

Leading the Fight Against the Pandemic: Does Gender 'Really' Matter? Supriya Garikipati[†] and Uma Kambhampati^{1*} [†]University of Liverpool, ^{*}University of Reading, Abstract Since the start of the ongoing coronavirus pandemic, the relationship between national female leaders and their effectiveness in handling the COVID-crisis has received a lot of media attention. In this paper we scrutinise this association more systematically. We ask if there is a significant and systematic difference by gender of the national leader in the number of COVIDcases and deaths in the first quarter of the pandemic. We also examine differences in policy responses by male vs. female leaders as plausible explanations for the differences in outcomes. Using a constructed dataset for 194 countries, a variety of socio-demographic variables are used to match nearest neighbours. Our findings show that COVID-outcomes are systematically better in countries led by women and, to some extent, this may be explained by the proactive and coordinated policy responses adopted by them. We use insights from behavioural studies and leadership literature to speculate on the sources of these differences, as well as on their implications. Our hope is that this article will serve as a starting point to illuminate the discussion on the influence of national leaders in explaining the differences in country COVIDoutcomes. Key words: COVID-19, Pandemic, National Leadership, Women Leaders, Risk Aversion. 1 We are grateful for research support provided by Antara Mandal. Any errors remain the responsibility of the authors. This preprint research paper has not been peer reviewed. Electronic copy available at: <https://ssrn.com/abstract=3617953> 2 I. Introduction National responses to the COVID-19 pandemic and their outcomes have been avidly compared across the world. Given the importance of leadership in times of crisis, national leaders have also been in the spotlight. Have leaders been slow in recognising the risks? Have they engaged with the science? Have they weighted the economic costs more heavily than the loss of lives? In this context, much has been written about the performance of women leaders (e.g., Taub, 2020; Friedman, 2020; Wittenberg-Cox, 2020). Much of the media analysis however, has been about two high-profile female leaders (Angela Merkel and Jacinda Ardern) who have steered their countries through the initial few weeks with less loss of life than their immediate comparators in Europe. In this paper, we consider the question of national leader's gender and COVID-outcomes more systematically and discuss some of the plausible reasons for our findings. Using a 194-country dataset, specifically constructed for this purpose, we analyse two main questions. First, are there any significant and systematic differences in the COVID-outcomes of male and female led-countries in the first quarter of the pandemic? Second, can we point to any differences in policy measures adopted by male and female leaders that might explain the differences in outcomes? In particular, we consider the timing of lockdown in these countries. The paper relates to various branches of literature that examine gender-differences in behaviour. Closely related is the literature on gender-differences in attitudes to risk and uncertainty. Studies in this area are largely focused on analysing decision-making in experimental settings. There is strong evidence within this literature that women, even those in leadership roles, appear to be more risk-averse than men (e.g., Croson and Gneezy, 2009; Charness and Gneezy, 2012). While this headline result is far from canonical (Nelson, 2015), especially given the role that cultural and contextual modulators play (see Finucane et al., 2000; Schubert, 1999), there is a high level of consistency in the frequency with which it surfaces. For example, Charness and Gneezy (2012) assemble 15 different studies that report findings from one underlying investment game, carried out in different countries, with different instructions, durations, payments and subject pools. They find a very consistent result that men invest more, and thus appear to be more risk taking than women. Indeed, in the current crisis, several incidents of risky behaviour by male leaders have been reported in the press. Particularly noteworthy among these are Brazil's Jair

Bolsonaro's dismissal of COVID-19 as "a little flu or a bit of a cold", while attending an anti-lockdown protest in April and Britain's This preprint research paper has not been peer reviewed. Electronic copy available at: <https://ssrn.com/abstract=3617953> 3 Boris Johnson's statement, "I was at a hospital where there were a few coronavirus patients and I shook hands with everybody" (as reported in Lewis, 2020). Given the consistent result on women's relative aversion to risk and anecdotal reports of risky behaviour by male leaders, it is tempting to draw simplistic conclusions. A reliable conclusion on the issue however requires more systematic investigation. The second strand of literature that our paper relates to is that on the role of leaders in national outcomes. The question of national leadership has given rise to a voluminous literature that lends texture to two conceptually extreme opinions: the idea that powerful leaders are simply a social myth, created to satisfy our psychological needs (Gemmill and Oakley, 1992) vs. the view that, a handful of influential leaders could be seen as determining the course of history (Keegan, 2003). In their seminar work, Jones and Olken (2005) use death of a leader as an exogenous variation in leadership and find that individual leaders can play a crucial role in shaping the growth of nations. Building on this, Besley, Montalvo and Reynal-Querol (2011) find that more competent leaders (specifically in terms of education and skills) result in better national outcomes. The skill and attainment of the leader is also found to matter in other general settings, like that of organisational performance (Goodall, Kahn and Oswald, 2011). The performance of female leaders in the COVID pandemic offers a unique global experiment in national crisis management where various issues, including that of effectiveness of leadership, can be examined across countries. There are very few studies about the impact of leader's gender in a national crisis, partly at least, because there are so few female leaders. In our sample of 194 countries, we have just 19 (