5-24-2024

How Do Demographic Characteristics of Homeschooling Households Influence the Way Homeschooling is Practiced?

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Education Reform

WORKING PAPER SERIES

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May 24, 2024

EDRE Working Paper 2024-04

Abstract

The legitimization of homeschooling during the COVID-19 pandemic and the emergence of new schooling models (i.e., hybrid homeschooling) potentially change the composition of homeschooling families and the way homeschooling is practiced. This study establishes pre-pandemic trends of the demographic composition of U.S. households who homeschool their children. This study also articulates a theory that the way families practice homeschooling is based on practical constraints imposed by household demographic characteristics and, to a lesser extent ideological reasons. These theories are empirically tested using the 2012, 2016, and 2019 waves of the National Household Education Survey and a sample of 1,468 homeschooling families. Findings indicate that homeschooling families demographically differ from other families in key ways such as a greater likelihood of one parent not participating in the labor force. However, homeschoolers are demographically similar to other families in many other ways. Findings also indicate that specific household characteristics such as family structure, labor force participation, and parents' educational background are associated with how long a child is homeschooled and the resources families use to homeschool their children. Implications for more accurately describing the composition of homeschooling families and how they practice homeschooling are discussed.

How Do Demographic Characteristics of Homeschooling Households Influence the Way Homeschooling is Practiced?

The Covid-19 pandemic precipitated a significant disruption to the U.S. education system. The onset of school closures and remote instruction altered conventional learning environments that had until then characterized most U.S. schools. Among the ways families with school-aged children responded was to make a decision to homeschool their children, that is, to not enroll their children in conventional public or private schools. Using data from the U.S. Census Bureau's Household Pulse Surveys, Duvall (2021) estimates 3.2 million parents with school-aged children, or 4.8 percent of all such parents in the United States, homeschooled their children during February 2020, just before schools began to close. The number of parents homeschooling their children jumped to 6.8 million, but stabilized to about 5 million parents, or 8.7 percent of all U.S. parents with school-aged children, between August and December 2020.

It remains to be seen what the size and composition of the homeschool population will be in the years ahead. In an analysis of enrollment data from the U.S. Department of Education and the departments of education of various U.S States, Dee (2023) estimates that public school enrollment declined by 1.2 million students from the fall of 2019 to the fall of 2021. Dee also estimates that while private school enrollments increased by 4 percent, homeschool enrollments increased by 30 percent. Even so, enrollment growth in private schools and homeschooling, together with demographic changes in birthrates, only accounts for about two-thirds of the decline in traditional public-school enrollment. How the other third of children who have exited traditional public schools are now receiving an education or reasons for why they are missing from administrative data systems are unknown, though unreported homeschooling is a possibility.

What appears more certain is that many families with school-aged children are pursuing other avenues for education other than traditional public schooling. New means of schooling and educating children, such as hybrid schooling and microschooling have proliferated since the COVID-19 pandemic (McShane, 2024; Wearne & Thompson, 2023). These emerging trends suggest that, in addition to the

changing composition of homeschooling families, the way homeschooling is practiced is also evolving. Even prior to the pandemic, increasing reliance on resources the use prepared curricula, online resources, hybrid schooling programs, tutors, and co-ops have been documented (Cheng & Hamlin, 2023; Hanna, 2012).

With the future state of educational institutions in flux, one purpose of this study is to establish pre-pandemic trends for the demographic composition of U.S. households who homeschool their children. Such data provides an empirical portrait of the population of homeschooling households not only to assess popular beliefs about homeschooling households but also to compare pre-pandemic baseline trends in homeschooling post-pandemic trends as they unfold.

An additional purpose of this study is to examine whether particular household characteristics are associated with particular homeschooling practices. How do, for example, two-parent family structure, household size, employment arrangements, and who serves as the primary homeschooling teacher affect pedagogical approaches, reliance on curricular resources, or the duration of homeschooling? Some studies have documented demographic compositions of homeschooling household. Other studies have documented the evolution of homeschooling practices (Cheng & Hamlin, 2023; Neuman & Guterman, 2017). However, none have explored the relationship between those two aspects of homeschooling despite the high likelihood that specific household characteristics have significant bearing on the way families are able to practice homeschooling, let alone whether families decide to homeschool in the first place.

For this analysis, use three waves of the National Household Education Survey, a nationally representative data set collected by the U.S. Department of Education. Aggregating the data from the 2012, 2016, and 2019 waves, we have a sample of 1,468 families who homeschooled at least one of their school-aged children at the time of the survey. In the next section of the paper, we review the research evidence about the demographic characteristics of homeschooling families, how homeschooling is practiced, and how those demographic characteristics are potentially connected to those practices. We

then describe the National Household Education Survey data and our analytical approach. After that, we present our findings and offer some concluding remarks.

Literature Review

The Demographic Composition of Homeschooling Households

Representative samples of the homeschooling population in the United States have been challenging to obtain. Because reporting requirements for families who practice homeschooling widely vary across U.S. states, access to population-level data from which representative samples can be generated remains elusive. Moreover, adults who were homeschooled for religious reasons as children several decades ago exhibit lower levels of trust in major social institutions such as the federal government when compared to adults in the general population (Sikkink & Skiles, 2014). Insofar as this difference extends to homeschooling families today, nonresponse bias in any survey of homeschooling families is possible. On the other hand, some analysts have suggested that response rates among homeschoolers are no different than those of the general population (Bielick et al., 2009; McPhee et al., 2015). Nevertheless, most research about homeschooling is based on convenience samples, though there are some exceptions where the data can be posited to be at least closely representative (Casagrande et al., 2019; Isenberg, 2017)

Despite these limitations, research relying on convenience samples has informed the scholarly knowledge base as well as the public imaginary of homeschooling families. In particular, scholars have for several decades used Van Galen's (1988) dichotomous framework to characterize homeschooling families. This dichotomy divides homeschooling families into ideologues and pedagogues. The former, who comprised conservative Christians in Van Galen's work, wish to inculcate their children a particular religious vision. The latter, who comprised progressive, child-centered parents, wish their children to learn according to a particular pedagogical approach.

Portrayals of homeschooling families in popular media have reinforced these decades-long perceptions (Hauseman, 2011). Although many of these perceptions have empirical support, empirical research also reveals a considerable amount of variation and nuance that is often overlooked. For

instance, religiously conservative homeschooling families are thought to be larger and to abide by traditional gender roles, with mothers primarily serving as homemakers and raising the children. Indeed, Sikkink and Skiles (2015) found some evidence that religious individuals who were homeschooled were more likely to endorse traditional views of marriage, gender, and family. The mother's role as the primary instructor and father's role as a supporter in homeschool settings has also been the subject of scholarly inquiry (Lois, 2013; Vigilant et al., 2014). Nevertheless, Sherfinski and Chesanko (2016) present a picture of Evangelical Christian homeschooling families much more complicated than the one portrayed by widely held beliefs about how these families uphold traditional gender roles and childbearing. Families in their sample not only varied in those beliefs but also expressed and practiced them differently.

More recently, scholars have identified and given attention to populations of homeschooling families who do not fit neatly into Van Galen's (1988) framework. Some studies document families who decide to homeschool not for pedagogical or ideological reasons, such as dissatisfaction with schooling options and child safety (Green-Hennessy & Mariotti, 2023; Murphy, 2012). Furthermore, many researchers have studied Black homeschooling families since Fields-Smith and Williams (2009) seminal study on this population (Fields-Smith, 2017; Mazama & Lundy, 2015; Ray, 2015). Together with popular media coverage of Black homeschoolers, there is growing awareness that homeschooling families, which three decades earlier were predominantly White, have become more racially diverse (Miles, 2021). Since the COVID-19 pandemic, many segments of the general population are increasingly availing themselves of new educational models such as microschools and hybrid homeschools (McShane, 2024; Wearne, 2024; Wearne & Thompson, 2023). The interest in these new educational models together with the proliferation of educational resources such as homeschooling co-ops, online educational resources, and education savings account programs that make homeschooling more feasible to practice has led to the diversification of the homeschooling population since the 1980s not only in terms of race and motivation to homeschool but also along other demographic characteristics (Cheng & Hamlin, 2023; Hanna, 2012).

In this study, we present data about some salient household characteristics such as size, family structure, and employment to examine these demographic trends in the homeschooling population. Some of this data has been presented in technical reports published by the U.S. Department of Education and referenced in reviews of homeschooling research. For example, according to the 2016 wave of the National Household Education Survey, four fifths of homeschooled children live in a two-parent home and three quarters of homeschooled children had at least one parent who was not participating in the workforce. Both of these rates are higher than the rates for the general population. Meanwhile, three quarters of homeschooled children were primarily taught by their mothers (Cui & Hanson, 2019; Kunzman & Gaither, 2020; Valiente et al., 2022). Our study expands the existing demographic picture provided by prior research not only by presenting statistics of additional demographic characteristics of homeschooling families but also do so using three waves of the National Household Education Survey to consider trends over time. This descriptive exercise has been done by Bauman (2002) who described the changing homeschooling population in the United States from 1994 to 1999 and found, among other trends, an increase in racial diversity. We present a more up-to-date picture of the homeschooling population by considering data from the 2010s.

The Influence of Household Characteristics on the Practice of Homeschooling

Furthermore, we directly examine whether variation in these demographic characteristics among homeschooling households has any bearing on how these households practice homeschooling, a topic to which we now turn.

Notably, our analysis differs from Bauman (2002) because instead of estimating a predictive model to determine which families in the U.S. population decide to homeschool, we estimate a predictive model with a representative sample of homeschooling families to identify the demographic characteristics associated with particular homeschooling practices. In other words, while Bauman examined demographic differences between families who homeschooled and families who did not, we examine demographic differences among homeschoolers that have bearing on how they practice homeschooling. Specifically, we consider how household demographic characteristics such as family structure, size,

parents' educational background, parents' workforce participation, and household income interact with how long a child is homeschooled and whether families use educational resources such as co-ops, tutors, online resources, and other schools to homeschool their children.

We posit that homeschooling practices are connected with household characteristics for practical and ideological reasons. Prior empirical research provides some basis for these expectations. Bauman (2002) found that families with more children were more likely to homeschool, perhaps reflecting the population of religious homeschoolers who are also more likely to endorse traditional norms regarding gender, marriage, and childrearing (Van Galen, 1988; Sikkink & Skiles, 2015). That is to say, the conviction that one should homeschool their children is constitutive of a larger outlook that also includes a conviction to have more children. Bauman (2002) also found that families where the mother that has at least a college degree and families with at least one non-working parent, are more likely to homeschool their children. Those findings likely reflect practical constraints as homeschooling requires the presence of one parent and precludes them from participating in the workforce. Moreover, when families decide that one parent should exit the labor force due to life events such as the birth of a child, it is typically the mother rather than father (Goldin et al., 2022). As a result, it may be of some practical benefit among families who wish to homeschool for mothers to have higher levels of education.

In the first set of proposed hypotheses, we make predictions about how household demographic characteristics vary with the practice of homeschooling based on pragmatic reasons. We expect families with more economic and human capital to homeschool their children for more years of their primary and secondary education. Presumably, homeschooling is practically more feasible when families have more household income to direct to homeschooling. We additionally suspect that homeschooling is practically more feasible when children are growing up with two parents, parents are more highly educated, and at least one of the parents is not participating in the workforce. We also predict that families with more household income to are more likely to use external resources such as tutors, co-ops, and online resources simply because they are more likely to afford them. However, conditional on household income, we predict that families where both parents participate in the workforce are more likely to use external

resources, especially enrolling their homeschooled children part-time in a school, because they have less time to be directly involved in instructing their children. More highly educated homeschooling parents may be less likely to rely on external resources, especially part-time enrollment in a school, because they are more likely to possess the requisite content knowledge to provide instruction. This is not to say that more highly educated parents do not rely on external resources since the challenge of possessing the requisite content knowledge to provide instruction tends to emerge only when children enter the secondary school grade levels. In fact, prior research has documented highly educated parents' participation in co-ops and use of online resources (Hanna, 2012).

The second set of hypotheses about household demographic characteristics and homeschooling practices is based on upon an ideological rationale. The relationship between household characteristics and homeschooling practices are endogenous to unobserved ideological beliefs that influence both household characteristics and homeschooling practices. For example, we hypothesize that homeschooling families where the mother is the primary instructor, both biological parent are present, and more children are present will homeschool their children for more years of their primary and secondary education because religiously conservative families are more likely to espouse traditional views on marriage, childbearing, gender roles, and playing a direct role in the education of their children (Van Galen, 1988; Sikkink & Skiles, 2015). We also hypothesize those homeschooling families will be less likely to avail themselves of external resources like online resources and part-time enrollment in schools and instead to provide instruction themselves or with the help of homeschooling co-ops where there are, presumably, other like-minded parents. Although we expect our models to reflect the influence of ideological factors, we do not directly observe them. Hence, our models may not as strongly capture the influence of ideological factors as they do the influence of practical concerns described in our first set of hypotheses.

Methods

Data Set

To examine the demographic composition of homeschooling households and the way those characteristics influence how homeschooling is practiced, we pool data from the 2012, 2016, and 2019

waves of the National Household Education Survey (NHES). The U.S. Department of Education administers the NHES to nationally representative samples of U.S. households with children in kindergarten through grade 12 who are enrolled in public school, enrolled in private school, or are homeschooled. The survey instrument asked respondents to provide information about their households such as size, family structure, and demographic information of the parents or guardians. Respondents also provided information about the school of a randomly-selected school-aged child who lived in the household as well as that child's experience with that school. Selected children were identified as homeschooled if they were not enrolled in public or private school for the majority of their education in that current school year. The three cross-sectional waves of the NHES yields a sample size of 1,468 homeschooling families and 46,616 families who send their child to a public or private school. Parents or guardians who homeschooled their children were asked additional items inquiring about the way they practiced homeschooling and their child's experience being homeschooled.

Empirical Strategy

We first present sample statistics of the demographic composition of all the households represented in our data. To showcase trends over time, the data are disaggregated by year. We further disaggregate the data by homeschooling families and non-homeschooling families to enable comparison across the two types of families. In all of the sample statistics we report, samplings weights are used so that the figures are representative of all U.S. households across the years of observation.

After presenting these demographic statistics, we estimate linear regression models using the sample of homeschooling families to examine whether particular demographic characteristics of these households are predictive of the way homeschooling is practiced. The data contain several indicators of homeschooling practice including how long the family has been homeschooling their particular child and whether the family avails itself of instructional supports such as tutors, co-ops, online resources and courses, or part-time enrollment in a brick-and-mortar school. These indicators of homeschooling practice are entered as dependent variables in our models. Except for our measure of the duration of homeschooling, which is a continuous variable equal to the percentage of years in K-12 schooling that a

child has spent in a homeschool setting, all dependent variables are dichotomous and indicate whether a family has adopted a particular practice.[1]

On the right-hand side of our models, we include several household demographic variables that potentially have bearing on how homeschooling is practiced. We include dummy variables for family structure—that is, a variable indicating whether the child lives with only one parent or guardian and a variable indicating whether the child lives with two parents or guardians, one of which is not a biological parent—with the omitted category being children who live with both biological parents. We also include a variable for the number of siblings in the household, an indicator for whether all of the child's parents or guardians are employed, and indicators for whether it is the father, mother, or someone else who is the primary homeschool instructor. We additionally include dummy variables indicating whether the parents' or guardians' first language is not English, the highest level of education that a parent or guardian has attained, and whether the family is ethnically white.[2] We also include indicators for household income quartile, U.S. census region, urbanicity of residence as well as the child's grade level and the survey year in which the respondent participated in the NHES. We test the aforementioned hypotheses, by observing in our regression models if these independent variables that measure household demographic characteristics are predictive of particular homeschooling practices.

Results

We begin with an in-depth presentation of the demographic composition of households who practice homeschooling from 2012 to 2019. As a point of comparison, we also present the demographic composition of households who are not currently homeschooling their children. Next, we present the results of regression models that examine whether these demographic characteristics are predictive of homeschooling practice.

Demographic Characteristics of Homeschooling and Non-Homeschooling Households from 2012 to 2019

[1] Results are robust to using logistic regression to estimate models with a dichotomous dependent variable.
[2] Sample sizes for non-white respondents are too small for disaggregation to finer-grained levels.

Table 1 lists the descriptive statistics of household demographic characteristics disaggregated by homeschooling and non-homeschooling families as well as by year. We begin by discussing family structure. As shown in the first row, a homeschooled child is more likely to grow up with both biological parents. The gap is widest in the most recent 2019 survey wave, where 72 percent of homeschooled children are growing up with both biological parents compared to 58 percent of non-homeschooled children. Put another way, homeschooled children are much less likely to grow up in a single-parent home. In 2019, 26 percent of non-homeschooled children are growing up in such a setting compared to 15 percent of homeschooled children. It should, therefore, not also be surprising that homeschooled children are more likely to be in households where their parents or guardians are married. In 2019, 83 percent of homeschooled children are in married households compared to 70 percent of non-homeschooled children. Notably, these family structure statistics are quite stable from 2012 to 2019 for non-homeschooling households. There is a larger degree of variation among homeschoolers, though no trend is apparent. It is possible that the larger degree of variation among homeschooling families is a consequence of sampling variation.

<<Table 1 Here>>

We also observe that conditional on not growing up with both biological parents, homeschooled and non-homeschooled children seem to have similar likelihoods of having a legal guardian who is an adoptive parent, stepparent, grandparent, or someone else. There may be an exception to this conclusion in 2019, where homeschooled children are twice as likely as non-homeschooled children to grow up with an adoptive parent in 2019 (6 percent versus 3 percent) and nearly half as likely as non-homeschooled children to grow up with a stepparent (4 percent to 9 percent). However, we note that the absolute percentages of children growing up with either an adoptive parent or stepparent are quite low.

The next two rows list information about household size. Homeschooling families are slightly larger than non-homeschooling families. The average household size across all three waves of the NHES for homeschooling families is 4.62 people compared to 4.05 for non-homeschooling families. A portion of this difference is attributable to the difference in the likelihood of growing up with two parents or

guardians among homeschooled and non-homeschooled children. However, it is also the case that homeschooling families have more children. Specifically, homeschooled children have, on average, 1.5 siblings compared to the 1.0 siblings that non-homeschooled children have. With the standard deviation of number of children equal to 1 sibling, the difference of half a child is substantively large. In absolute terms this difference is approximately one more child in every two homeschooling families for every two non-homeschooling families.

In 2019, English was the first language of 85 percent of parents or guardians of homeschooling families, compared to 77 percent of parents or guardians in non-homeschooling families. This is a contrast from 2016 data where English was slightly more likely to be the first language of non-homeschooling families—86 percent compared to 82 percent of parents and guardians of homeschooling families. Incidentally, the proportion of homeschoolers who identified as Hispanic spiked in the 2016 wave and later dissipated in the 2019 wave. It is unclear whether the 2016 numbers are an artifact of random sampling variation or material.

Regarding the educational attainment of parents and guardians, homeschooling and non-homeschooling families appear similar. For instance, about half of both homeschooled and non-homeschooled children had a parent or guardian who earned a bachelor's degree in all three waves of the NHES. However, when it comes to labor-force participation, homeschooled children are much more likely than non-homeschooled children to have one rather than both of their parents or guardians working. Across all waves of the NHES, only one parent or guardian participated in the labor force in about 60 percent of homeschooling families compared to just over 50 percent of non-homeschooling families. In contrast, both parents or guardians participated in the labor force for just over one quarter of homeschooling families compared to about half of non-homeschooling families. It is then, perhaps, not unexpected to see a greater proportion of non-homeschooling families represented among households with incomes greater than $100,000, while homeschooling families are slightly more likely to be in the lower income brackets.

Finally, as shown in the last rows of Table 1, mothers are most likely to be the primary instructor among homeschooling households. Mothers have been the primary instructor for three quarters of all homeschooling families since 2012. For some homeschooling families, fathers or other family members are the primary instructor. This arrangement characterized 13 and 20 percent of homeschooling families in 2012 and 2016, respectively. Yet in 2019, fathers or other family members are the primary instructor only 8 percent of homeschooling households. Notably, the proportion of homeschooling families where the primary instructor is not a family member has jumped to 16 percent in 2019 compared to 10 percent in 2012 and 2016. This trend, if it were sustained in subsequent years, would be consistent with the increasing use of online resources and part-time enrollment in brick-and-mortar schools by homeschooling families (Cheng & Hamlin, 2023).

Are Demographic Characteristics Predictive of Homeschooling Practice?

Duration of Homeschooling. In Figure 1, we present a histogram of the distribution of the proportion of the number of years of primary and secondary schooling that children have been homeschooled. The distribution is bimodal with about 33 percent of the sample being homeschooled for the entirety of their primary and secondary schooling and nearly 20 percent of the sample being homeschooled for one fifth of the entirety of their primary and secondary schooling. The remainder of the sample is evenly distributed between those two modal categories. It is important to keep in mind that the sample comprises students from kindergarten through twelfth grades. So if, say, a kindergartener is homeschooled, then he will be counted as spending 100 percent of his K-12 education in a homeschool setting. Given that children typically switch out of homeschooling as they age, this kindergartener will likely not spend all of his K-12 education in a homeschool setting by the time he is in the twelfth grade. One study that relies on a sample of adults who have completed all of their primary and secondary schooling estimates that only one out of every 10 U.S. adults who have ever been homeschooled were homeschooled for the entirety of their schooling—a rate that is much lower than the 33 percent of students in the NHES sample (Hamlin & Cheng, 2022). Hence, the estimated amount of time that individuals are homeschooled will be higher in this NHES sample compared to a sample that only

consists of, say, twelfth graders who may have been homeschooled as younger children but then began enrolling in conventional school settings in their older years. In fact, younger students are overrepresented in the upper end of the distribution in Figure 1. All that said, the data depicted in Figure 1 demonstrates wide variation in the proportion of time children are homeschooled during their primary and secondary schooling years.

<<Figure 1 Here>>

In Table 2, we present estimates of a model that uses household demographic characteristics to predict the duration of homeschooling among homeschooling families. Many of the coefficient estimates are consistent with our hypotheses. Children who grow up with both biological parents are more likely to be homeschooled for a greater proportion of their primary and secondary schooling. The amount of time a child growing up in a single-parent home is homeschooled is nine percentage points lower than a child growing up with both biological parents. A child who comes from a two-parent home but is not growing up with both biological parents also spends less time in a homeschool setting compared to a child growing up with both biological parents. That difference is about 8 percentage points. Household size is also a predictor of homeschooling duration. All else equal, every additional sibling is associated with a 1.5 percentage point increase in the amount of time a child is homeschooled.

<<Table 2 Here>>

We also find that several parent characteristics are predictive of homeschooling duration. For instance, children from households where both parents or guardians are employed are homeschooled for a duration that is nine percentage points lower relative to the duration for children from families where one or neither parent or guardian are working. Meanwhile, homeschooling families where the mother is the primary instructor tend to homeschool for longer periods of time. Children from such families homeschooled for lengths of time that are six percentage points shorter than children from homeschool families where the father or someone besides a parent is the primary instructor. The duration of homeschooling is also about 10 percentage points longer for children whose parents have a college degree compared to children whose parents do not have a college degree.

Finally, the duration of homeschooling is shorter by about 6 to 7 percentage points for families in the first income quartile compared to families in other income quartiles. However, there does not appear to be differences in duration among families outside the first income quartile. It is possible that having a minimum threshold of financial and other material resources weighs heavily on the ability to homeschool for longer durations of time—something that families in the lowest income quartile may not have compared to families in the other three quartiles.

Use of Educational Resources Outside the Home. As shown in Table 3, reliance on tutors, co-cops, online courses, or enrollment in brick-and-mortar schools generally does not vary among homeschooled children who grow up with both biological parents, one biological parent in a two-parent setting, or a single-parent. Our models suggest that homeschooled children who grow up in single-parent homes are five to six percentage points more likely to use online resources or enroll part time in school. Those differences are substantive in size but not statistically significant, likely because of the relatively small sample size of single-parent families who also homeschool. The only exception is that relative to homeschooled children growing up with both biological parents, children growing up in two-parent homes where one parent is not a biological parent are 7 percentage points more likely to be enrolled in a brick-and-mortar school. It is unclear from the data whether these schools are hybrid homeschools or microschools, though it is possible that they are. Also, homeschooled children in single-parent homes are nearly 10 percentage points less likely to participate in a co-cop compared to homeschooled children who are growing up with one biological parent in a two-parent setting, a result that is statistically significant at the 0.05 level.

<<Table 3 Here>>

Next, we observe that larger homeschooled families are less likely to rely on online courses. For every additional sibling, a homeschooled child is 2 percentage points less likely to receive instruction online, all else equal.

We also observe different homeschooling practices based on the parents' employment status. Relative to other homeschooling families, homeschooling families where both parents are employed are 7

and 8 percentage points more likely to use online instruction and be enrolled in a brick-and-mortar school, respectively.

Comparing homeschooling families where the primary instructor is the mother, father, or someone else, we find that reliance on tutors, online instruction, and brick-and-mortar schools is higher in families where the primary instructor is the father. Homeschooled children from those families, relative to children who are primarily taught by their mother, are 9 percentage points more likely be taught by a tutor, 15 percentage points more likely to avail themselves of online instruction, and 6 percentage points more likely to be enrolled in a brick-and-mortar school. Meanwhile, children who are primarily homeschooled by someone besides their parents, are much less likely to participate in a co-op—nearly 17 percentage points less likely compared to children primarily homeschooled by their mothers.

We additionally note that homeschooled children whose parents' first language is English are more likely to receive instruction online than homeschooled children whose parents' first language is English. The difference is about 9 percentage points. In contrast, homeschooled children whose parents' first language is English are less likely to enroll in a brick-and-mortar school. The difference relative homeschooled children whose parents' first language is not English is about 22 percentage points.

Finally, we observe that homeschooling is practiced differently across families with varying levels of parental education. Families with more highly-educated parents are more likely to rely on tutors and co-ops is higher but less likely to rely on brick-and-mortar schools. In particular, homeschooled children who have a parent with a credential beyond a bachelor's degree are about 10 percentage points more likely to be taught by a tutor or participate in a co-op compared to homeschooled children whose parents do not have a bachelor's degree. However, the former are 8 percentage points less likely than the latter to attend a brick-and-mortar school.

Discussion

First and most importantly, this study finds that despite the tendency of homeschool research to consider homeschooling families as a monolithic group, modern homeschoolers vary for one another in nuanced and important ways. Existing studies that compare convenience samples of homeschooling

families to families who do not homeschool their children likely overgeneralize their findings not only because the samples are not representative but because they aggregate homeschooling families and children who differ in nontrivial ways into a single group (Kunzman & Gaither, 2020). For instance, as shown in Figure 1, there is a significant amount of exit and entry into homeschooling. Nonetheless, some studies simply categorize children as homeschooled if they happen to be homeschooling at the time of data collection without considering how long they have been homeschooled and then compare them to other children to estimate differences in outcomes between the two groups of children (Valiente et al., 2022). Fortunately, an increasing number of studies have begun paying attention to the ways homeschoolers differ from one another in terms of motivation, practice, and demographic characteristics (Hamlin & Cheng, 2022).

This significant level of variation among homeschoolers also suggests that Van Galen's (1988) dichotomous theoretical framework of characterizing homeschoolers has serious limitations. That is to say, by characterizing homeschooling families as ideologues or pedagogues who have static views about the nature of education, that framework may not be able to fully explain how homeschooling families may evolve in their views and avail themselves of different educational options besides homeschooling to meet their children's educational needs over the course of their primary and secondary schooling years. The way homeschooling families evolve over time is corroborated by prior studies. In their review of homeschooling research, Kunzman and Gaither (2020) identify several studies that demonstrate how a family's motivations to homeschool change over time. Yet discussions of homeschooling are often premised on the idea that people who homeschool do so for ideological reasons and therefore, would certainly chose to homeschool all of their children for all years of their education. Our findings indicate that this premise is incorrect. In fact, most children are never homeschooled for the entirety of their primary and secondary schooling. Nor does it follow that if a family homeschooling a particular child for all of his or her primary and secondary schooling, then they will the same choice for all of their children. This finding is important in understanding the true prevalence of homeschooling in the population. If children, even those within the same family, move in and out of homeschooling, then cross-sectional

estimates can only reveal how many families are homeschooling right now but not necessarily how many families have homeschooled in the past or are likely to in the future.

Our findings about the connections between family structure and homeschooling practice are also of particular interest in the post-pandemic era. Though we find that homeschooled students in 2019 are less likely to have both parents in the workforce, it is possible that we will see some change over time as remote or hybrid work arrangements become more common, enabling families to homeschool their children and have both parents participate in the workforce. Additionally, the post-pandemic rise in publicly-funded education options, like education savings accounts, will provide families with additional resources to homeschool. Insofar as the marginal family who is induced to homeschool because of these additional resources is demographically unlike the majority of current homeschoolers, we may observe a continuing diversification of the homeschool population. There will be an opportunity for future research to empirically examine these possible changes.

On several of these demographic metrics, the average homeschool family was comparable to the average non-homeschooled family. For example, homeschooling families are only slightly larger than non-homeschooling families, or by about half a child on average. All families in the sample have between 4 and 5 members, challenging a common assumption from popular media or studies with non-representative samples that most homeschool families are large (Ray 2010; Sherfinski & Chesanko, 2014). Moreover, the educational attainment of parents and guardians in homeschooling and non-homeschooling families are similar, challenging assumptions that homeschooling can only be practiced by highly-educated families with requisite content knowledge (Fineman, 2009). Indeed, many homeschooling families rely on co-ops and other resources to provide instruction in areas where they possess less expertise (Hanna, 2012). On the other hand, more highly-educated families homeschooled their children for a larger proportion of their K-12 education, suggesting that the educational background of parents may enable them to more easily homeschool their children. However, the growth of online resources, hybrid homeschools, microschools, and public or private schools that accommodate homeschoolers may continue to make homeschooling more feasible for all families. Prior research has

demonstrated an increase in the uptake of these resources (Cheng & Hamlin, 2023). And in the present study, we found evidence part-time enrollment in schools was more prevalent among homeschooling parents with lower levels of education. More generally, homeschooling families use different types of resources to homeschool. Families with more economic and human use fewer external resources as we hypothesized, though it is not that they use no external resources as we found more highly educated families are more likely than other families to join a co-op or hire a tutor. It appears that they may additionally have the social capital to participate in these opportunities.

Furthermore, we found that homeschooled children are much more likely to have one rather than both of their parents or guardians participating in the workforce, in part for practical reasons. Someone may need to forgo work outside the home to instruct children in the home and is also likely related to lower average incomes in these families. We likewise found that families where one parent is not in the workforce homeschooled their children for a larger proportion of their primary and secondary schooling. In contrast, we found some evidence that homeschooling families where both parents participate in the workforce and homeschooling families are more likely to homeschool their children for shorter durations of time, to rely on online resources, and to enroll their homeschooled children in a school part-time to make homeschooling practically feasible.

In addition to whether the family is a two-parent home and labor force participation, family size is predictive of how long children are homeschooled. Underlying the empirical association between duration of homeschooling and family structure may be family ideology. That is to say, those families may homeschool not only because it is more practically feasible but because they hold particular views of gender roles, marriage, and childrearing. Those particular views might also include an endorsement of educating their own children through homeschooling. For example, it is possible that homeschooling is practically more feasible when at least one parent is not employed, which is consistent with our findings. However, the decision for one parent, particularly in the case of the mother, not to be employed is also correlated with ideologies that might also make it more likely for families to homeschool. Likewise, we observed that children who are taught by their mother are homeschooled for longer proportions of their K-

12 education. While having the mother be the primary instructor may be driven by practical reasons, such as the father being able to earn more (Goldin & Mitchell, 2017), it may also be driven by ideological reasons which endorse the mother as a homemaker and primary caretaker of children (Sikkink & Skiles, 2015). In general, we cannot ascertain with our data and methods alone how much the associations between homeschooling practice and demographic characteristics are due to ideological versus practical reasons.

Household income, meanwhile, has a less linear impact of homeschool duration. Families in the lowest income quartile appear to homeschool for the shortest duration. Above that threshold, however, there are few differences by household income. Whether Education Savings Accounts programs enable the lowest income families to homeschool more easily is an empirical question that should be considered in the future. However, insofar as there are other barriers to homeschooling besides money, outside funding may make little difference. In fact, one study of families from lower-income backgrounds found that families were less likely to desire to homeschool if they lacked confidence about being able to homeschool effectively, were apprehensive that homeschooling would hamper their child's social development, and were unfamiliar with homeschooling laws as well as concerned about complying with them (Ray et al., 2021).

Conclusion

This study catalogs homeschool participation from 2012 to 2019, producing a pre-pandemic baseline against which we can compare post-pandemic changes in both homeschool participant demographic characteristics and preferences. The homeschooling community is not a monolith but varies in nuanced ways. We find that homeschooling families are dynamic and move in and out of homeschooling, and that few families choose to homeschool a child for their entire educational career. Homeschooling families make different choices on curriculum, pedagogy, and external supports. Relatedly, we find that family characteristics are closely related to and may even drive this dynamism for practical and ideological reasons. In total, we find that careful and thorough research that fails to consider

this nuance and dynamism, likely fails to understand the practice or the practitioners. Public policy around homeschooling, likewise need to consider these details.

The most recent wave of the NHES was administered in 2023 with the results coming out in the early fall of 2024. Future work should examine these results and the pre-pandemic trends against those of the 2023 post-pandemic survey. There may be much to be learned about homeschooling trends in the years ahead due to rapid growth, diversification, and legitimization of the homeschool population.

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Figure 1: Distribution of Percent of K-12 Education that a Child has been Homeschooled

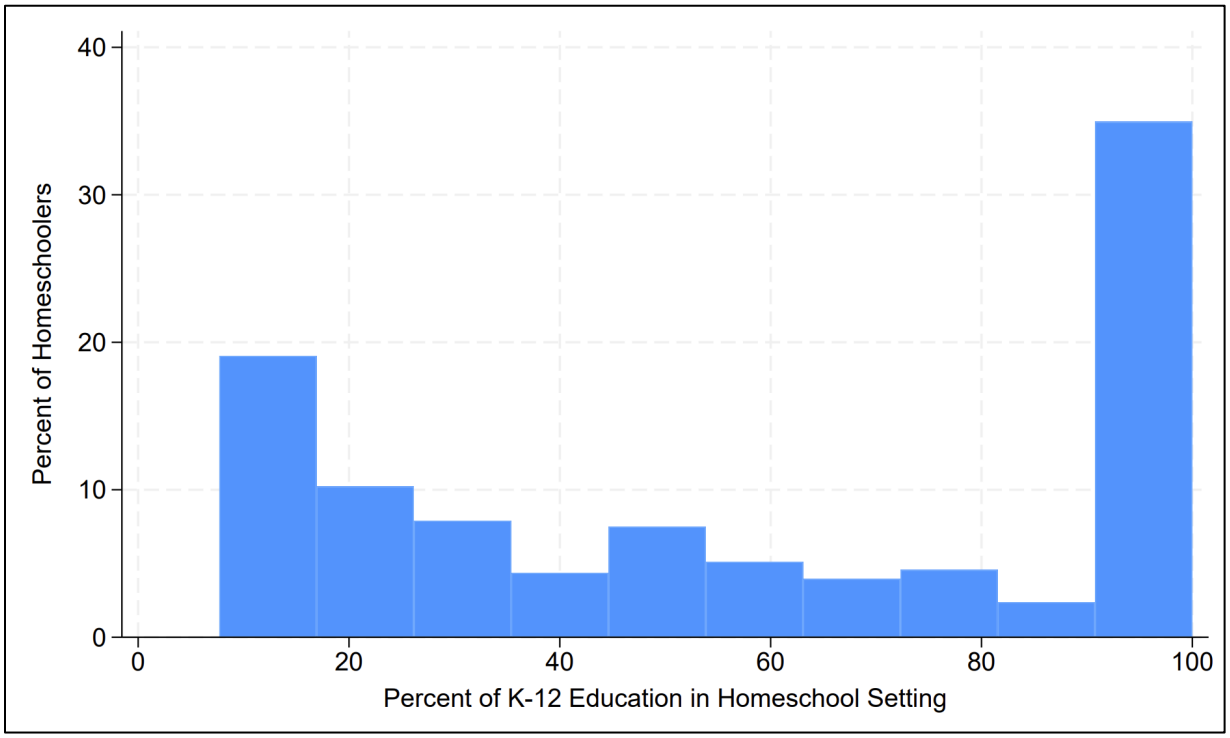

Table 1: Household Characteristics of Homeschooling and Non-Homeschooling Families 2012-2019

	Homeschooling			Non-Homeschooling		
	2012	2016	2019	2012	2016	2019
Growing up with both biological parents	0.68	0.61	0.72	0.57	0.59	0.58
Growing up with a single parent/guardian	0.16	0.22	0.15	0.27	0.26	0.26
Parents' and Guardians' marital status						
Married	0.83	0.75	0.83	0.69	0.71	0.70
Never married	0.07	0.06	0.06	0.12	0.09	0.10
Divorced or separated	0.08	0.17	0.10	0.17	0.18	0.18
Widowed	0.02	0.03	0.01	0.02	0.02	0.02
Child's guardian if not biological parent						
Guardian is adoptive parent	0.05	0.05	0.06	0.03	0.04	0.03
Guardian is stepparent	0.08	0.09	0.04	0.08	0.08	0.09
Guardian is grandparent	0.00	0.00	0.00	0.00	0.00	0.00
Guardian is someone else	0.04	0.05	0.04	0.05	0.05	0.05
Total number of people in household	4.42	4.75	4.67	4.08	4.03	4.05
Number of siblings in household	1.27	1.63	1.55	1.01	1.02	1.03
Parents' Highest Education						
High school or less	0.17	0.24	0.16	0.21	0.17	0.17
Some college	0.36	0.32	0.29	0.33	0.30	0.28
Bachelor's degree	0.20	0.26	0.29	0.26	0.28	0.28
More than bachelor's degree	0.27	0.19	0.27	0.20	0.25	0.27
Guardians' Employment Status						
Both parents work	0.27	0.27	0.29	0.45	0.49	0.50
One parent works	0.62	0.59	0.63	0.44	0.42	0.42
Neither parent works	0.11	0.14	0.08	0.11	0.09	0.08
Parent's first language is English	0.94	0.82	0.85	0.84	0.86	0.77
Household Annual Income						
$30,000 or less	0.23	0.28	0.17	0.27	0.20	0.16
$30,001 to $60,000	0.29	0.28	0.24	0.24	0.22	0.20
$60,001 to $100,000	0.29	0.27	0.26	0.24	0.24	0.23
More than $100,000	0.19	0.18	0.33	0.26	0.35	0.41
Primary Instructor for Homeschooling						
Mother	0.77	0.70	0.76			
Father	0.08	0.15	0.05			
Other family member	0.05	0.05	0.03			
Not a family member	0.10	0.10	0.16			

Note: Sampling weights included. N = 1,468 homeschoolers and 46,616 non-homeschoolers.

Table 2: Household Characteristics and Duration of Homeschooling

	Percentage of Child's K-12 Education in Homeschool Setting
Family Structure (Omitted Category: Child lives with both biological parents)	
Child lives with two parents or guardians, at least one is not a biological parent	-0.075***
	(0.022)
Child lives with one parent or guardian	-0.092***
	(0.025)
Number of siblings	0.014**
	(0.006)
All parents or guardians are employed	-0.085***
	(0.018)
Parents' or guardians' highest education (Omitted Category: Less than bachelor's degree)	
Bachelor's degree	0.090***
	(0.020)
More than bachelor's degree	0.098***
	(0.022)
Income (Omitted Category: First quartile)	
Second quartile	0.064***
	(0.023)
Third quartile	0.057**
	(0.025)
Fourth quartile	0.073**
	(0.027)
Primary homeschooling instructor (Omitted Category: Mother)	
Father	-0.055**
	(0.026)
Someone who is not a parent	-0.058**
	(0.021)
White	0.021
	(0.020)
Parents' or guardians' first language is English	0.069***
	(0.026)
Census Region (Omitted Category: Northeast)	
South	-0.023
	(0.025)
Midwest	-0.005
	(0.029)
West	-0.040
	(0.028)
Urbanicity (Omitted Category: Urban)	
Suburban	0.002
	(0.020)
Town	-0.020
	(0.029)
Rural	0.061***
	(0.021)

Note: Grade level and survey wave fixed effects included. N = 1,468. *** p<0.01, ** p<0.05

Table 3: The Relationship between Household Characteristics and Homeschooling Practices

	(1) Hired a Tutor	(2) Participated in a Co-op	(3) Uses online courses	(4) Enrolled in School
Family Structure (Omitted Category: Child lives with both biological parents)				
Child lives with two parents or guardians, at least one is not a biological parent	0.027	0.055	0.065	0.074**
	(0.035)	(0.037)	(0.037)	(0.035)
Child lives with one parent or guardian	0.039	-0.042	0.054	0.059
	(0.038)	(0.038)	(0.041)	(0.037)
Number of siblings	-0.004	0.013	-0.023**	-0.006
	(0.009)	(0.010)	(0.009)	(0.008)
All parents or guardians are employed	0.002	-0.010	0.072**	0.084***
	(0.027)	(0.029)	(0.029)	(0.026)
Primary homeschooling instructor (Omitted Category: Mother)				
Father	0.092**	-0.063	0.151***	0.063
	(0.036)	(0.035)	(0.037)	(0.035)
Someone who is not a parent	-0.023	-0.165***	0.070	0.022
	(0.039)	(0.037)	(0.044)	(0.040)
Parents' or guardians' highest education (Omitted Category: Less than bachelor's degree)				
Bachelor's degree	0.044	0.065**	-0.026	-0.044
	(0.029)	(0.031)	(0.031)	(0.028)
More than bachelor's degree	0.110***	0.101***	0.001	-0.082***
	(0.033)	(0.036)	(0.034)	(0.029)
Income (Omitted Category: First quartile)				
Second quartile	0.036	0.085**	-0.049	-0.048
	(0.034)	(0.036)	(0.037)	(0.034)
Third quartile	0.002	0.021	0.018	-0.056
	(0.037)	(0.039)	(0.040)	(0.035)
Fourth quartile	0.015	0.060	-0.022	-0.034
	(0.040)	(0.042)	(0.043)	(0.038)
Parents' or guardians' first language is English	-0.016	-0.031	0.091**	-0.223***
	(0.041)	(0.042)	(0.043)	(0.042)
White	0.013	0.062**	0.013	-0.119***
	(0.030)	(0.031)	(0.032)	(0.030)
Census Region (Omitted Category: Northeast)				
South	-0.128***	-0.007	0.041	0.021
	(0.042)	(0.041)	(0.040)	(0.035)
Midwest	-0.083	-0.011	0.105**	0.055
	(0.047)	(0.047)	(0.046)	(0.039)
West	-0.033	0.017	0.074	0.149***
	(0.046)	(0.045)	(0.044)	(0.040)
Urbanicity (Omitted Category: Urban)				
Suburban	-0.020	0.018	0.042	-0.015

	(0.030)	(0.032)	(0.032)	(0.028)
Town	-0.075*	-0.064	-0.000	-0.043
	(0.039)	(0.045)	(0.046)	(0.042)
Rural	-0.037	-0.040	-0.078**	-0.044
	(0.031)	(0.034)	(0.033)	(0.029)

Note: Grade level and survey wave fixed effects included. N = 1,468. *** p<0.01, ** p<0.05