Do Parental Reasons to Homeschool Vary By Grade? Evidence from the National Household Education Survey, 2001

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As of 1999, 850,000 K-12th grade students were educated at home (Bielick, Chandler, & Broughman, 2001), representing 1.7% of the nation's students. Bielick and her colleagues reported that although minority families were less likely to choose to homeschool, the average income level of homeschoolers was not significantly different from that of non-homeschoolers. The lack of differences in income contradicted a previous study (Rudner, 1999) that had shown marked differences in income levels using a convenience sample. Both studies, however, reported that homeschooling families are likely to have better educated parents, live in twoparent families, and have one parent not in the labor force. Therefore, although income levels may be comparable, homeschooling families are more likely to earn that income by the work of one parent, rather than two.

Because homeschooling parents are likely to be more educated than the average parent, the choice to forego labor income in favor of homeschooling is a particularly significant and costly economic decision that in effect purchases education services for the child. In addition to the foregone income, homeschooling is expensive in materials, professional development, lab equipment, field trips, and many other educational necessities. Why do parents choose to homeschool when public education is available and free to parents? Many families choose to homeschool because they believe they could give their child a better education (49%), for religious reasons (38%), or to develop character and morality (15%). Negative reasons also were mentioned: 26% stated there was a poor learning environment at school, 12% objected to the content of what is taught in schools, and 11% mentioned other problems with schools. In addition, other reasons to homeschool include particular characteristics of the child's adjustment to the learning environment. Eight percent stated they

homeschooled because their child had a special need or disability, 9% stated their child had behavior problems at school, and 12% stated the school simply did not challenge their child. The average family had several reasons to homeschool, not just one (Bielick et al., 2001).

In the recently released National Household Education Survey 2001 homeschooled families were surveyed again both in terms of their demographic characteristics and the reasons for homeschooling. Using this new data source, two research questions that have not been studied before with a nationally representative data set are investigated:

- 1. Do parents who homeschool children in early childhood (K-3rd grade) do so for different reasons than those who homeschool children in later grades?
- 2. Do the demographic characteristics of families who choose to homeschool children in early childhood (k-3rd grade) differ from those who homeschool older children?

The cutoff of third grade was chosen following guidelines regarding early childhood education from the National Association for the Education of Young Children (Bredekamp & Copple, 1997). An important consideration to answer these questions is that the data contains cohort effects. Many of the families who are homeschooling older children have been doing so for a longer time and, consequently, started when homeschooling was a somewhat less popular form of education. Because in many states homeschooling regulation has changed in the last few years answers to both research questions must be interpreted in light of these cohort and regulatory effects.

The answers to these questions are of interest for policy and practice. First, scientific research on homeschooling is lacking. Second, although some consider homeschooling as a "world apart," the relationship between public school districts and home schools is dynamic and evolving. Not only are the

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public districts often charged as monitors that homeschooled children receive an education by state law, but in 1999, 18% of homeschooled students were enrolled in public school part-time (12.6% were enrolled less than 9 hours). Understanding why parents choose to homeschool and how these choices vary with the age of the child is likely to contribute to a more accurate picture of modern homeschooling.

In addition to enrollment, some homeschooled families receive curriculum (8.1%), books (10.6%), and participate in extra curriculum activities (6.4%) via the public schools. These arrangements vary by state and locality (Bielick et al., 2001). Therefore, homeschooling is not necessarily a phenomenon apart from or against public schooling; rather it is an educational approach that runs parallel and may interact with public schooling.

It may be the case that parents of younger children homeschool for completely different reasons than parents of older children, or that as children age parents continue to homeschool for different reasons. It may also be the case that homeschooling in 2001 is attracting families who would have never thought to homeschool during the 1990s. An empirically based understanding of these differences may provide a better understanding of how homeschooling is evolving nationally, and the implications such evolution is likely to have for families and schools nationally.

Method

Sample

The National Household Education Surveys (NHES) program has administered surveys in 1991, 1993, 1995, 1996, 1999 and 2001. Developed by the National Center for Education Statistics, the NHES has surveyed a variety of topics like early childhood education and participation, adult education and learning, school readiness, school safety, adult and youth civic involvement, and before and after school activities.

In 1994, using the Current Population Survey, NCES attempted for the first time to determine the prevalence of homeschooling in the United States. Estimates from 1994 were not corroborated by those estimated from the Family Involvement in Education/Civic Involvement Survey from the NHES 1996 (Henke, Kaufman, Broughman, & Chandler, 2000). In the 1999 survey, NCES included a brief section to determine if children were homeschooled, characteristics of families who homeschooled, reasons for homeschooling, and utilization of public resources.

In the 2001 survey, a similar instrument was included in the after and before school participation survey (ASPA) of the NHES 2001. The number of homeschoolers sampled was 195. Fifty nine had children in K-3rd grade, and 136 in 4th-8th grade.

Weighting and Adjusting for Design Effects

Per instructions in the NHES 2001 Data guide. the overall ASPA weight was used throughout this study. Because NHES design is not a random sample, standard errors produced by statistical packages like SAS and SPSS typically underestimate the variability of estimates. The svyset procedures from the STATA package were used to produce correct estimates and standard errors. These procedures calculate Taylor approximations to compute sampling errors; and are equivalent, although not identical, to those produced by SUDAAN. Svytab, svymean, and syvprop commands were used to estimate accurate crosstabulations, means and proportions and their corresponding design-effect corrected standard errors. The Pearson design effect F- statistic was used to test if responses varied by subpopulation. The subpopulation STATA procedure was used to calculate accurate cross-tabulations in the secondary analyses of younger children. For more information consult USDoE (2003a, 2003b) and the Stata Reference Guide (Stata, 2001).

Small Numbers of Cases

Because the homeschooling population is less than 2% of the U.S. student population, a number of variables contained too few cases for reliable estimates. In this study, statistics based on less than three cases per cell, or less than 30 for analyses are considered too small for reliable estimates and omitted (Broughman, personal communication, June, 26, 2003).

Instruments

Reasons for homeschooling (SC1). Parents were asked to describe "the main reasons you decided to school the child at home." Interviewers coded all the answers that applied. NHES provided the 16n highest frequency reasons, and listed the others. Unfortunately, a number of reasons like behavior of the child, convenience or transportation, and parental career had too few cases for reliable estimates.

Support from local public schools and districts. Support from local public schools and districts in seven areas was measured by asking parents whether the school system offered the services to them (SC2), and if so, whether the services were utilized (SC2OV). Areas included were detailed curriculum, books and materials, place where homeschooling

parents can go for help, information or to meet with other HS parents, web site for HS parents and HS students, and others.

Demographic information. As can be expected from a publicly funded national survey program, NHES 2001 contained a complete array of demographic information including race, income, education, household composition, public assistance, location and other variables of interest. In addition, respondents were asked for their zip code. NHES reports information about the level of child poverty and the minority composition of the residential zip codes. In this study, the majority of the derived demographic variables provided with the NHES 2001 were used (USDoE, 2003a, 2003b)

Disabilities (PT 5). Parents were asked if their child had a specific learning disability, mental retardation, speech impairment, serious emotional disturbance, deafness or hearing impairment, blindness or visual impairment, or an orthopedic impairment. In addition, parents were specifically asked if the child had autism (PT6a), and ADD or ADHD (PT6b). Because the frequencies of these variables are too small for reliable estimation, the overall disability variable that describes whether the parent reported that the child had one or more of these disabilities was used in the study.

Results

Characteristics: Homeschooling Student Population

Based on NHES 2001, 935,777 students in grades K to 8th were homeschooled in the United States, 42% in K-3rd grades and 58% in grades 4th-8th (see Table 1). Bielick et al. (2001) report in Table 2 an estimate of 610,000 homeschooled students in K-8th grade for 1999. Consequently, since 1999 there has been an increase of 321,777 homeschooled students in K-8th grade, representing an annual growth rate of 23.45% for two consecutive years. This growth rate is twice the 11% annual growth rate reported by Lines based on data from 18 states from 1995 to 1998 for students in all grades. This evidence indicates homeschooling is growing, and its growth rate is substantial in K-8th grades (Lines, 2001).

The characteristics of homeschooling families reported in Table 2 are consistent with previous published findings that homeschoolers tend to live in two-parent, educated, slightly larger, middle class families (Bielick et al, 2001; Henke et al., 2000, Rudner, 1999).

	Sample	Population Estimate	Population Percentage
K-3 rd grade	59	397,125	42.4%
4 th grade- 8 th grade	136	538,652	57.6%
All	195	935,777	100%
homeschoolers			

Table 1. Estimates of homeschooled students in the United States by grade.

Interestingly, younger homeschoolers are demographically indistinguishable from older homeschoolers in all demographic characteristics, except for the disability rate. Younger homeschoolers are about one fourth less likely to be reported as having a disability by their parents than older homeschoolers.

Younger homeschoolers live in the same communities as older homeschoolers, and in every region of the country (see Table 3). However, younger homeschoolers are almost twice more likely to live in urban communities than their older counterparts, while older homeschoolers are a more likely to live in rural communities.

Reasons for Homeschooling

In general, older and younger homeschooled students are homeschooled for the same reasons (see Table 4). Prominently, because their parents believe they can receive a better education at home and for religious reasons. However, younger homeschooled students are twice as likely to be homeschooled because of parental objections to what the school teaches in the K-3rd grades. In addition, younger homeschooled students are three times more likely to be homeschooled to develop character and morality.

A set of secondary cross-tabulations was run on the K-3rd grade homeschooled students population to determine that 49.77% of families who stated objections to what the school teaches also stated religious reasons for homeschooling; leaving 50.23% who objected to content but did not identify religious reasons for homeschooling. Similarly, 59.54% of K-3rd grade homeschooling families who identified developing character or morality as a reason for homeschooling did not identify religious reasons for homeschooling. However, 60% of the K-3rd grade homeschooling families who identified objections to what schools teach as a reason for homeschooling also identified developing character or morality as a reason to homeschool.

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Characteristics of Child	All Grades	K- 3 rd Grade	4 th -8 th grade	Pearson F
Child is female	40.28%	34.29%	44.69%	1.2760
Child has disability(including ADHD or	13.84%	5.22%	20.18%	8.1289**
Autism)				
White non-Hispanic Ethnicity	84.83%	86.40%	83.67%	0.1899
Composition of household				
Two parent household	86.54%	89.10%	84.65%	0.6502
Number of HH members under 21	3.26	3.25	3.28	ns ~
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Both parents speak English	99.38%	99.44%	99.34%	0.0177
Education & Employment				
Father's Education				1.3403
- High school or less	31.11%	31.07%	31.15%	1.3403
- Vocational/technical education	23.38%	17.61%	27.73%	
- College	23.78%	33.20%	16.69%	
- Graduate studies	21.72%	18.12%	24.44%	
- Graduate studies	21./2/0	10.12/0	24.44/0	
Father employed for pay	95.80%	97.63%	94.43%	1.1395
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Mother's Education				0.3957
- High school or less	24.12%	24.75%	23.64%	
- Vocational/technical education	36.04%	33.28%	38.13%	
- College	23.99%	22.15%	25.39%	
- Graduate studies	15.84%	19.82%	12.83%	
Mother employed for pay	34.58%	37.89%	32.07%	0.4442
Income & TANF				
TANF in last three years	3.34%	4.64%	2.38%	0.9118
Household Income			1	1.7428
- less than \$25,0000	10.62%	6.98%	13.3%	
- \$25,000-\$49,999	38.02%	37.83%	38.17%	
-\$50,000 - \$100,000	41.14%	38.67%	42.92%	
- over \$100,000	10.25%	16.53%	5.62%	

^{*} p<.05, ** p<.01 $^{\sim}$ ns- not significant based on confidence intervals of the averages.

Table 2. Household characteristics by grade.

Use of Public Supports Services

Table 4 reports the utilization rates of publicly funded services for families who reported that such services where available in their school district. Younger and older homeschooled students and their parents utilize public resources made available to them by the public schools at comparable rates. The most utilized resources are web sites for students (66%), books and materials (60%), and web sites for parents who are educating their children at home (58%). Participation in school sports and activities is

the least utilized form of public support (26%). It must be emphasized that not all communities make these services available to homeschooling parents because of local decisions related to resources, and because of differences in homeschooling state laws. Unfortunately, the way the National Center for Education Statistics worded the questions does not allow us to separate availability of these services on the part of public schools from utilization on the part of homeschooling families.

	All Grades	K- 3 rd Grade	4 th -8 th grade	Pearson F
Community Poverty & Ethnicity				
Child poverty in zip code				1.0139
- less than 5%	45.95%	49.57%	43.28%	
- 5-9%	27.48%	20.73%	32.45%	
- 10% or more	26.57%	29.70%	24.27%	
Minority Ethnicity in zip code				1.7791
- less than 5%	43.62%	33.67%	50.96%	
- 6-15%	31.07%	40.05%	24.44%	
- 16-40%	12.11%	10.58%	13.24%	
- 41% or more	13.20%	15.70%	11.36%	
Type of community				3.0264*
Urban, inside urbanized area	48.92%	61.21%	39.85%	
Urban, outside urbanized area	10.35%	10.44%	10.28%	
Rural	40.74%	28.35%	49.87%	
Census Region				0.2548
- Northeast	14.36%	13.93%	14.68%	
- South	31.02%	35.29%	27.88%	
- Midwest	27.25%	24.64%	29.18%	
- West	27.37%	26.15%	28.27%	

^{*} p<.05

Table 3. Characteristics of communities where homeschoolers live by grade.

Reasons for Homeschooling	All Grades	K-3 rd Grade	4 th -8 th grade	Pearson F
- Religious	41.31%	41.12%	41.45%	0.0012
- Better education at home	47.12%	53.53%	42.40%	1.4276
- Object to what school teaches	15.03%	21.70%	10.11%	4.1345*
- Poor learning environment at school	23.47%	26.65%	21.13%	0.5826
- Not challenging for child at school	16.74%	20.98%	13.61%	1.3254
- Can't afford private school	2.97%	4.78%	1.64%	1.4635
- Child has disability	8.96%	6.69%	10.63%	0.6854
- to develop character/morality	18.96%	32.16%	9.24%	15.4086**
- other problems with private/public schools	9.42%	11.79%	7.67%	0.6416
- family reasons	9.22%	9.68%	8.88%	0.0308
- other reasons	14.24%	9.95%	17.41%	1.2047
Public Services used by HS families				
- used PS curricula	43.06%	39.33%	45.62%	0.0924
- used PS books/materials	60.01%	46.77%	68.45%	1.3850
- placed for parents	31.98%	22.60%	40.49%	1.0332
- web site for parents	57.98%	46.52%	64.28%	0.7609
- place for students	55.89%	41.33%	66.39%	1.7222
- web site for students	66.32%	74.05%	61.27%	0.2594
- participation in sports	26.25%	21.10%	30.99%	0.6142

^{*} p<.05, ** p<.01

 Table 4. Reasons for homeschooling and utilization of public resources by grade.

Discussion

BASED ON NHES 2001 data, homeschooling is a growing trend in the United States, with an estimated annual growth rate around 23% for the K-8th grade population.

This is the first study to investigate the demographic characteristics, reasons for homeschooling, and use of public support services for homeschooling families of younger (K-3rd grade) homeschooled students using a nationally representative data set.

Younger homeschooled students are very much like their older counterparts. They are more likely to be male, white, middle class, living in two-parent families, and in larger families, and less likely to live in the Northeast of the U.S., living in communities with low child poverty and relatively few minority neighbors. Younger homeschoolers are more urban, and less rural than their older counterparts. This interesting trend merits confirmation in subsequent studies.

Given the financial and time commitment involved in homeschooling, it is not surprising homeschooled students are in families with relatively more time and financial resources. Families with fewer resources may want to homeschool but are probably unlikely to be able to do so. Although all children are guaranteed a basic, free education in the United States, not all families have access to the various forms of schooling available, including homeschooling. Because homeschoolers in Northeast states, particular Massachusetts and New York, are on average much more heavily regulated than homeschoolers in other parts of the country, it is also not surprising that fewer families choose to homeschool in that region of the country.

Younger homeschoolers are less likely to be reported as disabled. This finding is not surprising because a number of disabilities and impairments, given the current system of screening and identification, are typically identified only as the child ages (New Freedom, 2003).

In general, younger and older homeschooled students are educated at home for the same reasons: parents believe they can provide them a better education (47%) and for religious reasons (41%). However, younger homeschooled students are twice as likely as their older counterparts to be educated at home because the parents object to what the school teaches. Younger homeschooled students are three times as likely to be homeschooled as a way to develop character and morality than older homeschoolers. These findings must be understood in the context of the overall rate: less than 1/3 of

parents who homeschool a K-3rd grade student identified either character or moral development, or objections to what the school teaches as a reason to homeschool.

These findings deserve closer scrutiny. The secondary analyses showed that about half of the families who object to what is taught in schools do not identify religious reasons for homeschooling their K-3rd grade child. Similarly, about 60% of the families who stated that a reason to homeschool was to develop character in their children did not identify religious reasons for homeschooling. Consequently, some parents may be objecting to non-religious content in schools. Although modifying curriculum to address objections from less than 2% of the U.S. student population may not be warranted, a better understanding of what is the source of the objection, and the foundation for believing homeschooling can better develop character may be of interest for those wishing to improve character education in K-3rd grade public and private schools.

When public support is offered to homeschooling families, some choose to utilize public resources; particularly web sites for children and educators/parents, and books and materials. Families with younger homeschooled students are as likely to use these resources as families with older homeschooled students.

In summary, the growth rate of homeschooling among K-8th grade students is accelerating. Parents of younger homeschooled students cite similar reasons for homeschooling as parents of older homeschooled students and, in general, have a similar demographic profile.

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