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### **Volunteering and Charitable Giving among Australian Young Adults and the Mediating Role of Community Service Emphasis in Secondary Schools**

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**Abstract**

Schools play a vital role in sustaining civil society by tending to the civic formation of their students. Prior research has focused on assessing students on a variety of civic outcomes including volunteering and charitable giving, and often compares students in Government, religious Independent, and non-religious Independent schools. However, this work has mostly been conducted in North American contexts. Nor has much attention been given to developing theory and then empirically testing mediating variables that explain any observed differences across these schooling sectors. We fill these gaps in this study. Using a nationally representative sample of 4,000 Australian adults, we first replicate prior research that compares volunteering and charitable giving rates across school sectors. Based on the theory of moral ecologies, we then hypothesize and empirically demonstrate that observed differences in outcomes across school sectors are mediated by the degree to which schools have emphasized community service in their curricula. Implications about civic education and subsequent research into civic formation are discussed.

Keywords: *volunteering, charitable giving, school choice*

Volunteering and Charitable Giving among Australian Young Adults and the Mediating Role of  
Community Service Emphasis in Secondary Schools

Students' civic formation has historically been a goal of schools. Educational institutions not only make up a significant part of civil society but also play a key role in sustaining it (Andersson & Ford, 2016; Berner, 2017; Ravitch & Vitteritti, 2001). To that end, educational researchers, especially since the turn of the 21st century, have empirically studied the effects that schools and educational programs have had on civic outcomes such as volunteering, charitable giving, political tolerance, and familiarity with government institutions or democratic processes (Casagrande, 2019; Gill et al, 2020; Mellor et al., 2001; Wolf, 2007). In Australia, specifically, a renewed commitment to foster these civic skills and dispositions was recently articulated in the Alice Springs (Mparntwe) Declaration by leaders in the Council of Australian Governments Education Council (2019). This document lists an aspiration to see all young Australians "committed to the national values of democracy, equity and justice, and participate in Australia's civic life" (p. 6). The document also records a promise from Australian governments to "provide a senior secondary education that equips young people with the skills, knowledge, values and capabilities to succeed in ... civic life" (p. 9).

In this paper, we focus on two particular civic outcomes, namely, volunteering and charitable giving. Volunteering is defined as freely giving one's time to support the work of a charitable organization without material compensation; charitable giving is similarly defined, except that it involves the giving of money or goods instead of time (Snyder & Omoto, 2008). According to data from the General Social Survey (2019), volunteering rates among Australian adults have declined steadily for the past decade. Although the amount of money that people have donated is on an upward trend, the number of people who do give has decreased of late

(McGregor-Lowndes et al., 2020). Scores on the national assessment program on civics and citizenship have also been disappointing (Ghazarian et al., 2012). Given these trends, the commitment to civic education articulated by the Alice Springs (Mparntwe) Declaration is timely.

Nevertheless, the question about how schools can effectively attain these civic ends remains. In this paper, we address this issue in two ways. We first document the differences in volunteering and charitable giving among adults who completed secondary education in one of Australia's four major schooling sectors: Government, Catholic, Independent, and Christian schools. Sociologists have documented the distinctive educational philosophies and pedagogical practices of Government, religious Independent, and nonreligious Independent schools, all of which potentially contribute to the civic formation of their respective students (Hunter & Olsen, 2019; Sikkink, 2012). Our results are consistent with these sociological theories and generally mimic findings of prior research regarding the relationship between school sector and civic outcomes. That is, graduates of Independent schools, especially faith-based institutions, volunteer and give at higher rates than graduates from Government schools, although there are some cases where there are no differences across the sectors (Casagrande, 2019; Cheng & Sikkink, 2019; Hill & den Dulk, 2013; Wolf, 2007).

Second, we develop and empirically test the hypothesis that graduates from schools that place more emphasis on community service within their curriculum will be more likely to volunteer and give during adulthood. We find that a school's emphasis on community service explains much but not all of the school sector differences that we observe. We view this second analysis as an important contribution to the theoretical understanding of civic education. Kragt and Holtrop (2019) recently criticized the lack of theory in the study of civic formation. One

consequence of the lack of theory is an amalgamation of inconsistent and disparate scholarly findings about civic education. The research on school sector and civic engagement is a case in point. Some studies find higher levels of civic engagement among Catholic, religious Independent, and nonreligious Independent schools' students relative to Government school's graduates, while other studies find no difference (Cheng & Sikkink, 2019; Dill, 2009; Hill & den Dulk, 2013; Wolf, 2007). By analyzing the degree to which different school sectors emphasize community service in their curriculum and whether or not variation in this emphasis explains civic behavior in adulthood, we aim to make a theoretical and empirical contribution to explaining why individuals across the school sectors may or may not differ in terms of civic outcomes. In short, we peer into the so-called black box of empirical research by examining whether educational practices, which have gone unobserved in prior research, mediate the sector differences in volunteering and charitable giving.

The remainder of the paper is divided into four sections. First, we discuss the prior research literature of volunteering and charitable giving in Australia, highlighting the research gaps that we aim to fill with our analysis. We also theorize why and how the different sectors of secondary schooling and educational practices plausibly shape volunteering and charitable giving in adulthood. In the second section, we describe our data and methods to subject our theories to an empirical test. After that, we present our results. We then discuss our findings in the concluding section.

## **Literature Review**

### **Research of Volunteering and Charitable Giving in Australian and International Settings**

A wide body of research literature explores Australians' reasons for volunteering and charitable giving, although much more attention has been given to the former (Lyons et al.,

2006). People are motivated to volunteer by, for instance, a desire for personal growth (e.g., skill and career development), prosocial values, the norms of the communities to which they belong, or devotion to a particular cause (Chapman et al., 2018; Hyde & Knowles, 2013; Madden, 2006; Zappalà & Burrell, 2002). Other studies examine demographic characteristics or personality traits associated with volunteering or giving (Yao, 2015). For example, according to Australia's Household, Income and Labour Dynamics data, female, more highly-educated, older, and married individuals are more likely to volunteer (Beatton & Torgler, 2018). Meanwhile, Carlo et al. (2005) point out that certain personality traits, such as agreeableness and extraversion, are positively correlated with the frequency of volunteering. Other studies suggest that giving appears to be more common among more religious individuals and women, though men often give more when they make donations (Lyons & Nivison-Smith, 2006; Yao, 2015).

Research on volunteering and giving in Australia, however, has not yet widely considered the ways adolescent experiences shape civic behavior in adulthood. One exception is a study by Moorfoot et al. (2015) who analyzed nearly 1000 individuals from Victoria, Australia and found that the frequency of volunteering during the ninth grade is predictive of volunteering in adulthood.

Likewise, research of the role that schools and secondary school experiences play in shaping civic engagement in adulthood is more commonplace, not in Australia, but in other countries such as the U.S. and Canada. Many of these studies, for example, explore whether or not having volunteering opportunities provided during secondary school is predictive of volunteering in adulthood. Similar to Moorfoot et al.'s (2015) study of Australians, this body of work concludes that participation in volunteering activities during adolescence is predictive of subsequent volunteering in adulthood. It is important to note, however, that not all studies find

that volunteering experience in adolescence increases the likelihood of later-life volunteering. Volunteering experiences during adolescence are most strongly predictive of later-life volunteering if those experiences were truly voluntary, viewed by adolescents as a positive experience, and not simply done to build a more favorable resume for postsecondary admissions. (Hart, Donnelly, Youniss, & Atkins, 2007; Henderson et al., 2012; Kim & Morgül, 2017; Jones & Hill, 2003; Planty, 2006).

Other studies focus less on specific civic educational programs or interventions, instead comparing rates of volunteering between different types of schools. Much of this research demonstrates that graduates from Independent schools, mainly Catholic and Protestant schools, in the U.S. and Canada are the most likely to volunteer and give charitably after they enter adulthood compared to graduates from other types of schools. However, many of these studies also find no differences in rates of volunteering and charitable giving across the different school sectors (Pennings et al., 2014; Casagrande et al., 2019; Campbell, 2008; Cheng & Sikkink, 2019; Dill 2009; Hill & den Dulk, 2013; Pennings et al., 2011; Wolf, 2007). Because these studies mainly focus on describing general differences across school sector, they have not explored potential factors that mediate these differences. In fact, many of these studies do not have the data to empirically test why any differences in civic behavior were observed.

### **Theory of Moral Ecologies**

Aside from data limitations that preclude the testing of factors that are hypothesized to mediate school sector differences in civic engagement, such analyses are not usually undertaken because of a lack of robust underlying theory. Research that evaluates educational programs and interventions mainly focus on attempting to empirically estimate the magnitude of their causal effects. Kragt and Holtrop (2019) have argued that the atheoretical nature of volunteering

research, in particular, has left scholars without much of a conceptual framework to understand and explain such behavior. We aim to fill the gap not only in the volunteering research but also in the educational research that has largely been unable to explain why particular educational programs and schools may or may not influence other civic outcomes, specifically, charitable giving.

Hunter and Olson's (2019) theory of moral ecologies provides an important theoretical framework for educational research. A moral ecology begins with a network of social institutions such as family, peer relationships, popular media, and religious organizations. All of these institutions are founded upon normative assumptions and principles that answer questions such as (a) What is good?, (b) What do members owe one another?, and (c) What one ought to do or not do? Furthermore, these values are embodied in and reinforced by the social practices of those institutions. When these institutions, ideals, and practices coalesce, they form a moral ecology that shapes the individual within that web.

Schools are one of the many institutions that comprise a moral ecology. As Berner (2017) observed, "every aspect of formal education is potentially instructive about the human person, the good society, the nature of authority, and the purpose of life itself" (p. 7-8). These ideals are then infused explicitly and implicitly through practices and other aspects of the school community such as the curriculum, pedagogy, the goals that schools emphasize, and the way students, teachers, parents, and school leaders relate to one another (Hunter & Olsen, 2019). Other scholars have identified schools as value communities with distinct norms of behavior and educational aims (Bryk et al., 1993).

Sociologists of education have observed how the moral ecologies within particular school communities influence educational outcomes, especially civic formation. Cheng and Sikkink



(2019) theorize that the organizational networks and ties of particular types of schools explain the volunteering behaviors of their graduates. They hypothesize and find empirically, for instance, that adults who have attended Catholic schools are more likely to volunteer in health care organizations and hospitals perhaps because of the institutional connections between Catholic schools, hospitals, and healthcare agencies within Catholic communities. Adults who have attended Protestant schools are more likely to volunteer through churches and community organizations that are tied to their local congregations. Organizational ties not only provide opportunities for civic engagement but connect students to particular institutions through which such engagement can be practiced and sustained later in life.

Nonreligious schools also possess particular civic aims and use unique practices to cultivate their students' civic character. Service-learning programs, for instance, have been a feature of many schools for several decades. In these programs, students make progress towards established learning goals through service experiences and projects that are designed to additionally provide benefit to the communities that are receiving the service (Furco & Norvell, 2019). Meta-analyses of service-learning programs suggest that they increase students' community engagement and awareness of their civic obligations (Celio et al., 2011; Conway et al., 2009).

In other scholarship, Hill and den Dulk (2013) propose that faith-based schools, by virtue of their religious character, instill particular prosocial values and practices that promote community service. They empirically demonstrate that independent of a variety of confounding factors such as socioeconomic background and religiosity, adults educated in Protestant schools are more likely to volunteer than other adults. These findings are consistent with the hypothesis that the distinctive values taught in Protestant schools explain the higher prevalence of

volunteering among their graduates. However, this study lacks explicit measures of the educational emphases and teaching practices found within schools. Its authors even conclude with a recommendation for future research to “strengthen our scholarly understanding about the mix of conscious motivations and habituated social practices that are associated with different types of schooling” (p. 195). In our study, we fill this gap by explicitly accounting for the degree to which schools have emphasized community service and examine how much this emphasis explains the school sector differences that Hill and den Dulk and other researchers have uncovered in the past.

We finally note that prior research of school sectors has not widely considered charitable giving as a civic outcome. As Lyons et al. observe (2006), much more attention has been given to documenting trends in volunteering and explaining the prevalence of the practice. Studies that compare the civic engagement of Government, religious Independent, and nonreligious Independent schools rarely consider charitable giving. The only exceptions are surveys of North American adults. According to these data, in the U.S., charitable giving is higher among Independent school graduates than Government school graduates (Casagrande et al., 2019). In Canada, the proportion of graduates who donated money to charity were similar across the Government, Catholic, and Independent sectors, although graduates from Protestant schools reported the highest amounts of money given (Pennings et al., 2014). In this study, we aim to provide more empirical inquiry into the prevalence of charitable giving across school sector by examining patterns among Australian adults. Furthermore, as in our analysis on volunteering, we explore whether or not an emphasis on community service explains any observed school-sector differences in charitable giving.

## Research Questions and Hypotheses

In summary, we answer two research questions. First, do rates of volunteering and charitable giving differ among Australian adults who have attended Government, Catholic, Independent, or Christian schools? Second, does the degree to which schools emphasize community service (a) differ across the school sectors, (b) predict subsequent volunteering in adulthood, and (c) mediate any observed differences in volunteering and charitable giving across school sectors?

Prior research hypothesizes and empirically demonstrates differences in the moral ecologies of Government and Independent schools. Other research documents equal to greater levels of civic engagement among Independent schools, especially those with a religious affiliation, relative to non-Independent schools (Casagrande et al., 2019; Cheng & Sikkink, 2019; Dill, 2009, Hill & den Dulk, 2013; Hunter & Olsen, 2019; Pennings et al., 2014; Sikkink 2012; Wolf, 2007). Based on this literature, we first propose our first hypothesis:

*H1*: Volunteering and charitable giving will differ across school sectors, with Catholic and Christian schools' graduates being the most likely to engage in these civic practices.

Schools with moral ecologies that emphasize an outward-facing posture of community service presumably socialize such an ethos among their students, all of which may be expressed in practice through volunteering and charitable giving. Indeed, in an experimental case study of a school network in the United States that emphasizes civic participation, students who won a random lottery to attend that network were more likely to vote as adults than students who were not granted enrollment (Gill et al., 2020). More generally, prior research suggests that prosocial dispositions and motivations are important determinants of volunteering behavior (Kragt & Holtrop, 2019). Schools that emphasize community service are likely to foster this kind of

character (Bryk et al., 1993, Hunter & Olsen, 2019). Moreover, the degree to which schools emphasize community service may be a function of their existing civic opportunities and networks. As Sikkink and Cheng (2019) suggest, these social networks, in turn, help connect students to other institutions that make the practices of charitable giving and volunteering possible. Thus, we expect to observe higher rates of volunteering and charitable giving when we compare schools that place a strong emphasis on community service with schools that do not. In sum, we propose two additional hypotheses:

*H2*: Independent of school sector, adults who attended schools that emphasized community service will be more likely to volunteer and donate money to charity.

and,

*H3*: Differences in the emphasis on community service will mediate school-sector differences in volunteering and charitable giving.

## **Methods**

### **Data**

We address our main research questions with data from the Cardus Education Survey (CES) Australia. These data are a cross-section of a nationally representative sample of 3,913 Australians ages 25 through 39 who have also completed secondary school. Respondents began the survey by reporting where they attended school in grades 7 through 12. From these data, we identify the school sector in which the respondent received most of their secondary education. Research of Australian schools usually distinguishes among the Government, Catholic, and Independent sectors. In this study, we additionally identify graduates from a sector within the Australian education system that has emerged in the last four decades, namely, Christian schools (Etherington, 2008). These schools have historically been identified as a subcategory of faith-

based schools within the Independent school sector. They typically belong to one of several national Christian education associations, representing a diverse range of denominational affiliations including Seventh-Day Adventist, Baptist, Pentecostal, Evangelical, and Reformed traditions. Recent data suggest that Christian schools comprise almost one-third of Independent schools, and Christian school enrollments make up about one quarter of total enrollment in Independent schools (Australian Bureau of Labor Statistics, 2020).<sup>1</sup>

Respondents of the CES Australia also answered several questions about their opinion concerning their secondary school experience, the teaching and learning practices of their secondary schools, current labor-market participation, recent civic participation, present family life, and demographic background information. For our analysis, we use respondents' answers to items querying them about their volunteering and charitable giving practices as well as their reports about the extent to which community service has been emphasized in secondary school. Specifically, the CES asked respondents (a) "In the past 12 months, have you done any volunteer work, that is, work for a non-profit, charitable organization or group for which you did not receive pay?" and (b) "In the past 12 months, have you ever donated your own money or goods to non-profit, charitable organizations or groups?" Respondents answered "yes" or "no" to each question.

Respondents were also asked to indicate their agreement on a seven-point Likert type item querying them about the extent to which community service a key component in their school curriculum. The item stated: "Community service was emphasized by my school community." Response options included "completely agree," "mostly agree," "somewhat agree," "neither agree nor disagree," "somewhat disagree," "mostly disagree," and "completely

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<sup>1</sup> These calculations are estimated based on an analysis of the number of schools and students enrolled in one of Australia's six national Christian school associations.

disagree.” We operationalized this variable by creating a binary variable that takes on the value 1 if the respondent has expressed any form of agreement to the item and 0 otherwise.

### Empirical Strategy

To test our hypotheses, we estimated a series of linear probability models.<sup>2</sup> We first tested H1 by comparing rates of volunteering and charitable giving for individuals from Government, Catholic, Independent, and Christian schools. Specifically, we estimate:

$$Y_i = \beta_0 + \beta_1 \text{Catholic}_i + \beta_2 \text{Independent}_i + \beta_3 \text{Christian}_i + \mathbf{X}\boldsymbol{\phi}_i + \varepsilon_i \quad (1)$$

In Equation 1,  $Y_i$  is one of two binary variables that takes on a value equal to 1 if respondent  $i$  answered “yes” to volunteering or charitable giving within the past 12 months, respectively. The variables  $\text{Catholic}_i$ ,  $\text{Independent}_i$ , and  $\text{Christian}_i$ , are binary variables that indicate whether or not the respondents primarily completed their secondary schooling in Catholic, Independent, or Christian schools, respectively. Respondents who attended Government schools represent the omitted category, given that this sector is the largest in Australia; so, the estimated coefficients on  $\text{Catholic}_i$ ,  $\text{Independent}_i$ , and  $\text{Christian}_i$  are interpreted as differences in volunteering or charitable giving rates for individuals from the three respective sectors compared to individuals from the Government school sector. In presenting results, however, we comment on differences among the non-Government sectors.  $\mathbf{X}\boldsymbol{\phi}_i$  is a vector of demographic background variables including the urbanicity of respondents’ place of residence during childhood, ethnic background, gender, age, financial situation during childhood, mother's religion, and mother’s education. We also control for whether the respondents grew up with both their biological parents as well as how much their parents pushed them to succeed academically.

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<sup>2</sup> Models are robust to logistic regression models.

To explore the potential mediating role of a school's emphasis on community service on volunteering and charitable giving in adulthood (H2 and H3), we estimate additional linear probability models. We first examine whether or not there are differences in the amount each school sector emphasizes community service. If there are no differences in this emphasis across school sector, then an emphasis on community service cannot be a mediating factor for any observed differences in volunteering and charitable giving across school sectors. We estimate:

$$\text{Emphasis}_i = \beta_0 + \beta_1 \text{Catholic}_i + \beta_2 \text{Independent}_i + \beta_3 \text{Christian}_i + \varepsilon_i, \quad (2)$$

where the variables  $\text{Catholic}_i$ ,  $\text{Independent}_i$ , and  $\text{Christian}_i$  are as in equation 1.  $\text{Emphasis}_i$  is, as described earlier, the binary variable indicating agreement to the statement on the survey: "Community service was emphasized by my school community."

We then estimate models similar to Equation 1, except that we add the indicator for whether or community service has been emphasized as an independent variable, as shown in Equation 3:

$$Y_i = \beta_0 + \beta_1 \text{Emphasis}_i + \beta_2 \text{Catholic}_i + \beta_3 \text{Independent}_i + \beta_4 \text{Christian}_i + \mathbf{X}\boldsymbol{\phi}_i + \varepsilon_i \quad (3)$$

If the emphasis on community service were a mediating factor, we would expect  $\beta_1$  to be statistically significant and the estimated coefficients on the school sector variables to attenuate relative to the estimated coefficients in Equation 1.

We additionally estimate a model in which we add terms that interact the school sectors and community service indicators to explore whether or not there are differences in volunteering and charitable giving among graduates from the same school sector but who have experienced differing levels of community service emphasis. This model is expressed as follows:

$$Y_i = \beta_0 + \beta_1 \text{Emphasis}_i + \beta_2 \text{Catholic}_i + \beta_3 \text{Independent}_i + \beta_4 \text{Christian}_i + \beta_5 \text{Catholic} \times \text{Emphasis}_i + \beta_6 \text{Independent} \times \text{Emphasis}_i \quad (4)$$

$$+ \beta_7 \text{Christian} \times \text{Emphasis}_i + \mathbf{X}\boldsymbol{\phi}_i + \varepsilon_i$$

Positive and statistically significant interaction terms would suggest that it is the particular emphasis on community service within a given school sector that increases the likelihood of volunteering and charitable giving.

## **Results**

### **School Sector Differences in Volunteering and Charitable Giving**

We begin by noting that, according to our data, 33 percent of Australians ages 25 to 39 report having volunteered within the last 12 months. About 62 percent of them say they have donated money or goods to a non-profit organization or charity. Table 1 presents estimates of Equation 1 to disaggregate these percentages by respondents who have graduated from Government, Catholic, Independent, and Christian schools. These results speak to our first hypothesis.

As indicated by the constant term in column 1, about 26 percent of Government school graduates have reported volunteering within the past 12 months. Catholic school graduates are slightly more likely to volunteer relative to Government school graduates. The magnitude of the difference is approximately 6 percentage points. Christian school graduates are the most likely to volunteer in the past 12 months. They are 20 and 14 percentage points more likely to do so than Government and Catholic school graduates, respectively. Independent school graduates also appear to be more likely to volunteer relative to Catholic and Government school graduates. However, differences are slightly smaller than the ones observed for Christian school graduates; for instance, the difference between Government and Independent school graduates is about 16 percentage points. As shown in column 2, the differences across school sectors slightly attenuate but remain substantively significant after controlling for a variety of demographic characteristics.



**«Table 1 Here»**

Columns 3 and 4 depict analogous results for charitable giving. Independent school graduates are most likely to engage in this practice. They are about 12 percentage points more likely to make charitable donations compared to Government school's graduates. Catholic and Christian schools' graduates are approximately equally likely to make charitable donations but are only about 6 percentage points more likely to do so than Government school's graduates. Results remain substantively similar once we include demographic control variables, except that the difference between Government and Christian schools' graduates is no longer statistically significant.

**The Mediating Role of a School Emphasis on Community Service**

In the next set of results, we consider H2 and H3, that is, whether or not an emphasis on community service within the school curriculum explains the observed school sector differences in volunteering and charitable giving. We first present estimates of Equation 2 to compare respondents across school sectors on the amount they have felt that their school emphasized community service. Just over 40 percent of Government school graduates agreed that their schools emphasized community service. Catholic, Independent, and Christian schools' graduates were all about 26 percentage points more likely than Government school's graduates to agree that their school emphasized community service.

**«Table 2 Here»**

In Table 3, we present estimates of Equation 3 and Equation 4. These models examine whether or not the propensities for volunteering and giving among graduates from each of the school sectors are different because of the varying levels of emphasis on community service. As shown in column 1, respondents who agreed that their school, regardless of sector, emphasized

community service are 13 percentage points more likely to volunteer. When we re-estimate the models that compare volunteering rates across school sector and control for the extent to which community service has emphasized (see column 2), we find that the previously observed difference in rates of volunteering between Catholic and Government schools' graduates is halved and no longer statistically significant. This result suggests that the higher emphasis on community service in Catholic schools plays a crucial role for their students' civic formation as it pertains to volunteering.

**«Table 3 Here»**

On the other hand, the previously estimated differences between Government school's graduates and Independent and Christian schools' graduates, respectively, attenuate when we account for the degree of emphasis on community service. Yet those differences remain statistically significant, suggesting that other unobserved factors besides the emphasis on community service mediate the higher propensity to volunteer among Independent and Christian schools' respondents. In fact, when we estimate models that include a term that interacts school sector with an emphasis on community service, we find two important results, as shown in column 3 of Table 3.

First, respondents who have attended Christian schools that did not emphasize community service are still 11 percentage points more likely to volunteer compared to respondents who have attended Government schools that similarly did not emphasize community service. This difference is marginally significant at the 0.1 level. Meanwhile, volunteering rates among respondents from Catholic and Independent schools that do not emphasize community service are no different than volunteering rates among respondents from Government schools that similarly have not emphasized community service.

Second, regardless of sector, volunteering rates are higher among schools that emphasize community service compared to schools that do not. This difference, for example, is about 7 percentage points within the Government-school sector, as indicated by the coefficient on the dummy variable that indicates whether or not the respondent agreed that community service was emphasized in school. Within Catholic schools, volunteering rates are about 11 percentage points higher for respondents who have attended schools that have emphasized community service than for respondents who have attended Catholic schools without such an emphasis. (This estimate can be computed by summing the coefficients on two variables: the indicator variable for whether or not the respondent agreed that community service was emphasized in school and the variable interacting that indicator with the Catholic school indicator). A gap of similar magnitude is observed for Christian school's graduates. Among Independent school's graduates, rates of volunteering are 14 percentage-points higher if the respondent has attended a school that has emphasized community service.

Columns 4 through 6 of Table 3 depict the corresponding results for charitable giving. Once again, regardless of school sector, respondents who have attended schools that have emphasized community service are 14 percentage points more likely to practice charitable giving. This educational emphasis accounts for the previously observed higher rates of charitable giving, particularly for Catholic school graduates compared to Government school graduates. While the Catholic school indicator variable was statistically significant in models that did not account for the emphasis on community service (see Table 1), it is now statistically insignificant and approximately halved from 6 to 3 percentage points after accounting for the emphasis on community service (see Table 3, Column 5).

In column 6, the statistically insignificant coefficient estimates on the school sector indicator variables suggest that charitable giving rates are not different between respondents across the four school sectors who have attended schools that did not emphasize community service. Meanwhile, the coefficient estimate of the indicator variable measuring emphasis on community service suggests that Government school graduates who have attended schools that emphasized community service are 10 percentage points more likely to engage in charitable giving than Government school graduates who did not have such an emphasis. This coefficient is also statistically significant. The same can be concluded for the three non-Government school sectors: among respondents who have graduated from the same sector, charitable giving rates are higher if the respondent attended a school that emphasized community service. Together with the statistically insignificant and substantively small coefficients on the interaction terms, these results provide additional evidence that the amount a school emphasizes community service is a mediating factor in explaining later-life charitable giving and observed differences in charitable giving across school sectors.

## **Discussion and Conclusion**

### **Summary of Findings**

We subjected three hypotheses to an empirical test. The results provide some supporting evidence for our first hypothesis where we drew on prior research and hypothesized higher rates of volunteering and charitable giving among Christian and Catholic school graduates. Although Christian school graduates exhibited the highest rate of volunteering, they were not more likely to give compared to other graduates. In fact, Independent and Catholic school graduates appeared most likely to give. Moreover, the higher rates of giving and volunteering among Independent school graduates relative to Catholic school graduates is contrary to our hypothesis.

For our second hypothesis, we relied on the theory of moral ecologies to predict that respondents who attended schools that placed more emphasis on community service, regardless of sector, would exhibit higher rates of volunteering and charitable giving. Our findings provide empirical confirmation of this hypothesis as well as confirmation about the third and related hypothesis — that the emphasis on community service would mediate observed school sector differences. Most of the observed school sector differences in volunteering and giving disappeared once we controlled for the degree of emphasis on community service. The only exception to this pattern is the persistent finding of a greater likelihood of volunteering among Christian school graduates even after accounting for their greater emphasis on community service.

### **Connections to Prior Research and Implications for Future Research**

This study makes two key contributions to the research literature on volunteering and charitable giving. First, it corroborates some of the existing findings of prior research on school sector differences, which until now has primarily been conducted in North America but not in Australia. The findings that Independent school graduates are as at least as likely as Government school graduates to engage in volunteering is in line with the existing research literature. More specifically, our finding that Catholic school graduates are as equally likely to volunteer as Government school's graduates, although not something we hypothesized, is akin to the findings in Dill (2009) and Hill and den Dulk (2013). The finding contrasts with other research that have documented higher rates of volunteering among Catholic school students (Wolf, 2007). Meanwhile, the higher rates of volunteering among graduates of the Christian school sector has also been documented in prior research (Casagrande et al., 2019; Cheng & Sikkink, 2020; Pennings et al., 2014).

Our findings about charitable giving among Australian adults reflect prior research about U.S. adults. We found charitable giving more common in non-Government schools, especially Catholic and non-religious Independent schools (Casagrande et al., 2019). These results stand in contrast to research among Canadian adults where no school sector differences were detected (Pennings et al., 2014). These inconsistencies may underscore the unique characteristics of Government and Independent schools across countries. Some cross-country comparative research about the nature of Government, religious Independent, and non-religious Independent schools would be insightful for understanding these disparate patterns.

Kragt and Holtrop (2019) have observed the lack of attention towards building and studying a robust theory for civic engagement. Addressing this research gap is the second major contribution of this study. We draw upon the theory of moral ecologies and other empirical insights to hypothesize that observed school sector differences are attributable to the extent to which schools emphasize community service in their teaching and learning (Cheng & Sikkink, 2019; Hunter & Olsen, 2019; Kragt & Holtrop, 2019). Subjecting this theory to an empirical test, we find that a curricular emphasis on community service is indeed predictive of later-life volunteering and that this emphasis mediates the different rates of volunteering and charitable giving across school sectors. In other words, we peer into the so-called black box of school sector research to identify potential mechanisms that explain previously observed differences in civic outcomes. Graduates from particular non-Government school sectors exhibit higher rates of volunteering and charitable giving than the Government school sector because those schools tend to place a greater emphasis on community service.

We are unable to consider the kinds of activities and organizations for which our respondents volunteered or gave money. Additional research that explores these heterogeneities

may yield important theoretical and empirical insight into further understanding volunteering behavior among Australians. For example, research conducted using samples from the U.S., has demonstrated that volunteering rates differ across school sectors depending on the kind of volunteering activity that is being done. According to this body of work, Christian school graduates are more likely to volunteer through religious congregations and organizations, while Catholic school graduates volunteer in organizations that provide health care. Nonreligious Independent school graduates, meanwhile, more frequently volunteer for political organizations. This type of research has enabled researchers to study the importance of organizational networks in sustaining the practice of volunteering in the U.S. (Cheng & Sikkink, 2019; Casagrande et al, 2019; Pennings et al, 2016). Similar dynamics may be present in Australia.

Future research should additionally further explore the precise ways in which community service is emphasized in secondary schools. On one hand, our study takes an important step in honing the theoretical connection between schooling and civic engagement by investigating mediating factors behind school sector differences in volunteering and charitable giving. However, our study is limited because it does not have additional measures to describe the nature of a greater emphasis on community service. Are there specific pedagogical practices common to schools that have such an emphasis? For example, how significant are practices such as service learning, assigning mandatory community service hours, or providing community service opportunities in cultivating an ethos that emphasizes community service? Research to provide a more precise picture of how community service is emphasized in school and the ways those practices potentially affect later-life civic engagement would be welcome. We also encourage additional formulation and empirical tests of additional theories that would bring more clarity to the important educative process and phenomena of civic formation.

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	Volunteering		Charitable Giving	
	(1)	(2)	(3)	(4)
Catholic School	.059** (.024)	.052* (.028)	.069** (.027)	.062** (.030)
Independent School	.156*** (.022)	.099*** (.023)	.118*** (.023)	.101*** (.025)
Christian School	.199*** (.035)	.158*** (.037)	.061* (.035)	.045 (.037)
Grew up in Metro area		-.012 (.022)		-.022 (.024)
Aboriginal		.194*** (.045)		.152*** (.047)
Male		-.001 (.019)		-.076*** (.021)
30-34 years old		-.019 (.023)		.002 (.025)
35-39 years old		-.049** (.024)		.024 (.026)
Mother, Catholic		.027 (.026)		.026 (.029)
Mother, Protestant		.080*** (.025)		.099*** (.026)
Mother, Other Religion		.133*** (.035)		.099*** (.036)
Mother has a bachelor's degree		.080*** (.020)		.011 (.021)
Grew up with both biological parents		.070*** (.023)		.017 (.025)
Academically pushed by family		.049** (.021)		.117*** (.021)
Grew up in lower income household		.077*** (.021)		-.066*** (.023)
Constant	.263*** (.013)	.228*** (.034)	.566*** (.015)	.482*** (.040)
Observations	3910	3504	3910	3504

Notes. Robust standard errors are in parentheses. \*\*\* p<.01, \*\* p<.05, \* p<.1

Table 2: Emphasis on Community Service by School Sectors

School Sector	Agree that School Emphasized Community Service
Catholic School	.261*** (.026)
Independent School	.264*** (.023)
Christian School	.260*** (.034)
Constant	.418*** (.015)
Observations	3910

Notes: N = 3910. Robust standard errors are in parentheses.

\*\*\*p<.01, \*\* p<.05, \* p<.1

Table 3: Voluntarism and Donations by School Sectors Accounting for Community Service Emphasis

	Volunteering			Charitable Donations		
	(1)	(2)	(3)	(4)	(5)	(6)
Emphasis on Community Service	.132*** (.018)	.097*** (.020)	.066** (.028)	.140*** (.020)	.114*** (.022)	.101*** (.032)
Catholic School		.028 (.028)	.009 (.042)		.034 (.030)	.023 (.051)
Independent School		.075*** (.024)	.029 (.037)		.072*** (.025)	.050 (.042)
Christian School		.133*** (.037)	.114* (.064)		.016 (.037)	.024 (.068)
Grew up in Metro area		-.016 (.021)	-.016 (.021)		-.028 (.024)	-.028 (.024)
Aboriginal		.196*** (.045)	.195*** (.045)		.155*** (.046)	.154*** (.046)
Male		-.004 (.019)	-.004 (.019)		-.079*** (.020)	-.079*** (.020)
30-34 years old		-.014 (.023)	-.014 (.023)		.008 (.025)	.008 (.025)
35-39 years old		-.041* (.024)	-.041* (.024)		.033 (.026)	.033 (.026)
Mother, Catholic		.022 (.026)	.023 (.026)		.020 (.028)	.021 (.028)
Mother, Christian		.074*** (.025)	.074*** (.025)		.092*** (.026)	.092*** (.026)
Mother ,Other Religion		.127*** (.034)	.127*** (.034)		.092** (.036)	.092** (.036)
Mother has a bachelor's degree		.078*** (.020)	.079*** (.020)		.008 (.021)	.008 (.021)
Grew up with both biological parents		.067*** (.023)	.067*** (.023)		.014 (.024)	.014 (.025)
Academically pushed by family		.039* (.021)	.038* (.021)		.105*** (.021)	.104*** (.021)
Grew up in lower income household		.078*** (.021)	.080*** (.021)		-.064*** (.023)	-.064*** (.023)
Emphasis on Community Service*Catholic School			.039 (.052)			.021 (.06)
Emphasis on Community Service*Independent School			.079* (.047)			.038 (.051)

Emphasis on Community Service				.040		-.005
*Christian School				(.078)		(.081)
Constant	.259***	.197***	.21***	.538***	.445***	.451***
	(.013)	(.034)	(.035)	(.016)	(.040)	(.041)
Observations	3910	3504	3504	3910	3504	3504

Notes: Robust standard errors are in parentheses. \*\*\* p<.01, \*\* p<.05, \* p<.1