



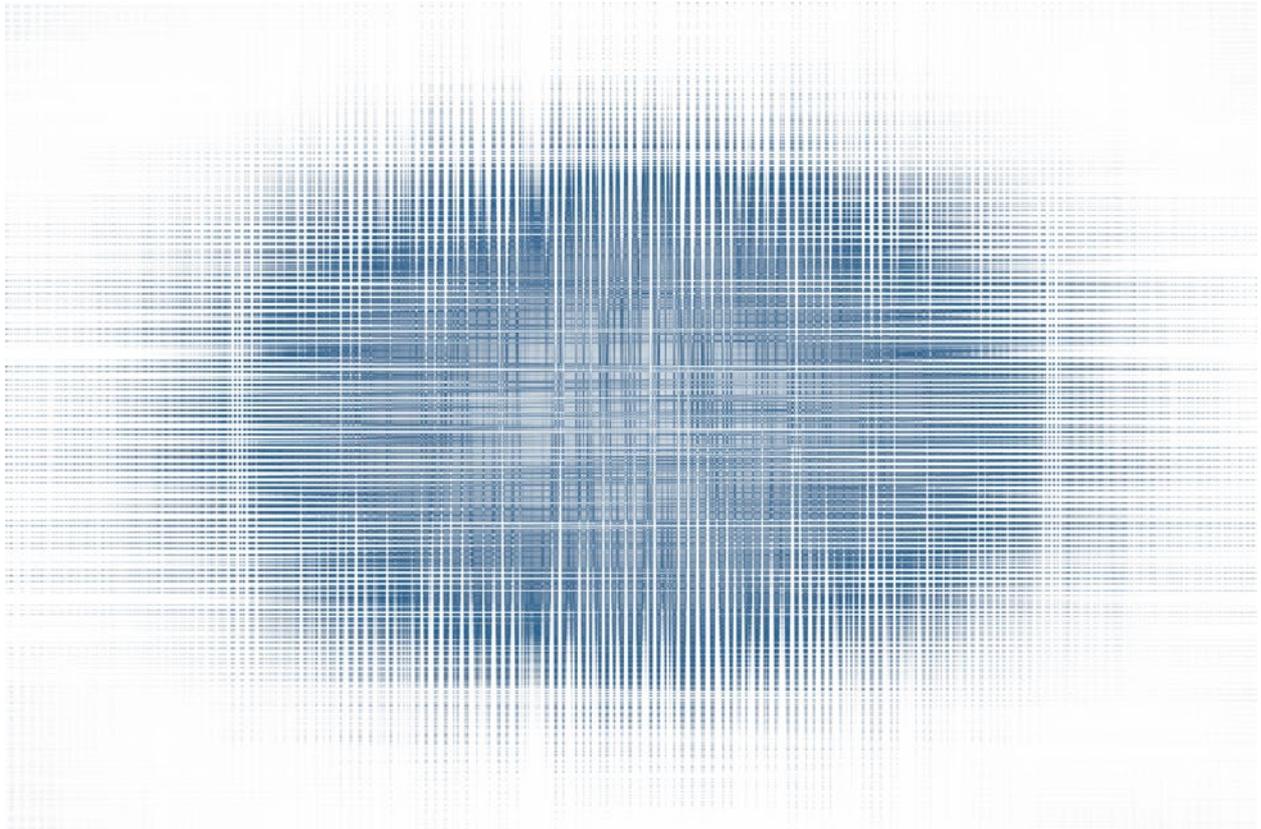
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Support for policy trials in Australia: level and predictors

N Biddle and M Gray

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ANU Centre for Social Research & Methods

Research School of Social Sciences
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Support for policy trials in Australia: level and predictors

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Abstract

An emerging view from a broad array of fields is that there should be greater use of evaluations of public policies in general, and the use of randomised controlled trials (RCTs), where feasible, in particular to test the effectiveness of new policies for which there is limited or no evidence about their likely impact. This is because of the potential for RCTs to provide reliable estimates of the causal impacts of the policy being trialled and considered for wider application. There is less evidence, however, on the level of support for such trials as a tool for policy among the general population. In this paper, we provide a summary of an online survey experiment that tested the level of support, and factors associated with support,

for policy trials, and RCTs in particular. We found that about half the population supported a trial for a (hypothetical) policy intervention as opposed to introducing the policy to everyone at once. However, only around one-fifth of the population supported implementation of that trial through random assignment. We also found that (randomly assigned) policy area, support from experts for the policy, and party background of the policy instigator had large and significant associations with the level of public support for trials. We conclude that experts and policy makers who support trials in general and RCTs in particular need to engage with the community to explain the benefits, and to learn from community concerns.

Acknowledgments

The authors are grateful to Boyd Hunter, Ben Edwards and participants at the Australian Market Research Society 2018 Social and Government Data, Evidence, Insights and Research Conference for comments on earlier versions of this paper.

Acronyms

ANU Australian National University

CSRM ANU Centre for Social Research & Methods

RCT randomised controlled trial

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1 Introduction, data and overview

The general public is often asked about its views on different policy directions and prioritisation of different policy options. While the choice of policies and their design is vital, equally implementation and high-quality evaluation of policies and policy alternatives are vital for improving policies and programs, for discarding unsuccessful programs and policies, and for accountability purposes.

Despite extensive polling on the role of government and on policy priorities (see Biddle et al. [2018] for a summary of recent data on this issue), we have very little information on what the general public thinks about how policies should be implemented and to what extent they should be trialled before widespread introduction.

An emerging view from a broad array of fields is that there should be much greater use of evaluations of public policies in general, and the use of randomised controlled trials (RCTs) (e.g. Boruch et al. 2009, Leigh 2018), where feasible, particularly to test the effectiveness of new policies for which there is limited or no evidence about their likely impact.

At their simplest, RCTs involve identifying a potential population of interest to receive a new program or service, or to be subject to a new set of policy parameters. Members of the population are then randomly allocated to either a treatment group or a control group that does not receive the 'intervention'. After a sufficient period for the policy, service or program to have an effect, the outcomes of the treatment and control groups are compared to obtain an estimate of the impact of the policy. The validity of this approach rests on the treatment and control groups being selected without taking into account any information apart from a (virtual) toss of the coin, and the two being large enough to ensure that the groups are balanced across both observed and unobserved characteristics.¹

RCTs are attractive because they can solve the central evaluation problem of identifying what would have happened in the absence of the policy (i.e. the counterfactual). However, in practice, policy trials that allow identification of treatment and control groups but do not meet the criteria for an RCT are much more commonly used. Under certain circumstances, the difference in outcomes between the treatment and control groups may be taken as the effect of the policy or program being considered. Econometric or statistical methods are often used in these 'quasi-experimental' evaluations to get the treatment and control group as close as possible (Angrist & Pischke 2014). However, this may not always be possible. If the two groups are not identified carefully, the differences between them may be due to factors other than the program or policy change.

In general terms, however, if it is possible to trial a policy on a group of the potential target population, it should technically be possible to separate the two groups using randomisation. This does not happen for a range of reasons, including political considerations and the fact that an RCT may cost more than a non-RCT trial.

One of the leading advocates for RCTs in policy making is the Behavioural Insights Team in the United Kingdom. In their summary of the role and practice of RCTs, Haynes et al. (2012) argued that RCTs 'are the best way of determining whether a policy is working'. More specifically, the authors argued that:

By enabling us to demonstrate just how well a policy is working, RCTs can save money in the long term – they are a powerful tool to help policymakers and practitioners decide which of several policies is the most cost effective, and also which interventions are not as effective as might have been supposed. It is especially important in times of shrinking public sector budgets to be confident

that public money is spent on policies shown to deliver value for money.

More recently, and in the Australian context, Leigh (2018) has argued that:

Researchers have spent years thinking about how best to come up with credible comparison groups, but the benchmark to which they keep returning is the randomised controlled trial. There's simply no better way to determine the counterfactual than to randomly allocate participants into two groups: one that gets the treatment, and another that does not.

Even the strongest supporters of RCTs, such as Haynes et al. (2012) and Leigh (2018), recognise that there are instances when an RCT is not feasible. This may be for political, practical or ethical reasons. A recent special issue of *Social Science & Medicine* (Mowat et al. 2018) has a focus on RCTs. The authors of the main article (Deaton & Cartwright 2018) argued that:

RCTs can play a role in building scientific knowledge and useful predictions but they can only do so as part of a cumulative program, combining with other methods, including conceptual and theoretical development, to discover not 'what works', but 'why things work'.

As well, RCTs can only be used for policies for which it is possible to randomise treatment. This applies for only some policies or programs, often in areas such as family and community services, environmental programs and behaviours, education and health. It is hard to imagine RCTs on issues such as major legislative changes to the tax and transfer system; major economic policies, including monetary and fiscal policy; and foreign policy.

Despite the limitations of RCTs, it is strongly and fairly widely argued that RCTs are used within public policy far less than they could, and should, be. For example, Haynes et al. (2012) argued that 'RCTs are not routinely used to test the effectiveness of public policy interventions in the UK. We think that they should be'. The assumption is that the experts agree, but that the general public is lukewarm, and/or policy makers are reluctant to expose themselves and

their policies to potential findings of zero or negative effects.

The evidence on the views of the public on RCTs is, however, rather scant. We do not have good evidence on the level of support for policy trials (including in Australia), what is associated with this support, and the causal impact of important scientific and political factors.

To build an evidence base around this method for policy design and implementation, we conducted a population-based survey experiment (Mutz 2011) in which we asked a representative sample of the Australian population about their support for policy trials relative to other ways to implement a new policy approach. Data for this report come from the 26th survey in the ANUPoll series. The data are available for download at the Australian Data Archive.

The aim of the poll was to document the attitudes of a representative sample of the Australian population towards what government should do and how it should do it. An additional set of questions asked about populism and personality traits, and key political issues of the day.

In the poll, 2220 people were interviewed between 13 and 26 August 2018. Among individuals who received the survey (i.e. members of the 'Life in Australia' panel), a completion rate of 79% was achieved. Taking into account the recruitment rate to the panel, the cumulative response rate is calculated as 9.2%. The results have been weighted to represent the national population.

The remainder of this paper is structured as follows. In Section 2, we introduce the main questions used in our analysis and summarise the distribution of respondents. In Section 3, we look at variation in the level of support for trials in general, and RCTs in particular, across the population. This is followed in Section 4 by a summary of the measured effects of expert opinion and party affiliation in support for trials and RCTs. Section 5 provides some concluding comments.

2 Level of support for policy trials in Australia

In the ANUPoll, respondents were asked to ‘consider a hypothetical proposal to reform’ one of five policy areas. We then asked ‘which of the following approaches do you think the government should take?’, with the response options as follows:

1. Introduce the policy for everyone in Australia at the same time.
2. Introduce the policy to everyone, but do it in stages.
3. Trial on a small segment of the population who need it most.
4. Trial on a small segment of the population chosen randomly.

The wording of the survey question was randomly varied across participants in three dimensions. The first dimension is the order in which the different policy areas were presented to the respondents. The second dimension relates to whether it was specified that the proposal was from a political party (Labor Party, Liberal Party) or whether the political party was not specified. The final dimension is the extent to which experts in the area are generally supportive, generally opposed or divided on the policy. The exact wording of the question is given on the right.

For school education and policing, respondents were most likely to say that the government should introduce the policy for everyone at the same time; the result is statistically significant (Figure 1). For employment, on the other hand, respondents thought that the government should trial the reform on those who need it most; the result is statistically significant. For the other two types of policy – early childhood education and health service delivery – there was no (significant) difference between options 1 and 3, but both were a more common response than the option of introducing the policy to everyone in stages or trialling it on a random segment of the population.

Q7. Please consider a hypothetical [Labor Party/Liberal Party/blank] proposal to reform <INSERT PORTFOLIO AREA>. If experts in the area [generally support/are generally opposed to/are divided on] the policy, which of the following approaches do you think the [Labor/Liberal/blank] government should take?

(RANDOMISE)

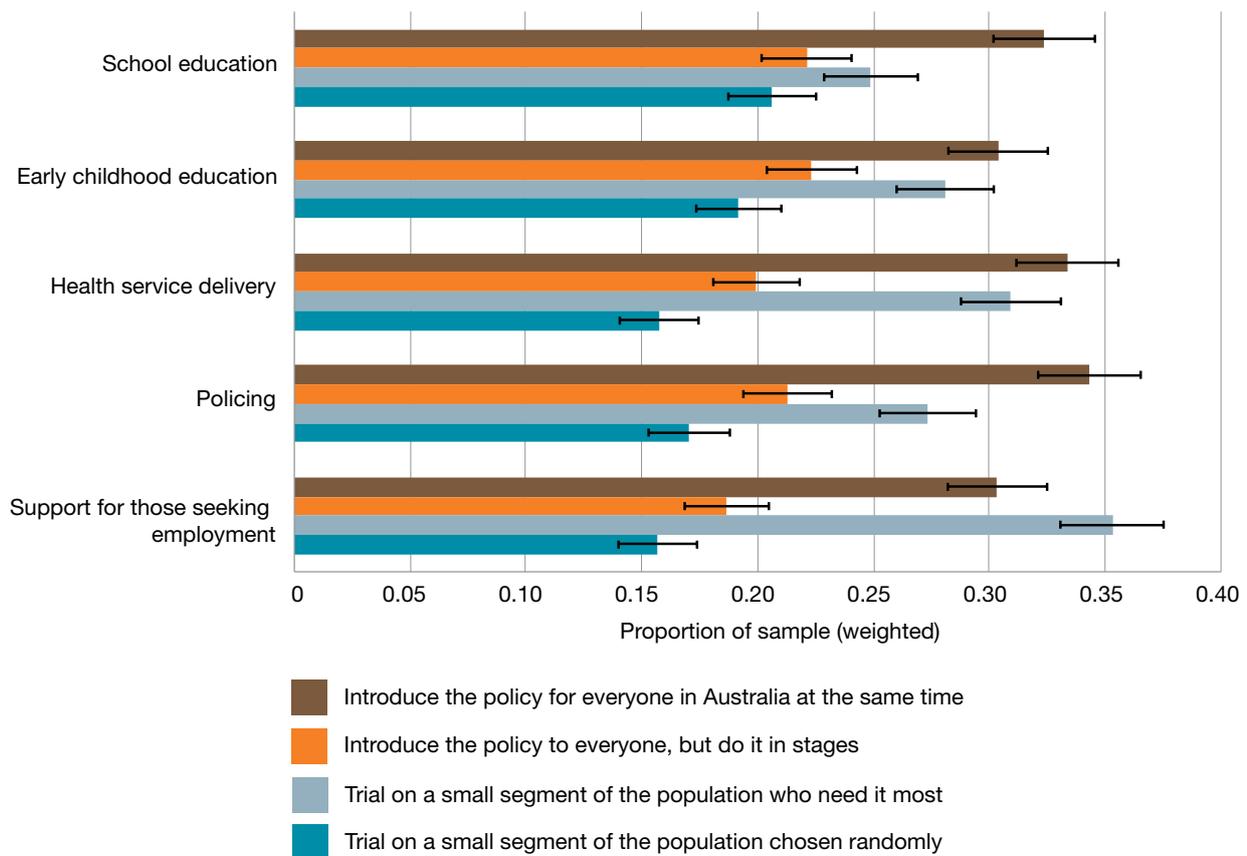
- a. School education
- b. Early childhood education
- c. Health service delivery
- d. Policing
- e. Support for those seeking employment

(READ OUT)

(Code frame order based on current interview mode and order variable)

1. Introduce the policy for everyone in Australia at the same time
2. Introduce the policy to everyone, but do it in stages
3. Trial on a small segment of the population who need it most
4. Trial on a small segment of the population chosen randomly
98. (Don't know) / Not sure
99. (Refused) / Prefer not to say

Figure 1 Approaches that the government could take for a hypothetical policy reform



Note: Less than 2% of the sample responded that they either did not know or were not sure of the answer to the question. These individuals were excluded from the analysis.

Source: ANUPoll on the Role of Government, October 2018

For all five policy areas, trialling the program on a small segment of the population chosen randomly (an RCT) was either the lowest response (health service delivery, policing) or equal lowest response.

Australians are split in their attitudes about whether a policy should be introduced for everyone in Australia (combining the options of introducing the policy for everyone at the same time and doing it in stages) or whether it should be trialled (combining the options of trialling the policy on those who need it the most and trialling it on a randomly chosen segment of the population). The proportion saying that it should be introduced for everyone ranges from 49% for the policy of support for those seeking employment to 56% for a policing change.



3 Predictors of support for trials in Australia

Support for trials in general, and RCTs in particular, varies considerably across the population, particularly by education and by geography. Using a regression-style analysis, we pooled responses to all five policy areas (i.e. there were up to five observations for each individual) and estimated the characteristics associated with two dependent variables:

- whether the individual supports a trial (options 3 and 4) as opposed to introducing the policy for everyone (options 1 and 2)
- whether the individual supports an RCT (option 4) specifically as the policy approach.

The factors associated with each of the dependent variables were examined using a random effects probit regression model. This is an appropriate model given the binary nature of the dependent variable, and the fact that we have a pooled sample across individuals and therefore need to take into account the clustering of standard errors across individuals (which the random effect accounts for). The explanatory variables included are policy area (as a set of dummy variables) and a range of individual-level characteristics: age, Indigenous status, whether the individual was born overseas and if so whether in an English or non-English speaking country, whether the individual speaks a language other than English at home, educational attainment, socioeconomic status of the area in which the individual lives (Socio-Economic Indexes for Areas – SEIFA – of the Australian Bureau of Statistics), and whether the individual lives outside a capital city.

Results are presented in detail as coefficients and marginal effects in Table 1. The marginal effects are calculated as the difference in probability from the base case, holding constant all other variables, including age (at the mean value in the sample of 53). Conclusions do not vary if we use a pooled probit model.²

Confirming the results presented earlier, respondents are most likely to support a trial in general for employment policy, with the difference statistically significant at the 1% level of significance. Respondents are more likely to support an RCT for a policy related to school education, and least likely to support it for health service delivery and support for those seeking employment. Importantly, these results hold after taking into account the association with a range of variables, as described below.

In general, people from more disadvantaged backgrounds tend to have the least support for trials in general and RCTs in particular. By geography, the lowest level of support is among those who live in areas that are in the two most disadvantaged quintiles (based on the SEIFA index). There is also large variation by education. Those who have not completed Year 12 are less likely to support an RCT for a new policy initiative than those who have completed Year 12.

A significantly (and substantially) larger percentage of those with a degree support trials or RCTs for new policy initiatives. It is unclear (from these data) whether the variation by level of education is because those with higher levels of education have had a greater exposure to the role of randomisation and policy experimentation through their studies, or whether those with lower levels of education are more likely to be among those in need or to benefit from the policy initiatives in question.

Table 1 Factors associated with support for trials and RCTs, random effects probit regression model

Explanatory variables	Support for trials			Support for RCTs specifically		
	Coefficient	Marginal effect	Significance	Coefficient	Marginal effect	Significance
Policy – early childhood education	0.1167	0.0456	*	-0.1113	-0.0044	
Policy – health service delivery	0.1137	0.0445	*	-0.4051	-0.0119	***
Policy – policing	-0.0503	-0.0199		-0.2828	-0.0094	***
Policy – support for those seeking employment	0.3403	0.1287	***	-0.4061	-0.0119	***
Policy – school education (omitted category)						
Female	-0.0598	-0.0237		0.0757	0.0036	
Age	-0.0012			-0.0310		
Age squared	-0.0001			0.0003		
Indigenous	0.2334	0.0899		0.2641	0.0155	
Born in Australia (omitted category)						
Born overseas in an English-speaking country	0.2208	0.0851		0.2256	0.0127	
Born overseas in a non-English-speaking country	-0.5418	-0.2118	***	-0.2335	-0.0081	
Speaks a language other than English at home	-0.1596	-0.0635		-0.0836	-0.0034	
Has not completed Year 12	-0.3133	-0.1245	**	-0.3553	-0.0110	**
Does not have a qualification (omitted category)						
Has a Certificate I or II as highest qualification	-1.0831	-0.3832	***	-0.3637	-0.0111	
Has a Certificate III or IV, or a Diploma as highest qualification	-0.4246	-0.1677	***	-0.4863	-0.0132	***
Has an undergraduate degree	0.1775	0.0689		0.4999	0.0373	***
Has a postgraduate degree	0.5727	0.2061	***	0.3880	0.0258	
SEIFA quintile 1 – most disadvantaged	-0.6090	-0.2362	***	-0.3789	-0.0114	*
SEIFA quintile 2	-0.5235	-0.2051	***	-0.4230	-0.0122	**
SEIFA quintile 3	-0.1980	-0.0788		0.1919	0.0104	
SEIFA quintile 4	0.1166	0.0455		0.0754	0.0036	
SEIFA quintile 5 (omitted category)						
Lives outside a capital city	0.1316	0.0514		0.0696	0.0033	
Constant/probability of base case	0.5193	0.5567		-1.2143	0.0181	
Sample size	9429			9429		

*, ** and *** = statistically significant at the 10%, 5% and 1% confidence levels, respectively; RCT = randomised controlled trial; SEIFA = Socio-Economic Indexes for Areas

Source: ANUPoll on the Role of Government, October 2018



4 Effect of expert views and party affiliation on support for trials in Australia

The type of policy that is being proposed clearly matters for whether the general public thinks it should be trialled as part of an RCT. However, the views of those outside the political system on the policy, and the political party that is proposing the policy, might also matter. As described above, we tested these two potential effects by randomly varying the wording of the question across respondents.

The first ‘treatment’ that we applied to the question was to vary whether respondents were told whether experts generally support the policy, are generally opposed to the policy, or are divided on the policy (with one-third of respondents given each of these options).

The second ‘treatment’ was varying whether the policy was specified as a Labor Party proposal or a Liberal Party proposal, or not specified with regard to political party (taken as the control group). By asking for voting intentions earlier in the survey, we were also able to look at the interaction between who the respondent would vote for and the party proposing the policy. There is very interesting, but complex, variation in support for an RCT by individual and political party affiliation.

Figure 2 gives the level of support for trials in general and RCTs in particular across the pooled datasets, depending on the (randomly allocated) views of experts. Figure 3 gives the same proportions by the (randomly allocated) party, according to the party affiliation of the respondent. These results are unconditional – that is, we do not control for other characteristics of the respondents. However, because we have a reasonably large sample size with balance across the different treatments, the differences and conclusions are the same regardless of whether we control for the characteristics presented in Table 1.

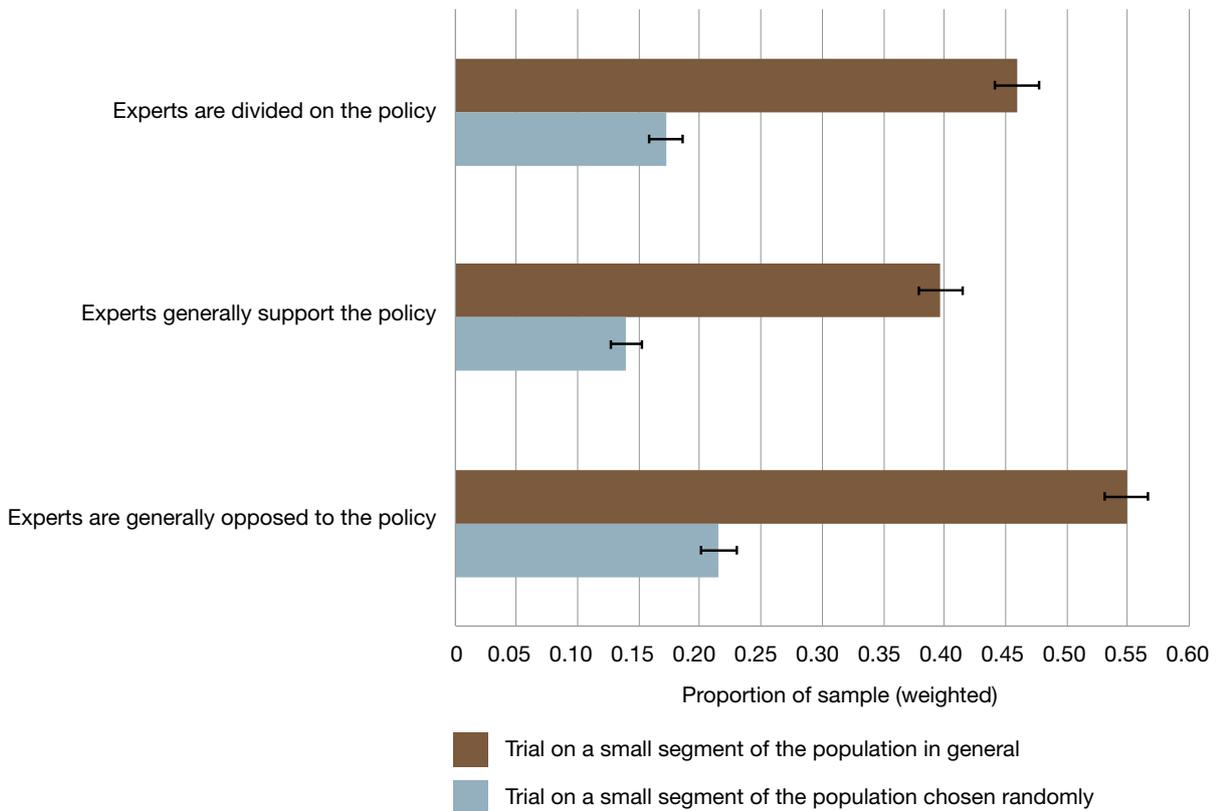
Keeping in mind that respondents were not given the option of not introducing the policy at all, the greatest support for a trial in general or an RCT in particular occurs when experts are generally opposed to the policy. In this case, it would seem that respondents believe that the government should obtain additional evidence through a trial or an RCT. The least amount of support for a trial or an RCT comes when experts are generally in support of the policy, which would imply that respondents believe that sufficient evidence must already exist to introduce the policy for everyone.

For trials in general, Greens voters and undecided voters are the most supportive, although, for both groups, the level depends on who is proposing the policy (Figure 3). For Greens voters, the greatest support for trials is for policies that are proposed by Labor. For undecided voters, the greatest support for trials is for policies that are either Labor policies or unspecified. For Coalition voters, there is much less support for trials if they are unspecified (the control), and there is no significant difference between Labor and Liberal policies. For Labor voters, the lowest level of support for a trial is for a Labor policy; Liberal policies are associated with a slightly (but not significantly) higher level of support for trials than unspecified policies.

In general, Greens voters and undecided voters are the most supportive of an RCT, with these differences holding regardless of whether education and other background characteristics are controlled for.

For Greens, ‘other’ and undecided voters, respondents were more likely to say that a policy was more suited to an RCT if it was a Labor Party policy than if it was a Liberal Party policy or if the political party was not specified. This may reflect the fact that the poll was undertaken when (at a national level) the Labor Party was in opposition and the Coalition was in power. However, it does

Figure 2 Support for government trialling a new policy on a small segment of the population in general or chosen randomly, by views of experts

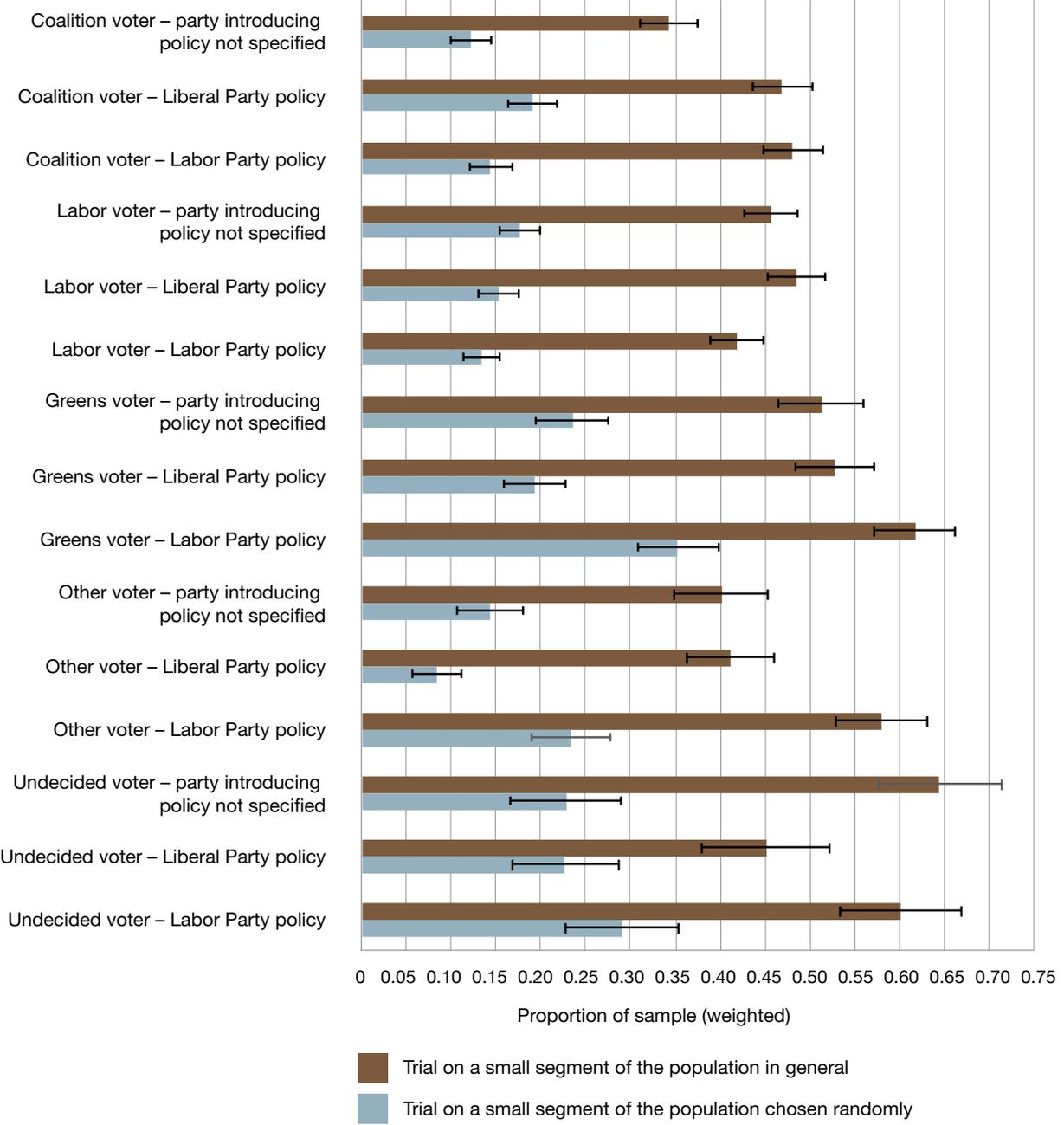


Source: ANUPoll on the Role of Government, October 2018

show that those who are not aligned with one of the two major parties still have different views on how policies should be implemented, depending on who is proposing the policy.

However, the treatment effects are different for those who would vote for one of the major parties. For Coalition voters, unspecified policy proposals and policies proposed by the Labor Party have the lowest probability of being recommended for an RCT. For Labor voters, on the other hand, unspecified policies are most likely to be supported, and Labor Party policies least likely to be supported, to have an RCT.

Figure 3 Support for government trialling a new policy on a small segment of the population in general or chosen randomly, by party of respondent



Source: ANUPoll on the Role of Government, October 2018

5 Concluding comments

The call for greater use of trials and evaluations in public policy has increased in a number of countries – particularly the potential for RCTs to inform policy development. This is because of the potential for RCTs to provide reliable estimates of the causal impacts of the policy being trialled and considered for wider application. Units have been set up in many countries of the Organisation for Economic Co-operation and Development, and in central agencies in the Australian, New South Wales and Victorian governments, that use RCTs to test the effect of policy interventions broadly; interventions inspired by behavioural insights/economics have specifically been targeted. Among many researchers, there has been increased engagement with policy makers on evaluating such interventions, amid what has been claimed by some as a ‘causal revolution’ (Angrist & Pischke 2010). However, little evidence is available on the level of support for such trials as a tool for policy among the general population.

In this paper, we summarise an online survey experiment that measured the level of support for trials in general and RCTs in particular; the factors that influence that support; and whether there is a causal relationship between expert opinion, party identification and support for an RCT. We ran an RCT on RCTs. Having done so, a few main findings emerge:

- There is a roughly even split between those who think a new policy should be introduced to everyone at once and those who think it should be trialled on a small segment of the population.
- Compared with the other three options, support for RCTs as a particular form of trial is quite low.
- Respondents support trials for employment policies the most strongly (with the order of presentation of policies randomised).
- Respondents are most likely to support an RCT for a policy related to school education,

and least likely to support it for health service delivery and support for those seeking employment.

- Those who live in disadvantaged areas and those with low levels of education are least supportive of RCTs.
- Support for RCTs from the general public is inversely proportional to (randomised) support for the policy from experts.
- Coalition voters are more supportive of an RCT if they are told it is a Liberal Party policy.
- Labor voters are least likely to support an RCT if they are told it is a Labor Party policy.
- Greens and ‘other’ party voters are more supportive of an RCT if it is a Labor Party policy.

It is clear that RCTs are likely to be a methodological option that are increasingly used by policy makers to test the effect of policy interventions. However, to be truly effective and to avoid a backlash, RCTs need to be supported not only by researchers and policy makers but also by the general public. The results presented in this paper show that this buy-in is a long way off.



Notes

1. There are, of course, a range of additional complexities related to the design and implementation of RCTs, including controlling for spillovers, attrition, compliance, and measurement of outcomes (Glennerster & Takavarasha 2013).
2. There are known issues with marginal effects created from random effects probit models. For outcomes with low/high incidence, probabilities and marginal effects can be underestimated/overestimated. We focus our discussion on the sign and statistical significance of the associations.

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