

A Nationwide Study of Home Education



Canada

**FAMILY CHARACTERISTICS,
STUDENT ACHIEVEMENT,**

and Other Topics

INITIAL RESULTS FROM NATIONWIDE SURVEY REVEAL HIGH MARKS FOR HOME SCHOOLING

On July 5, 1994, Dr. Brian D. Ray of the National Home Education Research Institute (NHERI) released the most comprehensive report to date with a focus on Canada. Entitled *A Nationwide Study of Home Education in Canada: Family Characteristics, Student Achievement, and Other Topics*, the study examines demographics, motivation, and educational results experienced by families who bypass traditional schooling options to teach their children in the home environment.

Within the home-educating families surveyed, the findings indicate that the parents generally have had more formal education than the national average. Family income is somewhat lower than for similar families in Canada, and two-parent families are the norm. Home schoolers have notably more children than the average Canadian family. While the families are predominantly Christian in world view, a wide variety of religious preferences is evident.

The average age of the children in these home-educating families is just over nine years, and they have had little experience in public or private schools. The social activities of the children are quite varied, with the large majority experiencing significant activities with peers and adults outside of their families.

On standardized achievement tests, the home-schooled students perform at or above the 76th percentile on national norms in terms of their reading, listening, language, math, science, social studies, basic battery, and complete battery scores. Many factors were examined for their relationship to the students' academic performance; only a few are significant. Educational attainment of the fathers is a weak predictor of reading and language scores, and the longer a child has been home educated, the better his language score.

AUTHOR INFORMATION

Dr. Brian D. Ray is an Associate Professor of science and education at Western Baptist College and is president of the National Home Education Research Institute. He holds his Ph.D. in science education. NHERI conducts basic, data-gathering research, serves as a clearing house of information for researchers, home educators, attorneys, legislators, policy makers, and the public at-large, and provides speaker services on various topics. NHERI also publishes several research reports and the unique, academic, refereed journal Home School Researcher.

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THE SETTING FOR THE STUDY

Home education is rapidly reemerging in developed nations around the world, and Canada is no exception. During the past 15 years, there has been a dramatic increase in the number of parents who have decided to be the primary educators in their children's lives. Estimates for the 1993-1994 academic year indicate that 15,000 to 60,000 school-aged children were home educated in Canada.

While home-educating parents are enthusiastic about their ability to provide a solid academic and moral education for their children, others (e.g., teachers' unions and some government education officials) denounce home education. In this context, more factual information is needed for developing reasonable home school policies in Canada. This study, directed by Dr. Brian D. Ray of the National Home Education Research Institute (NHERI) and commissioned by the Home School Legal Defense Association of Canada, explored six fundamental questions:

1. What demographic characteristics are evident in home-educating families?
2. What are some of the most germane educational characteristics of home-educating families?
3. What are the demographic, educational, and post-secondary school characteristics of students who are home educated?
4. What academic results have home-educated students experienced?
5. Do any demographic characteristics and educational practices demonstrate a relationship to the students' academic achievement?
6. Do specific educational practices have any relationship to selected physical and mental limitations that might affect learning?

COLLECTING THE DATA

The target population was all home-educating families in Canada. Contacts were made via home education support organizations, newsletters, word-of-mouth, and personal networks. The study examined information returned on a survey questionnaire with four principal parts:

- I. Descriptive information regarding parents and family (includes demographics, teacher certification status of parents),
- II. Information regarding the students (includes demographics, years taught at home, academic achievement scores, curriculum used),
- III. Information regarding the family's home education legal status (includes contact with public school officials and with attorneys), and
- IV. An opportunity to volunteer to participate in a longitudinal study.

This questionnaire reached an estimated 2,585 individual homes with a return of 808 completed and usable instruments, representing 808 home-educating families and 2,594 children. Not all respondents answered every question, therefore, total numbers may not always represent all 808 families.

EVALUATING THE RESULTS

WHAT IS THE AVERAGE HOME SCHOOL FAMILY LIKE?

The average formal education of the fathers studied is 14.0 years, which generally represents about 2 years of university or college; the average is 13.8 years for the mother. For comparative purposes, in 1991 the average years of schooling for male Canadians aged 25-54 (which reflects the age bracket of home educators) was about 13, and a little less than 13 for females. *See Table 1: Descriptive information for families, Figure 1: Father's formal educational levels, and Figure 2: Mother's formal educational levels.*

In terms of family size, the average family in this study consisted of a father, a mother, and 3.5 children—or a family of about 5.5. In Canada's general demographics, the average family including never-married sons and daughters at home and now-married couples was 3.2 in 1991. Only 2.4% of the respondents (19 of 780 families) were single parents, and all of these were mothers. *See Figure 3: Number of children per family.*

Forty-five percent of the home-educating fathers classify themselves as professional/technical with 12% in the manager/administrator category; 89% of the mothers are in the homemaker/home educator category, while 4% indicate a professional/technical role.

The median annual family income is \$40,000; 62% of the families are in the \$20,000 to \$49,999 annual income categories. The vast majority of these are husband-wife families. In 1990 dollars, the median private household, husband-wife family income in Canada was \$48,091. The annual income of the home-educating families studied is, therefore, about 83% of that for all husband-wife families in Canada. Overall, fathers earn 92% of the families' income. Fourteen percent of the mothers work outside the home; those who do so work an average of 11.9 hours per week. *See Figure 4: Total family income.*

The respondents report that they spend, on average, \$659 per child per year for home education on items such as tuition, textbooks, field

trips, and special resources. The expenditures (operating and capital expenditures) per pupil in public schools in Canada during 1992-1993 were \$6,112. It appears that the direct costs of public schooling to the taxpayers in Canada are 927% (or over 9 times as much) of what the home-educating families in this study spend on direct costs in the teaching of their students.

One must observe, however, that the stated costs of home schooling do not include teaching salaries to pay the parents and probably do not include the cost of using the home facility. A more detailed economic analysis would be revealing.

Ninety-three percent of the fathers and 94% of the mothers are White/Anglo in terms of race/ethnicity. All of the other categories listed in the survey (e.g. Native Indian/Aboriginal, Black, Hispanic, Oriental/Asian, Other) are also represented.

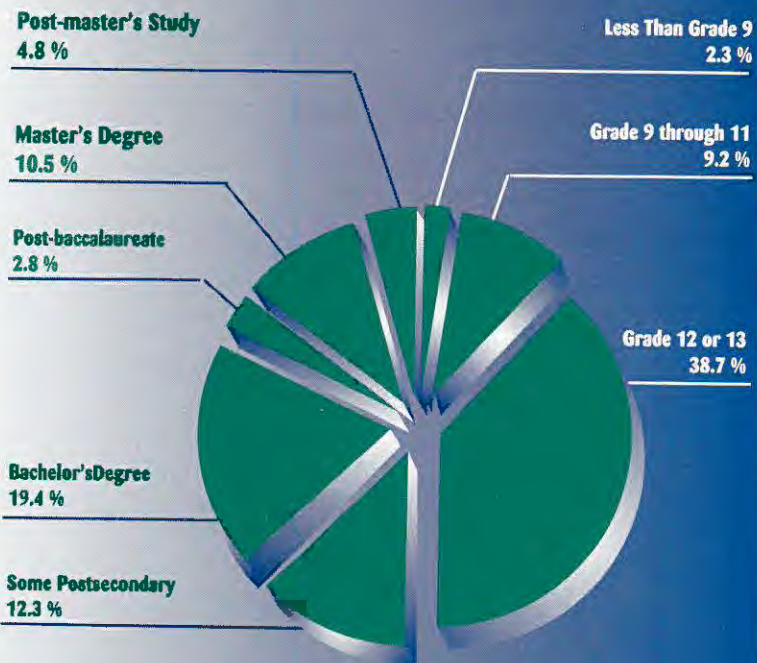
According to the survey, the mother provides 88% of the formal instruction in the average teaching schedule, while the father does 9% of the formal instruction.

The families were asked about their legal status with respect to the home education law in their provinces. Sixty-seven

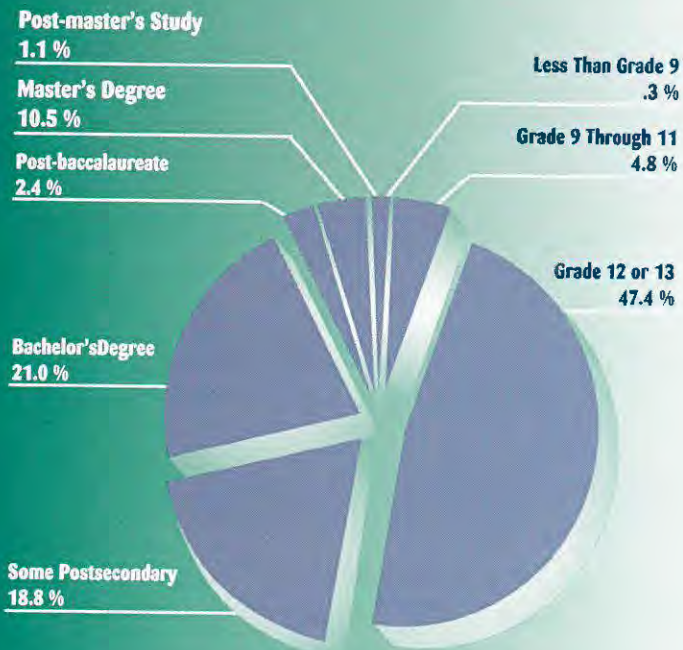
**TABLE 1:
DESCRIPTIVE INFORMATION FOR FAMILIES.**

Variable	Mean	Number (sample size)
Father years education	14.02	774
Mother years education	13.78	791
% teaching done by father	9.12	773
% teaching done by mother	87.88	778
% teaching done by other person	2.48	746
Number of children per family	3.46	800
% income by father	92.33	748
% income by mother	7.49	752
Cost (\$) per child per year to home educate	658.70	730
Number visits to library per month:		
1 to 3 times — 63.1%		
4 to 6 times — 28.7%		

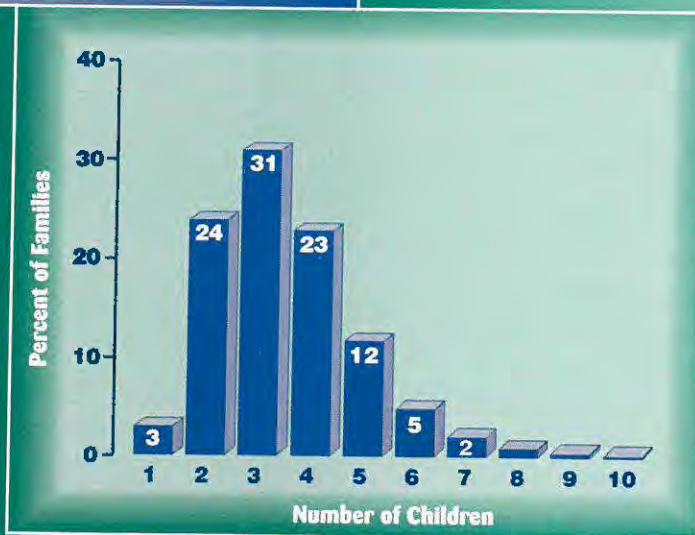
**FIGURE 1:
FATHER'S FORMAL EDUCATIONAL LEVELS**



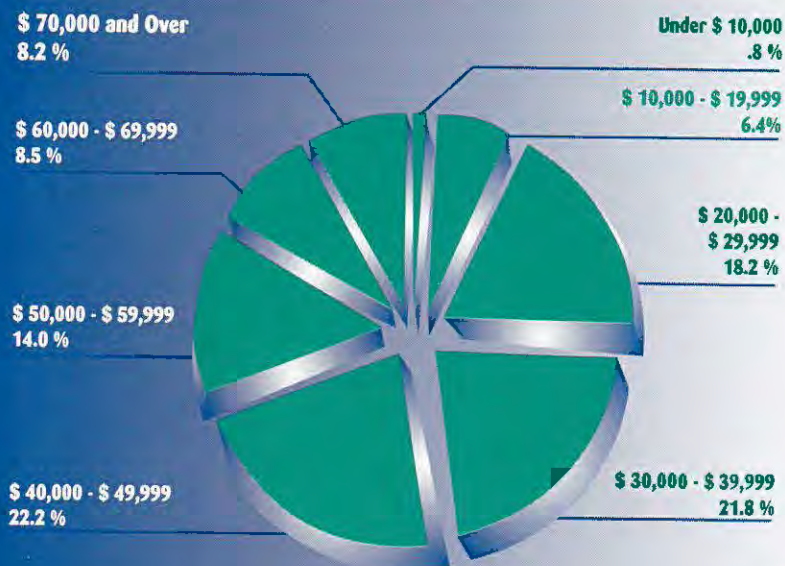
**FIGURE 2:
MOTHER'S FORMAL EDUCATIONAL LEVELS**



**FIGURE 3:
NUMBER OF CHILDREN
PER FAMILY**



**FIGURE 4:
TOTAL FAMILY INCOME**



**TABLE 2:
LEGAL STATUS OF FAMILIES WITH RESPECT TO
HOME EDUCATION STATUTES.**

Category	Frequency	Percent
Underground (non-notification/ non-compliance)	62	8.1
Notified Government, Not Attempting to Fully Comply	41	5.4
Satisfied Statutory Requirements	511	67.1
Legal Status in Dispute	3	.4
Other	145	19.0
Total	762	100.0

percent have satisfied statutory requirements; 8% report that they are underground (non-notification/noncompliance); 5% have notified the government but are not attempting to comply fully; less than 1% say their legal status is in dispute, and 19% report they have some “other” relationship to the law. *See Table 2: Legal status of families with respect to home education statutes.*

Sixty-three percent of the families visit libraries one to three times per month; 29% do so four to six times per month, and 4% visit libraries ten or more times per month. Sixty-nine percent of the families have computers in their homes.

Although the variety ranged from New Age to Mormon to Roman Catholic to Baptist, the religious preferences of the fathers and mothers are mainly Christian: 89% of the fathers and 92% of the mothers describe themselves as “born again.” About 21% of the fathers and 21% of the mothers indicate they are independent (or other) fundamental/evangelical (Christian); 12% of fathers and 13% of mothers are Baptist; and 12% of fathers and 12% of mothers are independent charismatic (or Full Gospel, Christian). Very few parents designate themselves in the categories of Amish, Jewish, and New Age. Eighteen percent classify themselves as “other,” including non-religious. *See Table 3: Religious preference of the fathers and Table 4: Religious preference of the mothers.*

WHAT ARE HOME - EDUCATED STUDENTS LIKE?

The average age of the children being home educated in the families surveyed is 9.3 years. The average grade level of the students being home educated is 3.7. Grades 1 through 8 include 81% of the students, and grades 9 through 12 include 7% of the students. *See Table 5: Descriptive information about the children.*

Fifty-two percent are males and 48% are

**TABLE 3:
RELIGIOUS PREFERENCE OF THE FATHERS.**

Category	Frequency	Percent
Adventist	8	1.0
Amish	1	.1
Anglican	13	1.7
Assembly of God	7	.9
Baptist	94	12.3
Catholic, Roman	37	4.8
Independent Charismatic (or Full Gospel)	91	11.9
Independent (or other) Fundamental/Evangelical	161	21.1
Jewish	1	.1
LDS (Mormon)	5	.7
Lutheran	16	2.1
Menonite	30	3.9
Methodist	4	.5
Nazarene	5	.7
New Age	3	.4
Pentecostal	65	8.5
Presbyterian	14	1.8
Reformed	63	8.2
United Church of Canada	9	1.2
Other	137	17.9
Total	764*	100.0

* 44 respondents did not answer this question.

females. In terms of race/ethnic groupings, the children are classified as follows: 93.0% White/Anglo, 0.8% Native Indian/Aboriginal, 0.5% Oriental/Asian, 0.3% Black, 0.2% Hispanic, and 5.4% are reported as "Other."

For children 5 years and older, the number of years they have been home schooled averages 3.0. This distribution is positively skewed, meaning there is a preponderance of young children being home-educated. The

**TABLE 4:
RELIGIOUS PREFERENCE OF THE MOTHERS.**

Category	Frequency	Percent
Adventist	7	.9
Anglican	14	1.8
Assembly of God	7	.9
Baptist	99	12.7
Catholic, Roman	39	5.0
Independent Charismatic (or Full Gospel)	97	12.5
Independent (or other) Fundamental/Evangelical	162	20.8
Jewish	1	.1
LDS (Mormon)	6	.8
Lutheran	13	1.7
Mennonite	32	4.1
Methodist	3	.4
Nazarene	6	.8
New Age	4	.5
Pentecostal	70	9.0
Presbyterian	11	1.4
Reformed	63	8.1
United Church of Canada	10	1.3
Other	134	17.2
Total	778*	100.0

* 30 respondents did not answer this question.

**TABLE 5:
DESCRIPTIVE INFORMATION ABOUT THE CHILDREN.**

Variable	Mean	Standard Deviation	Number (sample size)
Currently Home Educated			
Age	9.34	2.99	1638
Grade	3.68	2.82	1468
Had Ever Been Home Educated			
Gender—51.5% Male, 48.5% Female			
Years Taught at Home Since Age 5	2.97	2.15	1537
Years Public School Prior to Home Education	1.13	1.94	1445
Years Independent (Private) School Prior to Home Education	.64	1.48	1407
Years Public School After Home Education	.12	.78	1381
Years Independent (Private) School After Home Education	.14	.95	1377
Grade Through Which Intend to Home Educate the Child	10.73	2.68	1184

children have spent most of their school-aged years being home educated, and the data indicate that a much larger percentage of people are moving their children into the home education option than are leaving it. Parents indicate their intent to home educate 72% of the children through grade 12 or 13.

WHAT CURRICULUM CHOICES ARE PREVALENT IN HOME EDUCATION?

Answers to questions regarding types of curriculum materials used for individual children indicate parents sometimes use more than one type for a given child. The parents use a parent-designed curriculum (i.e., the major components selected by the parents from various curriculum suppliers) for 61% of the students, a complete curricular package (i.e., materials that include language, social studies, mathematics, and science material for a full year) for 36% of the students, no particular curriculum plan for 7% of the students, a local private school's home education program for 4% of the students, and a satellite school (i.e., materials from a private school or educational organization that works with the home educated at a distance) for 3% of the students. (Percentages do not total 100% because many parents selected multiple options.)

**TABLE 6:
CHILDREN'S
SOCIAL
AND
OTHER
ACTIVITIES**

Activity	Percent of Students (at least 5 years old) Involved in Activity*
Play with People Outside the Family	93.0
Field Trips	87.7
Sunday School	82.0
Group Sports	59.6
Music Classes	48.1
Classes with Students Outside the Home	44.6
Volunteer Work with People	31.3
Ballet/Dance Class	6.2
4-H	4.6
Other Activities	42.7

* Percent given is valid percent from a base of 1,561 students.

Activity	Mean Hours/Week	Standard Deviation	Number (sample size)
Contact with Non-Family Adults	8.96	7.06	1485
With Siblings (awake)	64.42	21.28	1160
With Non-Sibling Children	12.30	9.25	1485

WHAT KINDS OF SOCIAL AND OTHER ACTIVITIES DO THE CHILDREN EXPERIENCE?

The home-educated children in the study are involved in a wide variety of activities with peers and adults outside of their homes. For example, 60% are involved in group sports, 82% in Sunday school, 48% in music classes, and 93% engage in play activities with people outside the family. On average, the children spend 12 hours per week with non-sibling children. *See Table 6: Children's social and other activities.*

Children were asked to respond to several questions. The answers indicate 41% spend up to one hour per day watching television or videotapes, while 33% spend no time in these activities. Thirty-two percent spend 15 to 45 minutes per day reading for enjoyment or general interest, and 26% spend 45 to 90 minutes per day doing so. Eighty percent say someone read to them usually every day when they were young, and 95% describe seeing someone in their home reading every day.

HOW DO HOME-EDUCATED STUDENTS FARE ON STANDARDIZED ACHIEVEMENT TESTS?

Of 1,393 students who were at least age 5, had ever been home educated, and for whom relevant data were available, 524 (37.6%) took a standardized achievement test during the past 24 months. The most frequently used test was the *Canadian Test of Basic Skills* (by 52%), while 34% took the *Canadian Achievement Test*. Copies of test results prepared by the test publisher or test administrator were submitted for 61% of the students. Information was collected on the following: reading, listening, language, math, science, social studies, basic battery (typically reading, language, and mathematics), and complete battery (all topics included in the overall testing of the student).

The home-educated students scored, on the average, at or above the 76th percentile in all eight of the preceding categories. The national average for conventional school norms is the 50th percentile. Consistent with data in several other studies and reports, these findings show that the achievement scores are high in all grade levels (K-12) and in all subject areas. See Table 7: National percentile scores on standardized achievement tests.

**TABLE 7:
NATIONAL PERCENTILE SCORES ON STANDARDIZED
ACHIEVEMENT TESTS.**

Variable	Mean	Number (sample size)
Reading, Total	80th	334
Listening, Total	84th	48
Language, Total	76th	309
Math, Total	79th	333
Science	82nd	20
Social Studies	81st	33
Basic Battery	79th	211
Complete Battery	82nd	137
National Norm (mainly public schools)	50th	

It could be argued that these children would have done well in any educational setting, considering the family backgrounds and motivational levels of parents from which they come. On the other hand, a logical argument could also be made that the home education environment would naturally cause higher achievement because of factors such as the low student-to-teacher ratio, the greater flexibility that is possible in the private setting, close contact between parent and child, and the enhanced opportunity to individualize curriculum and methodology in response to the gifts and limitations of a particular child. No tight statistical controls to test such hypotheses, however, were applied in this study; nor have they been applied in other studies to date. This study did, however, examine relationships between several important factors and student achievement.

WHAT POLICY-MAKING CONCLUSIONS CAN BE DRAWN FROM TEST PERFORMANCE?

Several relationships between the home-educated students' achievement scores and variables relevant to policy-making were explored in this study.

1. Re: Educational background of parents

The father's educational level is a statistically significant predictor of reading scores. The more schooling the father had, the better the child scored. The practical significance, however, is relatively minimal. The father's educational level explains only 5.7% of the variance in reading scores.

The father's educational attainment is also a statistically significant predictor of language scores. Again, it is a very weak predictor in practical terms. Fathers' education explains only 2.2% more of the variance than that explained (3.5%) by the number of years a child is home educated. That is, years home educated and father's education together

**TABLE 8:
RELATIONSHIP BETWEEN VARIOUS FACTORS
AND ACADEMIC ACHIEVEMENT**

Predictor	Reading	Language	Math	Listening	Science	Social Studies	Basic Battery	Complete Battery
Father's Education	Yes, Weak Positive	Yes, Weak Positive	No	No	No	No	N/A	N/A
Mother's Education	No	No	No	No	No	No	N/A	N/A
Father's Teacher Certification	No	No	No	No	No	No	N/A	N/A
Mother's Teacher Certification	No	No	No	No	No	No	N/A	N/A
Income of Family	No	No	No	No	No	No	N/A	N/A
Test Administrator	N/A	N/A	N/A	N/A	N/A	N/A	No	N/A
Instructional Practices (selected)	No	No	No	No	No	No	N/A	N/A

N/A=Not Applicable, not examined

explain only 5.8% of the variance in language scores.

Furthermore, this study does not establish cause and effect between father's education and student's achievement. The mother's educational attainment is not a significant predictor of the test scores.

All things considered, it may be that there is a weaker relationship between parent education level and student achievement for the home-educated than for those in other forms of schooling; further analysis is needed to clarify the issue. It is possible that the home education environment is conducive to eliminating the effect of parent educational background. These findings do **not** support the idea that home education should be regulated according to the educational background of parents.

2. Re: Teacher certification

Only 7% of the fathers had been certified teachers at some time in their lives, while 12% of the mothers had been certified teachers at some time. Approximately 39% of this subset of fathers and 36% of this subset of mothers were currently certified teachers.

The relationship between student achievement and the teacher certification status of the parents is significant in its absence. This study found no difference in students' mathematics, reading, language, listening, science, and social studies scores based on the teacher certification

status of their parents (i.e., whether the father or mother had or had not ever been certified). The findings of this study support the concept that parents do **not** need to be trained as certified teachers in order to assure successful academic achievement for their children. *See Table 8: Relationship between various factors and academic achievement.*

3. Re: Income level of parents

Total family income is not significantly related to children's academic achievement. That is, income is not a significant predictor of any of the following achievement scores: mathematics, reading, language, listening, science, and social studies scores. On average, children in families with incomes of \$20,000 are performing as well as children in families with incomes of \$50,000. These findings support the idea that home-educated students in low income families are **not** at risk of failure in terms of academic achievement.

4. Re: Who administers the test to the student

The person who administered the test to the student was a public school teacher in 13% of the cases, an independent (private) school teacher in 10% of the cases, the parent in 65% of the cases, or some other administrator (such as a home education support group member or a qualified test administrator) in 12% of the cases. A statistical analysis revealed that there is no significant

difference in basic battery scores based on who administered the test. These findings support the idea that parents should **not** be regulated in terms of who administers tests to their children.

5. Re: Instructional practices within the home

The degree of structure in the home education environment, time spent in formal educational activities, and the age at which formal education commenced were not significant predictors of students' academic achievement. That is to say, the age at which parents begin planned and intentional instruction, the degree to which parents structure the daily instruction/learning process, and the amount of time the child spends in planned and intentional learning activities do not appear to have a significant relationship to achievement for those taught at home. These findings support the idea that the pedagogical practices of home-educating parents should **not** be prescribed or regulated.

WHAT DO HOME SCHOOL STUDENTS DO AFTER SECONDARY SCHOOL GRADUATION?

Information about adults who had been home educated was gathered for only 33 subjects. This analysis did not report how long these individuals had been taught at home. Within 6 months of graduation from home education, 21% of respondents went to a junior or community college; 18% went into full-time employment; 12% went to part-time higher education and part-time employment; 9% went to a university or four-year college; 3% went into the military; 36% did "other" things. A further analysis of the 36% who selected the "other" category revealed that of the 13 individuals, 7 enrolled in Bible college or school, 2 went into missionary work, and 2 went into apprenticeships (one of whom received wages). In summary, it appears that about 63% of these home-educated students went on to some form of continuing formal education in an institution outside of the home.

FOR MORE INFORMATION

For other informative research publications or a comprehensive report of this study, contact the National Home Education Research Institute, Attn. Dr. Brian D. Ray, Western Baptist College, 5000 Deer Park Drive S.E., Salem, Oregon 97301, U.S.A. If you are ordering the comprehensive, full-length report of this study, please include payment of \$15.00 Canadian funds or \$11.00 U.S. funds.

For information regarding legal matters or support organizations in Canada, contact the Home School Legal Defense Association of Canada, P.O. Box 42009, Millbourne Post Office, Edmonton, Alberta T6K 4C4.

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