AND 2

Settle the law first, and keep a person where an error reaches a person.

01

Settle the legal basis before you automate

The lawyers' caveat was in the 2015 minute and missing from the Cabinet proposal.

DO THIS

Get written confirmation that the method is lawful, and make it travel with the funding decision.

02

Keep a human check where an error reaches a person

Removing the human element was a key factor in the harm.

DO THIS

Decide which outputs a person reviews before they take effect, and fund reviewers when volume rises.

LESSONS 3 AND 4

Leave the burden of proof with the organisation, and read appeals as a pattern.

03

Do not move the burden of proof to the public

Asking people to disprove a machine's figure with records they were told to discard turns an estimate into a verdict.

DO THIS

The organisation establishes the decision; the person is never asked to disprove an estimate.

04

Read appeals and complaints as a pattern

Twenty-nine tribunal decisions were handled one at a time.

DO THIS

A named senior owner reports adverse external decisions in aggregate, with the error rate they imply.

LESSONS 5 AND 6

Protect legal advice, and count harm beside savings.

05

Protect the independence of legal advice

Advice that averaging was unlawful existed in 2014, 2018 and 2019.

DO THIS

Legal advice on an automated program goes to the board or minister directly, not through the team that owns the program.

06

Measure harm as well as savings

The scheme was judged on dollars recovered while deaths, complaints and tribunal losses went uncounted.

DO THIS

Put harm indicators beside the financial ones from the first month.

LESSONS 7 AND 8

Publish the rules, and know what a clean review covered.

07

Publish the rules and give reasons

The notices gave no reasons. The Commission asks for business rules and algorithms to be open to expert scrutiny.

DO THIS

For AI, document what the system does and does not consider, and explain each decision to the person affected.

08

Check what an oversight body was asked

The Ombudsman's report was used as proof of legality on a question it had not examined.

DO THIS

Treat a clean review as covering only what the reviewer was asked to look at.

CONTROLS CHECKLIST

Eight controls a board can ask to see before an automated decision goes live.

#	Control	Evidence to ask for
1	Legal basis confirmed	Written legal advice on the method, attached to the funding paper
2	Human review point	The outputs a person must review, and the reviewer capacity at peak volume
3	Burden of proof	Confirmation that no person is asked to disprove an estimate
4	Adverse-decision register	Appeals, complaints and reversals reported in aggregate, with an error rate
5	Independent legal channel	Legal advice that reaches the board or minister directly
6	Harm indicators	Harm measures reported beside savings from the first month
7	Published rules and reasons	Business rules on record; a reason given with every decision
8	Scope of any review	The questions each oversight body was asked, and what it was shown

My call, drawn from the findings in [1]. Free tools: the agent risk assessment matrix and the oversight ceiling calculator at terencekok.com/resources.

FOR DISCUSSION

Four questions to take back to your own organisation.

01

Which automated or AI output in your organisation reaches a person with no one checking it first?

02

Where would a pattern of appeals or complaints about that output be reported, and to whom?

03

Who last confirmed in writing that the method behind it is lawful?

04

If the savings target and the harm indicators disagreed, which one would your board see first?

EVIDENCE AND METHODOLOGY

Each claim is graded by what it rests on.

Claim	Source	Grade
"A crude and cruel mechanism, neither fair nor legal"	Royal Commission report, p. xxix	Finding of a Royal Commission
The Scheme did not use AI; it used automation	Royal Commission report, p. 472	Finding of a Royal Commission
A\$746m refunded; A\$1.751bn written off in total	Report, pp. xxviii and 402. The total includes the refunds.	Measured
A\$4.772bn budgeted; about A\$406m achieved; net cost about A\$565m	Report, p. 401	Measured
About 794,000 debts against about 526,000 people	Report, p. 402. The 2021 judgment's class is narrower.	Measured; differs by definition
A\$475m second settlement, approved 23 June 2026	Gordon Legal and AAP; approval judgment not read	Reported
The averaging chart	Mechanism per the Commission; figures invented	Illustrative
Lessons and controls	My reading of the cited findings	My call

SOURCES 1 OF 2

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Sources read on 11 October 2026, time-sensitive items re-checked 12 October 2026; some Australian Government documents through Internet Archive captures. Full list with links: terencekok.com/research/case-studies/robodebt/

SOURCES 2 OF 2

Sources 17 to 32.

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CASE STUDY · ROBODEBT

Settle the law, keep the human check, and read the pattern.

Thank you. Questions and discussion.

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