"An Isolating Experience Aggravated by COVID": Exploring Disconnections Between Political Science PhD Candidates and Supervisors

Serrin Rutledge-Prior, Australian National University, Australia Daniel Casey, Australian National University, Australia

ABSTRACT To what extent did the COVID-19 pandemic impact PhD candidates in political science? To what extent were their supervisors aware of this impact? PhD candidates in political science are not strangers to the lack of available and stable academic employment and the potentially isolating experience of research. Our survey of Australian PhD candidates in political science and international relations (N = 109) confirms that the COVID-19 pandemic exacerbated these preexisting challenges. By comparing political science PhD candidates and their supervisors in relation to their experiences during the pandemic, our survey also reveals that there has been a disconnect between the two groups relative to the former's experience of COVID-19. Although supervisors recognize the stressors that candidates have faced, they are more likely than candidates to report that department support relative to pandemic-related challenges was available, and they appear to be somewhat unaware of the impact that COVID-19 has had on candidates' career plans. The survey also reveals substantial disagreement between candidates and supervisors about perceived career-mentoring styles. These points of disconnect must be addressed to ensure the success and well-being of current and future PhD candidates.

he COVID-19 pandemic has profoundly impacted the higher-education sector. The Australian university sector has lost tens of thousands of students, billions of dollars in revenue, and 20% of its workforce (Kelly 2022; Marshman and Larkins 2021). Within this macro picture, there are thousands of PhD candidates whose study and career plans have been reconsidered or abandoned. This research draws on the findings from a unique

Serrin Rutledge-Prior ¹ is a Research Fellow at the Australian National University's Crawford School of Public Policy. She can be reached at serrin.rutledge-prior@anu.edu.au. Daniel Casey ¹ is a PhD candidate in politics and international relations at the Australian National University. He can be reached at daniel.casey@anu.edu.au.

comparative survey of Australian PhD candidates and their supervisors, which asked mirrored questions of the two groups about their perceptions of the PhD program. This enabled a comparison of candidates' views with those of their supervisors and allowed us to consider how well supervisors understood the impact of COVID-19 on those they were supervising. Such an endeavour is important, given that the successful completion of a PhD is highly dependent on clear communication between candidates and supervisors (Cardilini, Risely, and Richardson 2022), the quality of supervision (Heath 2002; Skakni 2018), and the relationship between candidate and supervisor (Roach, Christensen, and Rieger 2019).

The range of research on the impact of COVID-19 on the higher-education sector has found that the pandemic has had

© The Author(s), 2023. Published by Cambridge University Press on behalf of the American Political Science Association. This is an Open Access article, distributed under the terms of the Creative Commons Attribution licence (http://creativecommons.org/licenses/by/4.0), which permits unrestricted re-use, distribution and reproduction, provided the original article is properly cited.

adverse mental health impacts (Le Vigouroux, Goncalves, and Charbonnier 2021; Yassin et al. 2021) and that these impacts are higher for minority and marginalized groups (Browning et al. 2021). Other scholars have highlighted the pandemic's impact on employability and career planning (Capone, Marino, and Sang-Ah Park 2021; Covington and Jordan 2022). Our research contributes to this emerging picture of PhD candidates, across countries and disciplines, who are facing similar pandemic-related pressures that may be exacerbating existing concerns. Therefore, this survey's findings, which indicate a lack of congruence between candidates' and supervisors' perspectives on the impacts of COVID-19, should be of concern to political science departments in Australia and beyond.

THE IMPACT OF COVID-19 ON AUSTRALIAN UNIVERSITIES

On January 25, 2020, the first case of COVID-19 was identified in Australia. Soon after, Australia closed its borders to China; by March, the border closures had effectively extended to the rest of the world. There is ongoing debate in Australia about how successfully governments managed the pandemic; however, throughout 2020 and 2021, Australia had one of the lowest COVID-19 case rates and mortality rates reported by the Organisation for Economic Co-operation and Development (Ritchie et al. 2020). Nevertheless, government mandates resulted in most universities having no on-campus lectures, research, or other activities for all or part of 2020 and 2021 (Kinash, Jones, and Crawford 2021).

Due to the border closure, international students were unable to come to Australia and often deferred their study or traveled to other countries. Given the internationalization of the higher-education sector, this had a major impact on Australian universities. Before the pandemic, the sector had grown substantially to become Australia's fourth-largest export (Australian Department of Foreign Affairs and Trade 2020). Between 2010 and 2019, income from feepaying international students increased from 18% to 27% of total university revenue (Ferguson and Spinks 2021). In political science PhD programs, the proportion of international students among commencing cohorts doubled from approximately 20% across the years 2005-2019 (Australian Department of Education 2022). With the onset of the pandemic-related border closures, the number of people receiving a student visa decreased by approximately 33%. By September 2021, the loss of students and revenue resulted in more than 40,000 redundancies in the Australian tertiary-education sector: approximately 20% of the workforce (Kelly 2022).

This analysis draws on the results of an original survey that formed the basis of the authors' broader research project on candidates' and supervisors' satisfaction with Australian political science PhD programs (Casey et al. 2023). One goal of this project was to identify the level of support provided to candidates through the pandemic and the impacts that the pandemic may have had on their future career ambitions. We recognized the impact that COVID-19 has had across academic disciplines; given our own position as PhD candidates in political science at the time of the survey design, we therefore were motivated to answer van Tienoven et al.'s (2022) call for discipline-specific research on the impacts of COVID-19.

METHODS AND DEMOGRAPHICS

Our survey drew on a number of questions from two previously conducted surveys aimed at political science doctoral students (i.e., Berdahl, Malloy, and Young 2020; Kefford and Morgenbesser 2013¹). It was constructed with Qualtrics and distributed during

the six weeks from February 24 to April 6, 2022 (Rutledge-Prior and Casey 2023).² Survey recruitment was implemented via social media (i.e., Facebook and Twitter); the Australian Political Science Association and its working groups; and the heads of Australian political science departments, who were asked to forward the survey to their networks. The survey received responses from 109 PhD candidates and 55 PhD supervisors³¹⁴ from 23 Australian universities. It asked a range of demographic questions, as well as questions on career path, doctoral training, supervision, and coursework. The questions were predominantly closed-ended, with a few allowing for free-text input (see the online appendix).

We estimate that there are no more than 300 political science academics in Australia who have supervised a PhD candidate (Australian Government 2021; Kefford and Morgenbesser 2013), which suggests that approximately 18% of the eligible population completed the survey. Survey respondents were broadly representative based on gender, with slight overrepresentation in the more senior levels. Because the survey included only those academics who have been on PhD supervisory panels, the resulting sample is likely to underrepresent junior academics.

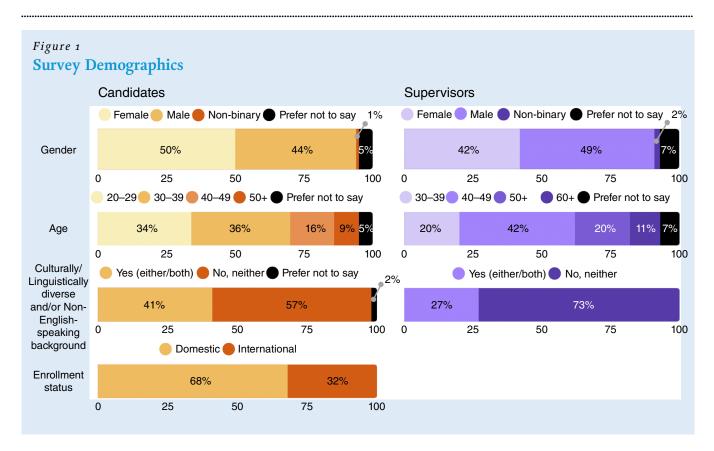
More than 600 PhD candidates were enrolled in political science and policy studies in 2020 in Australia. However, this number includes candidates who were not actively studying or researching but who had maintained their enrollment. Our best estimate of active engaged PhD candidates is approximately 450. We received 109 responses—approximately 25% of the target population. PhD-candidate respondents were broadly representative relative to gender, domestic/international status, and full-/part-time status (figure 1). Australia's "Group of Eight" (Go8) universities were overrepresented: 65% compared to an estimated 45% of the population.

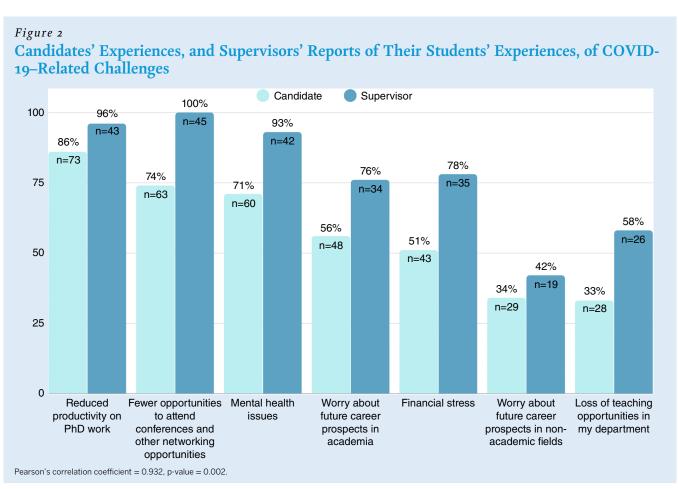
IMPACT OF COVID-19 ON THE PHD PROGRAM

We asked candidates about a range of challenges that they might have faced during the pandemic relating to academic work, research, finances, and mental health (figure 2). Of the responses, 97% indicated having experienced at least one COVID-19–related challenge and more than 70% of candidates experienced at least three challenges.⁶

The most prevalent challenge identified by candidates was reduced productivity (86%), which is consistent with Covington and Jordan's (2022) findings that 80% of PhD candidates impacted by COVID-19 experienced delays in their projects. The next two most prevalent challenges were reduced opportunities to attend conferences and other networking opportunities (74%) and mental health issues (71%). These three challenges were the same that supervisors were most likely to have identified relative to their supervisees (96%, 100%, and 93%, respectively). The agreement between the issues identified by supervisors and candidates is promising because it may indicate that some level of communication was maintained during the pandemic.⁷

There is evidence that these pressures, including mental health issues, financial stress, and lack of future academic and nonacademic career prospects (Almasri, Read, and Vandeweerdt 2022; Cornwall et al. 2019), existed before the pandemic. As one survey respondent noted, the PhD program is "already an isolating experience" that is only "aggravated by COVID." Therefore, it is difficult to determine whether and the extent to which the impacts of these challenges have worsened relative to the pre-pandemic period. However, our findings are consistent with research in





other disciplines about the impact of COVID-19 on PhD candidates (Browning et al. 2021; Capone, Marino, and Sang-Ah Park 2021; Covington and Jordan 2022; Le Vigouroux, Goncalves, and Charbonnier 2021; van Tienoven et al. 2022; Yassin et al. 2021). This consistency provides assurance about the robustness of our findings that COVID-19 has increased existing pressures on PhD candidates.

candidates. However, regarding the level of departmental support for candidates, we found a significant difference in their perceptions. The survey indicates that whereas there is broad agreement across the two groups that some level of support was provided, supervisors reported that more support had been provided. Figure 4 shows that although almost 20% of candidates reported having been offered no support by their department, 9 less than 5%

As one survey respondent noted, the PhD program is "already an isolating experience" that is only "aggravated by COVID."

The results of our survey also suggest that PhD candidates are taking significantly longer to complete their degree relative to 2013 (figure 3)—a finding that is consistent with candidates' reports of reduced productivity (see figure 2).

A comparison of results from Kefford and Morgenbesser's (2013) survey reveals that the proportion of candidates in their fourth year or beyond has increased from 27% to 38%. It seems likely that this delay is due in part to the impacts of COVID-19. This assumption aligns with the findings of Covington and Jordan (2022), who found that approximately 40% of PhD candidates were concerned that the pandemic would delay their completion. The longer completion times also may be a result of the Australian government's decision in response to COVID-19 to extend by six months some PhD candidates' scholarships. Although this policy addressed issues around financial uncertainty, it is not clear whether or the extent to which it had an impact on research productivity.

DEPARTMENTAL SUPPORT FOR COVID-19-RELATED CHALLENGES

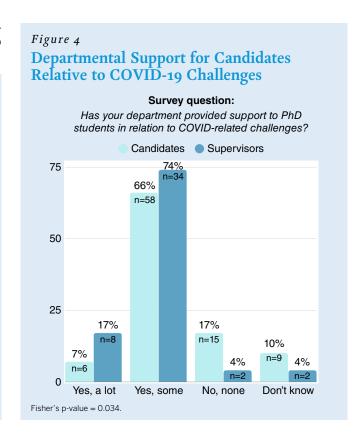
As suggested previously, both candidates and supervisors indicated a similar understanding of the challenges facing PhD

Figure 3 **Year of Candidature (Full-Time Equivalent)** 2013 2022 30 28% 26% 25% n=46 24% 24% 1=27 n=43 n=43 21% 20% 20 n=38 14% 13% 10 6% n=10 0 2nd 3rd 4th 5th+ χ 2 = 9.7518, p-value = 0.045

of supervisors believed this was the case. Likewise, 91% of supervisors reported that candidates were provided with "some" or "a lot" of support compared to 73% of candidates. This disconnect is cause for concern. It may mean that although there was broad agreement about the issues that candidates faced, there was insufficient discussion between candidates and supervisors about whether there was (appropriate) support in place to manage these challenges.

When we considered levels of satisfaction with departmental support relative to COVID-19, candidates were more likely than supervisors to report being "not at all satisfied" with the level of support that was offered (30% and 20%, respectively). However, the difference in satisfaction levels was not statistically significant (Fisher's p-value = 0.355), 10 which suggests that both supervisors and candidates are in some agreement that there is more that departments can do to assist candidates.

As discussed previously, we may question how much the pandemic, in fact, impacted these results or whether the results

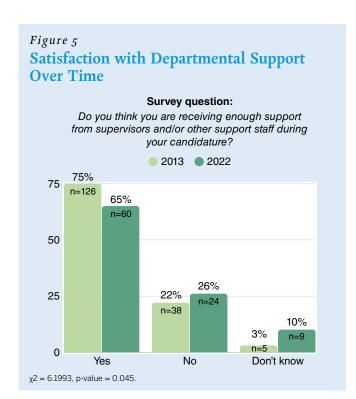


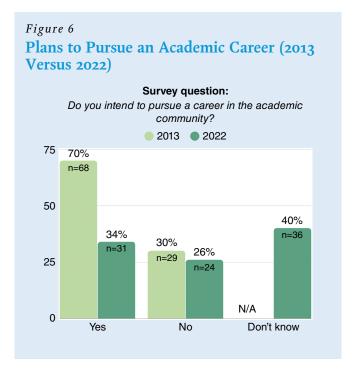
reflect dissatisfaction with levels of departmental support in general. Exploring these results, we found that candidates' views on whether they are being provided sufficient support from their supervisors and other staff does not appear to impact their satisfaction with COVID-19-related support (Fisher's p-value = 0.150). That is, there is no difference in satisfaction levels across those who believe they are receiving enough support in general and those who do not: substantial proportions of both groups are dissatisfied with the COVID-19-related support offered.

We can also discern how the satisfaction with departmental support might have changed due to the pandemic by comparing satisfaction levels before and after 2020. Our comparison of identical questions on Kefford and Morgenbesser's (2013) survey with our own suggests that dissatisfaction levels indeed changed across the pre- and inter-pandemic periods. We found a statistically significant decrease in the number of PhD candidates in 2013 compared to 2022 who reported that they were receiving sufficient support from their supervisors and/or their department (figure 5). Although this measure cannot definitively explain what is driving this change, it nevertheless lends credence to the notion that levels of satisfaction with support may have been impacted by the responses of departments to the pandemic.

IMPACT OF COVID-19 ON FUTURE CAREER PLANS

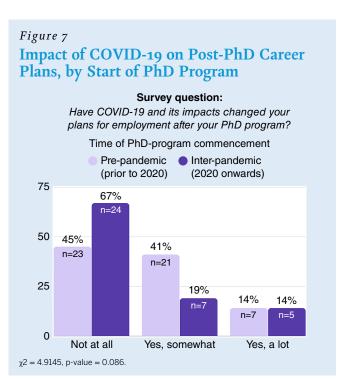
Our results indicate a marked decrease in the proportion of candidates in 2022 who were planning a career in academia relative to those with the same plans in 2013 (figure 6).11 Whereas a majority of 2022 candidates (54%) indicated that the pandemic did not have an impact on their plans for employment after completing their PhD,12 as shown in figure 2, more than half of candidates (56%) indicated that they were concerned about their future career prospects in academia as a result of the pandemic.





This broadly reflects the findings in the Covington and Jordan (2022) study, in which 68% of PhD students surveyed indicated that they were concerned the pandemic would have a negative impact on their academic career.

There is also some evidence to suggest that PhD candidates who started their PhD program since 2020 are more likely to report that COVID-19 had "no impact" on their career plans relative to those who started before the onset of the pandemic (figure 7). This may indicate that the former quickly adjusted their expectations to the "new normal." Nevertheless, even among this cohort, 33%



indicated that the pandemic has had some degree of impact on their employment plans.

We also found a substantial gap between the views of PhD candidates about their future career plans and those of their supervisors relative to their candidates' career plans. Candidates are much less likely to indicate that their plans changed due to the pandemic than their supervisors (figure 8).

This potential disconnect between candidates and supervisors is perhaps concerning if it indicates that there has been insufficient communication between candidates and supervisors about the impact COVID-19 has had on career objectives. These results are perhaps not surprising, however, when we consider a further disconnect between the views of candidates and supervisors relative to the latter's career-mentoring style (figure 9).

Most candidates (56%) suggested that their supervisors did *not* provide any career mentoring, compared to 2% of supervisors. This perceived lack of career mentoring was also evident in the free-text responses. One candidate commented that supervisors needed to "listen to the needs of their PhD students rather than assuming the students' desired career paths" and to "listen more to PhD candidate's particular interests as they relate to careers."

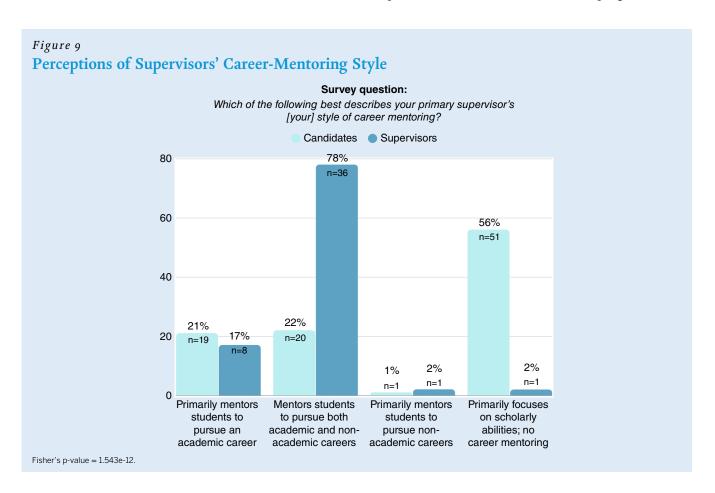
DISCUSSION AND CONCLUSION

This study about the impact of the COVID-19 pandemic on Australian political science PhD candidates—the first to compare the different perceptions of candidates and their supervisors—has two key findings. It provides evidence that COVID-19 delayed the completion of candidates' PhD programs and that there were disconnects between candidates and supervisors relative to the

Figure 8 Views on Whether COVID-19 Has Changed **Post-PhD Career Plans** Survey question: Have COVID-19 and its impacts changed your [your PhD students'] plans for employment after your [their] PhD program? Candidates Supervisors 75 67% 54% n=47 50 32% n=28 24% 25 n=8 14% 9% n=12 0 Not at all Yes, somewhat Yes, a lot Fisher's p-value = 0.003.

level of departmental COVID-19–related support that candidates received, their postdoctoral career plans, and supervisors' careermentoring styles.

There are limitations to this study, including its relatively small sample size and issues with convenience sampling and selection



bias. However, our results about the impact of COVID-19 on PhD candidates broadly align with those from different countries and different disciplines, demonstrating that these issues are likely to be applicable across political science departments. It also is important to highlight that, given the overrepresentation of Go8-affiliated candidates and supervisors in our sample, the issues revealed by the survey are not being driven simply by less wellsupervisors appear to be somewhat united in their relatively high levels of dissatisfaction with departmental support for candidates relative to COVID-19. However, our survey also suggests that, relative to candidates, supervisors believe that there has been more departmental support provided to candidates in response to COVID-19—related challenges. This is concerning because if supervisors believe that support already is being provided, they may be

Most candidates (56%) suggested that their supervisors did not provide any career mentoring, compared to 2% of supervisors.

resourced universities: these are universal issues of concern.13 This means that departments, graduate coordinators, and supervisors across Australia (and beyond) should consider which actions can be taken to provide appropriate further support for candidates.

Given the importance of good communication and clearexpectation management between supervisors and candidates less likely to advocate for appropriate improvements for PhD candidates within their department.

We make the following recommendations. First, supervisors should work with candidates to plan adjustments to their research agenda and schedule as needed. Second, supervisors and departments should consider which additional supports could be pro-

Given the importance of good communication and clear-expectation management between supervisors and candidates, the results of this survey suggest a mismatch between what candidates think and what their supervisors think they think.

(Cardilini et al. 2022), the results of this survey suggest a mismatch between what candidates think and what their supervisors think they think. Research has shown that when the frequency of candidate-supervisor meetings decrease, the level of satisfaction with the supervisory relationship also diminishes (Casey and Rutledge-Prior 2022; Heath 2002). Although it is beyond the scope of this survey to determine, it is likely that the pandemic led to a reduced frequency of meetings between candidates and supervisors. Depth of engagement also may have been impacted because online supervision creates significant additional challenges and barriers to ensuring "healthy relationships" (Gray and Crosta 2019) and can hamper "supervisory dialogue" (Bengtsen and Jensen 2015). Indeed, a key finding from our survey is that a significant proportion of supervisors appear to be uninformed or misinformed about the career aspirations of their candidates in the wake of COVID-19. To the extent that this indicates that supervisors and supervisees are not having regular and/or honest conversations about career goals, this suggests that the former may be less effective in providing successful supervision. The nature of the academic work environment—as shaped by increasing job demands, metric evaluation systems, and increasing casualization and "adjunctification"—means that many of these issues are likely to reflect structural problems within academia and cannot be solved by individuals alone. Nevertheless, we stress the importance of supervisors in political science and elsewhere to maintain strong and regular lines of communication with their students.

With current research demonstrating that the level of support from supervisors-rather than academic qualities-is the main determining factor in candidate satisfaction (van Tienoven et al. 2022), it is encouraging to see from our survey that supervisors appear to recognize the challenges that their candidates have faced due to the pandemic. Furthermore, both candidates and

vided, particularly to address the issues identified in figure 2. With budgets and time stretched thin, such approaches need not be too onerous. Departments could organize peer-mentoring between early- and later-stage PhD candidates, run regular research "bootcamps" (Mewburn 2014), and offer weekly morning teas or lunches. For their part, supervisors could engage in collaborative research with their students, use their nonacademic networks to give candidates opportunities for nonacademic work experience and internships, and facilitate-or encourage their students to organize—work-in-progress seminars and reading groups. 14 These efforts may help to maintain a sense of community across PhD cohorts and between candidates and faculty members—an endeavour that remains important in the context of the ongoing COVID-19 pandemic.

DATA AVAILABILITY STATEMENT

Research documentation and data that support the findings of this study are openly available at the PS: Political Science & Politics Harvard Dataverse at https://doi.org/10.7910/DVN/8V3S2I.

SUPPLEMENTARY MATERIALS

To view supplementary material for this article, please visit at https://doi.org/10.1017/S1049096523000161.

CONFLICTS OF INTEREST

The authors declare that there are no ethical issues or conflicts of interest in this research.

NOTES

1. Kefford and Morgenbesser's (2013) study had the same eligibility criteria for PhD candidates as in our survey. Conducted on SurveyMonkey, its recruitment relied on universities forwarding the survey to relevant PhD candidates. It ultimately received

- 186 PhD candidate responses from across 22 universities. Demographically, their survey had a similar spread by gender, age, and domestic status as our survey.
- Ethics approval was granted by the Australian National University Human Ethics Committee (Protocol 2021/810). Informed consent was obtained as the initial question in the Qualtrics survey.
- 3. The candidates were not linked to their supervisors or vice versa.
- 4. We note that the number of completed surveys for each group is lower than these figures, with drop-off rates increasing as candidates progressed further along the survey (this effect was less marked for supervisors). In terms of the COVID-19-related questions analyzed in this article, these were concentrated in a block toward the end of the survey, beyond the point at which most respondents who dropped out had already done so. Therefore, survey responses that we focused on in this article are from the subset of respondents who completed the survey (candidates: n~88; supervisors: n~46). Because the demographic questions were posed at the end of the survey and therefore not answered by those who dropped out, we unfortunately cannot determine whether or how the respondents who did not drop out might have differed from those who did.
- 5. A consortium of eight research-intensive universities that tend to be ranked most highly among Australian universities, consisting of the Australian National University, Monash University, University of Adelaide, University of Melbourne, University of New South Wales-Sydney, University of Queensland, University of Sydney, and University of Western Australia.
- 6. There were no statistically significant differences ($\alpha=0.05$) in the mean number of problems reported by gender; by non-English-speaking background or culturally diverse status; by domestic/international student status; by Go8 status; or by full-/part-time status.
- 7. We note that supervisors identified that these challenges have occurred more frequently than candidates. This is likely because supervisors were asked to respond to the question relative to all of their supervisees and therefore would have marked the relevant box if any of their candidates had been impacted. In comparison, candidates were asked the question relative only to their experiences.
- 8. The duration of an Australian PhD program is nominally three to four years.
- 9. There was no evidence of statistically significant differences (α = 0.05) driven by candidates' gender or Go8 status relative to experience of departmental support for COVID-19–related challenges.
- 10. There was a gendered difference, with women significantly less likely than men to be satisfied with levels of departmental support relative to COVID-19–related challenges (Fisher's p-value = 0.016). No evidence of difference (α = 0.05) was found relative to Go8 status.
- 11. We recognize that this is not a perfect comparison because there was a "don't know" option in the 2022 survey but not in the 2013 survey.
- 12. This outcome is mediated by gender, with women more likely than men to report that COVID-19 has changed their plans for employment after their PhD (p = 0.016). No evidence of a difference (α = 0.05) was found relative to Go8 status.
- 13. There were no statistically significant differences ($\alpha=0.05$) when we compared G08 and non-G08 candidates' responses relative to the number of problems they experienced as a result of COVID-19; the impact that COVID-19 has had on their career plans; and the level of and their satisfaction with the support they received from their department.
- 14. We thank our anonymous survey respondents for providing some of these suggestions in their open-ended responses.

REFERENCES

- Almasri, Nasir, Blair Read, and Clara Vandeweerdt. 2022. "Mental Health and the PhD: Insights and Implications for Political Science." *PS: Political Science & Politics* 55 (2): 347–53.
- Australian Department of Education. 2022: "Selected Higher Education Statistics: Table 3.4, Commencing Student Load." Australian Government. www.education.gov.au/higher-education-statistics/student-data.
- Australian Department of Foreign Affairs and Trade. 2020. "Trade and Investment at a Glance 2021." Australian Government. www.dfat.gov.au/publications/trade-and-investment/trade-and-investment-glance-2021.
- Australian Government. 2021. "Higher Education Statistics." Department of Education, Skills, and Employment. www.dese.gov.au/higher-education-statistics.
- Bengtsen, Søren, and Gry Jensen. 2015. "Online Supervision at the University: A Comparative Study of Supervision on Student Assignments Face-to-Face and Online." Tidsskriftet Læring Og Medier 8 (13): 1–23. https://doi.org/10.7146/ lom.v8i13.19381.
- Berdahl, Loleen, Jonathan Malloy, and Lisa Young. 2020. "Faculty Perceptions of Political Science PhD Career Training." PS: Political Science & Politics 53 (4): 751–76.
- Browning, Matthew, Lincoln Larson, Iryna Sharaievska, Alessandro Rigolon, Olivia McAnirlin, Lauren Mullenbach, Scott Cloutier, et al. 2021. "Psychological Impacts from COVID-19 among University Students: Risk Factors across Seven States in the United States." *PloS One* 16 (1): e0245327.

- Capone, Vincenza, Leda Marino, and Miriam Sang-Ah Park. 2021. "Perceived Employability, Academic Commitment, and Competency of University Students during the COVID-19 Pandemic: An Exploratory Study of Student Well-Being." Frontiers in Psychology 12:788387.
- Cardilini, Adam, Alice Risely, and Mark Richardson. 2022. "Supervising the PhD: Identifying Common Mismatches in Expectations Between Candidate and Supervisor to Improve Research Training Outcomes." Higher Education Research & Development 41 (3): 613–27.
- Casey, Daniel, and Serrin Rutledge-Prior. 2022. "Comparing the Experiences and Expectations of Australian PhD Candidates and Supervisors in Politics and International Relations." Presented at the Australian Political Studies Association Conference. Canberra, ACT: September 26–28
- Casey, Daniel, Serrin Rutledge-Prior, Lisa Young, Loleen Berdahl, and Jonathan Malloy. 2023. "Hard Work and You Can't Get It: An International Comparative Analysis of Gender, Career Aspirations, and Preparedness Among Politics and International Relations PhD Students." PS: Political Science & Politics. DOI: 10.1017/S1049096523000057.
- Cornwall, Jon, Elizabeth Mayland, Jacques van der Meer, Rachel Spronken-Smith, Charles Tustin, and Phil Blyth. 2019. "Stressors in Early-Stage Doctoral Students." Studies in Continuing Education 41 (3): 363–80.
- Covington, Natalie, and Larissa Jordan. 2022. "Impact of the COVID-19 Pandemic on PhD Students in Communication Sciences and Disorders." *Perspectives of the ASHA Special Interest Groups* 7 (2): 512–22.
- Ferguson, Hazel, and Harriet Spinks. 2021. "Overseas Students in Australian Higher Education: A Quick Guide." Department of the Parliamentary Library, Research Paper Series, 2020–21. Canberra, ACT.
- Gray, Morag, and Lucilla Crosta. 2019. "New Perspectives in Online Doctoral Supervision: A Systematic Literature Review." Studies in Continuing Education 41 (2): 173–90.
- Heath, Trevor. 2002. "A Quantitative Analysis of PhD Students' Views of Supervision." Higher Education Research & Development 21 (1): 41–53.
- Kefford, Glenn, and Lee Morgenbesser. 2013. "Bridging the Information Gap: A Survey of Politics and International Relations PhD Students in Australia." Australian Journal of Political Science 48 (4): 507–18.
- Kelly, Cait. 2022. "Looking Down the Barrel': Australian Universities Face Nervous Future Post-COVID." *The Guardian*, January 30. www.theguardian.com/australianews/2022/jan/30/looking-down-the-barrel-australian-universities-face-nervous-future-post-covid.
- Kinash, Shelley, Colin Jones, and Joseph Crawford. 2021. "COVID Killed the On-Campus Lecture, but Will Unis Raise It from the Dead?" *The Conversation*, February 15. https://theconversation.com/covid-killed-the-on-campus-lecture-but-will-unis-raise-it-from-the-dead-152971.
- Le Vigouroux, Sarah, Aurélie Goncalves, and Elodie Charbonnier. 2021. "The Psychological Vulnerability of French University Students to the COVID-19 Confinement." *Health Education & Behavior* 48 (2): 123–31.
- Marshman, Ian, and Frank Larkins. 2021. "After 2 Years of COVID, How Bad Has It Really Been for University Finances and Staff?" *The Conversation*, December 9. https://theconversation.com/after-2-years-of-covid-how-bad-has-it-really-been-for-university-finances-and-staff-172405.
- Mewburn, Inger. 2014. "Drop and Give Me 20,000 (Words)!" The Thesis Whisperer, October 15. https://thesiswhisperer.com/2014/10/15/6589.
- Ritchie, Hannah, Edouard Mathieu, Lucas Rodés-Guirao, Cameron Appel, Charlie Giattino, Esteban Ortiz-Ospina, Joe Hasell, et al. 2020. "Coronavirus Pandemic (COVID-19)." Our World in Data. https://ourworldindata.org/coronavirus.
- Roach, Alex, Bruce Christensen, and Elizabeth Rieger. 2019. "The Essential Ingredients of Research Supervision: A Discrete-Choice Experiment." *Journal of Educational Psychology* 111 (7): 1243–60.
- Rutledge-Prior, Serrin, and Daniel Casey. 2023. "Replication Data for 'An Isolating Experience Aggravated by COVID': Exploring Disconnections Between Political Science PhD Candidates and Supervisors." Harvard Dataverse. DOI:10.7910/DVN/8V3S2I.
- Skakni, Isabelle. 2018. "Doctoral Studies as an Initiatory Trial: Expected and Takenfor-Granted Practices That Impede PhD Students' Progress." Teaching in Higher Education 23 (8): 927–44.
- van Tienoven, Theun Pieter, Anaïs Glorieux, Joeri Minnen, Petrus Te Braak, and Bram Spruyt. 2022. "Graduate Students Locked Down? PhD Students' Satisfaction with Supervision during the First and Second COVID-19 Lockdown in Belgium." *Plos One* 17 (5): e0268923.
- Yassin, Amr Abdullatif, Norizan Abdul Razak, Murad Abdu Saeed, Mohammed Ali Abbod Al-Maliki, and Feras Ali Al-Habies. 2021. "Psychological Impact of the COVID-19 Pandemic on Local and International Students in Malaysian Universities." Asian Education and Development Studies 10 (4): 574–86.