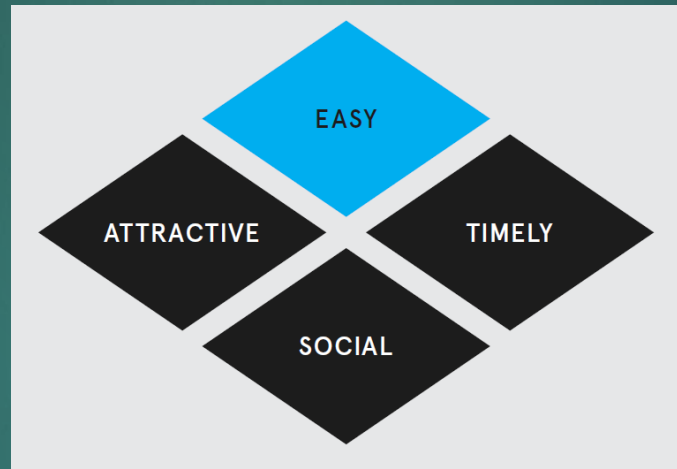


# Applying EAST to email reminders



Kevin Chadwick

ANU Centre for Social Research and Methods

[kevin.chadwick@anu.edu.au](mailto:kevin.chadwick@anu.edu.au)

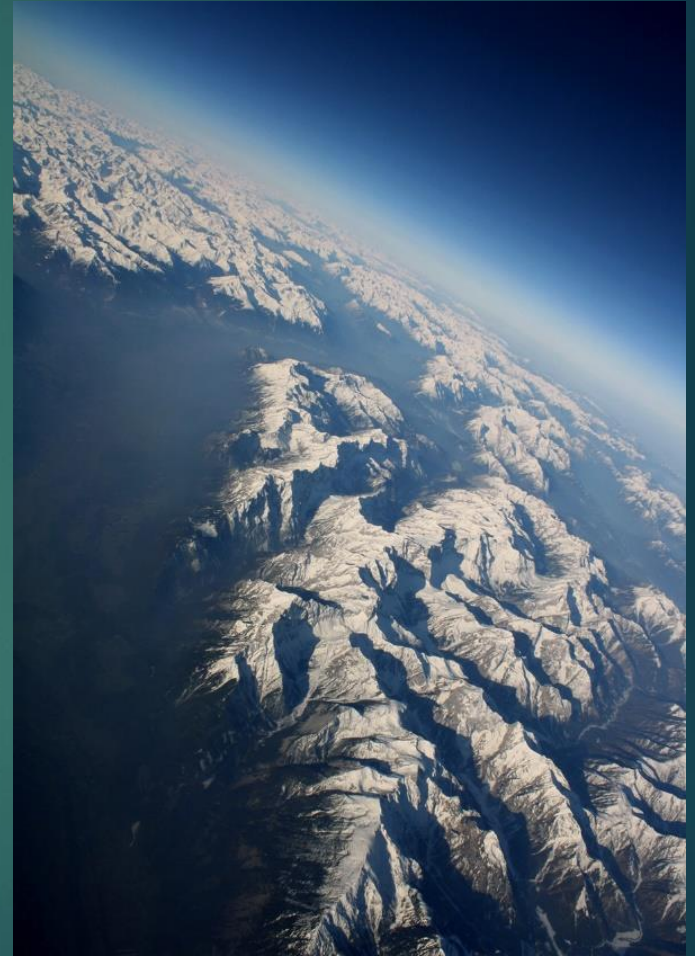
# Acknowledgements

- ▶ Department of the Environment and Energy
  - ▶ The International Operations Section
  - ▶ Permission to publish
  - ▶ PhD support
- ▶ Lani Perlesz, BETA
- ▶ ATO research staff
- ▶ Liz Hobman, CSIRO
- ▶ Behavioural Insights Team



# Overview

- ▶ Policy context
- ▶ Proposed / imposed solution
- ▶ Methodology
- ▶ Results – test, learn, adapt
- ▶ Lessons



# Policy context - APS

- ▶ Sweeping budget cuts
  - ▶ Commission of review
  - ▶ Staff cut by up to 25%
- ▶ Deregulation agenda
  - ▶ Red tape reduction targets



# Policy context – International operations section

- ▶ The Ozone Act
  - ▶ Companies must report SGG imports each quarter through OLaRS
- ▶ Email reminders at the end of each reporting period
  - ▶ Regulatory burden
- ▶ Unsatisfactory compliance with reporting obligations



Change text size

 **Australian Government**  
Department of the Environment and Energy

Ozone home Forms Contact us

**For security reasons, reporting forms are set to re-set every 60 minutes. Please ensure you lodge your report within this period, as you will not be able to save the data and continue completing your report later.**

Activity Report - Licence Details

Licence Number<sup>1\*</sup>

Licence Holder Name<sup>2\*</sup>

Next

Form Completion: 5%

\*Mandatory field (only required if field is enabled)

<sup>1</sup> Licence Number = The licence number can be found on your current licence instrument. It will commence with the letters EQPL followed by eight numbers.

<sup>2</sup> Licence Holder Name = As it appears on the licence instrument.

[Accessibility](#) | [Disclaimer](#) | [Privacy](#) | [Commonwealth of Australia](#) | [Help](#)

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Canberra ACT 2601 Australia  
+61 2 6274 1111

[Australian Government](#)

# Policy context – behavioural economics

- ▶ First departmental BE work program
- ▶ Very small team
  - ▶ No specialists, everything we did was new
- ▶ Equity concerns = risk aversion?
- ▶ “You only get one shot, do not miss your chance to blow, this opportunity comes once in a lifetime, yo” – Eminem, Lose Yourself



# Proposed / imposed solution

- ▶ **Redesign email reminders sent to companies**
- ▶ No scope for pre-trial research into companies' compliance behaviour
- ▶ Hypothesis/assumption:
  - ▶ Better reminder design increases compliance

Ref

Dear

This notice is to remind you to submit your quarterly activity report for all imports and/or exports made during 1 Apr - 30 Jun 2014 before **Tuesday 15 July 2014**.

Under the *Ozone Protection and Synthetic Greenhouse Gas Management Act 1989* licence holders must submit quarterly activity reports and pay applicable licence levies. If you have already submitted your quarterly activity report for this period please disregard this email.

**Lodging a quarterly activity report**

To lodge your report, please use the online reporting form applicable to your licence type at [www.environment.gov.au/licensingforms](http://www.environment.gov.au/licensingforms).

**Good to Know**

- Nil reports are *still* required even if no imports or exports were made during the reporting period. To submit a nil report click the button that says: 'NO – I wish to lodge a 'Nil' report', on the first page of the report.
- Export reports (including 'nil' export reports) are only required for controlled substance licences (i.e. not equipment licences) which have been granted an export permit.
- Tax invoices with payment details on applicable levies are issued within 10 working days after the acceptance of an import report.
- Failure to pay the levies on or before **Friday 29 August 2014** attracts penalty interest on any outstanding unpaid amount at a rate of 30% per annum (calculated daily).
- If your Licence contact details have changed, they can be updated using the electronic form entitled 'Online request to update details of a licence or exemption' available here: [https://dmzapp17p.ris.environment.gov.au/olars\\_external/app/external/amendForm1.html?rand=1403736704465](https://dmzapp17p.ris.environment.gov.au/olars_external/app/external/amendForm1.html?rand=1403736704465)
- If you need assistance in completing or lodging quarterly reports, it is available on +61 2 6274 1373 or by email [ozonereporting@environment.gov.au](mailto:ozonereporting@environment.gov.au).

Regards

Import Operations Section  
Department of the Environment  
GPO Box 787  
Canberra ACT 2601  
[www.environment.gov.au/gaslicence](http://www.environment.gov.au/gaslicence)

# Trial methodology

- ▶ RCT - stepped wedge variation
  - ▶ Period 1: control plus treatment 1
  - ▶ Period 2: control plus treatments 1 and 2
  - ▶ Period 3: control plus treatments 1, 2, 3 and 4
  - ▶ Period 4: abandoned due to operational requirements

| Reporting period      | Control | Treatment 1 | Treatment 2 | Treatment 3 | Treatment 4 |
|-----------------------|---------|-------------|-------------|-------------|-------------|
| First (Oct-Dec 2014)  |         |             |             |             |             |
| Second (Jan-Mar 2015) |         |             |             |             |             |
| Third (Apr-Jun 2015)  |         |             |             |             |             |



# Balance check on past reporting behaviour

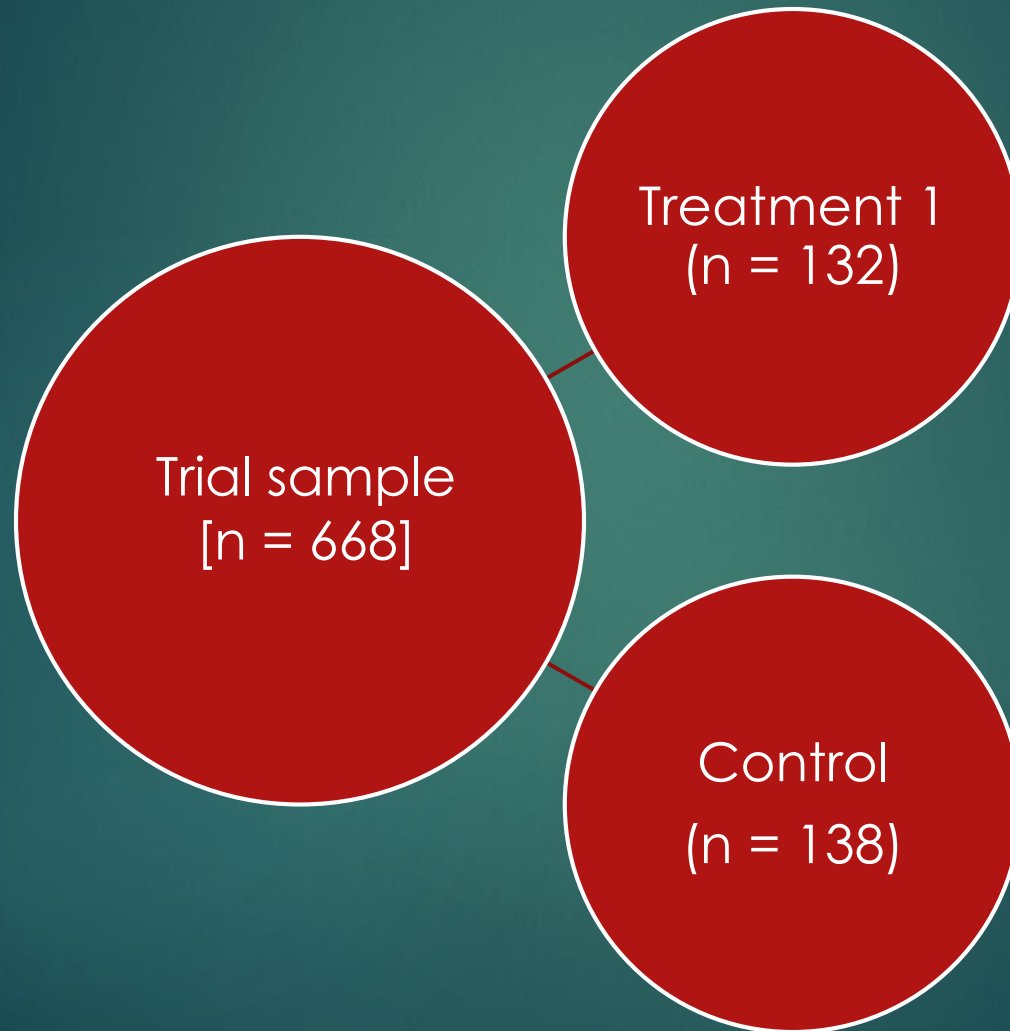
## Difference to control group

| Groups →                | 1   | 2   | 3   | 4   | Control |
|-------------------------|-----|-----|-----|-----|---------|
| <b>N =</b>              | 132 | 128 | 138 | 132 | 138     |
| <b>1st time report</b>  | +1% | -2% | +1% | -1% | -       |
| <b>Late last period</b> | +3% | -1% | +4% | +3% | -       |
| <b>Repeatedly late</b>  | +6% | +2% | +6% | +8% | -       |



- ▶ Later analysis found no statistical difference in past reporting compliance between the groups

# First reporting period



# Reminders: Control vs treatment

Ref

Dear

This notice is to remind you to submit your quarterly activity report for all imports and/or exports made during 1 Apr - 30 Jun 2014 before **Tuesday 15 July 2014**.

Under the *Ozone Protection and Synthetic Greenhouse Gas Management Act 1989* licence holders must submit quarterly activity reports and pay applicable licence levies. If you have already submitted your quarterly activity report for this period please disregard this email.

## Lodging a quarterly activity report

To lodge your report, please use the online reporting form applicable to your licence type at [www.environment.gov.au/licensingforms](http://www.environment.gov.au/licensingforms).

## Good to Know

- Nil reports are *still* required even if no imports or exports were made during the reporting period. To submit a nil report click the button that says: 'NO – I wish to lodge a 'Nil' report', on the first page of the report.
- Export reports (including 'nil' export reports) are only required for controlled substance licences (i.e. not equipment licences) which have been granted an export permit.
- Tax invoices with payment details on applicable levies are issued within 10 working days after the acceptance of an import report.
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- If you need assistance in completing or lodging quarterly reports, it is available on +61 2 6274 1373 or by email [ozonereporting@environment.gov.au](mailto:ozonereporting@environment.gov.au).

Regards

Import Operations Section  
Department of the Environment  
GPO Box 787  
Canberra ACT 2601  
[www.environment.gov.au/gaslicence](http://www.environment.gov.au/gaslicence)



**Your report for the period  
1 October - 31 December 2014 is due on 14 January 2015**

Licence Number

Entity Name

## Reporting is MANDATORY

The repeal of the carbon tax does not change reporting requirements for licence holders. You still need to report your imports every quarter.

Even if no imports were made during the reporting period, a nil report is still required.

[Lodge your report here](#)

Use the form 'Report imports of ODS and/or SGG Equipment'.

Or use this link: <http://www.environment.gov.au/protection/ozone/licences-and-reporting/forms>

*If you have already submitted your quarterly report for this period, please disregard this email.*

Where imports are reported, you will receive a tax invoice within 10 working days after acceptance of your report. Please ensure that you pay any applicable licence levy to the department on or before 1 March 2015. Failure to pay a levy by the due date will attract penalty interest on any outstanding unpaid amount, at a rate of 30% per annum (calculated daily).

## Further contact

If you require assistance in completing or lodging quarterly reports, please contact the Import Operations Section on +61 2 6274 1373 or email [ozonereporting@environment.gov.au](mailto:ozonereporting@environment.gov.au).

# Applying EAST

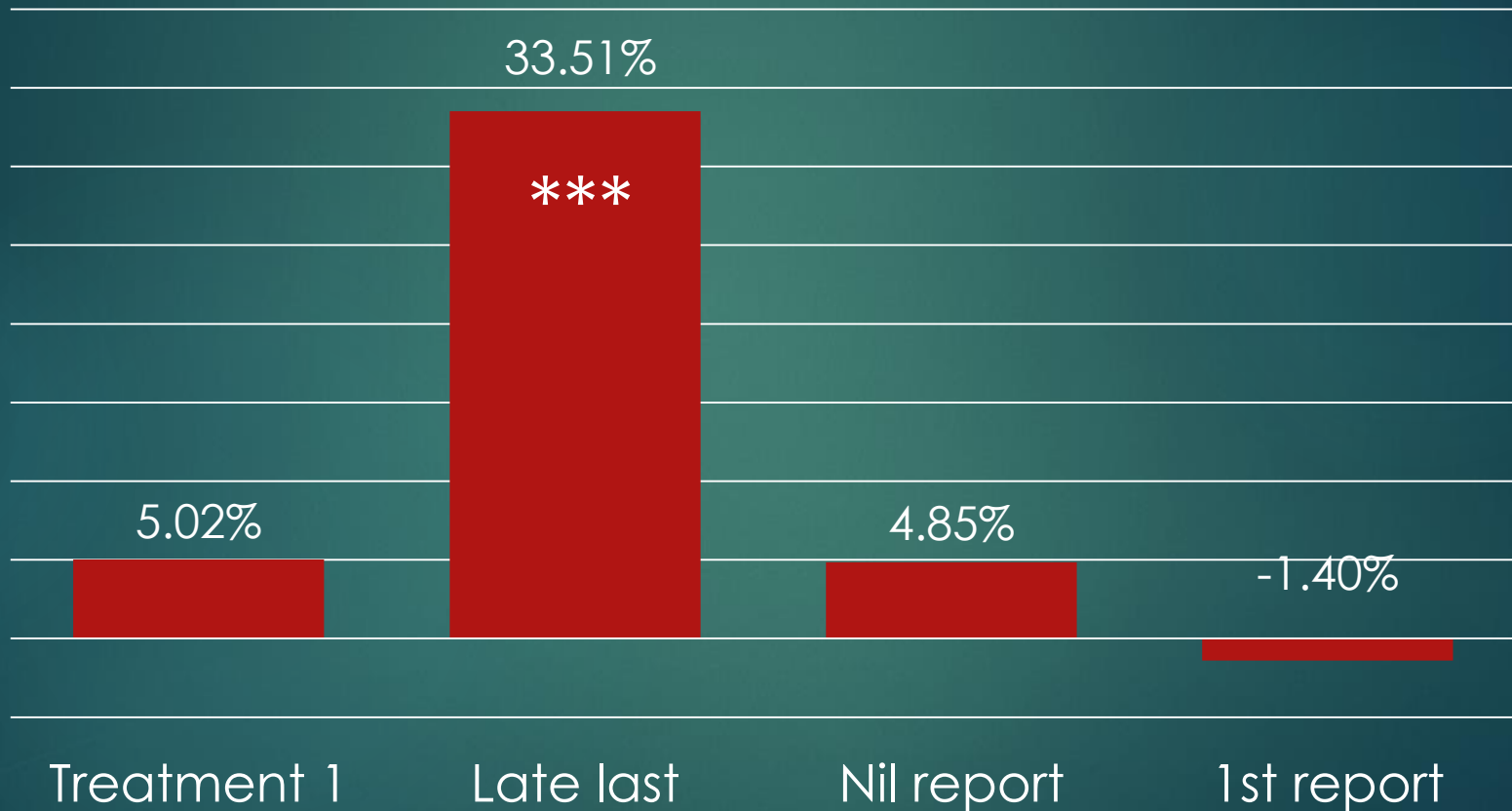
- ▶ EASY
  - ▶ Simplify the message
  - ▶ Reporting information upfront
  - ▶ 'Button' link to web page
- ▶ ATTRACTIVE
  - ▶ Appealing photo to attract attention
  - ▶ Required actions in coloured text boxes
- ▶ SOCIAL
  - ▶ Most people report on time
- ▶ TIMELY
  - ▶ Not yet, but watch this space...



The screenshot shows an email from the Australian Government, Department of the Environment. The header features the Australian Government logo and the text 'Australian Government Department of the Environment'. Below this is a landscape photo with the text 'Most people report on time. How about you?'. A yellow box highlights the reporting period: 'Your report for the period 1 October - 31 December 2014 is due on 14 January 2015'. Below this are two input fields: 'Licence Number [Insert licence number]' and 'Entity Name [Insert licence holder name]'. The main body of the email states: 'Reporting is MANDATORY. The repeal of the carbon tax does not change reporting requirements for licence holders. You still need to report your imports every quarter. Even if no imports were made during the reporting period, a nil report is still required.' A yellow button with the text 'Lodge your report here' is present. Below the button, it says 'Use the form 'Report imports of ODS and/or SGG Equipment''. It also provides a link: 'Or use this link: <http://www.environment.gov.au/protection/ozone/licences-and-reporting/forms>'. A note says: 'If you have already submitted your quarterly report for this period, please disregard this email.' The email concludes with: 'Where imports are reported, you will receive a tax invoice within 10 working days after acceptance of your report. Please ensure that you pay any applicable licence levy to the department on or before 1 March 2015. Failure to pay a levy by the due date will attract penalty interest on any outstanding unpaid amount, at a rate of 30% per annum (calculated daily).' Finally, it provides 'Further contact' information: 'If you require assistance in completing or lodging quarterly reports, please contact the Import Operations Section on +61 2 6274 1373 or email [ozonereporting@environment.gov.au](mailto:ozonereporting@environment.gov.au)'.

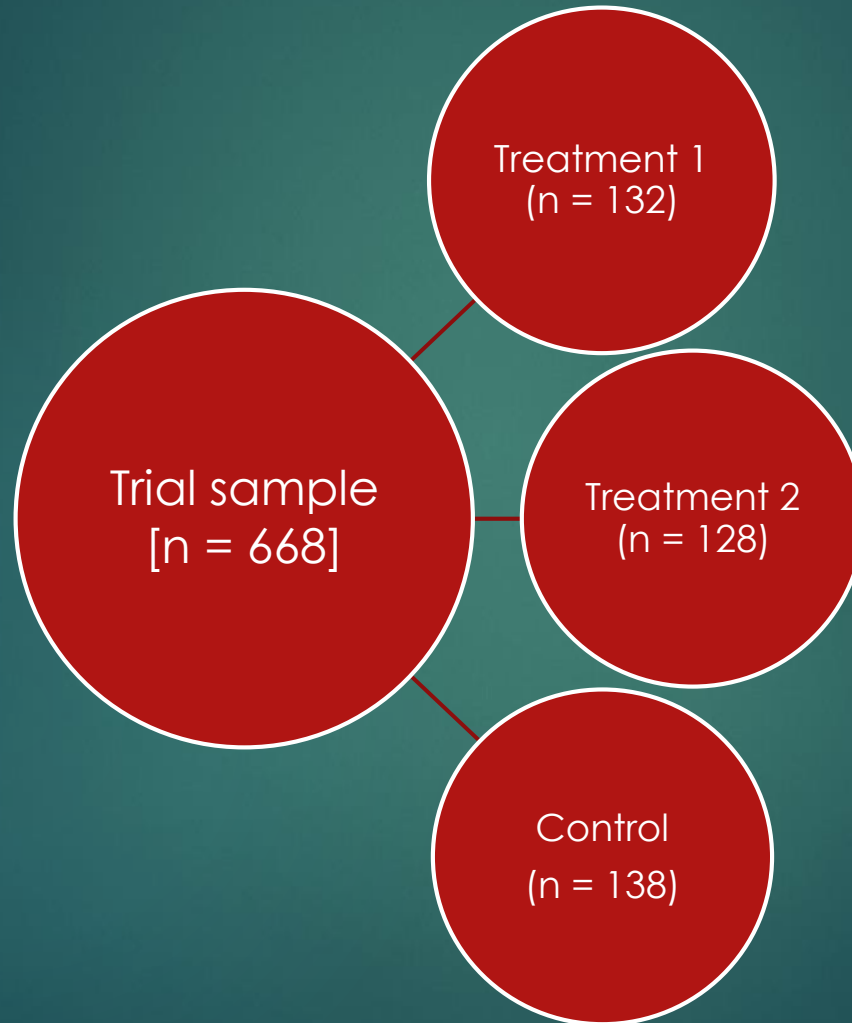
# Period 1 results

## Conditional probit model



\*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$

# Second reporting period




# Early reminder notification

- ▶ Christmas and summer break
  - ▶ End of reporting period 1 Jan
  - ▶ Reporting deadline 14 January
- ▶ Sent to all companies
  - ▶ Standard procedure
- ▶ Report before end of period



# Treatment 2: 2<sup>nd</sup> redesigned reminder



Australian Government  
Department of the Environment

**Most people report on time. How about you?**

**Your report for the period  
1 October - 31 December 2014 is due on  
14 January 2015**

**Licence Number** [Insert licence number]

**Entity Name** [Insert licence holder name]

**Reporting is MANDATORY**  
The repeal of the carbon tax does not change reporting requirements for licence holders. You still need to report your imports every quarter.

Even if no imports were made during the reporting period, a nil report is still required.

[Lodge your report here](#)


Use the form 'Report imports of ODS and/or SGG Equipment'.

Or use this link: <http://www.environment.gov.au/protection/ozone/licences-and-reporting/forms>

*If you have already submitted your quarterly report for this period, please disregard this email.*

Where imports are reported, you will receive a tax invoice within 10 working days after acceptance of your report. Please ensure that you pay any applicable licence levy to the department on or before 1 March 2015. Failure to pay a levy by the due date will attract penalty interest on any outstanding unpaid amount, at a rate of 30% per annum (calculated daily).

**Further contact**  
If you require assistance in completing or lodging quarterly reports, please contact the Import Operations Section on +61 2 6274 1373 or email [ozonereporting@environment.gov.au](mailto:ozonereporting@environment.gov.au).



Australian Government  
Department of the Environment

**Most licence holders report on time. How about you?**

**Your report for the period 1 October - 31 December 2014 is due by  
14 January 2015**

Dear NAME,

Your quarterly report for imports of equipment containing Ozone Depleting Substances and/or Synthetic Greenhouse Gas is due by 14 January 2015.

**Reporting is mandatory, including 'Nil' reports.** If you have made no imports during the reporting period, you are still required to lodge a 'Nil' report, following the same reporting process.

[Lodge your report here](#)

**How to lodge your report:**  
1) Click on 'Quarterly reporting and levy requirements'  
2) Select Form 1: Report equipment 'Report imports of ODS and/or SGG Equipment'  
3) Use the following information to help you complete your report:

**Licence Number** [Insert licence number]

**Entity Name** [Insert licence holder name]

If you require assistance in completing or lodging quarterly reports, please contact the Import Operations Section on +61 2 6274 1373 or email [ozonereporting@environment.gov.au](mailto:ozonereporting@environment.gov.au).

If you have already submitted a report for this quarter, we thank you for doing so in advance.

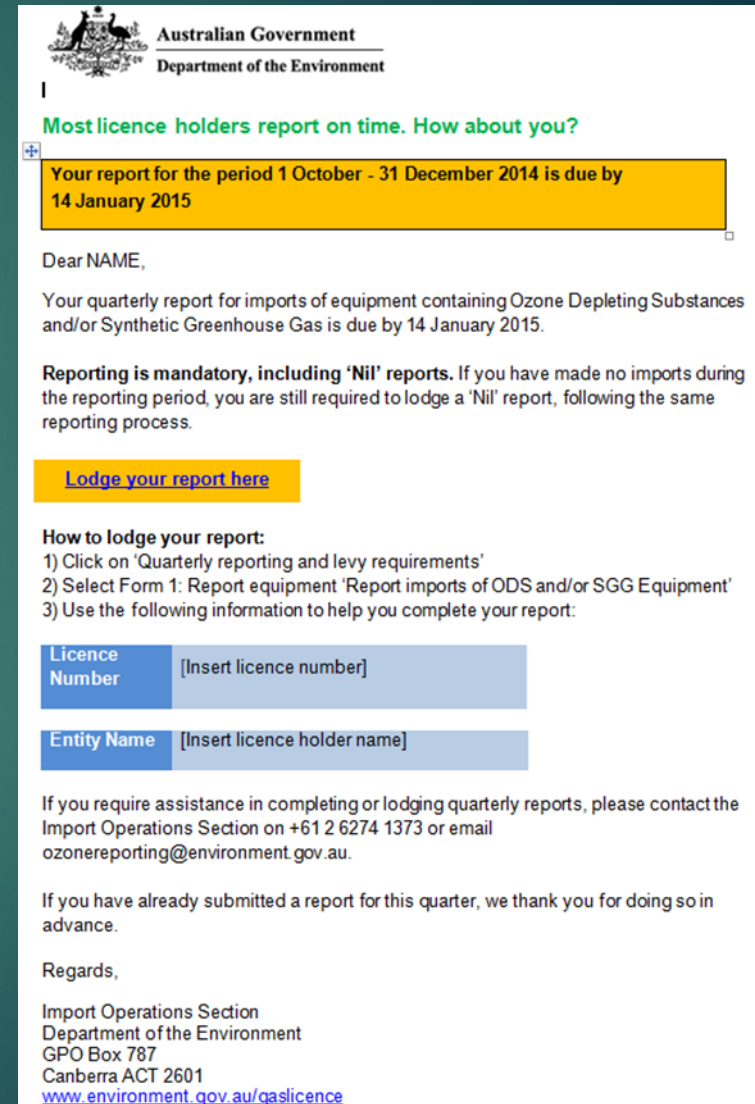
Regards,


Import Operations Section  
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Canberra ACT 2601  
[www.environment.gov.au/gaslicence](http://www.environment.gov.au/gaslicence)



# Applying EAST again

- ▶ EASY
  - ▶ Removed photo – distraction?
  - ▶ Report deadline clearer
  - ▶ What & why information upfront
  - ▶ Three simple steps to report
- ▶ ATTRACTIVE
  - ▶ Australian Government crest
- ▶ SOCIAL
  - ▶ Most *licence holders* report on time
- ▶ TIMELY
  - ▶ Not yet, but watch this space...



 Australian Government  
Department of the Environment

**Most licence holders report on time. How about you?**

Your report for the period 1 October - 31 December 2014 is due by 14 January 2015

Dear NAME,

Your quarterly report for imports of equipment containing Ozone Depleting Substances and/or Synthetic Greenhouse Gas is due by 14 January 2015.

**Reporting is mandatory, including 'Nil' reports.** If you have made no imports during the reporting period, you are still required to lodge a 'Nil' report, following the same reporting process.

[Lodge your report here](#)

**How to lodge your report:**

- 1) Click on 'Quarterly reporting and levy requirements'
- 2) Select Form 1: Report equipment 'Report imports of ODS and/or SGG Equipment'
- 3) Use the following information to help you complete your report:

|                |                              |
|----------------|------------------------------|
| Licence Number | [Insert licence number]      |
| Entity Name    | [Insert licence holder name] |

If you require assistance in completing or lodging quarterly reports, please contact the Import Operations Section on +61 2 6274 1373 or email [ozonereporting@environment.gov.au](mailto:ozonereporting@environment.gov.au).

If you have already submitted a report for this quarter, we thank you for doing so in advance.

Regards,

Import Operations Section  
Department of the Environment  
GPO Box 787  
Canberra ACT 2601  
[www.environment.gov.au/gaslicence](http://www.environment.gov.au/gaslicence)

# Period 2 results

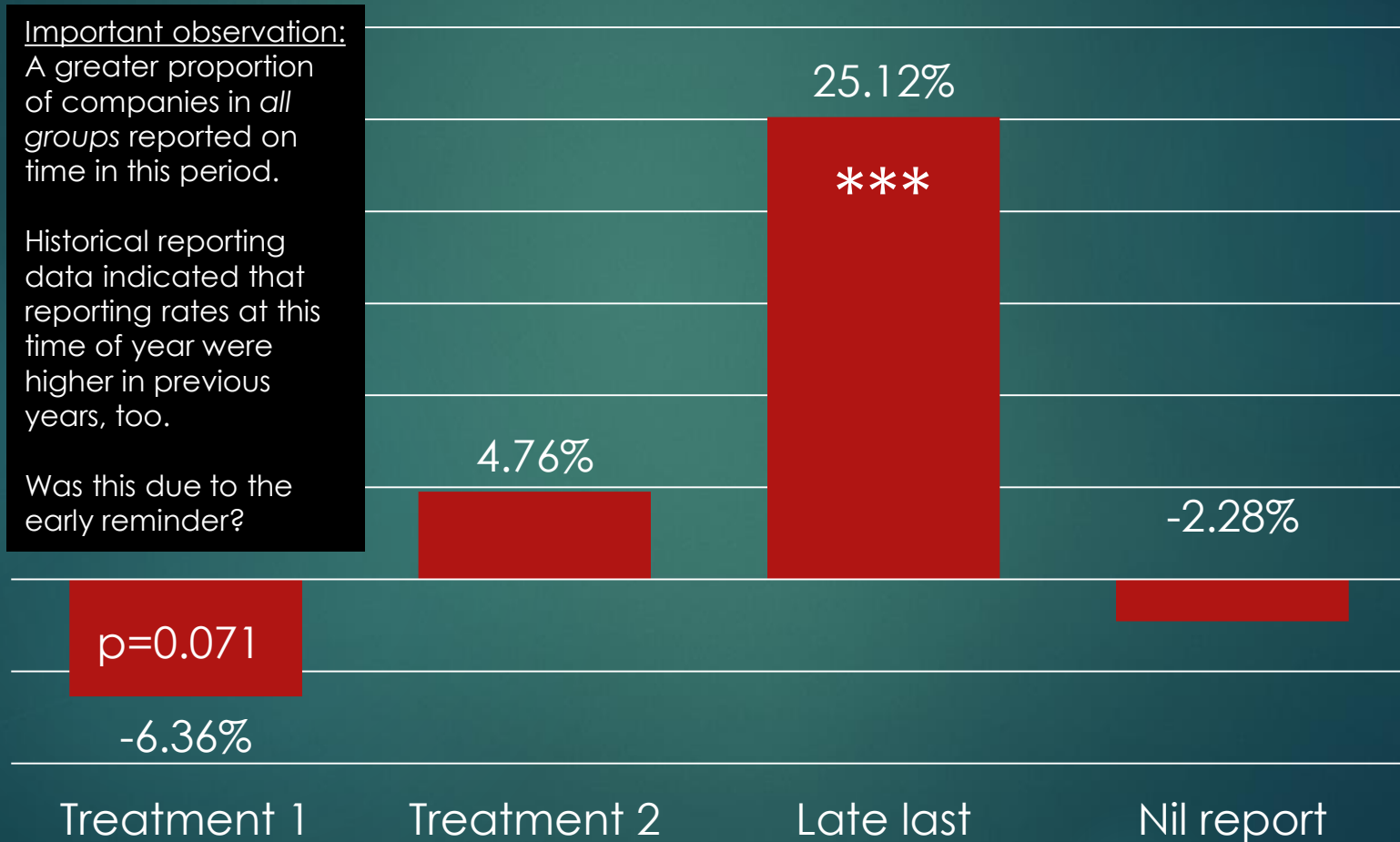
## Conditional probit model

Important observation:

A greater proportion of companies in *all groups* reported on time in this period.

Historical reporting data indicated that reporting rates at this time of year were higher in previous years, too.

Was this due to the early reminder?



\* p < 0.05, \*\* p < 0.01, \*\*\* p < 0.001

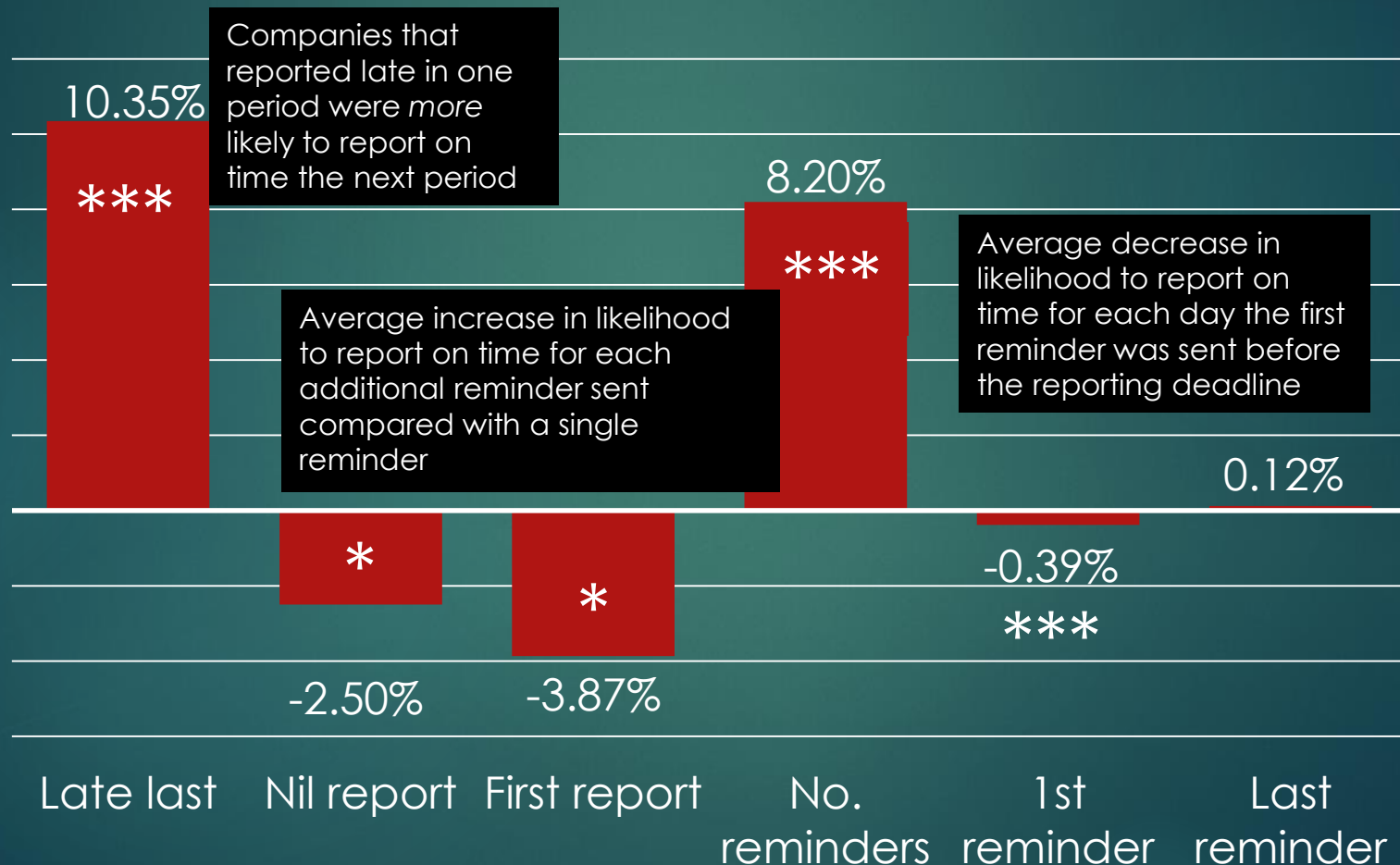
# New insights revealed

- ▶ Reminder strategy varied over time
  - ▶ Number of reminders
  - ▶ Timing of reminders
- ▶ Company characteristics varied
  - ▶ Previous reporting behaviour
  - ▶ Experience with reporting
- ▶ Panel analysis – ten reporting periods



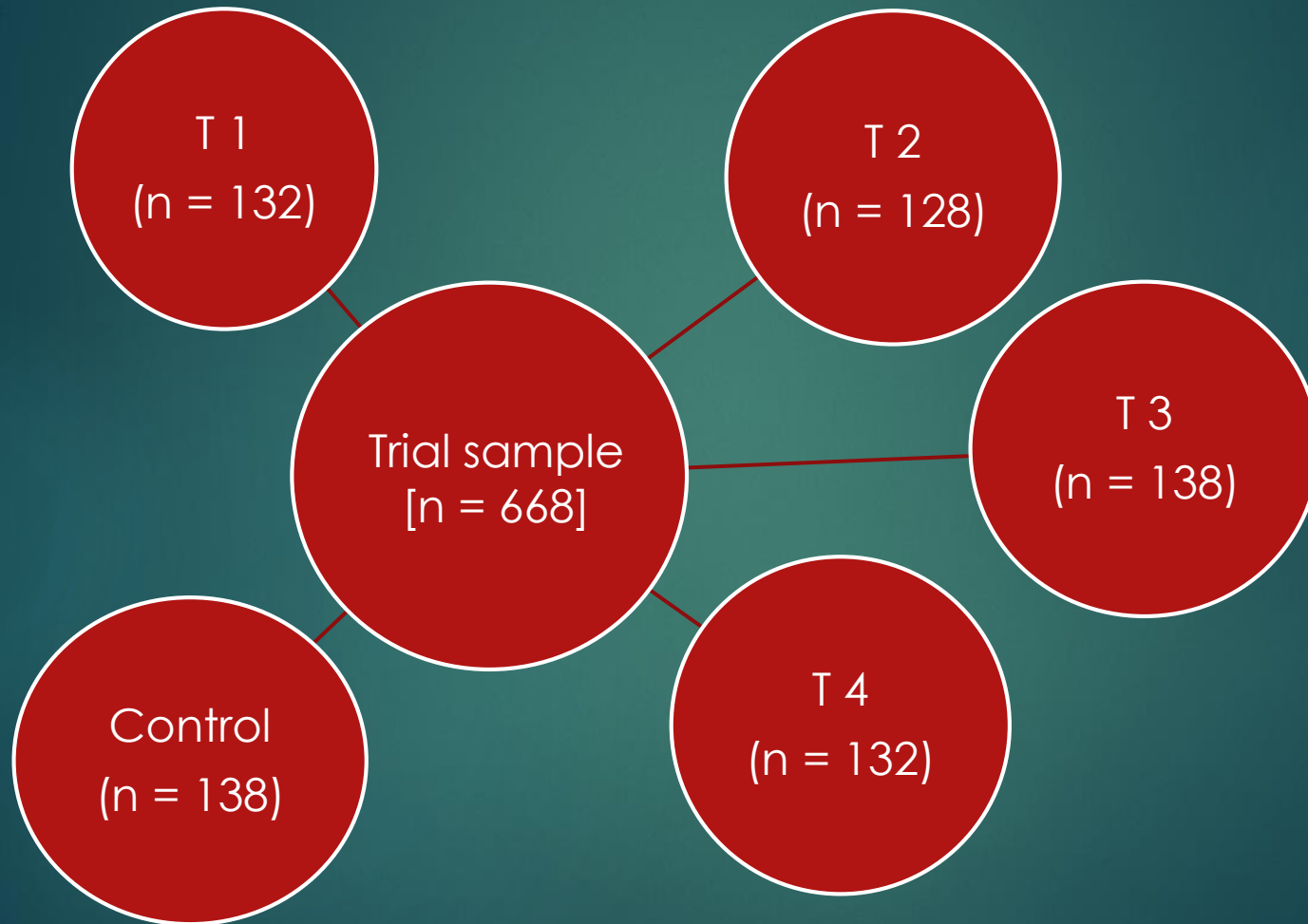
# Insights from previous periods

Factors influencing compliance – panel data, ten reporting periods



\* p < 0.05, \*\* p < 0.01, \*\*\* p < 0.001

# Third reporting period



# Third period



# Treatment 4: Last-minute reminder notification

- ▶ Based on Redesign 2
- ▶ Sent 10am day before deadline
- ▶ 'Due tomorrow' in subject line
  - ▶ Increase salience/present bias
- ▶ Most of your peers have reported

SUBJECT: FINAL REMINDER: Your Equipment Licence report is due tomorrow, 14 April 2015



#### LAST MINUTE REMINDER

Your report for the period 1 January - 31 March 2015 is due by midnight tomorrow, 14 April 2015.

Dear NAME,

**Most** Equipment licence holders have reported on time. You are currently in the small minority of those who have not reported yet.

You have until midnight tomorrow, 14 April 2015, to submit your quarterly report for imports of equipment containing Ozone Depleting Substances and/or Synthetic Greenhouse Gas.

**Reporting is mandatory, including 'Nil' reports.** If you have made no imports during the reporting period, you are still required to lodge a 'Nil' report, following the same reporting process.

[Lodge your report here](#)

#### How to lodge your report:

- 1) Click on 'Quarterly reporting and levy requirements'
- 2) Select Form 1: Report equipment' Report imports of ODS and/or SGG Equipment'
- 3) Use the following information to help you complete your report:

Licence Number [Insert licence number]

Entity Name [Insert licence holder name]

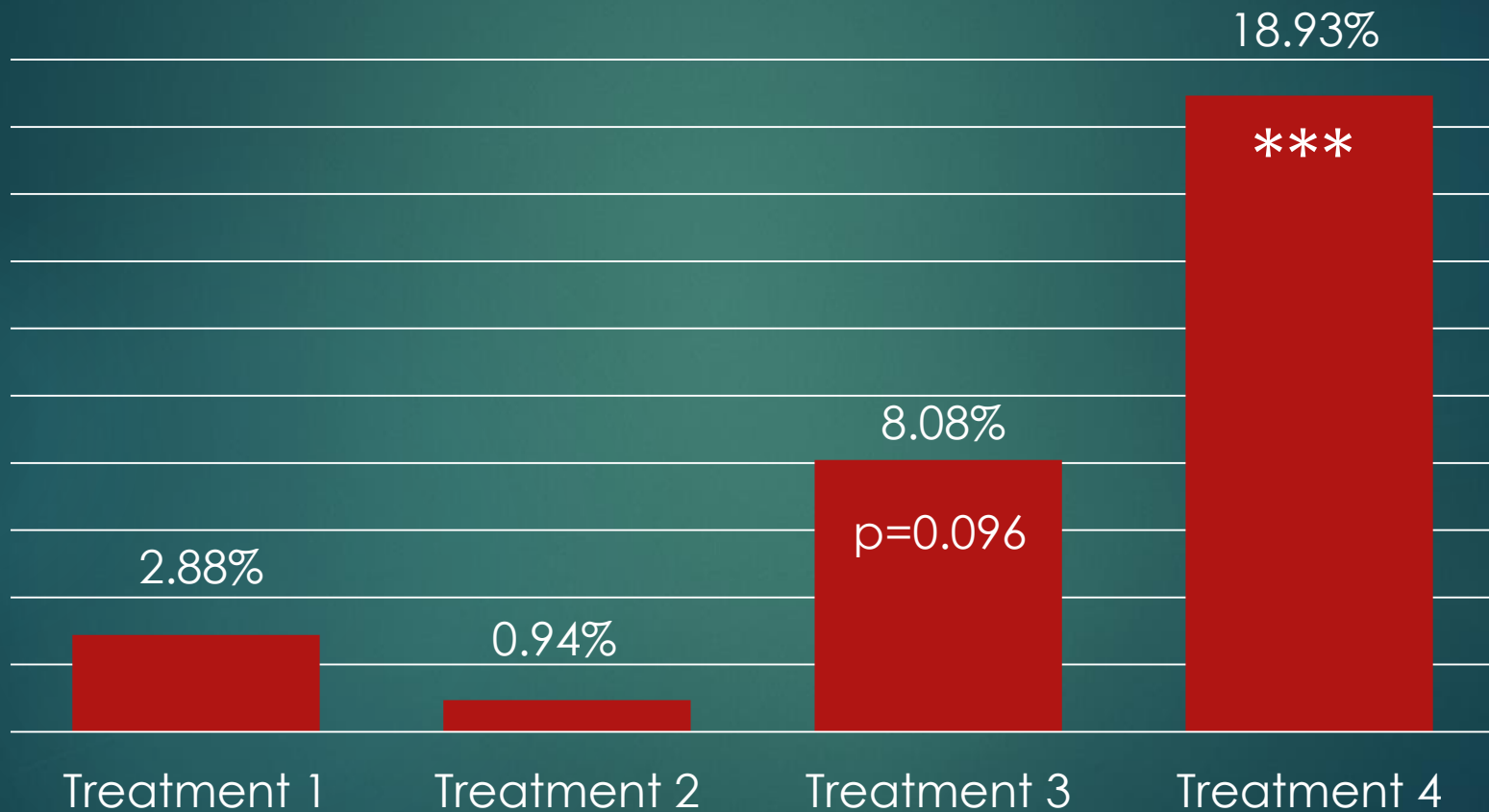
If you require assistance in completing or lodging quarterly reports, please contact the Import Operations Section on +61 2 6274 1373 or email [ozonereporting@environment.gov.au](mailto:ozonereporting@environment.gov.au).

Regards,

Import Operations Section  
Department of the Environment  
GPO Box 787  
Canberra ACT 2601

# Period 3 results

## Unconditional probit model

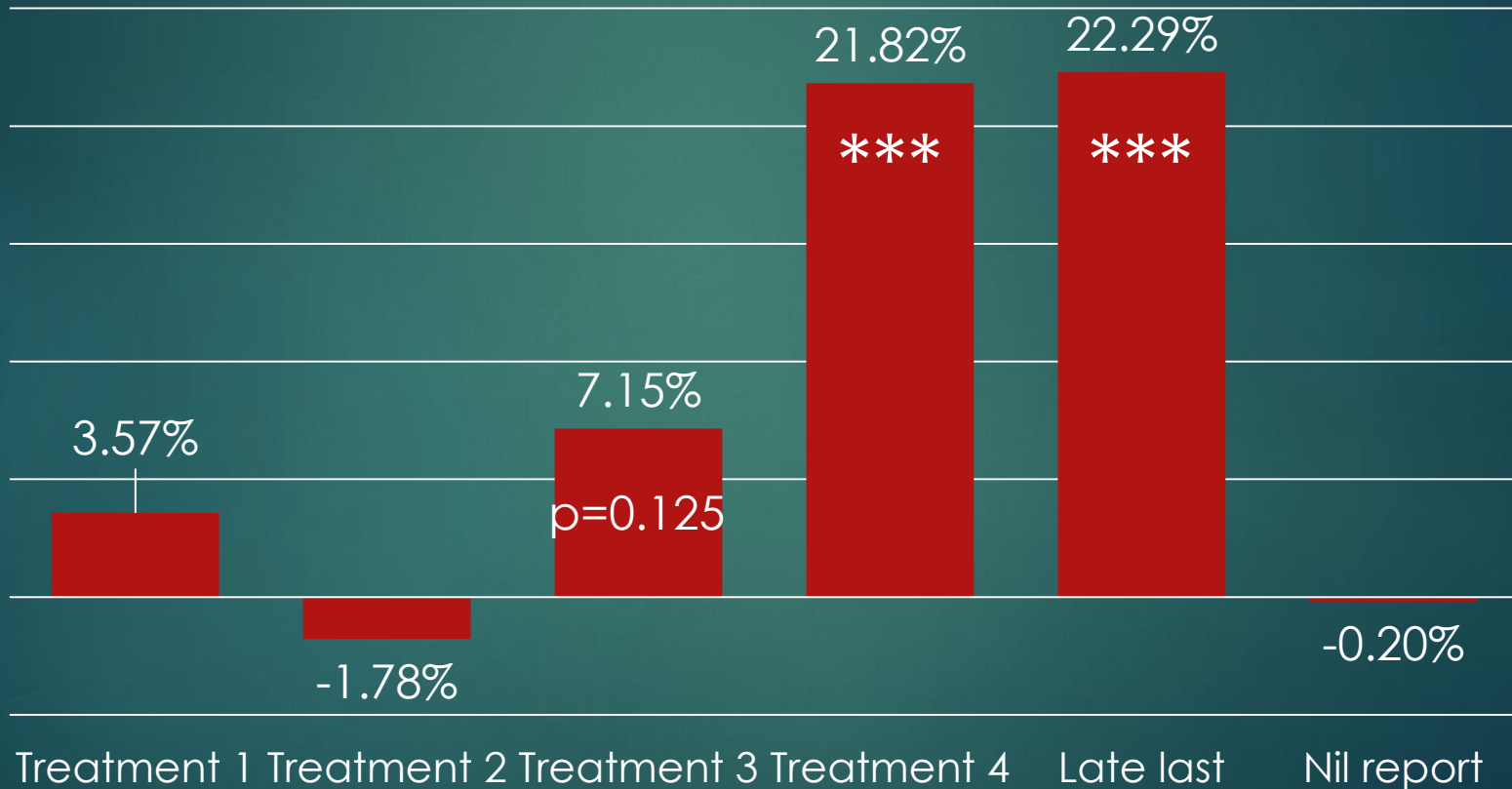


\*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$



# Period 3 results

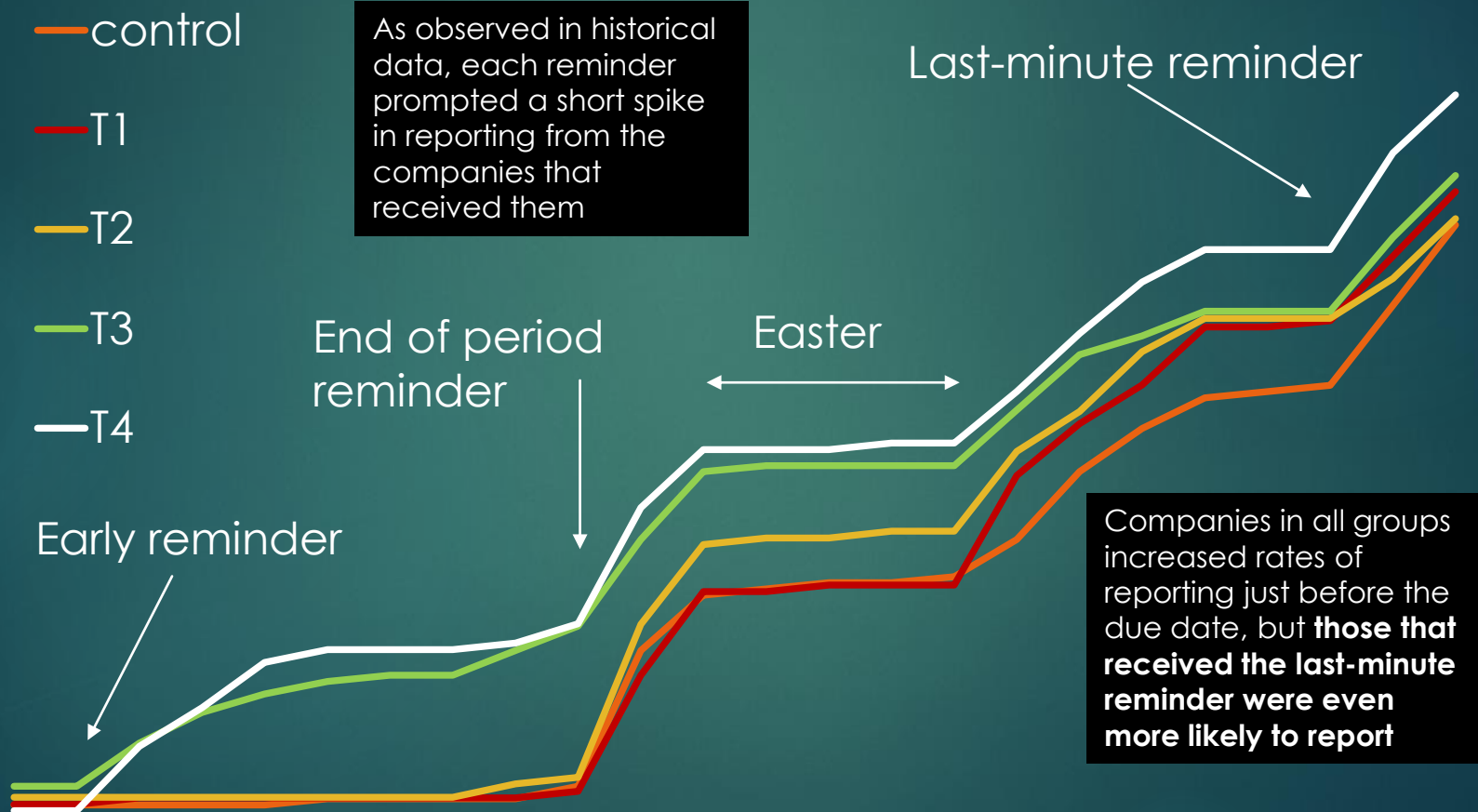
Conditional probit model



\* p < 0.05, \*\* p < 0.01, \*\*\* p < 0.001

# Period 3 results

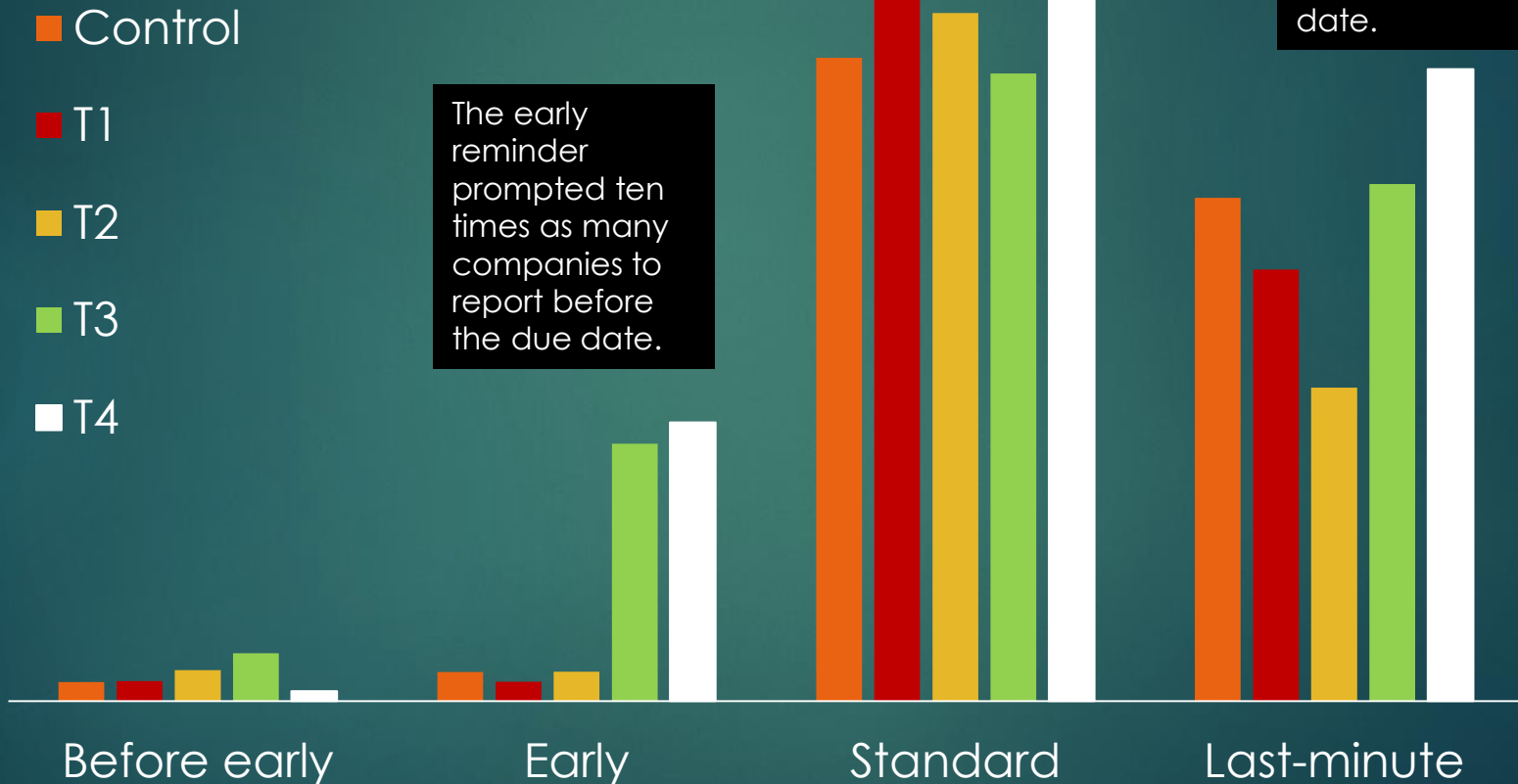
Cumulative per cent of licence holders reported



# Third reporting period results

Proportion of outstanding reports submitted

The last minute reminder led to a clear increase in reporting just before the due date.



The early reminder prompted ten times as many companies to report before the due date.

# Lessons learned

- ▶ Don't decide on a solution before you've explored the context
- ▶ Design trials to test, learn, and adapt
- ▶ Importance of historical data analysis
  - ▶ Make sure you have all the information
- ▶ Allow plenty of time for data cleaning
- ▶ Test interventions before implementation

