

METHODOLOGY FOR THE BALLOT PAPER SAMPLING PROCESS FOR SENATE ELECTION 2022

LEGISLATIVE REQUIREMENT FOR BALLOT PAPER ASSURANCE

The *Electoral Legislation Amendment (Assurance of Senate Counting) Act 2021* (the Act) sets out the requirements for ballot paper sampling assurance throughout computerised scrutiny of votes in Senate elections.

Section 273AC requires the Electoral Commissioner to arrange for statistically significant samples of ballot papers to be checked throughout the scrutiny of votes for the election to assure that the electronic data used in counting the votes reflects the data recorded on the ballot papers.

The ballot paper sampling process is not part of the scrutiny in relation to the election¹. The ballot paper sampling process may be inspected by scrutineers at the counting centre where the scrutiny is being conducted.²

Before the polling day for the election, the Electoral Commissioner must publish on the Electoral Commission's website: a methodology to be used for the ballot paper sampling process; and the process to be used for reconciling preferences.³ Within 14 days after the return of the writ for the last Senate election, the Electoral Commissioner must publish on the Electoral Commission's website a statement setting out the outcomes of the ballot paper sampling process.⁴

APPROACH TO BALLOT PAPER ASSURANCE

The Australian Electoral Commission (AEC) has approved the ballot paper assurance process to be undertaken for the 2022 Senate election. The assurance process will consist of five components: sample selection, assurance testing, quality assurance, AEC review of potential exceptions, and report creation. The AEC has engaged an external assurance provider (Axiom Associates) to assist in the execution of the assurance process. Each of these process components are described below.

SAMPLE SELECTION

Sample selection must occur at the Central Senate Scrutiny (CSS) centres in each state and territory. A physical ballot paper will be chosen at the CSS and this will be compared to the electronic data used by the AEC in the counting of the votes.

In November 2021, the AEC received advice from the Australian Bureau of Statistics (ABS) to determine the number of ballot papers to be selected for statistical assurance purposes. This advice identified the number of ballot papers nationally to be selected to provide statistical assurance and the breakdown of the number of

¹ Subsection 273AC(4) of the *Electoral Legislation Amendment (Assurance of Senate Counting) Act 2021*.

² Subsection 273AC(5) of the *Electoral Legislation Amendment (Assurance of Senate Counting) Act 2021*.

³ Subsection 273AC(6) of the *Electoral Legislation Amendment (Assurance of Senate Counting) Act 2021*.

⁴ Subsection 273AC(7) of the *Electoral Legislation Amendment (Assurance of Senate Counting) Act 2021*.

ballot papers to be selected in each CSS state and territory location. The ballot paper assurance process will use the sample sizes recommended by the ABS. The total national sample will be at least 9,895 ballot papers.

ASSURANCE TESTING

Assurance testing will be undertaken using a two-stage testing approach.

The first stage will test the physical ballot paper to the scanned image transmitted to the AEC, the second stage will validate the digital preferences.

The ballot paper assurance testing has been designed to detect the following:

- where the scanned image is an incomplete representation of the physical ballot paper (the marks on the scanned image are not an exact replica of the physical ballot paper); and
- where preferences recorded on the physical ballot paper do not match the electronic data used in counting.

The assurance testing will be undertaken in each CSS location with the ability for scrutineers to observe if they wish. Assurance testing will be conducted by teams of two testers using a 'call and confirm' approach.

TEW resources will be engaged by the AEC to act as assurance testers. Assurance testers will not perform non-assurance activities. Assurance testers will be trained by Axiom on the assurance approach, detailed methodology, operational approach, and expectations. Any questions or issues related to the application of the assurance methodology and results will be referred to, and answered by, Axiom. Axiom staff will not be located in each CSS location.

QUALITY ASSURANCE

Ballot paper assurance testing will be subject to quality assurance. This is undertaken to confirm the accuracy of the assurance testing given the expected low rate for potential exceptions. Quality assurance activities will consist of reperformance of 30% of stage two testing by different assurance testers.

AEC REVIEW OF POTENTIAL EXCEPTIONS

All potential exceptions from stage two testing will be subject to review by three AEC experienced officers that are independent in the Senate processing for that site. The purpose of this AEC review is to confirm how the AEC officials would apply the AEC business rules for interpretation of voter intent.

REPORT CREATION

All exceptions identified from the assurance process will be collated at the state and territory level and at the national level by Axiom.

Once assurance processes in each CSS state and territory location are complete, Axiom will follow the ABS' guidance for calculating, analysing and reporting the statistical conclusions that can be drawn.