

University of Arkansas, Fayetteville

ScholarWorks@UARK

Education Reform Faculty and Graduate
Students Publications

Education Reform

6-21-2024

The Year-by-Year Primary and Secondary Education Histories of Homeschooled Individuals and the Implications for Empirical Homeschooling Research

Albert Cheng

University of Arkansas, Fayetteville, axc070@uark.edu

Follow this and additional works at: <https://scholarworks.uark.edu/edrepub>



Part of the [Educational Assessment, Evaluation, and Research Commons](#), [Educational Methods Commons](#), [Other Education Commons](#), and the [Other Educational Administration and Supervision Commons](#)

Citation

Cheng, A. (2024). The Year-by-Year Primary and Secondary Education Histories of Homeschooled Individuals and the Implications for Empirical Homeschooling Research. *Education Reform Faculty and Graduate Students Publications*. Retrieved from <https://scholarworks.uark.edu/edrepub/155>

This Article is brought to you for free and open access by the Education Reform at ScholarWorks@UARK. It has been accepted for inclusion in Education Reform Faculty and Graduate Students Publications by an authorized administrator of ScholarWorks@UARK. For more information, please contact scholar@uark.edu, uarepos@uark.edu.



UNIVERSITY OF
ARKANSAS

College of Education & Health Professions
Education Reform

WORKING PAPER SERIES

The Year-by-Year Primary and Secondary Education Histories of Homeschooled Individuals and the Implications for Empirical Homeschooling Research

Albert Cheng

University of Arkansas

June 21, 2024

EDRE Working Paper 2024-05

The University of Arkansas, Department of Education Reform (EDRE) working paper series is intended to widely disseminate and make easily accessible the results of EDRE faculty and students' latest findings. The Working Papers in this series have not undergone peer review or been edited by the University of Arkansas. The working papers are widely available, to encourage discussion and input from the research community before publication in a formal, peer reviewed journal. Unless otherwise indicated, working papers can be cited without permission of the author so long as the source is clearly referred to as an EDRE working paper.

The Year-by-Year Primary and Secondary Education Histories
of Homeschooled Individuals and the Implications for Empirical Homeschooling Research

Many scholars have correctly noted the difficulty of obtaining representative samples of the homeschooling population. Empirical research about homeschooling, therefore, has predominantly relied on convenience samples which lack the external validity that enables one to generalize the findings to other segments of the homeschooling population. Unbiased inferences about the whole of the homeschool population have consequently been difficult to acquire (Kunzman & Gaither, 2022). For instance, empirical findings of college-educated homeschoolers or those from higher socioeconomic backgrounds might not generalize to other populations of homeschoolers (Cheng, 2014; Ray, 2009). Nor might findings about homeschooling families who rely on a structured curriculum or pedagogy generalize to homeschooling families who take an unstructured approach (Green-Hennessy, 2014; Martin-Chang et al., 2011).

But even supposing that a representative sample has been obtained, the task of appropriately identifying homeschoolers and distinguishing them from non-homeschoolers is not straightforward. As any empirical researcher knows, many decisions are made to code data. With respect to empirical homeschooling research, it is sometimes straightforward which observational units should be considered homeschooling. For some studies, researchers visit homeschooling families and public schools to gather data about each group (Duvall et al., 1997). Other studies rely on representative data that simply asks respondents to identify whether they are currently being homeschooled or attend a public or private school (Hill & den Dulk, 2013; Smith & Sikkink, 1999). In all those cases, individuals in the data are considered homeschoolers if they happen to be homeschooled at the time of data collection.

However, homeschooling research that relies on cross sectional data sets overlooks the possibility that individuals switch into and out of homeschooling from year to year. In data sets where multiple years of an individual's educational history are available, entry into and exit out of homeschooling can be observed, but it then becomes less clear who should be considered a homeschooler in the data. Should an individual be considered a homeschooler if he only spent one year in that setting? Or should an individual be considered a homeschooler if she spent a majority of her years in that setting? Does the point at which an individual begins or stops homeschooling matter? How conclusions can be drawn about homeschoolers if samples comprise individuals who vary in amount of time they are exposed to homeschooling or when they start or cease homeschooling?

The purpose of this research note is not to argue for decision rules that will answer those questions. Instead, the purpose of this research note is to empirically document the variation in the amount of time homeschooled individuals are homeschooled throughout their primary and secondary education and to examine the nature of entry into and exit out of homeschooling. Exactly how much variation exists will have a bearing on how researchers are to understand the homeschooling population.

The analysis relies on five different nationally representative data sets of the U.S. population representing 1,870 adults and children who were homeschooled for some portion of their primary and secondary schooling. Also presented are data about individuals' entire primary and secondary schooling histories, enabling one to observe when they begin or end homeschooling and where they received their education in years when they were not homeschooled. Findings from the analysis of the data demonstrate that most individuals who have ever been homeschooled also have received much of their education in public and private

schools. Moreover, there is a nontrivial amount of entry into and exit out of homeschooling from year to year among homeschoolers. In light of these empirical facts, this research note concludes with some thoughts for conducting homeschooling research in the future.

Data and Methods

The analysis of primary and secondary schooling histories of homeschoolers is based on these five data sets: (1) The Understanding America Study, (2) The 2023 Cardus Education Survey, (3) The 2012 National Household Education Survey, (4) The 2016 National Household Education Survey, (5) The 2019 National Household Education Survey. These data sets are discussed in turn.

The Understanding America Study

The Understanding America Study (UAS) is a nationally representative panel of approximately 14,000 adults who are at least 18-years old. The UAS is administered by the University of Southern California's Center for Economic and Social Research. Households are initially randomly sampled and contacted multiple times via the U.S. Postal Service with an invitation for one of its adult members to join the panel. Adults who join the panel periodically complete 30-minute surveys and are compensated \$20. The analysis uses, in particular, the UAS37 wave. That wave of the UAS was fielded from February 2016 to October 2022 and completed by 10,138 respondents. It includes data about respondents' demographic information and primary and secondary education histories from the first and twelfth grades. Of the 10,138 respondents, 226 reported being homeschooled for at least one year between those grades.

The 2023 Cardus Education Survey

The 2023 Cardus Education Survey (CES) is a nationally representative survey of U.S. adults aged 24 to 39 who have completed at least high school. The sample is drawn from Ipsos

Public Affairs's Knowledge Panel®, one of the largest online panels in the United States. Like the UAS, members of the panel are recruited via probability-based sampling techniques and periodically complete surveys. Cardus has administered the CES since 2011 to describe the life trajectories of U.S. adults who were educated in public, Catholic, Protestant Christian, and nonreligious private schools as well as homeschool settings. For the 2023 CES, 2,350 respondents provided data about their primary and secondary education histories, their perceptions of high school, mental health indicators, educational attainment, labor-force participation, religious formation, civic participation, personal values, and families. Of the sample, 181 respondents indicated being homeschooled for at least one year for their primary and secondary education. The 2023 CES was fielded from October 10 to October 22, 2023.

The 2012, 2016, and 2019 National Household Education Surveys

The National Household Education Surveys (NHES) are administered by the U.S. Department of Education to a nationally representative sample of U.S. households every three to five years since 1991. The four most recent waves are the 2012, 2016, 2019, and 2023 waves, though data for the 2023 wave was not available at the time of this writing. Each household selected to participate in the NHES provides information about childcare, early childhood education, schooling experiences, and parent involvement in school for a randomly selected school-aged child in the household. Importantly, the sample includes households who were homeschooling their children at the time of the survey. The 2012 wave includes 397 households who were homeschooling at least one child. Meanwhile, the 2016 and 2019 waves include, respectively, 552 and 519 households who were homeschooling at least one child.

It is worth underscoring that the sample composition of the NHES is different from the compositions in the UAS and CES. While the NHES sample comprises households who are

homeschooling a child at the time of data collection, the UAS and CES samples comprise adults who have completed primary and secondary schooling and were homeschooled for at least one of those years. In other words, the NHES only provides a primary and secondary educational history up to the grade level of the child in the sample at the time of data collection, but the UAS and CES provide complete educational histories of adults who have completed primary and secondary school.

Empirical Analysis

The analysis of each of the five data sets is straightforward. For the UAS and 2023 CES, the sample of adults who were ever homeschooled is disaggregated by the number of years they are homeschooled. Distributions of the percentage of time ever-homeschooled adults were homeschooled during their primary and secondary education will be shown. The UAS and 2023 CES also include information about specific school sectors in which all adults received their education. Using this data allows for the computation of the average number of years that adults homeschooled for any given length of time spent in other school settings. This data will be used to determine at what point during primary and secondary schooling a given child starts homeschooling and to construct Sankey plots that display the amount of entry and exit into homeschooling from grade level to grade level.

The NHES identifies children who were being homeschooled at the time of data collection as well as the children's grade level. This information will be used to plot distributions of the proportion of years that currently homeschooled have been homeschooled out of the number years of primary and secondary schooling they have completed so far. Information about when children in the NHES started homeschooling will also be displayed. Unlike the UAS and 2023 CES, NHES has no information about how children were educated for years when they

were not homeschooled. Moreover, full educational histories of the sample are not available as children in the sample have not yet aged through the 12th grade. Moreover, neither children who have previously been homeschooled but were no longer homeschooled nor children who were not currently homeschooled but will start being homeschooled in a future grade level are in the NHES data. Because of this missing data, it is not possible to create a complete and clear picture of the amount of exit and entry into homeschooling from year to year using the NHES.

Findings

Duration of Homeschooling

UAS Findings. Table 1 disaggregates the sample of adults in the UAS who were homeschooled for any grade of their primary and secondary education by the number of years they were homeschooled. Because the UAS only asked adults about their schooling background for first through 12th grades, the number of homeschooled years ranges from one through twelve, which are displayed in the first column. The second column lists the proportion of adults who were homeschooled for the given duration. For instance, 26 percent of adults who have ever been homeschooled from first through 12th grades only did so for one year. Another 17 percent were only homeschooled for two years. The proportion of adults who were homeschooled for three and four years drops to nine percent. Between five and nine percent of adults who were ever homeschooled did so for five, six, seven, eight, or nine years. Very few adults were homeschooled for 10 or 11 years, but the proportion of adults who were homeschooled for 12 years jumps up to 10 percent of all adults who were ever homeschooled. In other words, most adults who were ever homeschooled at some point between the first and twelfth grades either did so for only one to two years or all of those years.

<<Table 1 Here>>

The remaining columns in Table 1 display data about the average number of years that adults who were ever homeschooled spent in traditional public-school settings. Adults who were homeschooled for only one year spent about 10 years in traditional public-school settings. Adults who were homeschooled for two or three years were enrolled in traditional public schools for 8 years. Meanwhile, adults who were homeschooled for four or five years spent nearly an equal amount of time in traditional public schools—about 6 years. As individuals were homeschooled for more years, the amount of time they spent in traditional public schools declines.

The last three columns of Table 1 list the average number of years that adults who were ever homeschooled spent in private school. Based on the UAS data, enrollment in private schools, whether religious or nonreligious, was minimal regardless of how many years individuals were homeschooled. Likewise, as shown in the last column, dropout rates were quite low as the average number of years in which respondents were not in school was always less than one year regardless of how long they were homeschooled.

CES Findings. Table 2 is a reproduction of Table 1 except that it disaggregates the sample of adults from the 2023 CES sample who were homeschooled at least one year of their primary and secondary schooling. It also includes information about respondents' kindergarten year. Similar to the UAS sample, most respondents who were homeschooled at some point did so only for one to two years or for all of their primary and secondary schooling. Specifically, 20 percent of respondents who were ever homeschooled did so for one year only. Another 16 percent did so for two years. The percentage of individuals who were homeschooled between three to 12 years remains low, never exceeding nine percent of all ever-homeschooled adults and often hovering around two to four percent. However, 17 percent of ever-homeschooled adults were homeschooled for all 13 years of their primary and secondary schooling.

<<Table 2 Here>>

The remaining three columns of Table 2 show the average number of years homeschooled adults spent in other school sectors. These estimates are like those using UAS data. Respondents who were homeschooled for one to two years spent eight to nine years in traditional public or charter schools. Even respondents who spent a slight majority of their primary and secondary schooling—that is, seven or eight years—in homeschool settings spent four years in traditional public or charter schools. Time spent enrolled in religious and nonreligious private school is marginally higher in the 2023 CES sample than in the UAS.

There are slight differences in sample composition between the 2023 CES and the UAS. (e.g., 24- to 39- year-olds in the 2023 CES versus anyone at least 18 years of age in UAS. Nevertheless, the distribution of the amount of time ever-homeschooled adults spent in homeschool, public school, or private school settings are comparable. Indeed, Figures 1 and 2 are histograms of the distribution of the percentage of time that individual respondents were homeschooled for their primary and secondary education. The shape of the distributions in those figures are quite similar. Over 40 percent adults who were ever homeschooled did so for less than one-fifth of their primary and secondary education—about two and a half years. Between 10 and 20 percent of adults who were ever homeschooled did so for almost all their primary and secondary schooling.

<<Figure 1 Here>>

<<Figure 2 Here>>

NHES Findings. The last set of results regarding the duration of homeschooling are based on the NHES data. Recall that NHES, unlike the UAS and the 2023 CES, samples households and queries them about a randomly-selected school-aged child. In other words, the

data are incomplete primary and secondary educational histories. Moreover, the NHES analytic sample is conditioned on children who were currently being homeschooled at the time of data collection. Missing, then, are individuals who had previously homeschooled but were no longer being homeschooled and individuals who were not currently being homeschooled but would eventually be homeschooled.

Even so, computing the percentage of time that these children have been homeschooled out of the total number of years of schooling they have received yields the same bimodal distribution as in the UAS and 2023 CES. Specifically, children are most commonly homeschooled for almost all of their schooling or for only a short period. For example, as shown in Figure 3, one out of every five children who were being homeschooled at the time of data collection in the NHES 2012 were homeschooled for less than 20 percent of their years of schooling. On the other hand, 36 percent of children who were being homeschooled at the time of data collection for the NHES 2012 have been homeschooled for all of their schooling. Meanwhile, a relatively smaller percentage of homeschooled children in the NHES 2012 were homeschooled for other durations of time.

<<Figure 3 Here>>

Figure 4 and Figure 5 display the same histograms as Figure 3 except that the data are drawn from the NHES 2016 and 2019, respectively. Aside from the spike in the percentage of homeschooled children who were homeschooled for one quarter to one third of their schooling in the NHES 2016, the data reveal the same bimodal distribution where most children who were homeschooled either do so for relatively brief periods or for the entirety of their schooling thus far.

<<Figure 4 Here>>

<<Figure 5 Here>>

Notably, the proportion of children who are homeschooled for all of their schooling is much higher in the three waves of the NHES than in the UAS and 2023 CES. This contrast is to be expected given the differences in the sample composition of the NHES, UAS, and 2023 CES. Because the NHES is a representative sample of children from kindergarten through the 12th grades, it provides an upper bound of the proportion of children who have always been homeschooled. Once all children in the NHES sample complete primary and secondary school, the proportion of children who are homeschooled for the entire duration of their schooling can only decline as children exit homeschooling. Entrants into homeschooling in subsequent grades will, by definition, not homeschool for the entire duration of their schooling because they came from a non-homeschooling setting.

Put another way, the NHES data suggests that between 25 and 40 percent of currently homeschooled children have always been homeschooled. The UAS and CES suggest that 10 to 20 percent of adults who were ever homeschooled did so for essentially all their primary and secondary schooling. Taken together, these estimates indicate that there is a significant proportion of children who may begin their schooling in a homeschool setting but then later enroll in conventional school.

When Children Start Being Homeschooled

Data about when students begin homeschooling based on the UAS and CES provide additional evidence that NHES provides an upper bound of individuals who are homeschooled almost the entirety of their primary and secondary education. The analysis of the UAS and 2023 CES demonstrates that children are mostly likely to start being homeschooled in kindergarten. As

shown in Table 3, about 40 percent of adults who were ever homeschooled in the CES sample started in kindergarten. In the UAS sample about 40 percent of adults who were ever homeschooled indicated doing initially in first grade. Quite possibly, a large proportion of these adults in the UAS were likely homeschooled in kindergarten, but the UAS does not have educational background data for that grade. After kindergarten, there appears to be a steady flow of new entrants into homeschooling as cohorts of school-aged children progress through primary and secondary schooling. Similar results are observed in all three waves of the NHES. About 40 percent of them started homeschooling during kindergarten. The remainder are almost equally likely to enter at any subsequent grade level.

<<Table 3 Here>>

Some caveats should be considered when attempting to understand the NHES data in conjunction with the UAS and 2023 CES data. Recall that unlike the UAS and 2023 CES, the NHES does not include children who eventually will enter homeschooling and children who have exited homeschooling. It is unclear from the NHES data alone how the inclusion of these missing children will affect the estimates. Hypothetically speaking, if the NHES included children who would eventually be homeschooled, then the rates of children starting homeschooling might be higher at the latter grades. On the other hand, if the NHES hypothetically included children who have since exited homeschooling and assuming homeschool entry occurs mostly in the younger grades as the UAS and 2023 CES suggest, then the rates of children starting homeschooling might be higher at the earlier grades. Despite those uncertainties one can still conclude that in a representative sample of children who are currently being homeschooled, most start in the earlier grades, particularly in kindergarten.

Entry into and Exit out of Homeschooling according to the UAS and 2023 CES

Although acquiring complete picture of entry into and exit from homeschooling is unavailable from the NHES data, it is possible to do so using the UAS and 2023 CES because of their representative samples of adults. Using data of complete educational histories, Sankey plots can be constructed to show the rate of entry into and exit out of homeschooling over the course of primary and secondary schooling.

Figure 6 shows the Sankey plot based on the UAS data. One should first observe that in the sample of adults who have ever been homeschooled at some point during their primary and secondary schooling, the proportion who are being homeschooled or not being homeschooled is quite stable from grade level to grade level. Approximately two fifths of ever-homeschooled adults were homeschooled at any given grade level; the remainder of ever-homeschooled adults were not.

But the stability of these proportions across grade levels is not attributable to a lack of entry into and exit from homeschooling. At any given year, approximately 8 to 17 percent of ever-homeschooled adults had either entered into or exited out of homeschooling. For instance, in the eighth grade, 36 percent of ever-homeschooled adults were homeschooled. Nearly 11 percent of ever-homeschooled adults exited homeschooling for the ninth grade after doing so for the eighth grade. In other words, nearly one third of adults who were homeschooled in eighth grade exited homeschooling for the ninth grade. At the same time, 64 percent of ever-homeschooled adults were not homeschooled in the eighth grade. Almost one tenth of them, or about 6 percent of all ever-homeschooled adults, then entered homeschooling for the ninth grade. Meanwhile, about 26 percent of adults who were ever homeschooled were homeschooled for both the eighth and ninth grades. Likewise, about 58 percent of adults who were ever homeschooled were not homeschooled for either the eighth or ninth grades.

<<Figure 6 Here>>

The same patterns can be observed in the Sankey plot for the 2023 CES data. It is striking that the numbers according to the 2023 CES data shown in Figure 7 are quite similar to the numbers according to the UAS. From grade level to grade level, the proportion of ever-homeschooled adults who were being homeschooled or not being homeschooled is quite stable. Yet a significant proportion of these adults enter or exit homeschooling each year.

<<Figure 7 Here>>

Conclusions

The UAS and 2023 CES demonstrate that there is considerable variation in the duration of time a school-aged child is homeschooled. Complete primary and secondary educational histories of adults who were ever homeschooled from the UAS and 2023 CES show that between one fifth and one quarter of them were only homeschooled for a single year. These adults then spent 8 to 9 years in public school settings, on average. On the other hand, 10 to 17 percent of adults who were homeschooled did so for the entirety of their primary and secondary schooling.

The picture is similar based on cross-sectional data of school-aged, homeschooled children. As shown in the 2012, 2016, and 2019 waves of the NHES, there is wide variation in how long school-aged children who are currently homeschooled have been homeschooled. Many of them have only been homeschooled for a small proportion of the years of schooling they have experienced. Many others have been homeschooled for nearly all their years of schooling.

Given the variation in the number of years individuals are homeschooled, it is not surprising to see entry into and exit out of homeschooling from grade level to grade level. Both the UAS and 2023 CES suggest that two-fifths of individuals who were ever homeschooled at any point of their primary and secondary education were homeschooled at any given grade level.

The remaining three fifths of individuals who were ever homeschooled at any point of their primary and secondary education were not homeschooled for that school year. Anywhere between 5 and 29 percent of individuals who were being homeschooled in a given year will exit from homeschooling in the subsequent year. Some of these individuals will return to homeschooling, while others will not. On the other hand, anywhere between 4 to 15 percent of individuals who have ever been homeschooled but were not being homeschooled in a given year will enter homeschooling in the subsequent year. Even though kindergarten is the most common year in which individuals who were ever homeschooled were initially homeschooled, nontrivial levels of exit from homeschooling and entry into homeschooling occurs throughout all other grade levels. These data bring concrete estimates to Valiente et al.'s (2022) claim that even among individuals who homeschool for the same duration of time, the age at which they begin homeschooling is not uniform.

Several implications for homeschooling research arise from these findings. In cross-sectional data sets of adults who have completed primary and secondary schooling, it is likely too reductionistic to dichotomize them into ever-homeschooled individuals and never-homeschooled individuals. Some studies have taken this or similar approaches such as considering adults as homeschooled if they were homeschooled for a majority of their childhood or for a majority of their secondary school (Pennings et al., 2011; Wilkens et al., 2015). Although it is not wrong, *per se*, to use that criteria to categorize individuals as homeschoolers, the analysis of the UAS and 2023 CES demonstrates that using criteria means categorizing a majority of adults who have been homeschooled for some time as non-homeschoolers—a caveat that warrants more consideration. Care must be exercised for interpreting what these studies do or do not show about homeschooling practice and the homeschooling population generally.

Homeschooling researchers will need to be more attentive to the homeschooling populations they are describing and to take care not to overgeneralize their findings. Many scholars who have studied particular homeschooling communities such as ethnic minorities, unschoolers, or religious homeschoolers have been careful to narrowly characterize the populations they are studying (Fields-Smith 2017; Kunzman, 2009; McDonald & Gray, 2019; Puga, 2019). The additional variation in entry and exit into homeschooling shown in this study suggests that there may be other characteristics of homeschoolers that need to be carefully articulated to avoid overgeneralization. Likewise, when comparing homeschoolers with non-homeschooled populations, researchers may need to more carefully articulate the composition of both comparison groups. Have some homeschoolers been educated in non-homeschooled settings, for example? If so, where else did they receive their education and for how long? Indeed, this study found that many individuals who were homeschooled at some point also received a significant amount of their primary and secondary education in public-school settings. When one compares longer-run outcomes for these individuals to other individuals, how should the results be interpreted and what conclusions can be drawn about homeschooling or being educated in other settings?

Furthermore, the analyses undertaken in this study suggest that there are more potential reasons to be concerned about selection bias when comparing homeschoolers to non-homeschoolers (Kunzman & Gaither, 2020). There is likely selection not only into initially choosing to homeschool but also for how long individuals are homeschooled and when individuals begin or cease to be homeschooled. These differences can only be accounted for in longitudinal data or cross-sectional of currently homeschooled children that contains additional data of their educational histories. It may behoove researchers to begin collecting information

about educational histories in the quest to improve data collection about homeschoolers. Even so, it is not clear that controlling for the duration of homeschooling or the timing of entry or exit is sufficient to address selection bias, underscoring the difficulty in designing studies and using methods that can convincingly provide estimates of the causal impacts of homeschooling. Despite these limitations for empirical research, there is plenty to learn from homeschooling research that cannot produce causal effects or may have limited generalizability. Researchers simply need to acknowledge these limitations more clearly. Nor should they stop conducting observational research about homeschooling. The knowledge base about the practice has much room to grow.

The practice of homeschooling has evolved since the 1970s when the contemporary homeschool movement began. The increase in the availability of educational resources such as online courses, cooperatives, tutors, and conventional schools not only provided support for homeschooling families but also changed homeschooling practice itself (Cheng & Hamlin, 2023; Schafer & Khan, 2017). The recent COVID-19 pandemic has catalyzed another surge of interest in homeschooling (Duvall, 2021). New educational models, such as hybrid schools, further blur the long-established lines between homeschooling and conventional schooling (Wearne, 2024). The addition of many state legislatures passing or considering Education Savings Accounts bills will potentially expand homeschooling practice even more. All these trends, coupled with the documented variation in duration of homeschooling as well as entry into and exit from homeschooling, muddles what one means by homeschooling. Researchers will need to be more attentive to characterizing homeschooling and being clear about the extent to which their findings generalize.

References

- Cheng, A. (2014). Does homeschooling or private schooling promote political intolerance? Evidence from a Christian university. *Journal of School Choice*, 8(1), 49-68.
- Cheng, A., & Hamlin, D. (2023). Contemporary Homeschooling Arrangements: An Analysis of Three Waves of Nationally Representative Data. *Educational Policy*, 37(5), 1444–1466.
- Duvall, S. (2021). A Research Note: Number of Adults Who Homeschool Children Growing Rapidly. *Journal of School Choice*, 15, 215–224.
- Duvall, S. F., Ward, D. L., Delquadri, J. C., & Greenwood, C. R. (1997). An exploratory study of home school instructional environments and their effects on the basic skills of students with learning disabilities. *Education and Treatment of Children*, 20(2), 150–172.
- Fields-Smith, C. (2017). Homeschooling among ethnic-minority populations. In M. Gaither (Ed.), *The Wiley Handbook of Home Education*, pp. 207-221. Chinchester: John Wiley & Sons, Inc.
- Green-Hennessy, S. (2014). Homeschooled adolescents in the United States: Developmental outcomes. *Journal of Adolescence*, 37(4), 441-449.
- Hill, J. P. & den Dulk, K. R. (2013). Religion, volunteering, and educational setting: The effect of youth schooling type on civic engagement. *Journal for the Scientific Study of Religion*, 52(1), 179-197.
- Kunzman, R. (2009). *Write these laws on your children: Inside the world of conservative Christian homeschooling*. Boston: Beacon Press.
- Kunzman, R., & Gaither, M. (2020). Homeschooling: An Updated comprehensive survey of the research. *Other Education: The Journal of Educational Alternatives*, 9(1), 252–336.

- Martin-Chang, S., Gould, O. N., & Meuse, R. E. (2011). The impact of homeschooling on academic achievement: Evidence from homeschooled and traditionally schooled children. *Canadian Journal of Behavioural Science*, 43, 195-202.
- McDonald, K., & Gray, P. (2019). *Unschooling; Raising curious, well-educated children outside the conventional classroom*. Chicago: Chicago Review Press
- Pennings, R., Seel, J., van Pelt, D., Sikkink, D., & Wiens, K.L. (2011). Cardus Education Survey: Do the motivations for private religious Catholic and Protestant schooling in North America align with Graduate Outcomes? Hamilton: Cardus.
- Puga, L. (2019). "Homeschooling Is Our Protest:" Educational Liberation for African American Homeschooling Families in Philadelphia, PA. *Peabody Journal of Education*, 94(3), 281–296.
- Ray, B. D. (2010). Academic achievement and demographic traits of homeschool students: A nationwide study. *Academic Leadership: The Online Journal*, 8(1), 1-32.
- Schafer, M.J., & Khan, S.S. (2017). Family economy, rural school choice, and flexischooling children with disabilities. *Rural Sociology*, 82(3), 524-547.
- Smith, C. & Sikkink, D. (1999). Is private school privatizing? *First Things*, 92, 16- 20.
- Wearne, E. (2024, April 10). A School Sector in Search of a Name. Education Next.
<https://www.educationnext.org/a-school-sector-in-search-of-a-name/>
- Wilkens, C.P., Wade, C.H., Sonnert, G., & Sadler, P. (2015) Are homeschoolers prepared for college calculus?, *Journal of School Choice*, 9(1) 30-48.
- Valiente, C., Spinrad, T. L., Ray, B. D., Eisenberg, N., & Ruof, A. (2022). Homeschooling: What do we know and what do we need to learn? *Child Development Perspectives*, 16(1), 48-53.

Table 1: Proportion of Adults who have ever been Homeschooled by Duration in UAS

Years Homeschooled	Percent of Adults	Average Years in Public School	Average Years in Private School		Average Years Not in School
			Religious	Nonreligious	
1	26.1	9.9	0.4	0.2	0.5
2	16.9	8.4	0.6	0.5	0.4
3	8.7	7.5	0.5	0.5	0.6
4	9.0	5.6	1.8	0.1	0.5
5	5.3	5.5	0.3	0.4	0.8
6	4.3	2.8	2.4	0.2	0.6
7	6.8	2.7	1.3	0.2	0.9
8	5.8	2.3	0.8	0.1	0.8
9	4.3	1.1	0.6	1.1	0.2
10	1.7	1.2	0.0	0.8	0.0
11	0.5	0.5	0.5	0.0	0.0
12	10.7	0.0	0.0	0.0	0.0

Note: 226 respondents in the UAS were homeschooled for at least one year from first through twelfth grade.

Table 2: Proportion of Adults who have ever been Homeschooled by Duration in CES

Years Homeschooled	Percent of Adults	Average Years in Traditional Public or Charter School	Average Years in Private School	
			Religious	Nonreligious
1	20.4	8.3	2.8	0.9
2	16.4	8.9	0.9	1.2
3	3.9	5.3	1.4	3.3
4	8.4	7.9	0.7	0.3
5	4.1	6.5	1.5	0.0
6	3.7	5.3	1.5	0.2
7	7.1	4.3	1.0	0.7
8	2.1	4.1	0.9	0.0
9	2.9	2.7	1.3	0.0
10	6.4	2.2	0.4	0.4
11	4.6	1.2	0.2	0.5
12	2.8	0.7	0.3	0.0
13	17.1	0.0	0.0	0.0

Note: 181 respondents in the 2023 CES were homeschooled for at least one year from kindergarten through twelfth grade.

Table 3: When Children Start Being Homeschooled

Grade Level of Child when First Homeschooled	Percent				
	UAS	2023 CES	NHES 2012	NHES 2016	NHES 2019
Kindergarten	n/a	39.8	42.3	37.0	43.4
Grade 1	39.2	5.6	4.5	7.2	7.7
Grade 2	3.5	6.3	3.8	5.6	4.8
Grade 3	1.2	7.2	6.5	5.8	7.9
Grade 4	4.8	4.8	3.8	4.7	4.2
Grade 5	2.3	3.1	3.8	5.8	5.2
Grade 6	4.3	6.7	6.3	4.7	6.0
Grade 7	6.5	5.4	5.0	3.6	4.2
Grade 8	6.3	2.6	6.0	7.2	2.9
Grade 9	5.4	6.6	6.8	6.0	4.6
Grade 10	7.1	2.0	5.0	6.2	4.4
Grade 11	9.5	8.2	4.5	4.9	2.3
Grade 12	9.6	1.6	1.5	1.3	2.3

Note: UAS does not contain data for schooling background during kindergarten.

Figure 1: Distribution of the Percent of Years that a Child has been Homeschooled from Grades 1 through 12 in UAS

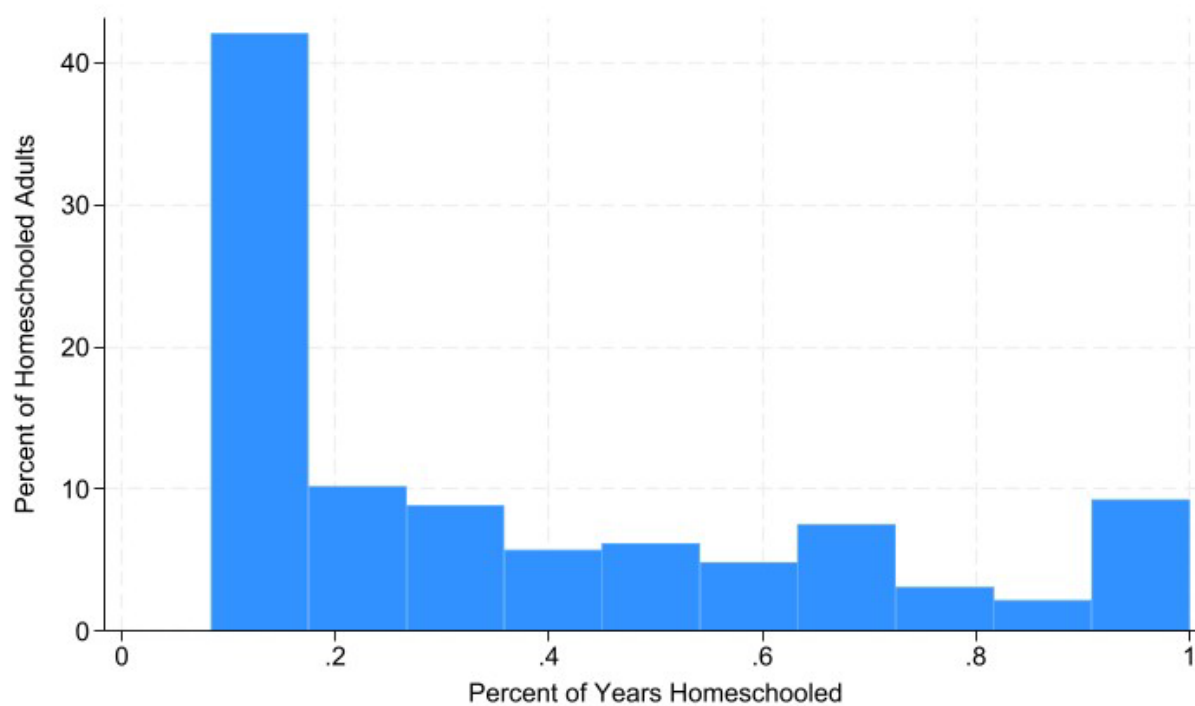


Figure 2: Distribution of the Percent of Years that a Child has been Homeschooled from Kindergarten through Grade 12 in CES

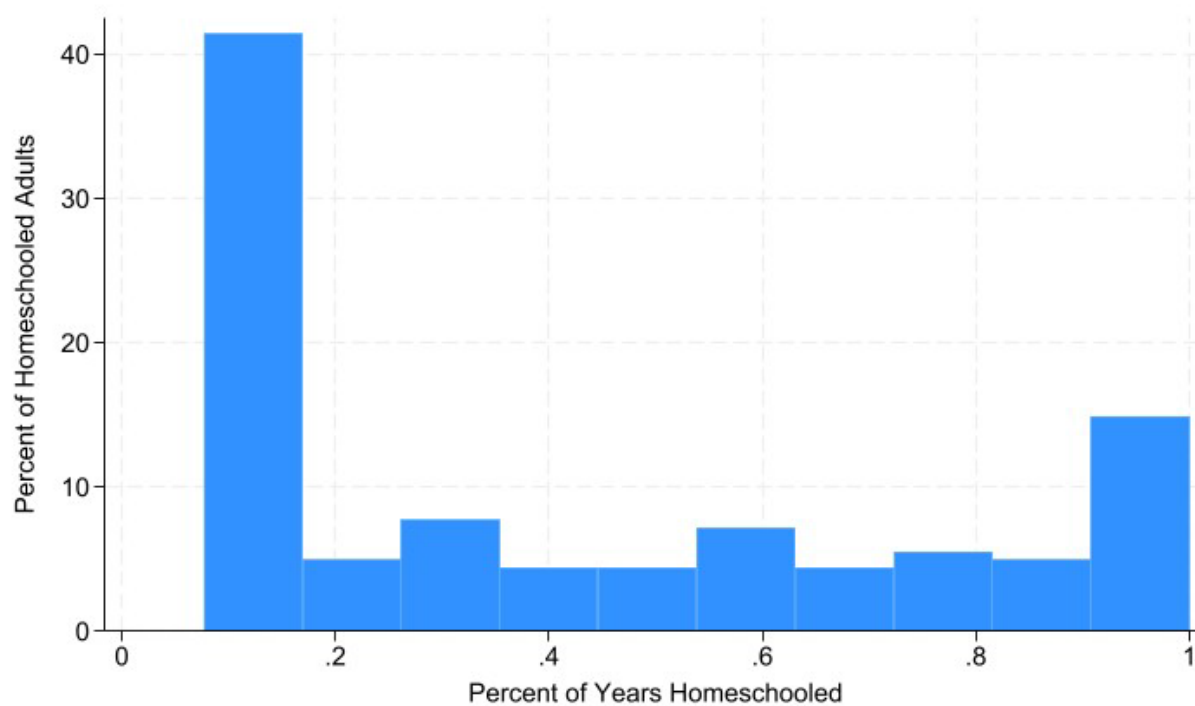


Figure 3: Distribution of the Percent of Years that a Child has been Homeschooled through their Current Grade Level in NHES 2012

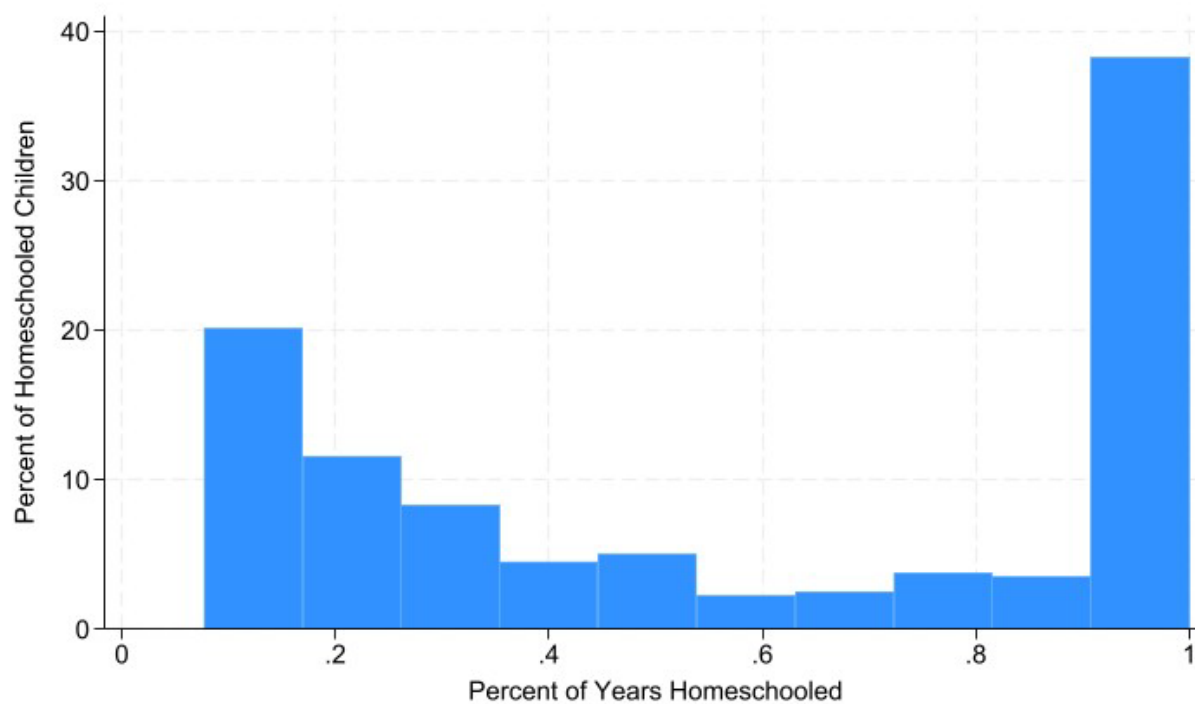


Figure 4: Distribution of the Percent of Years that a Child has been Homeschooled through their Current Grade Level in NHES 2016

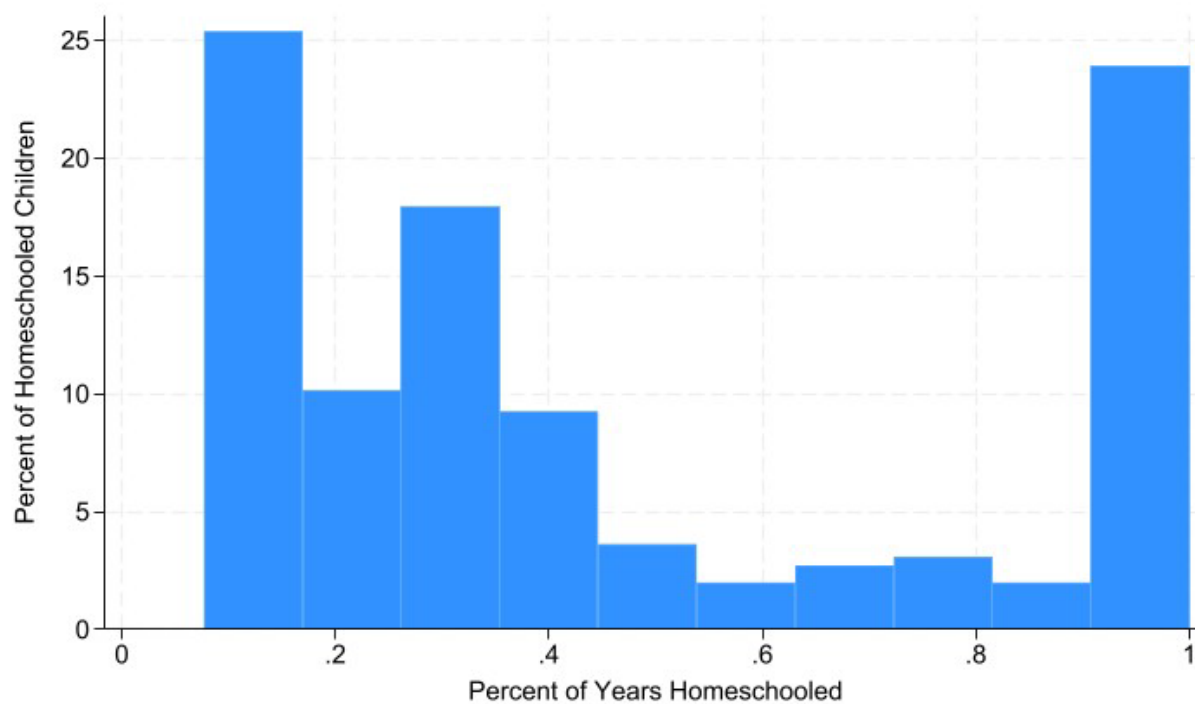


Figure 5: Distribution of the Percent of Years that a Child has been Homeschooled through their Current Grade Level in NHES 2019

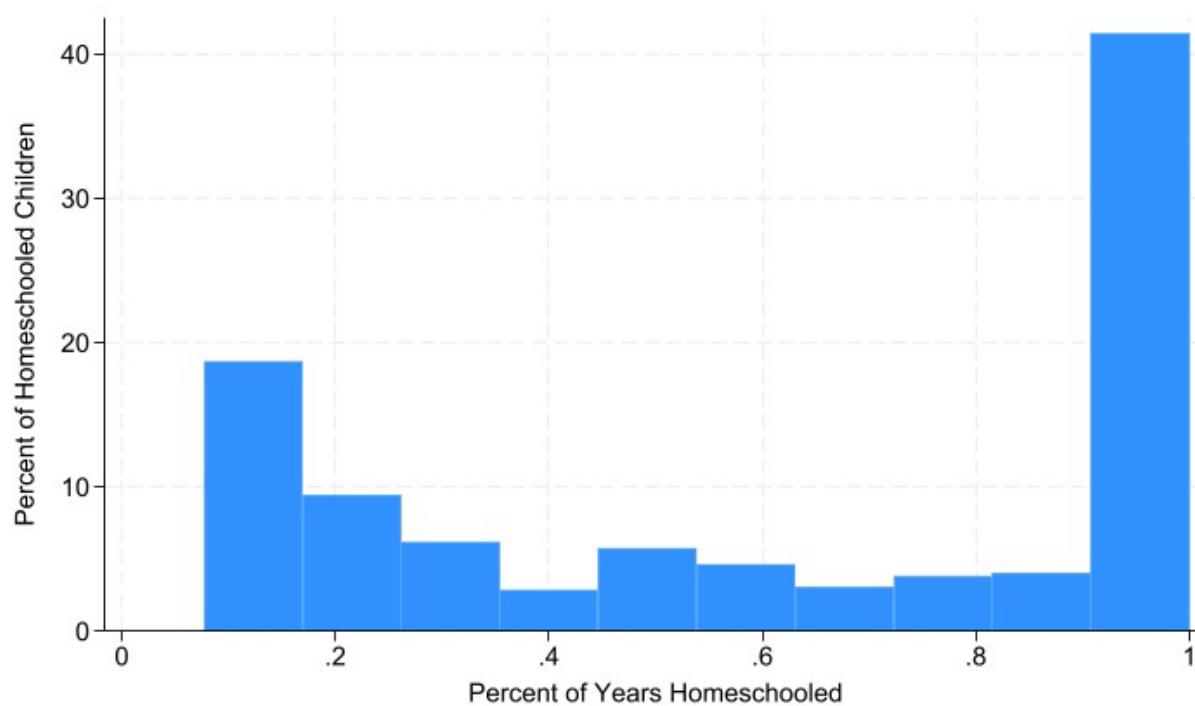


Figure 6: Sankey Plot of Entry and Exit into Homeschooling by Grade in the UAS

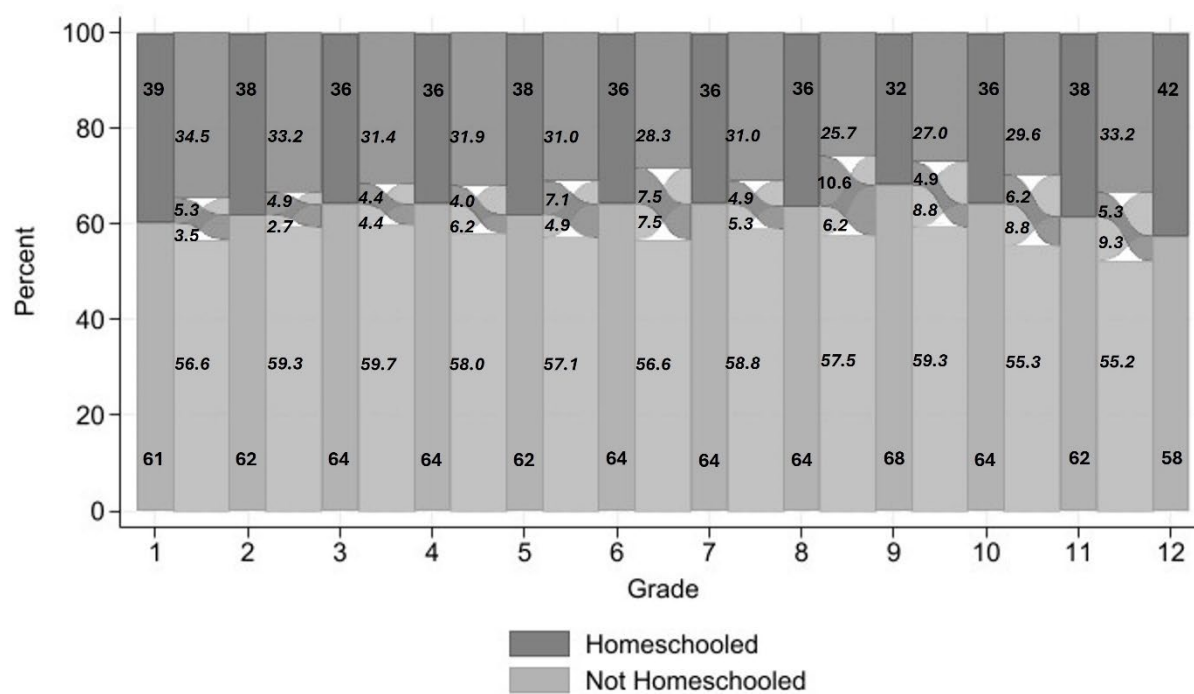


Figure 7: Sankey Plot of Entry and Exit into Homeschooling by Grade in the 2023 CES

