

Homeschooling and Young Adult Outcomes: Evidence from the 2011 and 2014 Cardus Education Survey¹

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What do we expect from homeschooling? How does the experience of homeschooling influence outcomes into young adulthood? What kind of culture is built by homeschooling families that may have longer-term influences on homeschooled high school students? How does the structure of homeschooling shape opportunities and life directions for students? Given the fact that 3% of American school-aged children are educated at home (National Center for Education Statistics [NCES] 2015), and likely as many as 10% of all students will spend some of their educational careers in a homeschool setting (Murphy 2014), these are non-trivial questions with potentially highly-consequential answers.

As any researcher who has investigated these questions will attest, however, they are not easy to answer. First, as Murphy (2014) rightly points out, homeschool success is often evaluated using the same criteria used for evaluating conventional schools, limiting the effectiveness of such research to give thorough and meaningful answers to these questions (see also Klicka 1995). Instead of focusing on traditional measures of success such as grades, test scores, and graduation rates, research ought to focus on how well homeschool environments are doing in meeting their intended goals. Common motivations for homeschooling include 1) providing a safe school environment, apart from violence, drugs, and negative peer

pressure, 2) developing in students moral and religious values, 3) building strong families, and 4) seeking alternatives to academic programs that are deemed ineffective in other types of educational settings (Fields-Smith and Wells Kisura 2013, Hoelzle 2013, Kunzman 2009, Lois 2013, Murphy 2014, Noel et al 2013, Ray 2015, Van Galen 1991, Vigilant et al 2013).

However, measuring outcomes related the development of beliefs, values, strong relationships, etc. is much more complicated than simply looking at standard measures of academic success. Further, much of the information that we do have about homeschooling families and graduates doesn't allow us to draw very strong conclusions, usually because the samples being studied represent only one niche of the homeschooling population, and because the measures being used make it difficult to determine if observed outcomes are due to the effects of being or having been homeschooled, from factors that may have led a family to opt in to homeschooling, or perhaps other factors altogether. Studying the effectiveness of any particular type of schooling, homeschooling included, is further complicated by the fact that it is quite common for students to switch between types of schools during their journey from Kindergarten to high school graduation, for a variety of methodologically and substantively interesting reasons, making the task of figuring out which school settings had what effects on students especially difficult.

Certainly, quite a few methodologically competent studies have been conducted from which we have learned about the motivations for choosing homeschooling, as well as the experiences of parents who educate their children at home (Fields-Smith and Wells Kasura 2013, Kunzman 2009, Lois 2013, Mazama and Lundy 2013, Vigilant et al 2013), but only one study to date (Pennings et al 2011) has been able, given the appropriate type of data and methods, to detail and explain what becomes of homeschooled students once they graduate from high school, and how their outcomes compare to students educated in more traditional settings.

Pennings and colleagues (2011) find (looking only at "religious homeschooling" families, characterized by mothers who attend religious services at least once a month) that homeschool graduates attend religious services significantly more often, have a stronger sense of obligation to remain obedient to church leadership, and are more likely to hold the beliefs that the Bible is inerrant and that moral and religious beliefs are absolute than are graduates from all other school sectors save Protestant school graduates, with whom they were on par on all counts. Although these represent only a few measures of religiosity, these results do strongly suggest that homeschooling families have been successful in their objective of helping their children to build strong (evangelical Protestant) religious beliefs and commitments. However, and interestingly, Pennings and his colleagues found no homeschool advantage in terms of private religious practices like praying or reading the Bible alone compared to public school graduates, but did find a Protestant school advantage, suggesting that avoiding these activities is not necessarily a cohort or generational

effect. They also find that adherence to traditional beliefs carry over into beliefs about social issues that are generally in line with conservative and Fundamentalist Christian beliefs, such as the immorality of premarital sex, cohabitation, and same-sex marriage. In general, then, Pennings et al (2011) find that homeschooling families have been successful in preserving and transmitting religious and moral beliefs, a major goal of the religious homeschooling movement.

Pennings et al (2011) also reported that homeschool graduates are less likely to attend college, and that when they do attend college, they enroll at less prestigious universities with less stringent admissions criteria than do students from all other sectors. Likewise, homeschool graduates are less likely to earn either college degrees or graduate degrees. They are also more likely to feel a sense of helplessness in the face of struggles, and lack clarity and goals about the future. All of this suggests that academic and personal achievement after high school is on average less well-supported through the homeschool experience. Finally, Pennings et al (2011) find that homeschool graduates marry earlier in life than do graduates of other types of high schools, and are less politically active, giving some evidence that the importance that homeschoolers place on the preservation and formation of strong family bonds and a sense of independence from public institutions is paying off.

The current paper follows up and expands on the Pennings et al (2011) report with more recent data from the same study, focusing solely on homeschooling graduates, and discussing counter-cultural emphases within homeschooling and the consequent social boundaries that lead to forms of alienation from public institutions and mainstream culture, as well as on the relation between family and school, both of which, we

suggest, lead to a particular set of outcomes for young adults who were educated at home.

How Do We Expect That Homeschool Graduates Are Doing?

Many homeschooling families are "embattled and thriving," a phrase used to emphasize the countercultural stances important for identity formation within the religious field (Smith and Emmerson 1998). We would expect homeschooling to foster a sense of alienation from public institutions, in part due to the struggles the homeschooling movement has endured to gain legal recognition and social acceptance. The sense of needing to be on guard against and build social boundaries to protect families from potential threats to what for most is a way of life no doubt leads to a sense of being an embattled minority.

In this sense, homeschoolers have experienced being an educational minority. As homeschooling families build identities over and against the dominant schooling trajectories in the fight for legal and social legitimation, they are likely to construct stronger boundaries between their experience and public institutions than are families whose children are not educated at home, giving them fewer opportunities to adopt positive attitudes toward public institutions.

The most obvious structural difference between homeschooling and other forms of institutional education is the relation between education and family. The structural divide between family and school makes it more likely that institutional schooling relative to homeschooling will diminish the direct influence that families have on students. Though homeschooling networks and cooperatives generate consistent peer relationships for homeschooled students, the strength of

peer effects within most institutional schools is not likely to be matched in the homeschooling context, leaving family and religion as the two primary socializing forces in many homeschoolers' lives.

The lack of separation of family and school is likely to have effects on student outcomes as well as their experiences during childhood and adolescence. Normative life trajectories that guide students from traditional schooling are less influential for students educated at home since they are reinforced neither within homeschool peer groups nor through school structures. A simple example is the relation between secondary schools and higher education. Norms about college attendance after high school can be reinforced within school through relationships between schools and colleges, such as college recruiters visiting campus and an ongoing relationship between high school counselors and college admission offices. That normative trajectory for homeschoolers is less well-defined, less institutionalized. The homeschool life trajectory is much more open-ended, and more likely to vary across families. What is (and is not) expected after high school, especially regarding further education, may enhance homeschooling effects into the young adult years.

Further, it would not be surprising if homeschooling orientations that emphasize interpersonal relationships over formal institutions would have long-term effects on the trajectories of homeschoolers. For example, leaving home for a college experience may seem unnecessary and inconvenient when learning has been experienced in the intimate sphere of the family and outside of formal institutional channels. Perhaps that reduces homeschoolers' interest in getting involved in formal organizations in the community or workplace.

Given this understanding of how homeschooling families choose to conduct at least a portion of their lives free of the constraints of social institutions, we expand upon the Pennings et al (2011) report of homeschool graduates by increasing the size of the pool of homeschoolers with whom we can examine various young adult outcomes, and also by discussing how homeschoolers' participation in social institutions might be different than that of those educated in more conventional settings, specifically by examining participation in civic and political life, as well as contributions to the public good.

It is important to note that the small body of research about homeschoolers has been clear in its cooperative finding that there is no monolithic or unified homeschooling community. That is, there is diversity within the movement, stemming from the multiplicity of reasons for homeschooling, educational goals, pedagogical approaches, the extent and type of classes outside the home or online, and so forth (Fields-Smith and Wells Kasura 2013, Kunzman 2009, Lois 2013, Mazama and Lundy 2013, Vigilant et al 2013). In quantitative survey work, we are not able to account fully for variation in the homeschooling experiences of the young adults who completed our survey. But we can at least consider differences for homeschoolers in highly religious families. In what follows, we make a distinction between and nonreligious homeschooling religious families. Stevens (2003) and others have argued that this divide is important for the organization of homeschooling, and we would expect that homeschooling goals would vary by the extent that the family of origin was highly religious.

Methods

Results discussed in this paper come from a continuation of the study discussed in the

Pennings et al (2011) study reviewed above. We analyze data from the Cardus Education Survey, a nationally representative sample of over 3,000 U.S. high school graduates, ages 24 to 39. These respondents were part of an Internet panel administered by GfK, which is primarily based on a random selection of households in the United States. In order to represent relatively small private schooling sectors, GfK oversampled nonpublic high schoolers. The study was conducted in 2011 and repeated in 2014. The 2011 data were first analyzed in the Pennings et al 2011 paper. For the current report we merged both studies to increase the sample size of respondents who were primarily homeschooled during their high school years. The roughly 3,000 young adults in this sample graduated from high school between 1990 and 2008.

As far as we know, this study is the most rigorous examination methodologically homeschool graduates available, and has data on the most recent cohort of homeschool graduates. As the data cover a span of almost 20 years of graduating classes, the argument could be made that this dataset captures more than one period in the homeschooling movement, which we admit is entirely possible. However, because the homeschooling population makes up such a small proportion of the current U.S. educational scene, what we sacrifice by aggregating these two groups we make up in a larger sample size, which allows for more powerful statistical analyses and more confidence in our findings, as well as our ability to subdivide into religious and non-religious groups for analysis, when appropriate.

Homeschoolers are separated into two groups based on the extent of religious service attendance of the mother when the homeschooler was growing up. Respondents who reported that their mothers attended religious services at least once a month were categorized as part of the "religious homeschool" group, while others were considered as "nonreligious homeschoolers." Of course, this is not perfect, since we can't for example consider religious tradition differences (Catholic, conservative Protestant, etc.) in homeschooling outcomes. As with other studies, we are limited by the small samples of homeschoolers available in random samples of American adults.

The sample includes 201 homeschoolers—141 in the religious category, and 60 in the nonreligious category. For most of the analyses discussed in this paper, homeschool graduates are compared with 1,771 public school graduates. While it might seem like we are making an unfair or unsound comparison between our homeschool groups and the public school group based on the very large discrepancy in the sample sizes, the statistical analysis techniques that we use to examine differences and similarities between these groups make adjustments for group sizes that allow for cross-group comparisons. In fact, the statistical tests we use will "penalize" the homeschool groups (because of their small sizes) in such a way that makes finding statistically significant differences fairly difficult, so all significant results reported in this paper likely represent an actual difference between groups.

The findings discussed in this paper highlighting differences between individuals who were educated at home and those educated in conventional school settings are based on regression analyses that allow comparison of average school sector differences after accounting for many of the known differences between families who send their children to public schools rather than independent schools (often referred to in the education literature as "selection effects"). Such variables include parent's educational attainment, involvement in academics, religious

service attendance, conservative religious identity, and civic involvement. Several measures of family structure, including whether the respondent was raised in an intact family with both biological parents, are included as controls. We also controlled for the respondent's race, gender, age, number of siblings, and citizenship. To account for the possibility that respondents were not homeschooled for all high school years, the analyses include a measure indicating whether or not the homeschooled respondent ever attended a public school.

Adjusting the mean school sector differences family background and demographic characteristics allows us to compare individuals from different school sectors on equal ground (comparing homeschooled students whose parents completed a college degree and who are religious only with individuals from other sectors whose parents have similar educational backgrounds and religious attendance, and so forth). This helps to eliminate differences in outcomes based on family background and other selection effects, allowing us to isolate group differences due to school experiences and organization ("sector effects"). In each analysis, public school graduates are the comparison group, providing a baseline outcome for the homeschooling sector. Comparisons to the evangelical Protestant school sector averages are made where helpful.

Results

In order to outline our findings regarding how homeschool graduates fare after completing high school, both in general and in comparison with graduates of other sectors, we have structured the following discussion in three parts: 1) a look at how homeschooling families are meeting some of the goals that are commonly given for choosing home education rather than institutional education (the development of moral and religious values and the nurturing of family relationships), 2) an assessment of more traditional measures of success commonly used to measure the success of graduates of other sectors (educational attainment and income), and 3) a discussion of other indicators of well-being (such as having a sense of direction and purpose in life, participating in civic and political life, and the pursuit of the common good).

Development of Moral and Religious Values

Religious Life. There are contrasting theories regarding the impact of homeschooling on religious commitment and involvement. On the one hand, the structure of homeschooling makes it easier to integrate family, religion, and congregation. Socialization into the faith may have fewer obstacles when the religious life of the family permeates the organization and culture of the homeschool. The alternative argument is that homeschoolers are generally skeptical of formal institutions, whether school or church. It is possible that for homeschoolers involvement in the congregation is seen as unnecessary, and in fact may get in the way of a pure, personal experience of religion. That may combine with a sense that religion is integrated into the family in a way that reduces the need for high levels of involvement in a religious congregation. That does not mean that homeschoolers have an entirely privatized view of religious faith. Our survey results show, for example, that religious homeschoolers do not think that religion is a private matter that should be kept out of debates about social and political issues. But involvement and commitment in a religious congregation may be a question rather than a given for homeschoolers.

The religiosity and religious belief findings from our survey, however, are difficult to summarize. There are some patterns for religious homeschoolers. They are more likely than public schoolers to report that they are evangelical and that they have had a turning point in their life when they made a personal commitment to God. They are also more likely to say that the dominant culture in the US is hostile to their moral and spiritual values, which may arise from the "embattled and thriving" orientation of homeschooling. However, religious homeschoolers are no more likely to say that their religion offers a feeling of fulfillment, or that they experience a deep communion with God. And they are not particularly likely to report that they can find spiritual peace within when confronting personal problems. In addition, there are no differences between homeschoolers and public schoolers when considering whether they have an obligation regularly to practice spiritual disciplines, such as prayer or reading the Bible, or submitting to the authority of their church leaders. Nor are homeschoolers distinctive in the belief that salvation is only through belief in Jesus Christ. On the other hand, the religious homeschoolers are more likely to say that the Bible is an infallible guide for their personal faith and behavior, and they are less likely to believe that there are errors in the Bible regarding science or history. No differences emerge, however, in the likelihood that homeschoolers read the Bible or other religious literature, nor are they more likely to attend religious services or pray privately.

While the findings on personal religiosity are somewhat mixed, the church involvement figures are more clear-cut. What we find is that in addition to being reticent about institutional schooling, religious homeschoolers are not strongly oriented to institutional religion. Considering volunteering in a congregation, we generally find that homeschoolers are less involved than public schoolers or evangelical Protestant schoolers, on average and net of the other variables in the models. The religious homeschoolers are less likely to volunteer on a

committee or leadership board, or organize an event for the congregation. The total hours spent volunteering for their religious congregation is similar to public schoolers, though there is a slight tendency among homeschoolers to put in fewer hours at their church than public schoolers. One way to interpret this is to argue that for homeschoolers, the family is the touchstone of faith, which moves the church into a supporting role. And homeschoolers may take issue with the particular way some church programs are run, such as the age-segregation of religious youth groups.

Consistent with the findings on volunteering in the religious congregation, homeschoolers on average are no more likely to give to a religious congregation than are public schoolers. In fact, the likelihood of donating money or goods to a religious congregation in the last 12 months is lower for homeschoolers. And total donations to a religious congregation are lower among homeschoolers.

In sum, the religious expressions of homeschoolers lack consistent patterns, perhaps reflecting the diversity of homeschooling families. The results are more consistent regarding levels of volunteering and giving to the congregation, which are lower among homeschoolers. There is some evidence here that homeschoolers are cautious about accepting religious authority and strictures, and that religious faith among homeschoolers leads to less personal fulfilment. At the same time, it is clear that religious homeschoolers have no problem taking up counter-cultural stances, such as the view that the Bible is inerrant and that it is the touchstone for faith and practice. And on many key aspects of religious socialization within evangelical Protestantism, such as an evangelical conversion experience, religious homeschooling appears to have a strong effect on students.

Values and Beliefs. We would expect that religious socialization on social issues would be quite strong within homeschooling families. And the emphasis on the family as a focus of religious and educational life may in itself create more traditional orientations to marriage and the family.

For example, we would expect that religious homeschoolers tend to see issues related to sexuality in moral terms. Consistent with this, we find that religious homeschoolers are more likely than public schoolers to say that premarital sex, cohabitation, and gay marriage are immoral. These traditional views of marriage and family are likely to extend to gender roles as well. We find that religious homeschoolers are more likely to support a gendered division of labor in the family. They are more likely to agree that a man should be the breadwinner, and that a woman should give in when there is a disagreement between husband and wife on something important.

For the most part, religion seems to be well-integrated into homeschoolers' views and practices of marriage and family. Religious homeschoolers, for example, are not likely to cohabitate before marriage. Religious homeschoolers without children are more likely to eat together and talk about God together than are public schoolers in similar families.

In sum, we can conclude that homeschooling is having a strengthening effect on graduates' (evangelical) religious identification and religious and moral beliefs, although not on their participation in religious organizations and personal experiences with religion. We suggest that the former are likely more closely in line with the goals of religious homeschool parents than the latter, as religious homeschoolers very possibly place more reliance on the family structure and

relationships to meet the social and personal needs that religion and religious organizations meet for (some) others.

Family Relationships

Interestingly, religious homeschoolers are not particularly likely to be married rather than single, and if ever married they are not more or less likely to be divorced. Perhaps homeschooling shapes trajectories and social networks in ways that hinder opportunities for marriage. But that seems unlikely. Is it the case that homeschoolers' skepticism about conventional institutions extends to the institution of marriage? Or, to put it another way, perhaps homeschoolers are more sensitive to and more likely to reject or question conventional societal norms regarding marriage. In terms of attitudes toward marriage, for example, we find that homeschoolers who never married are less likely to say they would like to be married than are public schoolers who never married. Nonreligious homeschoolers are significantly less likely to say they are currently dating as well. But we do also find evidence of investment in marriage and family. Considering the age of first marriage, homeschoolers marry at ages similar to public schoolers, which is younger than other private schoolers.

All told, the marriage and family findings are consistent with what we would expect on several measures, but hold some surprises, particularly the number of homeschoolers who have never married. More detailed research is needed to sort out competing explanations for these findings. It does appear that homeschooling socializes students into traditional views of marriage and family and some traditional practices, but homeschooling may also generate caution toward conventional marriage and dating trajectories.

Educational Outcomes

In the view of homeschoolers, an institution separate from the family is not necessary for a high school education. For many that goes for higher education as well. Homeschoolers have experienced an education outside of formal institutions, and would perhaps respond to institutions of higher education similarly. Does higher education have a function or purpose? Why follow dominant cultural orientations in which a four-year campus college experience is normative? Since homeschoolers view education as fully possible outside of formal institutions, they may approach college with an initial skepticism. We should also consider barriers to college attendance from the other side. Especially in the early growth years of homeschooling, colleges and universities were less open to homeschooling applicants, in part because it was more difficult to evaluate their high school experience. While homeschoolers are less likely to encounter a college recruiter, institutional schools are likely to facilitate connections to particular colleges or universities. Moreover, what is demanded for a strong college application may conflict with the approach to education in some homeschooling families. Drilling for the standardized tests, for example, is not why many families choose to homeschool. That may add one additional hurdle for some homeschooling families.

When we compare homeschoolers' educational attainment to public schoolers', we find that homeschoolers finish fewer years of postsecondary education. In a regression model predicting the total years of education for our respondents, homeschoolers finish about one year less than public schoolers. Focusing on educational degrees, the results show that homeschoolers are not particularly likely relative to other sectors to obtain a four-year college or university degree, on average and net of the other variables in the

model. There is a slight tendency to stop with the high school degree in comparison to obtaining the bachelor's degree (BA). And when comparing the likelihood of moving beyond the BA, we find that homeschoolers tend to be less likely to obtain advanced degrees, though this is not quite statistically significant for the nonreligious homeschoolers.

In terms of the type of college or university attended, we find that religious homeschoolers attend colleges and universities with much smaller enrollments. Religious homeschoolers are not likely to attend a university with a doctoral program, or a research intensive university. And homeschoolers in general tend to go to less selective colleges, especially among the nonreligious homeschoolers. Perhaps as a result, the incomes of homeschool graduates tend to be lower than for public school graduates, though for religious homeschoolers this finding is not quite statistically significant after adding controls for family background.

No doubt a significant minority of homeschool graduates does extremely well academically, and some parents choose homeschooling to better meet the needs of academically gifted children. But that does not appear to represent a large percentage of homeschoolers. Homeschoolers likely think about higher education in terms of what is necessary rather than what would enhance their (institutional) educational credentials. The question for homeschoolers is not whether one can be adequately educated outside of formal institutions, but what formal institutions can add to their ongoing educational pursuits. On this score, there seems to be a fair bit of skepticism, given their high school experience, which reinforced the view that education is not limited to formal, institutional schooling. Homeschoolers' ties to family may also limit how far from home

they are willing to travel for college, which would limit opportunities for attending elite colleges and universities. In terms of postsecondary education homeschoolers are not likely to follow the crowd, and we expect are less likely to hold college enrollment or degree achievement as a primary goal or outcome of the high school experience than students and parents from other sectors.

Other Measures of Personal and Social Well-Being

Personal Well-Being. Our survey data allow us to investigate sector differences in quite a few areas of life not already mentioned here, some of which have not been covered in the homeschool literature to date. We suggest that asking how homeschool graduates compare to graduates of other sectors on various measures of personal or social well-being allows us to draw conclusions about how home education is (or is not) preparing its graduates for social life, or life beyond the boundaries and intimacies of the family and religious organization.

What is the impact of homeschooling on personal life orientations? The close connection to family may have long-term advantages for homeschooled children. Other research has shown that close relationships to a parent improves various life outcomes, such as mental health and educational success. Perhaps homeschooling enhances these effects by providing more opportunities to strengthen meaningful relationships to parents. The lack of tension between family and school authority could have an additional positive effect on child socialization. On the other hand, homeschooling may create personal challenges since life trajectories may be less structured, more open-ended, than for public school students. At the least we would expect that there is less cultural support outside of homeschooling networks for the particular life choices homeschool students and their parents are making. Relative to their counterparts in traditional schooling, homeschoolers' lack of institutional experiences and their counter-cultural orientations may create particular life challenges that are reflected in their responses to questions about personal well-being.

The findings reveal that respondents who were homeschooled are not much different in their pursuit of new experiences in life. They are no more or less likely than public schoolers to say that they like new and exciting experiences even if they have to break the rules. (Interestingly, evangelical Protestant schoolers are less likely to agree.) Beyond that, homeschoolers do appear to be less settled in life. Compared to public schoolers, homeschoolers report that they don't have a strong direction in life or a sense of purpose, and that they feel helpless in dealing with life problems. On average young adults who were homeschooled in high school have a weaker sense of meaning and direction in life.

The average homeschooler expresses lower levels of well-being compared to public schoolers. The difference may result from the stronger cultural scripts within institutional schooling that provide normative trajectories for students. But would these same homeschooled respondents have answered these questions differently if they had attended a public school? Was it the experience of homeschooling per se that led to these outcomes? Selection effects cannot be ruled out. Home education is often an alternative for families and children who are not thriving in institutional schooling. And those who are homeschooled are more likely to experience transitions between schooling types as well. To some extent, then, differences in personal orientations as a young adult may represent preexisting child differences in at least a substantial minority of families that end up homeschooling for most of their child's

high school education. In other words, we must consider whether a significant minority of homeschoolers entered homeschooling in response to personal problems related to a sense of purpose and meaning in life. However, our current data do not contain the measures necessary to test this hypothesis. Panel survey data would help sort out selection from schooling effects; without that, we can only report an association, net of important controls, between homeschooling in high school and lower levels of personal well-being.

Civic Life. One of the advantages of homeschooling is the ability to involve students in community activities, which could pave the way for adult civic involvement by creating a sense of civic obligation, or by generating organizational ties that facilitate involvement. But we have also seen that homeschoolers have a strong sense of outsider status, which may place obstacles in the way of adult civic involvement.

The counter-cultural aspect of homeschooling emerges most strongly in findings for social trust, which facilitates a healthy public life and reduces barriers to public involvement. Our survey results show that the levels of social trust among homeschoolers are significantly lower than public schoolers, though on several measures they are consistent with findings for evangelical Protestant schoolers. We investigated trust at several points on the radius of trust, from people close to the person, such as neighbors, to people at the farthest reaches, such as strangers. When asked about trust in "people in general," homeschoolers exhibit lower levels of trust on average. At the lower rungs of the radius of trust, we find that homeschoolers have lower levels of trust in their neighbors. At the outer reaches of trust, religious homeschoolers are less trusting of strangers than public schoolers, but this is not statistically significant after accounting for family

background factors. Nonreligious homeschoolers, however, are significantly less trusting of strangers than are public schoolers.

Not surprisingly, homeschoolers are strongly distrusting of major societal institutions, including the mass media, the Federal government, public schools, and scientists. Note that while these findings are robust, they tend to parallel religious school graduates, though slightly stronger for homeschoolers. Homeschoolers report a lower level of trust in public school administrators, which likely reflects a sense of being embattled in relation to dominant schooling institutions. And it may reflect experiences (or stories of others' experiences) dealing with public educational authorities that have some authority over homeschoolers in some states.

Interestingly, a lower level of trust does not extend to atheists, who are outsiders for many in the US (Edgell et al 2006). Religious homeschoolers are very similar to public schoolers in their sense of trust in those who do not believe in God. Perhaps the lack of distrust for atheists is consistent with homeschoolers' support for free expression (discussed below). Another possibility is that homeschooling increases the likelihood of relationships with families who do not believe in God, perhaps through homeschooling events and organizations (cf. Stevens 2003). Finally, homeschooling as an embattled minority (over and against dominant orientations to schooling) may increase empathy for other embattled cultural minorities, such as atheists.

Overall, the findings on lower levels of trust among homeschoolers are striking. But we must keep in mind that in many cases they are not lower than the trust levels of evangelical Protestant schoolers. Moreover, while our models attempt to control for family background, factors that may explain social trust, including details on the religion of one's family while growing up, it is possible that low levels of social trust lead some families to take up homeschooling. In that case, some of the trust findings could be chalked up to unmeasured family effects. However, it is plausible that the homeschooling experience would enhance a lack of trust exhibited by families who choose to homeschool their children.

Do homeschoolers' patterns of charitable giving and volunteering mirror the lower levels of social trust? Religious homeschoolers are less likely to say they would do volunteer work for an issue of concern to them compared to public schoolers. And when asked whether they have done any volunteering for an organization outside of their congregation, homeschoolers are less likely to have done so in the last 12 months than public schoolers. The total hours of volunteering (outside the congregation) in the last 12 months tends to be fewer among homeschoolers, particularly religious homeschoolers.

Charitable giving follows a similar pattern. Homeschoolers are not likely to report that they regularly give 10 percent of their income to a charitable cause. In addition, homeschoolers are less likely than public schoolers to say they have donated money or goods to any charitable cause in the last 12 months. In terms of dollar amounts, the total charitable contributions of homeschoolers are on average not any different than public schoolers.

In summary, the civic skills, involvements, and commitments of homeschoolers appear to be the same or somewhat lower than those of young adults in other school sectors. The evidence leans more toward the view that a counter-cultural orientation of homeschooling families reduces civic engagement into young adulthood.

Political Life. We know that homeschooling networks are very active in politics and quite effective in defending homeschooling interests in the political square. The question is whether this translates into politically-active citizens in young adulthood. We wouldn't expect that given the sense of alienation from public institutions and lower levels of social trust that we have seen above. But it may be that the experience as an embattled minority leads to particular vigilance through political involvement.

First, we consider homeschoolers' support for basic democratic principles. We might expect that the private and familial approach of education would fail to prepare students for effective participation in a democracy. But we don't find any evidence for this. As we have seen, religious homeschoolers believe that religion should be active in public life, rather than only kept within the private sphere. Even so, homeschoolers are more willing than public schoolers to extend freedom of speech to those who want to speak out against religion. And we don't find any difference in the extent that homeschoolers favor greater tolerance for non-Christian religions in American society. Relatedly, some might expect that religious homeschoolers would socialize students into more authoritarian orientations to public life. However, on one of the measures often used to capture authoritarian orientations, respect for authority, we don't find that homeschoolers are any more supportive than public schoolers are of the notion that one of the main problems in the US today is the lack of respect for authority. It seems that one of the strengths of homeschooling, which may be related to the counter-cultural minority status of homeschooling, is robust support for democratic principles of individual freedom and freedom of expression.

Do homeschooling experiences lead to greater political engagement? Interestingly, homeschoolers are less likely to report that their high school classes increased their interest in politics and government. But homeschoolers' sense of obligation to participate in politics is the same as public schoolers, which is perhaps surprising given their relatively high levels of alienation from public institutions. However, homeschoolers are less likely to read the news, though this is only statistically significant for the religious homeschoolers. Additionally, religious homeschoolers report fewer sources of political information across life domains (e.g., work, religious organizations, family, etc.). Efficacy is likely to be lower for a minority, counter-cultural group, which may explain why we find that religious homeschoolers are less likely to think they can have an impact on community or political affairs. That view to some extent reflects the reality of the outsider status of the religious homeschooler, though a lower sense of efficacy may be reinforced within homeschooling experiences and may reduce the extent that religious homeschoolers are open to participating in political life. A lack of efficacy in relation to political and community affairs may dampen civic and political involvement.

Work Life and the Public Good. Orientations to work life can include civic or public purposes. Some would see work as an opportunity to serve others or the public good while others may approach work instrumentally, whether in service to self or family interest. If homeschoolers tend not to be civically engaged, perhaps the corollary is that they approach work in terms of its instrumental contribution to family. The relatively high tension that homeschoolers experience in relation to public institutions may extend to how they think about the purpose and meaning of work.

We find that homeschoolers have distinct work. Homeschoolers orientations to not likely to say they want a job that allows them an opportunity to be directly helpful to others, nor do they desire a job that is worthwhile to society. Finding meaning in work through these public purposes does not resonate with homeschoolers. That extends to thinking about work as an opportunity for building personal relationships. Homeschoolers are not likely to say they are looking for a job where they can build friendships, nor do homeschoolers imbue work with religious meaning. They are no more likely than public schoolers to say they desire a job to fulfill a religious calling or to say that God has called them to a particular line of work. However, homeschoolers are as likely as public schoolers to desire a job in which they can express their creativity. Homeschoolers are not different from public schoolers regarding the hope for a job that pays well; they are equally likely to be concerned with pay. Extrapolating from the findings, homeschoolers are not likely to look for civic, religious, or prosocial meaning in their work but they are not more likely to see work only in terms of income either. It may be that homeschoolers link work and family very tightly. Future work should investigate whether homeschoolers tend to have a more entrepreneurial approach to business, perhaps focused on a family business, which leads to distinctive approaches to the meaning and purpose of work.

So how are homeschool graduates prepared for social life after high school? Our results raise some concerns for a majority of homeschool graduates, who are likely to feel a lack of direction and sense of purpose in life, feel helpless to deal with their own problems, and a lower sense of efficacy to make an impact on public affairs (all in comparison to public school graduates). We also find that homeschool graduates have lower levels of trust

in other people and in social institutions, which we expect helps explain the finding that their frequency and amount of charitable donations are lower than for graduates of other sectors.

Conclusions

The findings on homeschooling outcomes in young adulthood provide only broad directions, which will have to be honed and confirmed in future research. To begin, the experience of homeschooling appears to reinforce skepticism about dominant institutions in American society. The lack of confidence in public institutions is one result. That may also explain why educational attainment is lower among homeschoolers and why the universities they attend are smaller and less selective. The lower levels of involvement in civic organizations and churches are consistent with relatively high boundaries that homeschoolers place between themselves and dominant institutions. Second, family and immediate personal relationships take precedence over other life goals for homeschoolers. Perhaps this explains why congregational involvement is lower among homeschoolers. And it may explain why homeschoolers are less enamored with public and prosocial goals pursued through a job or career.

Third, homeschoolers are in many ways alienated (both structurally and culturally) from dominant public institutions and conventional norms and life trajectories, and the corollary of this is the homeschooler experience as a cultural minority, which helps to explain some of homeschoolers' democratic citizenship strengths. Together, the social factors of alienation and minority status may explain lower levels of personal well-being among homeschoolers, though this is more difficult to determine conclusively. It may also lie behind the lower levels of social trust and civic participation

of homeschoolers. Regarding citizenship, the dynamics set in motion as an embattled cultural minority somewhat alienated from dominant institutions and life trajectories appears to lead to stronger support for other cultural minorities as well as support for freedom of thought and expression. And the result is that homeschoolers are quite active in political life given their sense of alienation from public institutions. Rather than see homeschooling as entirely privatizing and harmful to democratic citizenship, this research reveals that a particular structure of schooling can generate conditions that teach democratic life lessons. This is certainly a public good enhanced perhaps surprisingly by schooling at home.

We have presented results from a study that gives us multiple methods for evaluating how homeschool graduates fare after completing high school. Using one of the traditional methods of evaluating institutional schools' success is assessing college enrollment, graduation, and income data. On these measures, we find that homeschool graduates are at a disadvantage compared to graduates of other types of schools. However, using the criteria used to evaluate conventional schools is at best an incomplete and at worst an unfair assessment since homeschoolers have different educational goals and intended outcomes.

When we examine how homeschool alumni are doing on measures that are more relevant to the educational experiences they have had and the goals set forth for their education in the first place, the picture is more positive. We find that by and large, homeschool graduates are retaining religious identity and beliefs, and are generally maintaining strong familial bonds, in line with two of the primary goals of the religious homeschooling movement.

On a third set of measures related to personal and social well-being, we find that homeschool graduates are at a disadvantage compared to graduates of other types of schools. We suggest that this could be partially due to the potentially isolated nature of the homeschool experience—the intentional boundaries drawn by homeschooling families and public institutions, the lack of easy access to peer groups, the exhausting work of meeting 100% of children's needs in the home, etc. However, we suspect that another part of this story is that homeschooling families do not benefit from social support for their educational choices, either from social networks and general social sentiment, but also from social institutions, which has resulted not only in homeschooling families separating a bit from the social fabric, but in their sense of embattlement with a culture they experience as hostile to their beliefs, values and decisions. It is possible that the advent and growth of hybrid homeschool/online and other alternative education programs might build bridges for some homeschooling families that will introduce a greater level of social support while allowing these families to maintain their focus on the goals that are most important to them, remaining generally unimpeded by the constraints of conventional schooling.

There are several limitations of this study that must be noted. First, we must be cautious about concluding that these findings reveal universal effects of homeschooling in all times and places. Of course, averages for all homeschoolers can miss important sources of variation across types of homeschools. Little is known about whether different homeschooling approaches or homeschooling pedagogies have different effects on student outcomes. Nor do we know whether homeschooled students would have had different outcomes if they had been in other types of schools. It is possible that parents (and children)

have deeper insight into whether a particular child would better thrive in homeschool versus institutional school. Moreover, we know that homeschooling effects vary considerably across societal contexts. For example, analysis of the 2013 Cardus Education Survey results in Canada leads to different conclusions about several areas of young adult life outcomes, including civic engagement.

We should remember too that the averages and associations discussed in this paper represent a particular time period of homeschooling. The "early adopters" of homeschooling in the late 80s and 90s may be quite different on average than graduates from more recent years. All of this to say that it is difficult to generalize about homeschoolers since the family context and even the societal context can considerably modify the effect of homeschooling experiences. Additional research with larger samples of randomly selected homeschoolers will be necessary to chart these important potential differences in the effect of homeschooling.

Notes

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