Share with me: Increasing disability identification in the Australian Public Service

June 2024

Who?

Who are we?

We are the Behavioural Economics Team of the Australian Government, or BETA. We are the Australian Government's first central unit applying behavioural economics to improve public policy, programs and processes.

We use behavioural economics, science and psychology to improve policy outcomes. Our mission is to advance the wellbeing of Australians through the application and rigorous evaluation of behavioural insights to public policy and administration.

What is behavioural economics?

Economics has traditionally assumed people always make decisions in their best interests. Behavioural economics challenges this view by providing a more realistic model of human behaviour. It recognises we are systematically biased (for example, we tend to satisfy our present self rather than planning for the future) and can make decisions that conflict with our own interests.

What are behavioural insights and how are they useful for policy design?

Behavioural insights apply behavioural economics concepts to the real world by drawing on empirically-tested results. These new tools can inform the design of government interventions to improve the welfare of citizens.

Rather than expect citizens to be optimal decision makers, drawing on behavioural insights ensures policy makers will design policies that go with the grain of human behaviour. For example, citizens may struggle to make choices in their own best interests, such as saving more money. Policy makers can apply behavioural insights that preserve freedom, but encourage a different choice – by helping citizens to set a plan to save regularly.

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Executive summary

All government agencies collect employee data, including disability status, in human resource (HR) information systems for the Australian Public Service Employment Database (APSED). At June 2023, **half as many people have shared they have a disability in HR systems (5.1%) compared to those who have shared the same information in the de-identified Australian Public Service Employee Census** (10.9%; APSC 2023a).

Attitudinal, organisational and structural barriers prevent some employees from sharing their information in HR systems. Workplace culture, policies and practices influence employee comfort in sharing information. Moreover, some staff choose not to share information because they do not see a benefit to doing so or hold concerns about negative career impacts. Explaining the purpose of sharing information and the protections in place can help reduce ambiguity and overcome these barriers. **Our research focuses on how agencies communicate about disability data collection and use.**

Across 2 projects, we applied behavioural science to help inform APS employees about disability data collection:

Part 1: In consultation with APS employees with disability and HR professionals, BETA developed guidance materials for APS HR professionals to support their communication with employees about data collection and use.

> **Insights:** Clear and complete information about data collection and use to employees reduces uncertainty, while preserving employees' autonomy to decide what is right for themselves. For example, practical information about the privacy and confidentiality of HR data can help reduce concerns.

Part 2: BETA designed and tested 4 different reminder emails encouraging APS employees in a large agency to update their diversity details in their agency HR systems.

> **Insights:** An email to employees highlighting the ease of updating disability information in their agency HR system resulted in more people sharing their information. Email reminders are a low-cost and practical way to encourage employees to update their diversity details in HR systems. Our trial shows that small changes in email reminders can significantly impact behaviour.

Why?

Data shared in HR systems supports APS workforce policy and strategies

In Australia, 48% of people with disability are employed, compared to 80% of people without disability, over a 30 percentage point difference (AIHW 2022). The Australian Government is committed to increasing employment of people with disability across the Australian Public Service (APS) from 4% in 2020 to 7% by 2025 (Australian Government 2020).

Employee disability information is voluntarily self-reported to agency HR systems, which is captured in the APS Employment Database (APSED). The government relies on this data to monitor and evaluate APS strategy outcomes. Data collection practices are disparate across APS agencies, but disability and other diversity information is generally collected at onboarding. Staff are then reminded to update via all staff newsletters or other internal communications.

Beyond evaluation, employee diversity data shared in HR systems supports evidence-based APS workforce policy, people management and advice. Information on staffing, including trends in the size, structure and composition of the APS workforce, contributes to research and evaluation work on the changing nature of the service. This, in turn, assists agencies to formulate their people management policies and practices (APSC 2023a).

Defining disability

In the APS, the definition of 'disability' used for employment-related purposes (other than discrimination) is based on the Australian Bureau of Statistics' Survey of Disability, Ageing and Carers. Persons are considered to have a disability if they have a limitation, restriction or impairment, which has lasted, or is likely to last, for at least six months and restricts everyday activities (APSC 2019).

The ABS definition aligns with a medical model of disability. In this approach, disability is a health condition for health professionals to treat, fix or cure. Many people with disability prefer another approach: the social model of disability. In this approach, people are disabled by barriers in society, like lack of access to assistive technology, or people's attitudes, such as assumptions about capabilities (PWDA 2023).

The problem

Half as many people have shared they have a disability in APS HR systems (5.1%) compared to those who have shared the same information in the de-identified APS Employee Census (10.9%; APSC 2023a) (see Figure 1). Almost a quarter (24.3%) of all APS employees do not have any information in HR systems relating to whether they have a disability [1] (Australian Government 2023).

Research shows numerous barriers (attitudinal, organisational and structural) often prevent employees with a disability from sharing their information. APS employees are typically asked about disability during their onboarding into each agency. At this stage, employees have limited experience and knowledge of the agency's attitudes towards people with disability and supports in place. Often, the question does not explain why the information is being sought or who will have access to it.

Employees who opt to not share information in HR systems often hold concerns about discrimination and/or question the benefit of sharing information in HR systems (APSC 2023a). Agencies can reduce uncertainty by providing clear information at the point of data collection.

Any information provided to employees about disability data collection must be tailored to the agency. APS agencies differ in the way they ask about disability, as well as how they handle and use employees' responses. Moreover, agencies differ in their supports, culture, policies and programs for people with disability.

Providing clear and meaningful information to employees may reduce uncertainty while preserving employees' autonomy to confidently make the right choice for themselves.
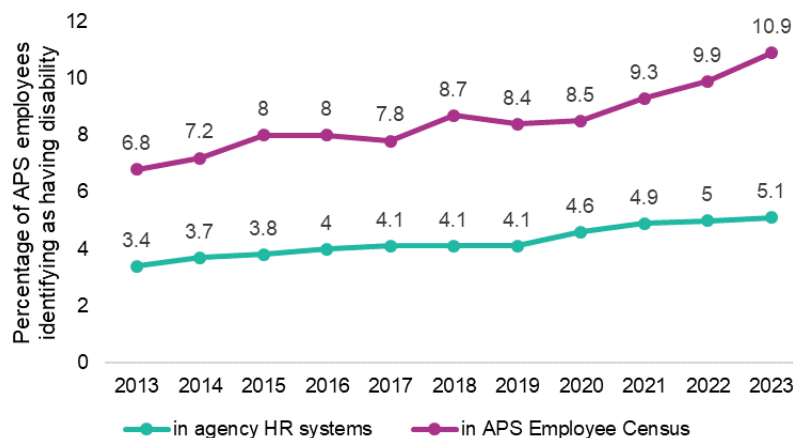
Data Source: Australian Government (2023) APS Employment Data 30 June 2023; APSC (2023) Employees with disability in the Australian Public Service. Research Note 11-23.

Figure 1. The percentage of APS employees indicating 'Yes' to disability in agency HR systems and in the APS Census from 2013 to 2023.

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[1] This includes where employees have selected a 'Choose not to give' option for disability status, or where no disability status is recorded.

We applied behavioural science to help inform APS employees about disability data collection. BETA and APSC worked together with APS employees across 2 projects:

1. We developed behaviourally informed guidance materials for APS HR professionals about how to communicate with APS employees to inform their decision to share disability data collection.

2. We designed and tested different reminder emails encouraging APS employees to update their details in their agency HR systems.

This report is divided into 2 parts, corresponding to the 2 projects. The conclusion section summarises the findings from both projects.

Considerations and safe guards

Employees have legitimate and reasonable concerns about sharing personal information with employers and HR systems. Any intervention to increase people sharing information in HR must respect and preserve autonomy of employees in deciding whether or not to share information, and consider the welfare of APS employees with disability.

This project drew on expertise from APS employees with lived experience of disability, and BETA obtained independent external ethical approval for the experiment conducted in Part 2.

What we did: Guidance materials

Overview

- Employees with disability often choose to not share their disability status in HR systems. Providing clear and engaging information to employees about data collection may resolve concerns and ambiguity about sharing disability status in HR information systems.

- We partnered with the APSC to develop guidance materials for HR professionals about how to communicate with employees about data collection and use.

- We consulted with APS employees with disability and HR professionals to develop and refine a factsheet, maturity self-assessment and example wording.

- The final materials can be found in Materials and on the BETA website.

There are legitimate reasons for not sharing disability information

Employees have legitimate reasons for not sharing their disability status in HR systems.

Concern about discrimination is a key reason APS employees do not share their disability information in agency HR systems (APSC 2023a). People with disability in the APS have reported being subject to bullying and/or harassment, at almost double the rate of people without disability[2] (APSC 2023b). Over a quarter of APS employees with disability reported negative consequences for sharing their disability at work, like having their disability questioned by management or judgements and assumptions made about their abilities to perform their role[3] (Evans et al. 2016).

Some APS employees choose not to share information about disability in HR information systems, **because they do not see any reason for, or benefit in, sharing this information** with their agency (APSC 2023a). Without any benefit, sharing disability information may not be worth the perceived risk. The literature describes benefits for sharing disability status with your supervisor or colleagues, such as relationship building, and explaining behaviour (e.g. Santuzzi and Keating 2020). However, these benefits can be attained through selectively identifying to colleagues, and do not require identifying in HR information systems. In the 2023 APS Employee Census, **not needing reasonable adjustments** was the most common reason given for employees *not* sharing their disability status in HR systems (APSC 2023a).

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[2] In Australia, direct and indirect discrimination on the basis of disability is unlawful under the Disability *Discrimination Act 1992*.

[3] HR data is protected by the *Privacy Act 1988*.This means that disability information in HR information systems should never be shared with an employees' manager or colleagues without consent. When this data is used for reporting purposes, it should only be presented in aggregate and combined so that individuals are not identifiable.

In other research, attaining reasonable adjustments was the main reason *to* identify a disability (Gray 2020). Note, however, that the data captured in HR systems for the APS Employment Database (APSED) is not related to, and does not trigger workplace adjustments.

In the 2023 APS Employee Census, 20% of people who identified as having disability not recorded in their agency HR system indicated it was because they had **never been asked for this information** (APSC 2023a). It is possible that a portion of this cohort may have acquired disability since being asked for this information at onboarding.

Many of the barriers to sharing disability information are relevant for other diversity groups, and the barriers may be compounded should an employee identify with more than one group (e.g. person with disability from a non-English speaking background).

Summary of reasons why employees may not share their disability status in HR systems

- **Concerns about discrimination or bullying**. People with disability in the APS reported being subject to bullying and/or harrassement, and experiencing negative consequences for sharing their disability at work (APSC 2023b) (Evans, et al. 2016).
- **Don't see the benefit or reason** for sharing this information with their agency, and it is not worth the perceived risk (APSC 2023a).
- **Not needing reasonable workplace adjustments,** even though data captured in HR systems for APSED is not related to workplace adjustments (APSC 2023a).
- Staff have **not been asked this information** (APSC 2023a)**.** Its possible that a portion of staff who identified having a disability not recorded in their agency HR system may have acquired disability since being asked this information at onboarding.

Consultations highlighted the importance of language and content

APS employees told us the essential content to include and importance of getting the language right. We consulted with 41 APS employees from 19 agencies, both with lived experience with disability and HR professionals, as well as with 24 disability advocates from outside the APS. In the consultations, we focused on the wording that sits immediately alongside diversity data collection. This wording provides context and clarification about disability data collection and how it will be used. Here, and in the developed materials, we refer to this wording as 'Explanatory Text'.

Diversity of opinion

We aimed to be representative and take into account a wide range of views. Despite our efforts, it is unlikely we captured the full-range of views and knowledge of HR professionals or people with disability. Within this cohort we found a diversity of opinion. For example, in one workshop the same text produced a mixture of positive, critical, and negative responses (See example in Table 1). The diversity of views throughout consultation highlighted the need for genuine consultation and user testing of materials within intended settings.

Table 1.   A range of responses to "We are all different, but some of us have sensory, intellectual, physical or cognitive traits that result in us having reduced capacity in some areas but being highly functioning in others."

Response type	Corresponding comments
This statement shows the agency values diversity	'The agency understands that people have unique differences and that these should be valued.'
This statement can be simplified	'We need to simplify ...people can have both visible and invisible disability, all of which can influence how we work and communicate...'
A single word change would improve the tone of this statement	'Suggest removing the 'but' in the first sentence. Usually negative things follow a 'but'. The sentence reads just as well without it.'
The language in this statement contains negative connotations about disability	'Language around 'capacity' and 'functioning'. Recommend to stay away from this language. Social model language (flipping it) is preferred.' 'The implication that having disability reduces your capacity (not always the case).'

Key findings from consultation

APS employees told us that language choices signal attitudes to and understanding of people with disability.

- The process of sharing disability is often referred to as '*disclosure'*. This framing has negative connotations, and can be stigmatising. Workshop participants preferred '*identify'*, or even better, '*share'*.
- There are common ways people refer to disability that are not inclusive. For example, asking if someone has '*an ongoing disability*' does not recognise that people experience multiple disabilities and that the impact of disability may not be consistent day to day.
- Language describing disability often reflects a *medical model* of disability which implies that disability is something to be '*fixed'*, using terms like '*impairment*' or '*limitation'*. There is a move toward the *social model* of disability – shifting the focus from individual impairments to the social environment that people operate in.

APS employees told us the essential content for explanatory text.

- Clear, and personally relevant information about privacy and confidentiality with a bold fail safe (e.g. reference to the law).
- Context about data collection – employees may have previously shared data with another agency or process and assumed they are linked, when they are not.
- Definition of disability for the purposes of this data collection.
- Benefits of sharing their disability in HR systems – which do not only refer to benefits to the agency.
- Information about whether you can withdraw consent (i.e. they can update their information) and how they can do it.
- A contact for employees to ask questions.

We developed guidance materials for HR professionals

In partnership with the APSC, we developed 3 guidance materials for APS HR professionals to help improve how they communicate about disability data collection to their employees.

It was important to offer agencies guidance, rather than prescription, because information provided to employees about disability data collection must be tailored to the agency. Using lessons learned from consultation and literature, we developed guidance materials for APS HR professionals (see Figure 2 for front pages):

1. A **factsheet** exploring the barriers that prevent people from sharing their information and provides 4 steps that HR professionals can take to improve explanatory text.

2. **Example wording** which includes good and bad examples of explanatory text and reminder emails used to request information from employees. Bad examples include legalistic jargon often seen in explanatory text and missed out on the specific details individuals may be looking for. The better examples are clear, specific and easy to read. HR professionals can adopt this wording or use it to identify areas of improvement in their current communications.

3. A **maturity self-assessment** to help HR professionals undertake a self-assessment of their agency's practices and communications when requesting, collecting and

using APS employee disability information. From the assessment, HR professionals can identify areas for improvement for their agency.

Information and guidance from the materials can also be used to understand other diversity groups.
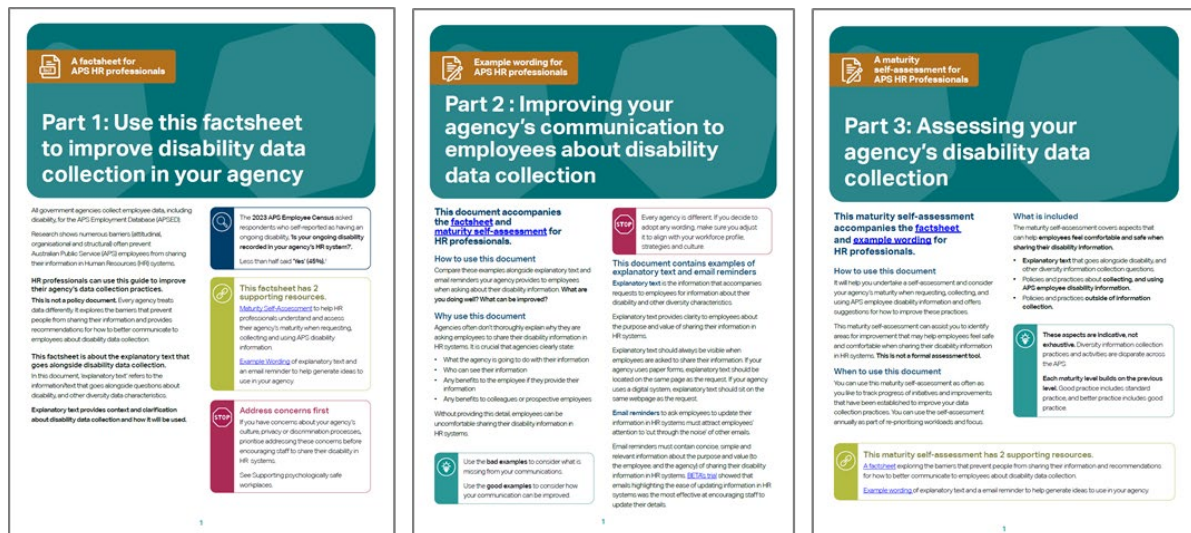
Figure 2. The front pages of each of the 3 guidance materials. Annotated excerpts can be found in Materials.

What we did: Email reminder trial

Overview

- Email reminders are a common, low-cost way to encourage employees to update their diversity information in agency HR systems.

- We designed 4 email reminders based on our findings from Part 1 and tested them in a randomised controlled trial in a large APS agency, with analyses specified in a pre-analysis plan.

- We considered any of the intervention emails to be more effective compared to the attention control email if we found significant results for either of the 2 primary outcome measures – the percentage of employees who mark disability status as 'Yes' in the HR system and percentage of employees who mark any other diversity characteristic as 'Yes' in the HR system.

- We found that emails highlighting the ease of updating details performed better than an attention control email for both primary outcomes.

- An email highlighting the attractiveness of updating details in HR information systems was effective in increasing the amount of people recording disability, but not other diversity characteristics in the HR system.

- An email using dynamic social norms did not perform better than the attention control email for both primary outcome measures.

Reminders can keep information up to date and reduce missing information

Whether or not someone has a disability can change with age (e.g. AIHW 2022) – in the 2016 APS Employee Census, 31% of people who identified as having disability stated they had acquired their disability while working in their current job (Gray 2020). Moreover, almost a quarter (24.3%) of APS employees have no information for disability recorded in HR systems (Australian Government 2023). Past research has shown that employees do not update their demographic information in agency HR systems unless they are directly prompted to do so (Government of Ontario Behavioural Insights Unit 2023).

A recent Canadian study increased sharing of demographic information in HR across the Ontario Public Service by 4 percentage points by sending employees an email prompt compared to no email reminders (Government of Ontario Behavioural Insights Unit 2023). In the 2023 APS Employee Census, 20% of employees who recorded a disability in the Census but not HR systems indicated it was because they 'have never been asked for this

information'. It is possible that a reminder email may be an effective prompt for people to update their information. However, not all emails are created equal and small changes can lead to shifts in behaviour. For example, BETA (2022) found that a behaviourally-designed email increased employees participating in workplace giving from 2% to 3.3% (BETA 2022).

We designed different email reminders to test against a control email

We applied the principles from the EAST framework – Easy, Attractive, Social and Timely' (BIT 2014) – to design 3 emails[4] to test against a Simple attention control email.

The **Easy** email indicated the ease of updating HR information. There may be a perception that updating HR details is a laborious administrative task. If a task seems challenging or effortful, people will often put it off. Messaging that highlights the ease of completing the task can encourage behaviour change. For example, we previously found that the most effective message to increase organ donation registration was one which highlighted how easy it was to register (BETA 2022). The Easy email included a header which read, 'Updating your details will only take 2 minutes'.

The **Attractive** email highlighted how the data will be used, showcasing the wider benefits of updating information. Some APS employees choose not to share information about disability, because they do not see any reason for, or benefit in, sharing this information with their agency (APSC 2023a). This email provided specific examples of initiatives that were informed by HR data shared by employees to highlight data use and benefits.

The **Social** email used dynamic norming, highlighting that employees are increasingly sharing diversity characteristics in agency HR systems. For some, being able to 'represent' a group is a motivator for sharing diversity characteristics in HR systems (ORIMA Research 2022). Humans are social creatures, influenced by what those around us do and say. If only a minority of people are performing a behaviour, people may avoid that behaviour. *Dynamic norming* involves showing that a behaviour is increasing over time even if it is still the minority (Sparkman and Walton 2017), showing that the socially acceptable behavior might be changing. For example, a dynamic norm, along the lines of "more and more customers are switching from to-go-cups to a sustainable alternative. Be part of this movement and choose a reusable mug" – increased the use of reusable cups by 17.3% (Loschelder et al. 2019). In another study of 304 customers waiting in line in a cafe, messages highlighting an increase in Americans choosing not to eat meat doubled the percentage of patrons who ordered a meatless lunch (Sparkman and Walton 2017). The authors concluded that behaviour change is moderated by the anticipation of a future changed world, and an increased perceived importance of the behaviour to other people. The Social email contained a graph and corresponding text – 'A third of the workforce identifies with at least one diversity characteristic, compared to a quarter in 2015'.

The **Simple (attention control)** email was adapted from previous communications to be concise and direct. This email is expected to be slightly better than business as usual reminder emails.

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[4] We did not include a 'Timely' email

We included extra information about diversity data collection

We included additional information in all 3 intervention email reminders (i.e. not the attention control email), to address common concerns and misconceptions about sharing disability information in agency HR systems discussed in Part 1. The 4 emails sent to employees can be found in Materials.

We ran a randomised controlled trial[5] in an APS department

To evaluate the impact of the emails, we tested the emails in a large APS agency. All employees at the APS agency were randomly assigned to receive one of 4 emails – the Attention control, Easy email, Attractive email, or Social email. See Figure 3 for a diagram of the trial design.

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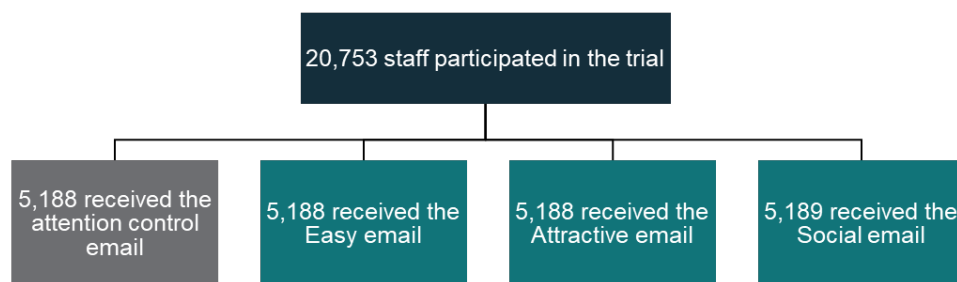
Figure 3. Trial design.

After the email was sent, we compared the HR details between groups to determine whether, and which, emails were effective at supporting people to update their demographic details.

The primary outcomes[6] we measured were:

- **Outcome 1.** Percentage of staff who mark disability status as 'Yes' in the HR system
- **Outcome 2.** Percentage of staff who mark any other diversity characteristic[7] as 'Yes'

Secondary outcome measures provided an indicator of engagement with the emails:
- **Outcome 3.** Proportion of diversity characteristics changed with responses changed from 'Choose Not to Give'[8] to either 'Yes' or 'No' for any diversity variable
- **Outcome 4.** Proportion of missing data on *all* diversity variables (see footnote[8]). This examines whether staff update their diversity information after receiving the email

The full analysis details are described in Appendix 1: Technical details

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[5] A randomised controlled trial (RCT) works by randomly assigning people into different groups – usually one or more 'treatment' groups participate in the new intervention, and a 'control' group does not. The differences in outcomes across the groups are then compared. RCTs are considered the 'gold standard' for assessing causal impacts because an RCT determines the impact of an intervention or treatment compared to business as usual.

[6] As per our pre-analysis plan, we interpreted the intervention email to be more effective than the attention control email if any of the primary outcome measures were statistically significant in the expected direction (i.e. higher % in intervention email group compared to % in attention control group).

[7]LGBTIQ+, neurodivergent, First Nations or Non-English speaking background (NESB). At the agency, NESB is defined as people born overseas who arrived in Australia after the age of 5 and whose first language was not English.

[8] Across APS agencies, employees are able to record 'Choose not to give' instead of leaving the question blank or recording 'Yes' or 'No'.

What we found

Easy and Attractive emails led to greater disability identification

For employees who received the Easy or Attractive email, 5.5% (285 people) indicated they have disability in the HR system, compared to 5.2% (270 people) in the Simple attention control email group. There was no significant difference between the Social and the Simple email (see Figure 4).
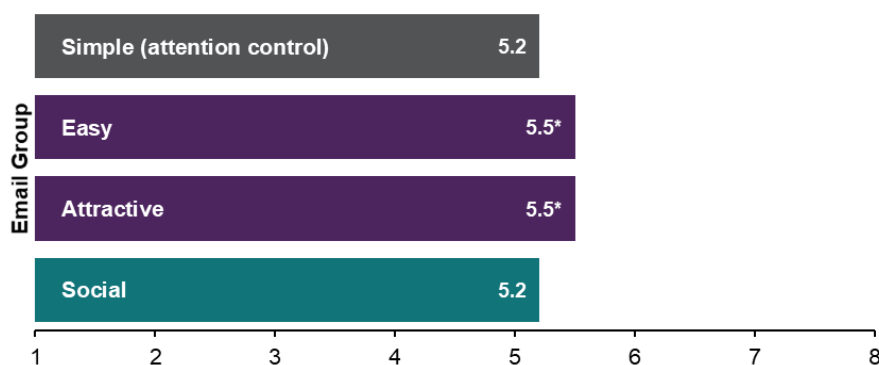
N = 20,432; *p<0.1 (Holm adjustment carried out)[9]

Figure 4. Percentage of employees recording 'Yes' to disability in the HR system by email group

The Easy email led to identification of other diversity characteristics

More employees who received the Easy email responded 'Yes' to other diversity characteristics in the agency HR system (19.9% or 1,032 people), compared to the simple control group (19.6% or 1,016 people) (see Figure 5). There were no significant differences between the Attractive and Social email groups and the Simple attention control email.

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[9] We chose a familywise alpha of 0.1 (compared to the attention control) as the intervention is low risk and low cost. Baseline data shows that changes in the disability proportion could be small so alpha of 0.1 will allow us to detect a 1 percentage point difference in disability identification.
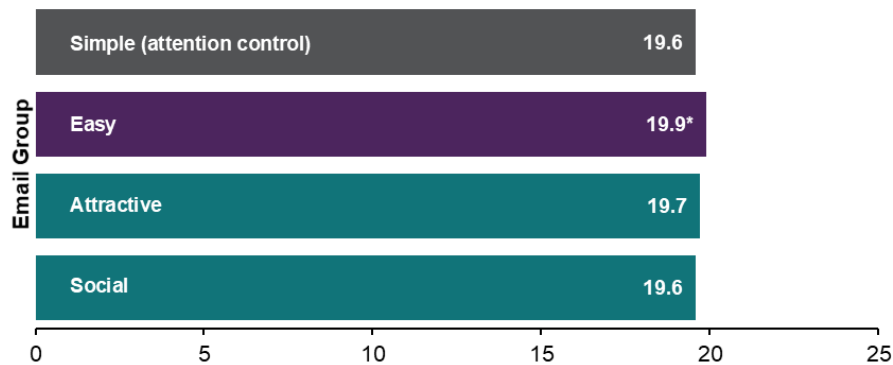
N = 20,432; *p<0.1 (Holm adjustment carried out)

Figure 5. Percentage of employees recording 'Yes' to other diversity characteristics in the HR system by email group

Easy and Attractive emails led to more sharing of information

Employees are able to record 'Choose not to give' instead of leaving the question blank or recording a 'Yes' or 'No' in the HR system. This outcome examined if people changed their status on any of the diversity indicators from 'Choose not to give' to either a 'Yes' or a 'No'. Only 19.3% (4,011 people) of staff at baseline had at least one 'Choose-not-to-give' response, only they would have been able to change from 'Choose not-to-give' to either a 'Yes' or a 'No' after receiving the trial emails. People who received the attractive (0.4%, or 20 people) and easy (0.4%, or 20 people) emails made these changes compared to those who received the simple attention control email (0.2% or 10 people). There was no significant difference between the Social email group and the Simple attention control email (see Figure 6).
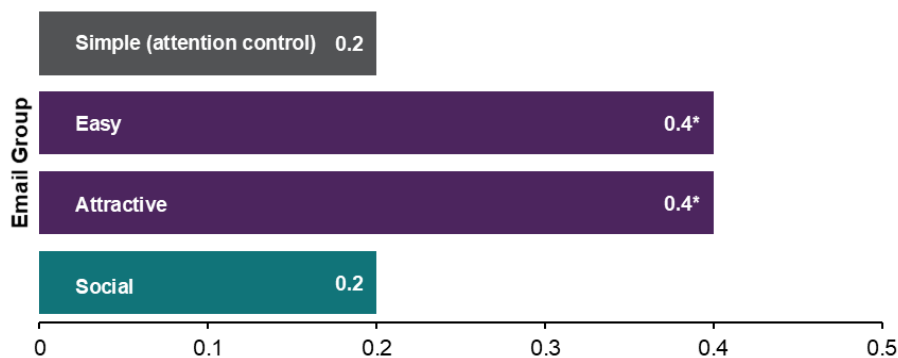
N = 20,742; *p<0.1

Figure 6. Percentage of employees that updated their response from 'Choose not to give' to either 'Yes' or 'No' by email group

The Easy email reduced missing information

This outcome examines whether the emails led to a reduction in the proportion of people who had no data recorded for the 5 diversity indicators. We first calculated how many of the 5 diversity indicators were missing at the individual level and then the average missing proportion per email group. For example, 55% missingness in the attention control email means the average level of missingness for this group is 2.75 out of 5 diversity measures. There was a statistically significant reduction in missing diversity data in the Easy treatment group compared to the simple attention control group ($p<0.01$) (see Figure 7). There was no significant difference between the Attractive or Social email, compared to the control email.

*N = 20,742; *p<0.1*
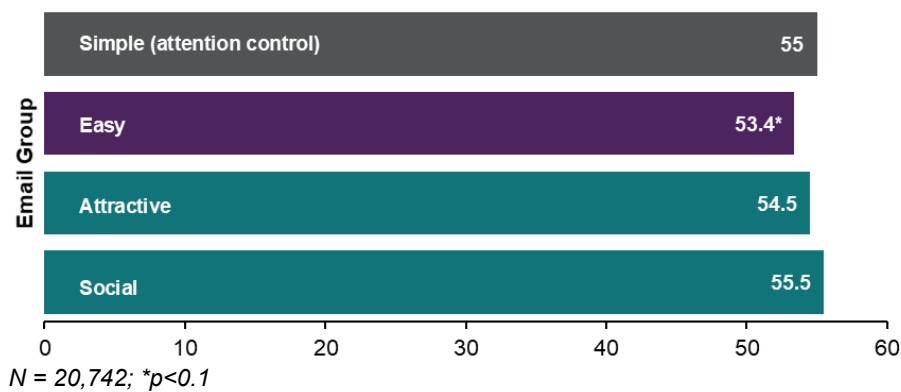
Figure 7. Percentage of missing information across all diversity characteristics by email group

Discussion and conclusions

Organisations seeking to increase the diversity of their workforce rely on employees sharing their personal information to track progress and design initiatives. In the APS, agencies ask employees for their diversity characteristics throughout their employment – typically when they apply for a vacancy, at onboarding for the purpose of the HR system, and in a de-identified employee census.

This research focused on barriers APS employees face in sharing disability information in agency HR systems. Understanding the barriers to employees sharing information in HR systems will inform the development and improvement of policies and processes. We designed solutions for APS HR professionals, centred on informing and empowering APS employees to make appropriate choices for themselves.

Key takeaways

- Some APS employees choose not to share information about disability, because they do not see any reason for, or benefit in, sharing this information with their agency. Without any benefit, sharing disability information may not be worth the perceived risk. HR professionals have a role in using data shared in HR systems as a tool to create benefits for employees.
- Some APS employees do not share disability information because they are concerned about facing discrimination or limiting their future career opportunities.
- The language used in agency documents signal attitudes to and understanding of people with disability. For example, terms like '*impairment'* or '*limitation'* signal an alignment with the medical model of disability.
- Email reminders highlighting the ease of updating HR details performed better than an attention control email on all 4 outcome measures.
- Email reminders highlighting the attractiveness of updating HR details had mixed results, and highlighting social norms did not improve diversity data collection.

Tailor guidance materials for agencies

APS agencies differ in when and how they ask about disability, as well as how they handle and use employees' responses. Moreover, agencies differ in their supports, culture, policies and programs for people with disability. The guidance materials were designed to support agencies communicating to employees about disability data collation and can be tailored for the agency.

Email reminders are a low-cost and practical intervention

Sending email reminders are a low-cost and practical way to encourage employees to update their disability information in agency HR systems. As an ongoing effort to understand workforce demographics, APS agencies send reminder emails to encourage employees to complete or update their diversity details in HR systems. Our trial demonstrates that small changes in email reminders can significantly impact behaviour. Optimising communications in line with our results, or optimising communications within agencies, may help increase the accuracy of data in agency HR systems.

Highlighting the ease of updating information was most effective

When a task appears challenging or effortful, people can tend to put it off. Making the desired behaviour easier, or highlighting its ease, can encourage action. The Easy email outperformed the attention control email on all measures: employees who received the Easy email were more likely to record disability, record other diversity characteristics, change their responses from 'Choose not to give' to a yes or a no, and fill in missing information. We recommend agencies looking to send reminder emails include messaging about the ease of updating information.

Highlighting the attractiveness of updating information was mixed

The Attractive email outperformed the attention control email on 2 out of 4 measures. Employees who received the Attractive email (as with those receiving the Easy email) were more likely record disability and change their responses from 'Choose not to give' to a 'yes' or a 'no'. This suggests informing employees about the benefits of diversity data is helpful in overcoming their reluctance to declare their diversity status. However, the Attractive email performed no better than the control email in increasing the proportion of employees recording other diversity characteristics, or in reducing missing data.

Highlighting social norms did not improve diversity data collection

We designed an email intended to encourage people to update their HR details using dynamic norms. Across outcome measures, the Social email didn't perform better than the attention control email. There are 2 possible explanations. First, despite intending the messaging to convey dynamic norms (that the behaviour is increasing), the email may still have highlighted that the behaviour is in the minority (i.e. currently *only* a third of employees have recorded diversity characteristics). This messaging may have discouraged employees from updating their details.

Second, the messaging used in the emails may not be the right norm to influence the behaviour measured. The behaviour we sought to increase was updating HR details, but the behaviour we highlighted was *identifying diversity characteristics*. Having a diversity characteristic is not a behaviour that can be taken. While updating HR details is something all staff can do, only a minority of staff belong to the diversity groups of interest. Future research may test reminder emails using social norms with different reference groups.

Differences between groups are statistically significant, but small

The large sample size for this trial meant we were able to detect small statistically significant changes in diversity proportions as mentioned above. The Easy and the Attractive emails each increased disability information shared in HR systems up to 5.5%, a 0.3 percentage

point difference to the control email. If the Easy email had been sent to all employees, 60 more people would have declared their disability status in this agency.

Agencies need to determine what level of change observed would be of practical significance (rather than statistical significance) for their agency. Given it is a low-cost intervention, a small statistical difference (60 people in this trial) is likely to be worthwhile. The email interventions would need to be accompanied by other interventions for a larger proportion of people to declare and update their diversity status. In the most recent APS Employee Census, 11% of the employees in the participating agency recorded disability (APSC 2023a). This means that even with the email intervention, only half of employees with disability shared this information in the HR system.

Some barriers are not addressed by emails or guidance materials

Agencies looking to send reminder emails, and other interventions to encourage employees to update their HR details, should first consider the agency's culture and processes. First or second-hand experience of poor culture or practices will be more powerful than agency communications. Moreover, employees are sceptical of organisations that talk about diversity and inclusion without materially demonstrating policies, practices and cultures that support employees with disability (ORIMA Research 2022). Implementing messaging without improving policies and culture could well backfire.

Next steps and future work

Keep resources relevant and work within the bounds of the APS

Language, conventions, and community preferences evolve with time. Our materials link to online resources that may be updated with time, but are themselves static. Guidance materials were designed to be compatible with the Australian Government Style Manual which agencies follow when writing content, like explanatory text. The Manual may not always reflect community preferences for communicating about disability. For example, some APS employees with disability we spoke to disagreed with how the style guide defines and discusses neurodiversity.

The APS also uses the Australian Bureau of Statistics (ABS) definition of disability. We heard throughout consultation that other definitions are preferred and that the ABS definition is not as inclusive as the definition used in the Disability Discrimination Act. While we acknowledged this in materials, the materials are still bound to the ABS definition.

Test the guidance materials

Future research should examine if changes to explanatory text increases employees sharing disability information in HR systems. This project originated in the finding that a large portion of APS employees chose not to share their disability in agency HR systems. We developed guidance materials with the assumption that better information will overcome barriers to employees sharing their information. This assumption has not been tested. The success of these materials hinges on their uptake and implementation by HR professionals. The materials were developed in close consultation with HR professionals and will be promoted in a range of settings, led by APSC, but their real-world efficacy remains to be seen.

Deliver benefits for APS employees

A key reason APS employees choose not to share information about disability is because they do not see any reason for, or benefit in, doing so. In our materials, we highlighted that HR professionals have a role in using data shared in HR systems to create benefits for employees. Future work should assist HR professionals to design and deliver benefits to employees.

Materials

This section includes annotated screenshots of the reminder emails, and annotated screenshots samples of the guidance materials. The full, unannotated guidance materials can be found online at *Share with me: Increasing Disabilty Identification in the Australian Public Service*. .

Contents

D   Simple (attention control) email

D   Simple (attention control) email

Guidance Materials

Factsheet

The factsheet explores the barriers that prevent people from sharing their information and provides recommendations for the explanatory text given to employees about data collection practices.

Highlights four steps HR professionals can take

Specific information about why the step is important and reasons why APS employees may not share information

Findings from previously conducted studies for additional information and evidence

Insights box highlighting important information

Additional information about defining disability including links to relevant resources

Step 3 — Make it obvious how the data will be used

Often when APS employees are asked if they have disability, there is little information about why this information is collected, or the explanation provided is legalistic or ambiguous.

Reduce uncertainty by giving the reason for data collection and definition of disability.

People may assume data is collected for different reasons.

For example, to be shared with managers to arrange workplace adjustments. People with disability who do not want this will select 'no'. The data captured in HR systems for the APS Employment Database (APSED) is not related to and does not trigger workplace adjustments.

The information shared in agency's HR systems is used to formulate better policies, strategies and action plans for people with disability. It helps with setting recruitment targets, improving retention and identifying ways in which people with disability can be best supported.

> The number one reason why APS employees with disability do not share with HR is that they do not require adjustments to perform their role.[1]

Providing a definition of disability provides clarity about what is, and is not relevant for this particular data collection purpose.

Disability information should capture people with disability regardless of adjustments, whether disability is visible or invisible, and whether or not it affects how someone performs their role. To clarify, provide a definition of disability and provide the reason why data is being collected.

Using a consistent definition across agencies and over time allows us to understand how people with disability are represented in the workforce.

> Employees should always see explanatory text when they are asked to provide diversity data on the same page and web screen.

ⓘ **The APS uses the Australian Bureau of Statistics (ABS) definition of disability for HR data collection.**

Using a consistent definition across agencies allows us to better understand how people with disability are represented in the workforce.

APS HR professionals should be aware that the definition used in the Disability Discrimination Act 1992 is broader than that used for data collection.

The ABS definition of disability:
Persons are considered to have a disability if they have a limitation, restriction or impairment, which has lasted, or is likely to last, for at least six months and restricts everyday activities. This includes episodic conditions if they are likely to recur.[2]

For a list of examples, see Definition of disability.

ⓘ **Considerations for definitions**

The ABS definition aligns with a medical model of disability. In this approach, disability is a health condition for health professionals to treat, fix or cure.

However, many people with disability prefer another approach: the social model of disability.

In this model, the focus is on the person, not on the disability. It is a way to understand how people with disability interact with their environment and others in society.

The social model is about shifting the problem from individual impairments to the social environment that people operate within.[2]

5

Example wording

This document contains good and bad examples of explanatory text and reminder emails. These are designed to help HR professionals consider what they might be missing from their communications and how they can improve.

Explanatory text

Better practice

This example contains information to address questions and concerns about sharing information in agency HR systems.

Example 2

Update your details to shape [Agency] inclusion initiatives.

All government agencies collect employee information, including information about disability, for the APS Employment Database (APSED). The Australian Public Service Commission (APSC) and APS agencies use employee information shared in HR systems to help build and support an APS that reflects the community it serves.

Voluntary and self-reported

Sharing your diversity information in your Agency's HR system is voluntary and self-reported. This means you can choose:

- if you want to share your diversity information
- the timing of when you share your diversity information
- if you want to remove your diversity information at any time
- what diversity information you choose to share.

You are **not** required to provide proof or evidence of disability or other diversity characteristics that you have shared in HR systems.

How is my information protected?

Diversity information you share in HR systems cannot be seen by your manager or colleagues.

Your diversity information is private and secure: it is accessible by a small team in HR and IT, and with the APSC. Your information is:

- combined with other diversity information for a high-level picture of people working in the Agency.
- shared with the APSC to contribute to the APS employment database (APSED).

Your data is protected by the Privacy Act. It is unlawful for anyone to use information you supply for anything else, without your consent.

I think I already answered these questions

You may have already answered diversity questions during recruitment and/or at a previous APS agency. For your privacy, this information is not transferred to our HR system.

Purpose and context
Concise value proposition as a meaningful page title.

Opening paragraph puts the request in context.

Choice
This information provides people with different options available to them when deciding to share diversity information.

The information is clear and doesn't pressure employees to share information they don't want to. The text also reassures employees they are not required to provide evidence.

Protections
Clear and personally relevant information about privacy and confidentiality.

Data collection in context
Explains to employees that data they may have previously shared to another agency or process are not linked or related.

Example wording demonstrating the recommendations from the factsheet
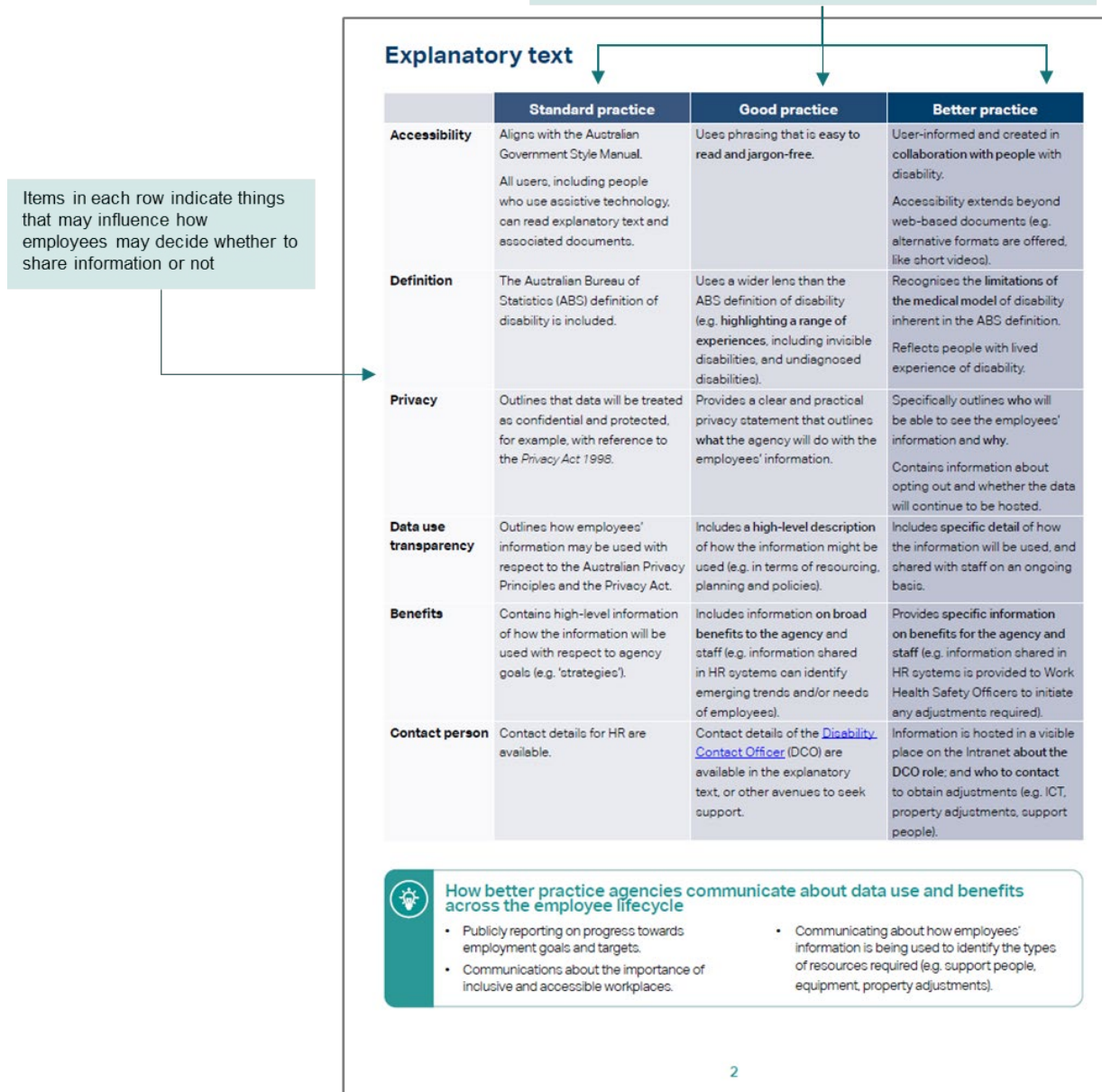
Call out boxes outlining what type of content the example refers to and why it is a good example

3

Maturity self-assessment

The maturity self-assessment aims to assist HR professionals assess and consider their agency's maturity when requesting, collecting, and using APS employee disability information. This maturity self-assessment can help agencies identify areas for improvement that may help make employees feel safe and comfortable when sharing their disability information in HR systems.

Each maturity level builds on the previous level. *Good practice* includes features of *Standard* and builds on it. Similarly, *Better practice* includes features of *Good* and builds on it.

Items in each row indicate things that may influence how employees may decide whether to share information or not

Explanatory text

	Standard practice	Good practice	Better practice
Accessibility	Aligns with the Australian Government Style Manual. All users, including people who use assistive technology, can read explanatory text and associated documents.	Uses phrasing that is easy to read and jargon-free.	User-informed and created in collaboration with people with disability. Accessibility extends beyond web-based documents (e.g. alternative formats are offered, like short videos).
Definition	The Australian Bureau of Statistics (ABS) definition of disability is included.	Uses a wider lens than the ABS definition of disability (e.g. highlighting a range of experiences, including invisible disabilities, and undiagnosed disabilities).	Recognises the limitations of the medical model of disability inherent in the ABS definition. Reflects people with lived experience of disability.
Privacy	Outlines that data will be treated as confidential and protected, for example, with reference to the *Privacy Act 1998*.	Provides a clear and practical privacy statement that outlines what the agency will do with the employees' information.	Specifically outlines who will be able to see the employees' information and why. Contains information about opting out and whether the data will continue to be hosted.
Data use transparency	Outlines how employees' information may be used with respect to the Australian Privacy Principles and the Privacy Act.	Includes a high-level description of how the information might be used (e.g. in terms of resourcing, planning and policies).	Includes specific detail of how the information will be used, and shared with staff on an ongoing basis.
Benefits	Contains high-level information of how the information will be used with respect to agency goals (e.g. 'strategies').	Includes information on broad benefits to the agency and staff (e.g. information shared in HR systems can identify emerging trends and/or needs of employees).	Provides specific information on benefits for the agency and staff (e.g. information shared in HR systems is provided to Work Health Safety Officers to initiate any adjustments required).
Contact person	Contact details for HR are available.	Contact details of the Disability Contact Officer (DCO) are available in the explanatory text, or other avenues to seek support.	Information is hosted in a visible place on the Intranet about the DCO role; and who to contact to obtain adjustments (e.g. ICT, property adjustments, support people).

How better practice agencies communicate about data use and benefits across the employee lifecycle

- Publicly reporting on progress towards employment goals and targets.
- Communications about the importance of inclusive and accessible workplaces.
- Communicating about how employees' information is being used to identify the types of resources required (e.g. support people, equipment, property adjustments).

2

Reminder emails

Easy email

Take two minutes to update your details in mySAP

All staff

Review your Equity and Diversity details in mySAP. Keeping your profile up to date is an easy way to support inclusion at

Updating your details will only take 2 minutes

1. Go to your mySAP profile.
2. Update your diversity information as needed.

Keeping your information correct and up to date helps us understand our richly diverse workforce, and inform how we support workplace needs.

If you need more info, here's a quick FAQ.

I think I already supplied my personal details.

You can check to see if your details are up to date on mySAP. You may have supplied personal details if you were employed by another APS agency, at the beginning of your recruitment process, or in the APS Employment Census, however, this information is not automatically transferred to mySAP.

Is this for me?

We are asking **all staff** to review their mySAP Inclusion and Diversity details, even if you don't identify with any of the diversity characteristics listed. By participating, you help us have a complete dataset and better understand the make-up of our entire workforce, which helps inform our efforts to support you and current and future   employees.

Who sees my personal details?

Your Equity and Diversity information cannot be seen by your manager or colleagues. The data is private and secure: it is accessible by a small team in HR and IT and used to create an aggregated data set to get a high-level picture of who works at   The data is also shared with the Australian Public Service Commission to contribute to the APS employment database (APSED).

Can I change my responses?

Yes! You can update your details at any time on mySAP.

If you need help, access instructions on

A direct as possible introduction and call to action. People tend to scan emails, and making it easy to understand the purpose of the email and actions helps people respond.

Removing barriers by including a direct link to the relevant page

Additional info is portioned out into an 'FAQ' section

Using language such as 'easy' and 'quick' throughout reduces the sense of effort and hassle

Attractive Email

Update your mySAP details to shape inclusion initiatives

All staff

mySAP Equity and Diversity details are used to design programs and policies to support new and current employees.

Our _____ is developed using staff demographic information, and supports staff through initiatives such as:

- improving disability awareness and confidence of managers and senior leaders through training, manager guidance and events
- providing development opportunities for culturally and linguistically diverse staff, such as network sponsored training initiatives
- establishing the _____ Gender Equality staff network
- delivering leadership and career development programs for Aboriginal and Torres Strait Islander staff

To ensure we have a complete picture of _____ workforce, we are asking all staff to update their mySAP profile.

Will you help by making sure your details are correct?

Yes, I'd like to support inclusion at _____

- Go to your mySAP profile.
- Update your diversity information as needed.

_____

Not yet, I need more information.

I think I already supplied my personal details.

You can check to see if your details are up to date on mySAP. You may have already supplied details if you were employed by another APS agency, at the beginning of your recruitment process, or in the APS Employment Census, however, this information is not automatically transferred to mySAP.

Is this for me?

We are asking **all staff** to review their mySAP Equity and Diversity details, even if you don't identify with any of the diversity characteristics listed. By participating, you help us have a complete dataset and better understand the make-up of our entire workforce and helps inform our efforts to support you, current and new _____ employees.

Who sees my personal details?

Your Equity and Diversity information cannot be seen by your manager or colleagues. The data private and secure: it is accessible by a small team in HR and IT and used to create an aggregated data set to get a high-level picture of who works at _____ The data is also shared with the Australian Public Service Commission to contribute to the APS employment database (APSED).

Can I change my responses?

Yes! You can update your details at any time on mySAP.

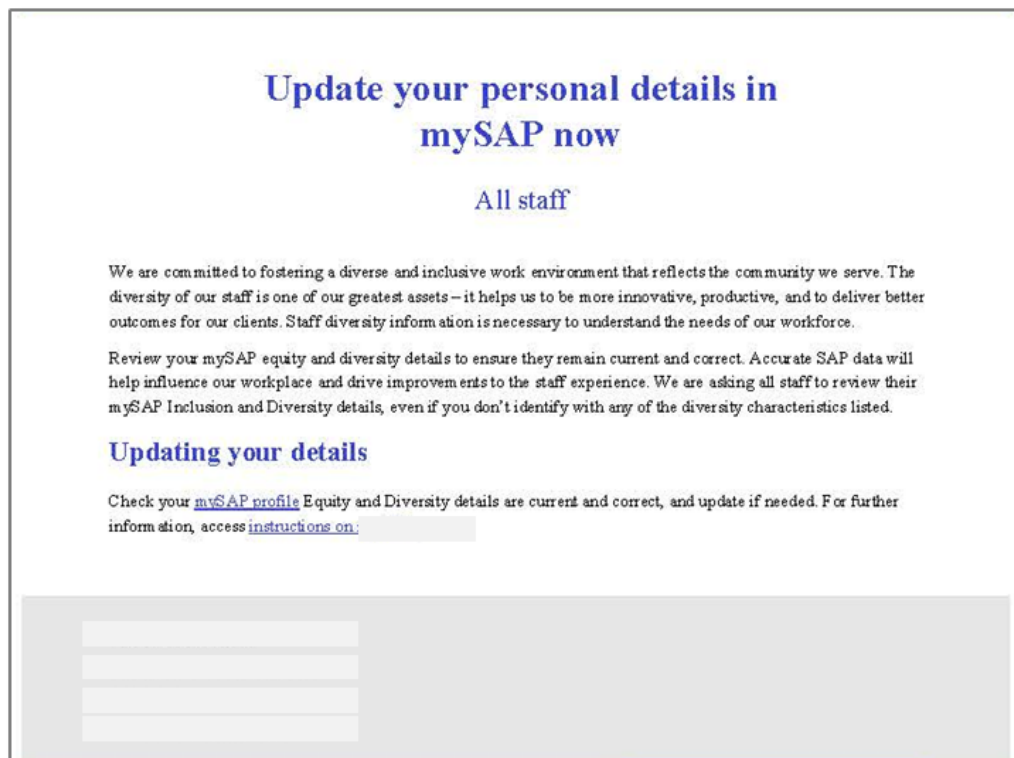If you need help, access instructions on _____

A clear explanation of data use, with specific examples to demonstrate the benefit of supplying data

Framing information sharing as an active choice to increase engagement

Social email

Diversity is growing at [redacted]

All staff

Did you know we use mySAP Equity and Diversity details to track our progress toward internal and external benchmarks? This helps ensure we are reflecting the diverse community we represent.

This graph shows sharing of diversity information in mySAP has been steadily growing over the last few years. **Now, a third of the workforce identifies with at least one diversity characteristic, compared to a quarter in 2015.**

We are asking **all staff** to review their mySAP Equity and Diversity details to ensure they remain current and correct.

Updating your details

1. Go to your mySAP profile
2. Update your diversity information as needed.

More information about mySAP data

I think I already supplied my personal details.

You can check to see if your details are up to date on mySAP. You may have already supplied your personal details if you were employed by another APS agency, at the beginning of your recruitment process, or in the APS Employee Census, however, this information is not automatically transferred to mySAP.

Is this for me?

We are asking **all staff** to review their mySAP Equity and Diversity details, even if you don't identify with any of the diversity characteristics listed. By participating, you help us have a complete dataset and better understand the make-up of our entire workforce and helps inform our efforts to support you, current and new [redacted] employees.

Who sees my personal details?

Your Equity and Diversity information cannot be seen by your manager or colleagues. The data is private and secure: it is accessible by a small team in HR and IT and used to create an aggregated data set to get a high-level picture of who works at [redacted] The data is also shared with the Australian Public Service Commission to contribute to the APS employment database (APSED).

Can I change my responses?

Yes! You can update your details at any time on mySAP.

If you need help, access instructions on [redacted]

Annotations:

Graph and text illustrating that more staff are captured in HR data than ever before. This information will act as a call to action

Data use is made explicit in text and graph: this data aggregated to monitor workforce diversity

Visually stimulating graph is novel and eye-catching. Importantly, the trend line is increasing

Simple (attention control) email

<div style="border:1px solid #000;">

Update your personal details in mySAP now

All staff

We are committed to fostering a diverse and inclusive work environment that reflects the community we serve. The diversity of our staff is one of our greatest assets – it helps us to be more innovative, productive, and to deliver better outcomes for our clients. Staff diversity information is necessary to understand the needs of our workforce.

Review your mySAP equity and diversity details to ensure they remain current and correct. Accurate SAP data will help influence our workplace and drive improvements to the staff experience. We are asking all staff to review their mySAP Inclusion and Diversity details, even if you don't identify with any of the diversity characteristics listed.

Updating your details

Check your mySAP profile Equity and Diversity details are current and correct, and update if needed. For further information, access instructions on:

</div>

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Appendices

Appendix 1: Technical details

Pre-registration, pre-analysis plan, and ethics

The trial was publicly pre-registered on the American Economic Association's Social Science Registry (AEARCTR-0011854). The pre-registration was completed after we commenced data collection, but prior to analysing the data. The ethical aspects of the research were reviewed and approved by Macquarie University Low Risk Committee (15615) on 6 June 2023.

The analyses of the trial data was as per the pre-analysis plan except for the inclusion of casual staff. Casual stuff were included in the data provided for randomisation and were therefore randomised into the trial. As such we included casuals in our average treatment effect analyses. There were 1,644 casual staff, making up 7.9% of the total trial sample. We included casual staff in our main analyses (complete case intention-to-treat, ITT) as they were randomised into the trial. For sensitivity analysis, we conducted analyses excluding casuals. As seen in Table 13, the findings are similar when casual staff are excluded.[10] The pre-analysis plan will be published on the Social Science Registry website as well as on BETA's website.

Population and sampling

The emails were sent to all organisational staff up to SES Band 2, including non-ongoing and casual staff. Those on long term leave such as parental leave were excluded from the trial.

The total sample (n=20,753) was larger than the sample size we used for power calculations in the pre-analysis plan (see Table 2). For privacy reasons, we had limited information on demographic characteristics so age and gender of staff was not recorded. Only pay level was included, with disability status and other diversity status at the time of randomisation.

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[10] For comparison between attention control and make it easy emails for disability status, p values for ITT analysis was 0.09. Exclusion of casuals produced a p value of 0.11. This is the only area where results differ in terms of statistical significance as both are very close to our cut-off p-value of 0.1.

Table 2. Baseline sample characteristics

Characteristics	Total Count (per cent)
Pay level: APS 1-6	14531(70.0)
Pay level: EL1-EL2	6008 (29.0)
Pay level: SES	214 (1.0)
Pay level: Total	20753 (100)
Disability status: No	19703(94.9)
Disability status: Yes	1050 (5.1)
Disability status: Total	20753 (100)
Other diversity status: No	16831 (81.1)
Other diversity status: Yes	3922 (18.9)
Other diversity status: Total	20753 (100)

Randomisation

Randomisation occurred at the individual level. Individuals were randomised into 4 arms using complete randomisation using the randomizr[11] package in R Statistical Software (v4.3.1).[12] The characteristics of the sample in each arm are provided in Table 3.

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[11] Alexander Coppock, Jasper Cooper, Neal Fultz, Graeme Blair. (2023) randomizr: Easy-to-use tools for common forms of random assignment and sampling CRAN - Package randomizr (r-project.org)
[12] R Core Team (2023). R: A language and environment for statistical computing. R Foundation for Statistical Computing, Vienna, Austria. URL https://www.R-project.org/.

Table 3.   Baseline sample characteristics by email arm

Characteristics	Attention control email Count (per cent)	Make it easy email Count (per cent)	Make it attractive email Count (per cent)	Make it social email Count (per cent)
Pay level: APS 1-6	3658 (70.5)	3588 (69.2)	3676 (70.9)	3609 (69.6)
Pay level: EL1-EL2	1488 (28.7)	1546 (29.8)	1451 (28)	1523 (29.4)
Pay level: SES	42 (0.8)	54 (1)	61 (1.2)	57 (1.1)
Pay level: Total	5188 (100.0)	5188 (100.0)	5188 (100.0)	5189 (100.0)
Disability status: No	4928 (95.0)	4934 (95.1)	4914 (94.7)	4927 (95.0)
Disability status: Yes	260 (5.0)	254 (4.9)	274 (5.3)	262 (5.0)
Disability status: Total	5188 (100.0)	5188 (100.0)	5188 (100.0)	5189 (100.0)
Other diversity status: No	4189 (80.7)	4224 (81.4)	4197 (80.9)	4221 (81.3)
Other diversity status: Yes	999 (19.3)	964 (18.6)	991 (19.1)	968 (18.7)
Other diversity status: Total	5188 (100.0)	5188 (100.0)	5188 (100.0)	5189 (100.0)

Outcome measures

Primary outcomes

There were 2 primary outcomes who were given equal weight. Both were binary variables where 0 = No/missing data and 1 = Yes.

1. Proportion of staff reporting as having a disability (disability = Yes)

2. Other diversity status. This will capture diversity status other than disability. It will be the proportion of APS Agency staff who indicated on the agency's HR system as either:

   a. LGBTIQ+ (LGBTQ+ = Yes) or

   b. Neurodivergent (Neurodivergent = Yes) or

   c. First Nations (First Nations = Yes) or

   d. Non-English speaking background (NESB) (NESB = Yes)

NESB status was defined as per APSC's definition of NESB1, people born overseas who arrived in Australia after the age of 5 and whose first language was not English.

Secondary outcomes

There were 2 proportional secondary outcomes.

1. Proportion of missing data on all diversity variables: All responses other than 'Yes' or 'No" for each diversity indicator (a total of 5) were defined as missing (coded as 1). Individual proportion of missingness was created to determine proportion missing per person (out of 5 diversity indicators). If a person had 2 missing data out of 5 diversity indicators, they had a score of 0.4. Individual level outcomes were averaged within each arm of the trial to obtain the total proportion of missing data by arm. This outcome provided a measure of engagement with the emails.

2. Proportion of people who changed their responses from 'Choose Not to Give' to either 'Yes' or 'No' for all diversity variables. A person was given a score of 1 if they changed from 'Choose Not to Give" to either 'Yes' or 'No' for each diversity indicator. Then, as with the missing outcome above, individual level proportion of change was created across the 5 indicators. We did not receive choose not to give data for NESB status but we still calculated individual averaged score by 5. A person received a score of 0.2 if they made this change for 1 out of 5 diversity indicators. Individual level outcomes were then averaged within each arm of the trial to obtain the total proportion of people who made this change by arm.

To get a more precise estimate of the true effect of the intervention emails, we included the baseline measures of our 2 primary outcome measures as covariates. This is because baseline disability or diversity status is strongly correlated with subsequent disability and

other diversity status. Inclusion of these highly predictive variables as a covariate reduces unexplained variance in the model.

Hypotheses

We had 3 hypotheses for primary outcomes. As indicated in the pre-analysis plan, we rejected the null joint hypothesis if we rejected the null for either of the constituent hypotheses. As this is a disjunction test, we adjusted for multiple testing using the Holm method (for more details, see Methods of Analysis section below).

Hypothesis 1

Those receiving the 'Easy' email will have a higher proportion of people declaring diversity status compared to the attention control group (BAU email).

- Percent declaring disability status in Treatment 1 (Easy email) > Percent declaring disability status in attention control, or

- Percent declaring 'other diversity' status in Treatment 1 (Easy email) > Percent declaring 'other diversity' status in attention control

Hypothesis 2

Those receiving the 'Attractive' email will have a higher proportion of people declaring their diversity status compared to the attention control (BAU email).

- Percent declaring disability status in Treatment 2 (Attractive email) > Percent declaring disability status in attention control, or

- Percent declaring 'other diversity' status in Treatment 2 (Attractive email) > Percent declaring 'other diversity' status in attention control

Hypothesis 3

Those receiving the 'Social' email will have a higher proportion of people declaring their diversity status compared to the attention control group. This includes the following:

- Percent declaring disability status in Treatment 3 (Social email) > Percent declaring disability status in attention control, or

- Percent declaring 'other diversity' status in Treatment 3 (Social email) > Percent declaring 'other diversity' status in attention control

Method of analysis

We cleaned, merged, and analysed the data in R 4.3.1. We did not analyse the data until data collection was complete and the pre-registration was published.

Analyses for the 2 primary outcomes included a linear regression model using robust (HC2) standard errors. The only covariate included was either baseline disability status or baseline other diversity status (both mean centred) and an interaction term between email groups and covariate. As all our hypotheses were one directional, we used a one-sided t-test.

A total of 313 staff who left the agency during the trial period were excluded from analysis as we had no outcome data for them. In this instance the low numbers of missing data and the fact that the missing data is unlikely to be associated with treatment allocation means that we are confident that this approach is likely to be unbiased.

We adjusted p-values[13] using the Holm method. We chose this method as it is simple to conduct, controls the family-wise error rate, and is more powerful than a simple Bonferroni correction. It involves ordering *m* p-values lowest to highest and evaluating them in a stepwise way. The first is multiplied by *m* and if *adjusted p-value < alpha* then no further comparisons are made. The second p-value is multiplied by *m-1* and if *adjusted p-value < alpha* then no further comparisons are made. This continues until the last p-value is multiplied by 1. In our case we had 2 comparisons per hypothesis, so the first and lowest p-value was doubled and the second was not changed. In all cases the disability p-value was the lowest and therefore was doubled, and the other diversity p-value was unchanged.

We chose a family wise alpha of 0.1 as the intervention emails are low cost and low risk.

For this trial, the sample size was fixed by the number of staff employed by the Agency. There were 20,754 employees on the day of randomisation (27 June 2023). When the power calculations were conducted, a sample size of 19,000 was assumed.

This meant a sample size of approximately 4,700 participants per arm, equal allocation across 4 arms. With a familywise alpha of 0.1 and 80% power, the minimum detectable effect size will be 0.0438 (Cohen's h[14]). Assuming the global diversity rate in the control group is 54.2% (based on historical Agency data), we would be able to detect an increase of 2.2 percentage point increase in the treatment group. Assuming the disability identification rate in the control group is 5.0% (based on historical data), we will be able to detect 1.0 percentage point difference in disability identification rates.

All the pre-specified analyses in the analysis plan are provided in Appendix 2. Statistical tables

Appendix 2. Statistical tables

Primary outcomes

The 2 primary outcomes are the proportion of staff declaring that they have a disability and proportion of staff declaring they have one or more of the other diversity indicators. The 2 models contains all experimental conditions. However, for ease of interpretation, the results are presented separately by hypothesis below.

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[13] We chose to multiply p rather than divide alpha for simplicity in reporting.
[14] Cohen, J. (1988). Differences between Proportions. Statistical Power Analysis for the Behavioural Sciences. New York, Routledge: 181.

Table 4.   Hypothesis 1: The 'Make it easy' email group will have a higher percentage of people declaring disability or other diversity status compared to the 'Attention control' email group.

Condition	Means (per cent)	Estimate (pp)	Standard error (pp)	95% Confidence Interval (pp)	p-value	Holm-adjusted p-value
Disability proportion: Attention control	5.20	n/a	n/a	n/a	n/a	n/a
Disability proportion: Make it easy	5.50	0.35	0.12	(0.15 - Inf)	0.00	0.01
Other diversity proportion: Attention control	19.60	n/a	n/a	n/a	n/a	n/a
Other diversity proportion: Make it easy	19.90	0.30	0.22	(-0.06 - Inf)	0.09	0.09

OLS model adjusted for baseline disability or other diversity status with HC2 robust standard errors. N = 20,433

Table 5.   Hypothesis 2: The 'Make it attractive' email group will have a higher percentage of people declaring disability or other diversity status compared to the 'Attention control' email group.

Condition	Means (per cent)	Estimate (pp)	Standard error (pp)	95% Confidence Interval (pp)	p-value	Holm-adjusted p-value
Disability proportion: Attention control	5.20	n/a	n/a	n/a	n/a	n/a
Disability proportion: Make it easy	5.50	0.28	0.13	(0.07 - Inf)	0.01	0.03
Other diversity proportion: Attention control	19.60	n/a	n/a	n/a	n/a	n/a
Other diversity proportion: Make it easy	19.70	0.06	0.21	(-0.28 - Inf)	0.39	0.39

OLS model adjusted for baseline disability or other diversity status with HC2 robust standard errors. N = 20,433

Table 6. Hypothesis 3: The 'Make it social' email group will have a higher percentage of people declaring disability or other diversity status compared to the 'Attention control' email group.

Condition	Means (per cent)	Estimate (pp)	Standard error (pp)	95% Confidence Interval (pp)	p-value	Holm-adjusted p-value
Disability proportion: Attention control	5.20	n/a	n/a	n/a	n/a	n/a
Disability proportion: Make it social	5.20	0.02	0.11	(-0.17 - Inf)	0.43	0.86
Other diversity proportion: Attention control	19.60	n/a	n/a	n/a	n/a	n/a
Other diversity proportion: Make it social	19.60	-0.05	0.19	(-0.36 - Inf)	0.60	0.60

OLS model adjusted for baseline disability or other diversity status with HC2 robust standard errors. N = 20,433

Secondary outcomes

Table 7. **Secondary outcome 1: Behaviourally informed emails will lead to a lower proportion of missing diversity data compare to the 'Attention control' email.**

Condition	Means (per cent)	Estimate (pp)	Standard error (pp)	95% Confidence Interval (pp)	p-value
Attention control	55.00	n/a	n/a	n/a	n/a
Make it easy	53.40	-1.60	0.56	(-Inf - -0.67)	0.00
Make it attractive	54.50	-0.46	0.56	(-Inf - 0.47)	0.21
Make it social	55.50	0.51	0.56	(-Inf - 1.43)	0.82

OLS model adjusted for baseline disability and other diversity status with HC2 robust standard errors.
N = 20,743

Table 8. **Secondary outcome 2: Behaviourally informed emails will lead to a higher proportion of people moving from 'Choose not to give' to either 'Yes' or 'No' compared to the 'Attention control' email.**

Condition	Means (per cent)	Estimate (pp)	Standard error (pp)	95% Confidence Interval (pp)	p-value
Attention control	0.20				
Make it easy	0.40	0.14	0.06	(0.04 - Inf)	0.01
Make it attractive	0.40	0.19	0.06	(0.09 - Inf)	0.00
Make it social	0.20	-0.04	0.05	(-0.12 - Inf)	0.79

OLS model adjusted for baseline disability and other diversity status use HC2 robust standard errors.
N = 20,743

Subgroup analyses

We only have pay level for subgroup analysis as age and gender information was not available. The trial was not powered to detect an interaction effect between experimental condition and pay level.

Initially we explored the differences by pay level on disability status and other diversity status.

Table 9.   Disability status by subgroup

Group	Means (per cent)	Estimate (pp)	Standard error (pp)	95% Confidence Interval (pp)	p-value
APS	5.3	n/a	n/a	n/a	n/a
EL	5.4	0.0	0.0	0.0-0.0	0.54
SES	5.0	0.0	0.0	0.0-0.0	0.02

OLS model containing condition, pay level, pay level*condition, baseline disability status and baseline disability status*condition with HC2 robust standard errors. N = 20,425

Table 10.   Other diversity status by subgroup

Group	Means (per cent)	Estimate (pp)	Standard error (pp)	95% Confidence Interval (pp)	p-value
APS	19.8	n/a	n/a	n/a	n/a
EL	19.6	0.0	0.0	0.0-0.00	0.34
SES	18.6	-1.0	0.0	-2.0- -1.0	0.00

OLS model containing allocation, pay level, pay level*condition, baseline other diversity status and baseline other diversity status*condition with HC2 robust standard errors. N = 20,425

To determine if the intervention worked differently for different pay groups, we need to examine the interaction of the interventions with the pay level of participants i.e. does the make it easy email work better for one group compared with others? These results are reported below.

Table 11. Subgroups responses to the treatment for disability status

Subgroup analysis by Condition	Interaction effect between condition and BAU (95% CI)	p-value
APS level compared to EL: Make it easy	0.00 (-0.01-0.00)	0.64
APS level compared to EL: Make it attractive	0.00 (-0.01-0.01)	0.95
APS level compared to EL: Make it social	0.00 (-0.01-0.00)	0.83
APS level compared to SES: Make it easy	0.00 (-0.01-0.00)	0.03
APS level compared to SES: Make it attractive	0.00 (0.00-0.01)	0.39
APS level compared to SES: Make it social	0.00 (0.00-0.00)	0.92

OLS model containing allocation, pay level, pay level*condition, baseline other diversity status and baseline other diversity status*condition with HC2 robust standard errors. N = 20,425

While there is a significant result for APS level compared to SES for the easy email, there was no movement in raw numbers and the trial was not designed to detect interaction effects. Therefore, we have not discussed this finding in the main report.

Table 12. Subgroups responses to the treatment for other diversity status

Subgroup analysis by Condition	Interaction effect between condition and BAU (95% CI)	p-value
APS level compared to EL: Make it easy	0.00 (-0.01-0.01)	0.67
APS level compared to EL: Make it attractive	0.00 (-0.01-0.01)	0.68
APS level compared to EL: Make it social	0.00 (-0.01-0.01)	0.57
APS level compared to SES: Make it easy	0.00 (-0.01-0.00)	0.32
APS level compared to SES: Make it attractive	0.00 (-0.01-0.01)	0.97
APS level compared to SES: Make it social	0.00 (0.00-0.01)	0.45

OLS model containing allocation, pay level, pay level*condition, baseline other diversity status and baseline other diversity status*condition with HC2 robust standard errors. N = 20,425

Sensitivity analysis

As pre-registered, we present primary and secondary outcomes analyses for non-casual staff as a sensitivity analysis.

Table 13. Primary outcomes analyses for non-casual staff only (casual staff were excluded from analysis)

Condition	Means (per cent)	Estimate (pp)	Standard error (pp)	95% Confidence Interval (pp)	p-value	Holm-adjusted p-value
Disability proportion: Attention control	5.20	n/a	n/a	n/a	n/a	n/a
Disability proportion: Make it easy	5.60	0.35	0.13	(0.15 - Inf)	0.00	0.01
Disability proportion: Make it attractive	5.50	0.34	0.13	(0.12- Inf)	0.01	0.01
Disability proportion: Make it social	5.20	0.04	0.12	(-0.15- Inf)	0.36	0.73
Other diversity proportion: Attention control	19.50	n/a	n/a	n/a	n/a	n/a
Other diversity proportion: Make it easy	19.70	0.28	0.23	(-0.09 - Inf)	0.11	0.11
Other diversity proportion: Make it attractive	19.60	0.13	0.21	(-0.22 – Inf)	0.28	0.28
Other diversity proportion: Make it social	19.40	-0.02	0.19	(-0.34 – Inf)	0.55	1.055

OLS model adjusted for baseline disability and other diversity status use with HC2 robust standard errors. N = 19,102

BETA

Behavioural Economics Team of the Australian Government