ABSTRACT
                Curriculum suppliers, state departments of education,
and home school leaders, are the sources used to estimate that
between 248,500 and 353,500 school-aged children (K-12) were educated
at home in the 1990-91 school year. This paper explains how this
estimate was derived. It provides information on process, possible
bias, alternate survey collection of data, and why the three methods
were chosen. In the estimates reported, most adjustments to actual
data were based on a survey of a sample of the membership of the Home
School Legal Defense Association. In deriving figures for the first
method, a survey of 16 suppliers of curricular packages yielded an
estimate of between 309,000 and 353,500 K-12 children who are
educated at home. For the second method, 37 state departments of
education reported 82,061 children for whom parents have filed papers
with state or local officials, representing a fraction of the total.
For the third method, information from 25 home schooling leaders in
17 states yielded a national estimate of between 248,500 and 304,000.
A brief analysis of recent trends with a conclusion is given.
Appended are home school data collected by states, information from
associations, and a summary of selected research reports from two
state departments of education. (RR)

Estimating the Home Schooled Population

Patricia M. Lines
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Working Paper

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Estimating the Home Schooled Population

by Patricia M. Lines[*]

This paper provides an estimate of the number of school-aged children[1] who were educated at home in the school year 1990-91 and explains how to derive such an estimate. The estimate is between 248,500-353,500 children. Although roughly done, the estimate gains credibility because it rests on information from two independent sources, and from a third partially independent source.[2] The three sources are 1) curricular suppliers and their data on "enrollments," 2) state departments of education and their data on children in families who file papers with state or local officials, and 3) home school leaders.[3] Adjustments were made to the information from each source, to account for children who were likely to be missing, given the limitations of that source.

The paper does not account for children whose parents have totally avoided any connection to home schooling organizations, curricular suppliers or state or local education agencies. This could include children of migrants and children of parents who desire complete anonymity. If there are very many children who are home schooled in these categories, then the estimate will be understated.

The method using curricular sales produced the highest estimate, of 309,500-353,500 K-12 home-schooled children in the country. State data as an indicator (even adjusted to

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[1]This refers to children ages 5 to 18, or those eligible for grades K 12.

[2]In social science jargon, the method relies on triangulation of the data, considered helpful where any one source of data may have a bias. Mathison, "Why Triangulate?" Educational Researcher, 17(2), 13–17 (1988); N.K. Denzin, The Research Act: a Theoretical Introduction to Sociological Methods (2d ed. Chicago: Aldine, 1978).

[3]By home school leaders, I mean officers in home school associations and support groups of varying sizes.

account for such things as children who are not of compulsory school age and those who do not file) produced a national estimate of 265,500-286,500 such children. This second estimate was not adjusted to account for a lag of several months in states that are slow to gather useable data, for lack of a clear criterion for making such an adjustment; this means that the state-based estimates are somewhat too low. Using state-level estimates from home schooling leaders as an indicator produced an estimate of 248,500-304,000 K-12 children schooling at home nationwide.

Despite the variations in results in different methods, it seems reasonable to conclude that there are less than 450,000 home schooled, school-age children in the nation. Thus, home schooled children represent less than 1% of the total number of school-aged children in the country, and less than 10% of the total privately-schooled population[4]. However, their numbers are growing steadily and should reach or exceed these levels very soon.

First a caution about bias. There are countless difficulties in making estimates or gathering information on the home schooling population. Research on this population rests on the use of lists from states, newsletters, magazines, curricular suppliers, or associations. As membership on any list is self-selected, all such lists will have a built-in bias. This means no study of home schoolers can claim to rest on a representative sample of the full population.

This study, like all studies, is vulnerable to bias, and it is difficult to know exactly how the bias will affect the study. In the estimates reported here, most adjustments to actual data were based on a survey of a sample of the membership of the Home School Legal Defense Association (HSLDA), a large national organization of home schooling families

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[4]One estimate would push the number over the one percent mark: HSLDA also conducted a preliminary analysis, using method 1 only, and estimated 474,165 school-aged children in home schooling. Brian D. Ray, "A Nationwide Study of Home Education: Family Characteristics, Legal Matters, and Student Achievement," published by the National Home Education Research Inst., Seattle, Washington, 1990. A summary appears in the Home School Court Report, Christmas, 1990 (entire issue). Returns came from 1,516 families, representing a 70.1% return of all who were sent questionnaires.

There are a number of differences in procedures, however. Two of the more important differences involve a smaller number of curricular suppliers in the HSLDA analysis. The smaller the number, more likely a bias will distort the results. In addition, HSLDA used Alpha Omega as one of the suppliers. Alpha Omega also sells individualized materials, and parents completing a questionnaire may not notice instructions indicating that they should check this supplier only if they use the full package plan. If so, this would inflate the HSLDA estimate.

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who receive pre-paid legal services on payment of a relatively modest membership fee.[4] The HSLDA survey helped determine the number of children who do not use a curricular package and the number of families who do not file papers with state or local agencies.[5] However, the HSLDA group will have biases, and it is difficult to know exactly how they might affect the outcome.[6] It would have been preferable to have had similar surveys of other home schooling groups to corroborate the key statistics drawn from the HSLDA survey. Other surveys simply were not available at the time of this study.[7]

The most conventional way to determine the size of a population would involve a census or a national household survey. However, cost and problems with sample size pose serious disadvantages. Assuming that there are fewer than a million home schooled children, nation-based surveys are too small to permit very precise statistical estimates due to sampling error. Even the National Census involves a sample. The education questions are included on only 20% of the forms. Moreover, the education questions in the Census and the fall population survey do not inquire about schooling at home.

The three methods described here are less accurate, but also much less expensive methods for estimating the population. These methods depend on data that can be counted, as an indicator only, and adjustments to this data. In all three methods, some adjustments must be made to account for missing children. For example, one cannot simply tally children receiving a curricular package, because many families do not use such packages. Nor can one rely on state data, because many families do not file papers

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[4]The fee is relatively modest for pre-paid legal services: $100.

[5]The survey results are reported in Ray, supra.

[6] Many lists would have an obvious bias that would disqualify that list from use for the study undertaken heie. For example, it would be absurd to survey a state list to determine how many home schoolers do not file papers; or to survey a curricular supplier's list to determine how many families do not use curricular suppliers. The HSLDA list is not biased in this way, but it may be biased in other respects. For example, role of religion in home schooling represents a major cleavage among home schoolers, and there may be important differences between home schoolers for whom religion is among the most important motivating factors, and those for whom it is not. HSLDA is largely a conservative Christian organization, but it does serve a few non-Christian families. On the survey, 1 family indicated a Jewish religious preference; 3 indicated "New Age." A discussion of another way the use of the HSLDA list may bias findings is discussed below under the discussion of method 2.

[7]The author wishes to encourage individuals planning surveys of discrete home school populations to adopt some of the same questions used in the HSLDA study. They may obtain a copy of the questions used from the author, on request.

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with any governmental agency when using state data. Other adjustments are also be necessary depending on what initial data is used as an indicator.[8] The following outlines the separate estimates made using each method:

Method 1: For 1990-91, a survey of 16 suppliers[9] of curricular packages yielded an estimate of between 309,000-353,500 k-8 children of school age who are educated at home. The HSLDA survey asked parents if they used such a package, and if they did, to identify the particular package used. To eliminate possible overlap, because of children using more than one package, only complete,[10] year-long curricular packages were used. Such packages cost several hundred dollars, and it is extremely unlikely that a family would purchase two for the same child. These 16 suppliers reported 43,786 complete K-8 packages sold in 1990-91, by mid-year. For 1989-90, 17.7% c. the children in the HSLDA survey used one of the 16 specifically identified packages.[11] The other 82.3% of the children used some other package, or no package curricula at all. This would suggest 247,379 children in this age/grade group educated at home for the year.

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[8]A more complete discussion of methodology can be found in Lines, "Home Instruction: Characteristics, Size and Growth," in VanGalen and Pitman, eds., Home Schooling: Political, Historical, and Pedagogical Perspectives (Norwood, New Jersey: Ablex Publishing Corp., 1991), pp. 9—41 (hereinafter cited as Lines, 1991).

[9]There are approximately 25 suppliers supplying a complete, year-long package, and with at least 100 students enrolled. This study relied on the largest of these. They were (1) A Beka, Pensacola, FL; (2) Abbott Loop Christian Center, Anchorage, AK; (3) Alaska State Department of Education, Juneau, AK; (4) Basic Education (ACE), Lewisville, TX; (5) Calvert School, Baltimore, Maryland; (6) Christian Liberty Academy, Arlington Heights, IL; (7) Christian Light Education (full service plan only), Harrisburg, VA; (8) Evangelistic & Faith Enterprise of America, Inc., Oliver Springs, TN; (9) Hewitt Research Foundation, Washougal, WA; (10) Hewitt-Moore Child Development Center, Washougal, Washington; (11) Home Study International, Takoma Park, MD; (12) Living Heritage Academy (Accelerated Christian Education); (13) McGuffey Academy, Grapevine, TX; (14) Oak Meadow Education Services, Blacksburg VA & Ojai CA; (15) Seton School Home Study, Front Royal, VA; (16) Summit Christian Academy, Dallas, Texas. Note the HSLDA questionnaire provided for only one response for the Hewitt Child Development Center. This paper has assumed families purchasing from either organization with Hewitt in the name would check this response. Two other large suppliers are Bob Jones University Press and Clonlara school, but neither has an actual "package" and their inclusion would confound the calculation.

[10]"Complete" means that it included English or language arts, history or social studies, mathematics and science. The package also had to be "graded," meaning that it is sequential and could be recommended to an identifiable age/grade group.

[11]Parents completed one questionnaire per child.

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Most surveys indicate between 20 to 30% of home schooled children are in grades 9-12. This would suggest a total k-12 population of between 309,000-353,500. The number may be somewhat larger because most suppliers reported that every year, the total "enrollment" grows steadily from fall to spring. Some suppliers adjusted for this, based on last year's experience. Others did not; to the extent that suppliers provided a precise enrollment as of November or December, 1990, the number may understate the end-of-year number. Families that order their packages late may have been home schooling all along. Many allow children to proceed at their own pace. Thus, September is not necessarily the point at which they will subscribe to a new year-long package. On the other hand, this practice may mean that some children are using more than one package per year; a very fast-paced learner could complete two years in one. This would inflate the estimate under method 1.

Method 2: Thirty-seven state departments of education and the District of Columbia reported 82,061 children for whom parents have filed papers with state or local officials (See Appendix A for state-by-state detail.) But this is only a fraction of the total.

Several adjustments are needed. First, the HSLDA survey indicated that approximately half of all home schooling families nationwide file such papers. Second, the state reports will usually only include children of compulsory schooling age. While some parents actually include all their children in a report to the state, regardless of age, most exclude those children who are not covered by the state's compulsory education law. Roughly, the state data would include only children in grades 1 through 10.[12] It seems a reasonable guess that those of compulsory age are about three fourths of the total. Third, even though their parents filed papers, there are no state-level data available on children in eleven states, and New York City.[13] If home schoolers are proportional to the general population of school-aged children in an area, and there is some evidence to

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[12]Some states now extend the age of compulsory education through grade 12, or age 18, but only a few do so. Offsetting this, other states do not begin the age of compulsory education until first or second grade.

[13]See Appendix D for state legal requirements for filing. States which provide for filing of papers at the local level, but which do not collect data at the state level include Alabama, Arizona, Colorado, Idaho, Iowa, Kentucky, Massachusetts, Missouri, New Mexico, Rhode Island and Utah. In addition, New York state does not collect data from New York City. These areas represent 36.7% of the total population of resident children, ages 5 to 17, as computed from preliminary estimates as of July 1, 1988, based on the fall population survey. National Center for Education Statistics, Digest of Education Statistics 1990, Washington D.C., table 16, p. 24.

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believe that they are,[14] we can assume that approximately 16.4% of the nation's home-schooled children live in these areas where the state does not collect LEA reports on filing. Fourth, state reports will also underreport the total actual number because almost half the states reported last year's data.[15] Adjusting for these "missing children" would result in a total estimate of 265,500–286,500.[16]

Two other sources of underestimation need to be explored when using this method. Some states receive reports on home schoolers throughout the year, and the number grows from fall to spring (the number reported will miss parents who are slow about filing papers, and it will miss children who were reported to LEAs if the LEAs are slow in forwarding data to the state). No adjustment was made for the lag in filing, because no information was gathered on its magnitude. This may account for the lower range based on state estimates, compared to the other two estimates.

A second source of possible under- or over-estimation could occur if the adjustment for those not filing (50%), which was based on the HSLDA survey, reflects some bias in the HSLDA membership. Those joining HSLDA presumably are interested in legal services in case of a legal or political problem with their home school. Both those who file papers and those who do not may be nervous about state regulation. The former might be wary because officials know who they are; the latter, because the family may be in violation of legal requirements. HSLDA may have a disproportionate number of members in states with stricter regulations, and a disproportionate number who do not file. On the other hand, it may be that those joining HSLDA are more cautious than other home schoolers and more likely to file papers. It is difficult to know without surveys on the same question of a large number of other home schooling groups.

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[14]See Lines (1991), table 1.3. This table shows a rough correspondence between the ratio of state population for children in the age 5 to 17 cohort with the national population, and the ratio of curricular enrollments or subscriptions for that state and the nation, for three home schooling service institutions.

[15]A one year reporting lag would mean the number in a state is only 78 to 92% of the current total (due to growth, estimated based on estimates of the population in 1988 and this year); if this is a problem in half the states, some 89 to 96% of the total reported number represents this year's actual number.

[16]If only half the families file papers, then the state data would account for only 50% o' the total. If grades K, 11 and 12 are excluded from state data, and all grades are approximately equal, then the state data would account for only 77% of the total. Given the practices in eleven states, and New York City, the states have data on only about 83.6% of the total of those filing papers. For the fourt adjustment, because of the use of last year's data by many states, see note 15, supra. Thus, 82,061 / (.50 x .77 x .836 x .89) = 286,470. Or 82,061 /(.50 x.77 x .836 x .96) = 265,581.

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A rough look at geographical bias suggests that the HSLDA statistic of 50% is reasonable. HSLDA respondents came in disproportionate numbers from California (22%, compared to 11.3% for the state's percentage of the total national school-aged population), Michigan (10.2%, compared to only about 3.9% in the nation), Ohio (7%, compared to about 4.5%) and Virginia (5.7%, compared to 2.3% of the nation's children).[17] Texas is another very populous state; here HSLDA membership appears to be almost proportional (9% on the survey compared to about 7.7% of the nation's children in Texas). There is every reason to believe families in four of these states would be poor filers. Texas should have no filers, as there is no state requirement for such filing. Michigan should have a low number of filers, because the teacher certification requirement prevents families from filing and forces them underground. Ohio has been enforcing regulations heavily, and so probably also is forcing families underground. California is an easy state in which to go underground, and so probably is also below the national average in filing activity. If anything, the geographic bias would lead us to believe that fewer families file than actually do, nationwide. If so, the estimate based on the HSLDA return would be too high, rather than too low.

Method 3: Information from 25 home schooling leaders in 17 states, adjusted to account for the percentage of the nation's children in these states, and to account for obvious under-estimation in seven states, yielded a national estimate of 248,500-304,000.

This method is the least systematic of the three methods utilized here. Each state is different, and those in the state would have different kinds of data, and the best intuition of how to go about making a state-level estimate. Some home school leaders indicated that they were uncertain of their estimate. Some were unable to make estimates for their states. Others used state data with no modification. Still others used state data and adjusted it to account for those who do not file papers with state or local authorities. A final group was willing to make independent estimates; most of these appeared to be careful and thoughtful, and grounded in real data.

The home schooling population estimates from these 17 states totaled 67,000 to 82,000 children. However, this obviously excluded a large number of children in the six states where home school leaders adopted state data. Estimates for these states should be adjusted the same way state reports are adjusted. Second, the estimate for the most populous home schooling state — California — is clearly too low, by perhaps as many as 20,000-25,000 children, given the evidence of large participation from Californians on

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[17]State percentages of the national total of school aged children are computed from preliminary estimates as of July 1, 1988, based on the fall population survey. National Center for Education Statistics, Digest of Education Statistics 1990, Washington D.C., table 16, p. 24.

national subscription lists.[18]

The total school-aged population of these 17 states is approximately 36.7% of that in the nation. Home schoolers in these states are probably also about 36.7% of the national home schooling population.[19] All things considered, it seems likely that the total number is probably around 248,500-304,000.[20]

It also seems reasonable to make these two adjustments while ignoring possible sources of overestimation. Only three state-level estimates seem inflated, and none of those are inflated by a large number. They are the high estimate for Ohio, at 20,000. Based on the population of the state one would expect almost 5% of all home schoolers in the nation to be in Ohio. If there are around 300,000 children, then one would expect almost 15,000 children in Ohio. However, the high estimate from Ohio remains within a plausible range. In two states, Kentucky and Oklahoma, those making estimates assumed a larger number of home schooled, school-age children per family than any surveys of home schooled families would warrant. Both assumed three or more home schooled, school-age children. There are usually three or more children in a home schooling family, but most surveys indicate that closer to two of them are both school age and home schooled. However, both these states together account for only 3% of the nation's school-aged children, so the error, if there is one, would change the national estimate by only about 1%. There may also have been some inflation due to failure of home school leaders to take into account overlap among various individual group

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[18]Californians comprise 22% of those responding to the HSLDA survey; 16.6% of a Bob Jones University Press sample of home schoolers; 6.13% of Christian Liberty Academy students; and 10.8% of a Growing Without Schooling list of "experienced home schoolers." See Lines, 1991, table 1.3.

[19]Examination of national subscription lists indicate that the total school-aged population of a state is roughly related to the number of home schoolers in that state. See note 14.

[20]The calculation varies depending on which set of assumption one uses. The estimate could be as small as 67,000 plus 20,000 (for California) plus 4,200 (an additional number for the six states where home school leaders used state data.) The result is divided by .367 - the assumed proportion these six states are to the whole, resulting in an estimate of 248,501. The additional number for the six states was computed as in method 2, except there is no adjustment for data not collected from LEAs, as that condition does not appear in these six states.

If one uses the larger end of the range in home schooling leaders estimates, my larger correction for California, and an assumption that the use of last year's data produces an even lower figure than this year's data, then 82,000 + 25,000 + 4,600/.367 produces an estimate of 304,087.

memberships counted, but most of those responding appeared to take this into account.

Some of the estimates seem quite accurate. Based on an examination of national subscription lists and sales of curricular material, for example, the independent estimate for Pennsylvania, made by Howard Richman, a home schooler and an academic researcher, began with known data (a subscription list) and was adjusted to account for the number believed not to subscribe. This is the best kind of estimate available.

<u>Analysis of Recent Trends</u>: These three estimates and the author's estimates over several years indicate steady growth in the home school movement. In the past, the first method was the only one used. It yielded a rough estimate of at least 60,000 and perhaps as many as 125,000 children for the fall of 1983; in the fall of 1985, of 122,000 to 244,000 children; and in the fall of 1988,[21] between 150,000 to 300,000 school-aged children in home schools. Applied retroactively, this method suggests an estimate of roughly 10,000 to 15,000 children received their education at home in the late 1970s and early 1980s — a number that comes close to an estimate made by John Holt at that time.[22]

<u>Conclusion</u>: These estimate are rough, and useful only for limited purposes. They document the existence and growth of a home schooling movement — when experts until recently were expressing doubt about it. They allow an understanding of the sample size required prior to gathering information on home schoolers through household surveys. They may inform some political decisions — such as whether to start accounting more closely for home schoolers.[23] They permit some assessment of school population trends, but they do not allow predictions requiring some precision — such as a prediction of cost were a state to offer some desirable resource to home schooling families, such as a tax deduction or a voucher for educational materials.

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[21]In 1988, I also roughly confirmed the estimate based on sales of correspondence curricula, by comparing it with estimates from the two other potential sources for three states, all for the fall of 1988. (In terms of social science jargon, I partially triangulated the data collection effort.) State-level estimates for Florida, Washington and Wisconsin (using state-level information from suppliers of curriculum) and compared these with estimates from the home school associations and from the state departments of education for each state.

[22]See John Holt, "Letter to Ray Moore, How Many Are We?" <u>Growing Without Schooling</u> No. 32, 14—16 (1983).

[23]The author wishes to express no opinion on this question and to note that by asking for data from states, she does not mean to suggest that they ought to have it.

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Appendix A

Home School Data Collected by States

Please note: the collection of this data does not imply that the author believes states ought to collect such data. This decision should rest on determinations made in individual states, considering such things as costs and the potential interest in and usefulness of collecting data in that state.

State laws vary on whether or not a home schooling family must submit any kind of paper work or otherwise notify state or local officials of an intention to home school a child. This table shows the number of home schooled children for whom a state has some official count either directly through notification to the state, or indirectly, through local educational agencies. Where the table indicates "no data available," this does not mean the state has no estimate of the home schooling population, but only that it has not itself collected such data. Where the table indicates "LEAs have sole responsibility," there is a reporting requirement in the law (see Appendix D), at the local level, but the state agency does not collect the data.

	Home schooled Children Reported	Source	Comments
Alabama			LEAs have sole responsibility.
Alaska	1,000	enrollment	estimated number of K-12 students enrolled in state correspondence program.
Arizona			State collects data from LEA on reason for withdrawal from public school. In future it will include data on home schooling.
Arkansas	2,500	registered 90-91	as of December, 1990
California	6,000	estimate, fall, 1990	based on enrollment of schools of 4 or fewer children. A popular and legal way to home school in California is to qualify as a private school
Colorado			LEAs have sole responsibility.
Connecticut	289	reports from LEAs	359 total by end of year, last year
Delaware	367		reports to SEA
Dist. of Columbia	10		received approval
Florida	7,555		Estimated, based on 5,346 families reported on families reporting, and a survey of these families, with a 59% rate of return, showing an average of 1.4 school-aged children in home school.
Georgia	5,024	Reports from LEAs	
Hawaii	272	Reports from LEAs	LEAs are not required to submit reports until the end of the year. Last year, reports were filed on 343 children.
Idaho			LEAs have sole responsibility. State Department estimates about 1,000 children.

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Illinois	529	Voluntary report to state for 89-90	
Indiana	882	Reports to state	
Iowa			LEAs have sole responsibility.
Kansas	2,700		This is based on 1350 home schools (usually families) reporting to the state, as of February 1, 1991. The estimate is the researcher's, not the state's.
Kentucky			LEAs have sole responsibility. The Non-public School Advisor believes there may be between 1,500 and 5000 home schooled students in Kentucky.
Louisiana	2,121	Reports from LEAs	Parishes had reported this number as of Feb. 1991.
Maine	1,300	Reports to SEA	
Maryland	1,500		based on a survey of LEA coordinators, as of June 1990, showing numbers of students for whom parent has requested home schooling.
Massachusetts			LEAS have sole responsibility.
Michigan	675	Reports to SEA	
Minnesota	3,538	Reports to SEA	Data from fall, 1989
Mississippi	600	Reports to LEA	Families report to school attendance officers. Data is for 198990.
Missouri			LEAs have sole responsibility. State uses data from home school associations.
Montana	906	Reports to SEA	Data from 1989-90.
Nebraska	3,509	Reports to LEAs	Data from 1989-90.
Nevada	682	Reports to LEAs	Data from 1989-90.
New Hampshire	711	Enrolled with LEAs	A new law will go into effect in July, 1991 that provides for a notice of intent, filed with the SEA through the LEA
New Jersey	1,000	estimated	
New Mexico	No reliable data.		LEAs have sole responsibility.
New York	4,975		This does not include data from New York City.
North Carolina	4,145		Based on 2,438 families, adjusted to number of children based on surveys indicating number of home schooled children of compulsory school age in each family
North Dakota	483	Reports to SEA	
Ohio	2,729	Reports to SEA	Data from 1989-90

Oklahoma			No data available
Oregon	4,578	Reports from LEAs	Data as of March, 1990
Pennsylvania	2,552	Reports from LEAs	Data as of May, 1990
Rhode Island			LEAs have sole responsibility
South Carolina	743	Reports from LEAs 1989-90 data.	LEAs receive .25 of state per pupil support for reported home schoolers.
South Dakota	1,176		1989-90 data.
Tennessee	1,248		Tennessee estimates that another 1,400 children are home schooled legally, but enrolling in a private school. Parents do not have to file papers with the state for these children.
Texas			No data available.
Utah			LEAs have sole responsibility. The state relies on the home school association estimate.
Vermont	680		Data from fall, 1990.
Virginia	2,934	Reports from LEAs	Data are from September, 1989 and do not include home schooled students who have obtained a religious exemption from the compulsory education law through the LEA.
Washington	4,696	Reports from LEAs	Data are from 1988-89.
West Virginia	684	Reports from LEAs	This represents an estimate based on number of families (399) reporting to the LEA as of the spring of 1989, and multiplied by an estimated number of compulsory-school aged children per family (1.7).
Wisconsin	6,298	Reports to SEA	Data are from February, 1991.
Wyoming	470	Reports to SEA	Data are for 1989-90.
TOTAL	82,061		

Appendix B

Information from Associations

The following represent "guesstimates" rather than an actual membership or subscription number. In general, the home school leaders supplying information often indicated that they were uncertain of their estimate. Some said they were unable to make estimates for their states; others used state data with no modification, and still others used state data and adjusted it to account for those who do not file papers with state or local authorities. A fourth group were willing to make independent estimates, and most of these appeared to be careful and thoughtful, and grounded in real data.

	LOW (or only) estimate	HIGH (or only) estimate	notes on source
Arkansas	4,900	4,900	modified state data
California	10,000	12,917	independent estimate
Connecticut	1,024	1,024	independent estimate
Hawaii	500	500	modified state data
Kentucky	2,800	2,800	independent estimate
Minnesota	3,538	3,538	adopted state data
Missouri	3,000	4,000	independent estimate
Montana	725	725	adopted state data
New Hampshire	711	711	adopted state data
New Jersey	1,500	1,500	independent estimate, confirmed by adjustment to state data
New Mexico	4,200	4,200	modified state data
North Dakota	600	600	adopted state data
Pennsylvania	8,000	8,000	independent estimate
Ohio	10,000	20,000	separate estimates, independently done
Oklahoma	9,000	10,000	independent estimate
Vermont	700	700	adopted state data
Wisconsin	5,666	5,666	adopted state data
TOTALS	66,864	81,781	

Explanation of third column:

No Estimate possible

A New York State home schooler indicated it was not possible to make an estimate. A second home school leader in New York sent a newspaper clipping in which a reporter had estimated 275 families, with 550 children in home schooling in New York City, based on a survey of city school districts. Because of the lack of a state-wide association estimate for New York, it does not appear on the table, and is not included in the computation.

Adopted State Data:

Individuals in Minnesota, Montana, New Hampshire, North Dakota, Vermont and Wisconsin suggested using the state data, implicitly or explicitly indicating some confidence in this data. This number will be smaller than the total of school-aged children, because the state data typically includes only those of compulsory school age, generally 6 to 16.

Modified State Data:

Leaders of associations in Arkansas and New Mexico took the state registration figure and increased it by an amount believed to represent those who do not file papers with the state. In both states, these persons thought about half the families filed papers. A leader in Hawaii used this same method, but estimated that 80% of families file papers, yielding as estimate of 500 children. The number of families that comply with state requirements to file information does vary from state to state, and it seems likely that these state leaders made reasonable estimates for their states.

Independent Estimates:

California: Representatives of five different associations responded, with five different approaches to the problem of estimate the number of home schooled children in California. Two of these offered state-wide estimates. One considered the attendance at the annual convention last year in Anaheim of the Christian Home Educators Association of California, Inc. over 4,000. and attendance at several area conventions 1,200 each. This individual concluded that "there would be over 10,000 children in California" educated at home. The second estimator, working independently, made a "guess" of 12,917 home-educated children in California. He assumed 1.82 home schooled children per family (based on a survey of his own participants). He then added membership in known groups, attendance on conferences of specific groups, and one-half the 4,558 private school affidavits filed with the state (for schools with under 7 children enrolled) in 1990. Figures were adjusted by multiplying by 1.82 where families were the unit counted; and by eliminating a fraction for younger children. Apparently the use of only one-half the state registrants reflected a belief that some were "group" schools, and perhaps also to adjust for overlap. (Some of those registering with the state will also belong to support groups.)

Other home school leaders in California could only estimate the number for local areas. One thought there were 250-300 children in Santa Clara county. Another, was comfortable only with stating the number in her support group 100. Another observing that "It's a big state," estimated his county (400 to 650 children) and the number from Sacramento to Tahoe (2,500), all based on workshop and meeting activity. These local estimates from smaller or most rural areas would suggest that statewide estimates of 10,000 to 20,000 are too small.

Connecticut: A home school leader estimated 1,024 school-aged children, counting families in associations, multiplying by 3.2 children per family, and then multiplying by 80%, based on a survey indicating the 80% of children in these families are of school age. (This would mean an assumption of 2.5 home schooled children per family, rather than two, but this may not be unusual when dealing with smaller states.)

Kentucky: A home school leader estimated 2,800 by fall of 1989, based on the association membership, multiplied by a factor of ten based on an observation in known support groups that only about 10% of the families joined this state association, and multiplied by a factor of 3 to arrive at the number of children.

New Jersey: A home school leader estimated 1,500 home schooled children in New Jersey. In the absence of a statewide association this was based on contacts with about 40 support group leaders. This individual also indicated that perhaps about two-thirds the family will file papers with the state, and so had an independent method for arriving at the estimate of 1,500. (The state has papers for approximately 1,000 children.)

Missouri: The state home school association has from 1,500 to 2,000 families. This would usually mean 3,000 to 4,000 school-aged children in home schooling.

Pennsylvania: Home school leaders estimated 8,000, based on a list of subscribers to their newsletter, along with evidence that they have reached about one-third of home schooling families. They multiplied this by two, assuming two home schooled children per family.

Ohio: Three other home schooling leaders in Ohio offered estimates. These varied wildly, ranging from 10,000 to 20,000. The 20,000 was based on membership in groups, expanded to account for those who do not join these groups. This individual assumed that most home schoolers did not belong to state or national home schooling organizations, based on participation rates in her own relatively small group. A second individual estimated from 3,000 to 5,000 families, but did not indicate how he arrived at this number. This would usually mean from 6,000 to 10,000 children. The third home school leader estimated 2,000 for her corner of the state only, Northwest Ohio.

Oklahoma: A home school leader estimated 9,000 to 10,000 children, based on numbers of families, and multiplied by three, assuming three children per family.

Appendix C

Summary of Selected Research Reports from Two State Departments of Education

Florida: As of Jan. 31, 1990, Florida had 5,346 families registered to establish a home education program, located in 66 of Florida's 67 school districts. The Division of Public Schools surveyed all families who had registered. 3,134 (59%) responded, providing information on 4,429 students. 93% were white, non-Hispanic; 3% were Hispanics; 2% were Black, non-Hispanic. 2,975 were ages 5–11; 1,192 were ages 12-15; 199 were 16 and up. There were slightly more females than males. 22% were previously enrolled in public schools; 13% were previously enrolled in private schools.

A survey question asked parents to indicate their single most important reason for home schooling given four choices (religious; dissatisfaction with public schools; dissatisfaction with private school; other). Most respondents indicated in one way or another that it was impossible to identify a "single most important reason." Many checked more than one response; some checked "other" and included the other options. Among the "other" responses were references to the "humanistic philosophy in public schools"; parents' responsibility for teaching the child; worry about safety in public schools; parent desire to teach the child in one-on-one setting.

Nebraska: The state has data on students who have registered with the state and taken an achievement test. The state obtains the data through surveys of Education Service Districts, county and city units. The following provides data on the number registered and taking the test:

	registered	tested
86-87	2,671	1,121 (42%)
87-88	3,103	1,658 (53%)
88-89	3,716	2,973 (80%)
89-90	4,578	3,509 (77%)

The test results show that in past four years, 70% or more of those taking an approved standardized test scored above the median. As a higher percentage of students complied with the testing requirement (88-89), the percentage who scored above the 50th percentile declined slightly. For example, in 86-87, where only 42% submitted tests scores, 76.1% were above the median. In 88-89, where testing compliance was at 80%, 70% were above the median.

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