HOMESCHOOL GEOGRAPHIES:
A CASE STUDY OF EDUCATIONAL INFRASTRUCTURE IN VIRGINIA

A Thesis in
Geography
by
Amy S. Avery-Grubel

© 2009 Amy S. Avery-Grubel

Submitted in Partial Fulfillment
of the Requirements
for the Degree of

Master of Science

August 2009
The thesis of Amy S. Avery-Grubel was reviewed and approved* by the following:

Roger M. Downs
Professor of Geography
Thesis Advisor

Deryck W. Holdsworth
Professor of Geography

Karl Zimmerer
Professor of Geography
Head of the Department of Geography

*Signatures are on file in the Graduate School.
ABSTRACT

Homeschooling in the United States has grown over the last four decades from a small grassroots movement to an infrastructure supporting over 1.5 million students in 2007. By removing children from traditional school spaces homeschooling represents an implicit rejection of the traditional school infrastructure. Furthermore, as the ultimate form of privatized education, homeschooling is an important component of contemporary educational restructuring. While literature exploring geographies of education has described the socio-spatial processes, which are implicated in the resegregation of American schools, as being facilitated by school-choice reform, the spatial implications of homeschooling have remained largely unexplored. Homeschool literature claims that homeschoolers fall into one of three motivation-related groups—ideologues, pedagogues, and ‘mainstream’ homeschoolers—and that, depending on their motivation for homeschooling, parents will choose to use different specialized resources. Therefore, this study describes the infrastructure of homeschooling, as expressed in the spatio-temporal and social-resource networks of homeschoolers in three Virginia school districts. By exploring the differences between the homeschool infrastructure and the traditional school infrastructure, as well as among the motivation-related groups of homeschoolers, this thesis underscores the implications of homeschooling as it relates to school-choice reform and to the social and spatial restructuring of American education.

Keywords: educational geography, homeschooling, school choice, educational restructuring, homeschool infrastructure, space-time mapping, Social Network Analysis.
# TABLE OF CONTENTS

List of Figures ................................................................................................................... vi
List of Tables ................................................................................................................... viii
Acknowledgements ........................................................................................................... ix

## 1. Homeschooling and the restructuring of American education .............................. 1

1.1 Introduction .............................................................................................................. 1
1.2 Homeschooling and the ‘failure’ of American schools ........................................... 5
1.3 Need for the study .................................................................................................... 7
1.4 Thesis questions ...................................................................................................... 9
1.5 Chapter summaries ............................................................................................... 10

## 2. Geographies of school choice, homeschools, and the rise of a movement .......... 14

2.1 Geographies of traditional education ...................................................................... 15
   2.1.1 Schools as spaces of individual and social reproduction .............................. 15
   2.1.2 Schools as embedded spaces ...................................................................... 17
   2.1.3 School desegregation and the geographies of school choice ....................... 18

2.2 The development of homeschooling ...................................................................... 23
   2.2.1 Historical context ......................................................................................... 23
   2.2.2 Development of a movement ...................................................................... 29
   2.2.3 Regulating the home ................................................................................... 36
   2.2.4 Measuring the academic achievements of homeschoolers ......................... 43
   2.2.5 Social impacts of homeschooling ............................................................... 46
   2.2.6 Family demographics ................................................................................. 48

2.3 Chapter summary ................................................................................................... 51

## 3. Study methods and results .................................................................................... 53

3.1 Data-collection methods ......................................................................................... 53
   3.1.1 Bedford County ............................................................................................ 59
   3.1.2 Chesterfield County ..................................................................................... 60
   3.1.3 Floyd County ............................................................................................... 60

3.2 In-person interviews .............................................................................................. 61
   3.2.1 Results: Study participants’ socio-demographic characteristics ..63
      3.2.1.1 Race ...................................................................................................... 65
      3.2.1.2 Household income .............................................................................. 67

3.2.2 Motivations for homeschooling ....................................................................... 68

3.3 Space-time maps .................................................................................................. 71
   3.3.1 Homeschoolers’ space-time maps ............................................................... 73
   3.3.2 Space-time map results ............................................................................... 79
### List of Figures

<table>
<thead>
<tr>
<th>FIGURE</th>
<th>PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.1 - The diffusion of compulsory attendance law enactment in the US</td>
<td>26</td>
</tr>
<tr>
<td>2.2 - The enactment of homeschool regulation across the US.</td>
<td>37</td>
</tr>
<tr>
<td>2.3 - Relative homeschooling regulation by state</td>
<td>38</td>
</tr>
<tr>
<td>3.1 - Total number of registered homeschoolers in Virginia</td>
<td>56</td>
</tr>
<tr>
<td>3.2 - Percent of homeschoolers in Virginia school districts</td>
<td>56</td>
</tr>
<tr>
<td>3.3 - The three study areas</td>
<td>57</td>
</tr>
<tr>
<td>3.4 - Correlation between white students by county and registered homeschoolers</td>
<td>66</td>
</tr>
<tr>
<td>3.5 - Comparison of household income among study areas</td>
<td>67</td>
</tr>
<tr>
<td>3.6 - A sample space-time path</td>
<td>72</td>
</tr>
<tr>
<td>3.7 - Standardized individuals’ space-time paths</td>
<td>72</td>
</tr>
<tr>
<td>3.8 - Example weekly schedule of a homeschooling family</td>
<td>74</td>
</tr>
<tr>
<td>3.9 - Base-map for space-time diagrams</td>
<td>76</td>
</tr>
<tr>
<td>3.10 - Space-time diagram, vertical axes associated with each place</td>
<td>76</td>
</tr>
<tr>
<td>3.11 - Students’ temporal duration in place</td>
<td>77</td>
</tr>
<tr>
<td>3.12 - Space-time movement of students</td>
<td>77</td>
</tr>
<tr>
<td>3.13 - Space-time map of a public and homeschool student</td>
<td>78</td>
</tr>
<tr>
<td>3.14 - The space-time path of all study participants, colored by location</td>
<td>78</td>
</tr>
<tr>
<td>3.15 - Space-time map of the Bedford study participants</td>
<td>80</td>
</tr>
<tr>
<td>3.16 - Space-time map of Chesterfield study participants</td>
<td>81</td>
</tr>
<tr>
<td>3.17 - Space-time map of Floyd study participants</td>
<td>82</td>
</tr>
<tr>
<td>3.18 - The relational structure of a social network</td>
<td>98</td>
</tr>
<tr>
<td>3.19 - <em>Valued</em> relational structure</td>
<td>98</td>
</tr>
<tr>
<td>3.20 - A bipartite matrix of women attending social events</td>
<td>100</td>
</tr>
<tr>
<td>3.21 - Graphic of a bipartite matrix of women attending social events</td>
<td>100</td>
</tr>
<tr>
<td>3.22 - <em>Valued</em> bipartite matrix of women attending social events</td>
<td>100</td>
</tr>
<tr>
<td>3.23 - Sociogram of a <em>valued</em> two-mode network</td>
<td>101</td>
</tr>
<tr>
<td>3.24 - The hierarchical organization of a social network, color coded into <em>islands</em></td>
<td>101</td>
</tr>
<tr>
<td>3.25 - <em>Atlas.ti</em>’s coding process</td>
<td>104</td>
</tr>
</tbody>
</table>
3.26 – Unedited two-mode sociogram ................................................................. 106
3.27 - Unedited valued two-mode sociogram ...................................................... 107
3.28 - One-mode sociogram of participants and frequently used websites .......... 107
3.29 - Valued two-mode sociogram .................................................................. 108
3.30 - 'Universal' sociogram, colored by location ............................................... 109
3.31 - 'Universal' sociogram with participants with islands ............................... 111
3.32 - Sociogram of participants' most frequented websites .............................. 113
3.33 - Sociogram of participants' most frequented websites as islands ............. 113
3.34 - Sociogram of participant associations with location specific events removed .. 115
3.35 - Sociogram of participants; location controlled, colored by location ......... 116
3.36 - Sociogram of participants; location controlled, colored by primary motivation .. 116
3.37 - Sociogram of participants; location controlled, colored by religious piety .... 117
3.38 - Sociogram of participants; location controlled, colored by household income.... 117
3.39 - Sociogram of study participants' academic resources .............................. 119
4.1 - The Paterson’s ‘authentic education’ .......................................................... 125
List of Tables

<table>
<thead>
<tr>
<th>TABLE</th>
<th>PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.1 - SAT scores for students in 24 states</td>
<td>44</td>
</tr>
<tr>
<td>2.2 - Racial/ethnic percents in homeschooling</td>
<td>45</td>
</tr>
<tr>
<td>2.3 - Proportional Homeschool and Public School Student Characteristics</td>
<td>50</td>
</tr>
<tr>
<td>3.1 - Summary of the three legal home schooling registration options in Virginia</td>
<td>55</td>
</tr>
<tr>
<td>3.2 - Demographic comparison among the 3 study areas</td>
<td>58</td>
</tr>
<tr>
<td>3.3 - Student demographic comparison among study areas</td>
<td>64</td>
</tr>
<tr>
<td>3.4 - Demographic comparison of NCES 2003 data and study population</td>
<td>65</td>
</tr>
<tr>
<td>3.5 - Participants reasons for homeschooling</td>
<td>70</td>
</tr>
<tr>
<td>3.6 - Sample wordcount matrix with participant ID</td>
<td>105</td>
</tr>
<tr>
<td>3.7 - Wordcount matrix in Table 3.6 is converted to a simple bipartite matrix</td>
<td>105</td>
</tr>
</tbody>
</table>
Acknowledgements

I would like to extend my gratitude…

To the study participants—

Who welcomed me into their homes and gave me the opportunity to learn about homeschooling and geography.

To Roger M. Downs, my adviser—

For tempering my ‘special’ approach to research and supporting me through the storms of academic and ‘everyday’ life.

To my parents—

For your unconditional love and enthusiastic encouragement.

To my favorite sister—

Whose perseverance is an inspiration and a joy. Without you, I would have given up long ago.
1. Homeschooling and the restructuring of American education

One of the first things homeschoolers taught me is how central school is to the structure of modern life.

(M. Stevens, Kingdom of Children 2001, 10)

1.1 Introduction

Few institutions have such a profound and lasting effect on our lives as that of the school. Not only do most Americans spend at least 12 of their formative years moving regularly in and out of formal learning environments, but parents’ schedules are often regulated by their children’s school routines. Traditionally, schooling in the United States has been facilitated through an infrastructure comprising a nested set of spatial and temporal geographies; from classrooms, school grounds, bus routes and school districts, to schedules regulating learning and recreational activities, socialization and meals. This infrastructure plays an important role in the rhythm of life in the United States. However, a growing number of parents are choosing not to participate in this spatio-temporal structure and are instead schooling their children from home.

The environment of homeschooling—the ultimate form of privatized education—presents an alternative infrastructure which is increasingly important in the reshaping of schools and the social geography of everyday life in the United States and yet takes place almost entirely outside the traditional infrastructure.

Geographies of everyday life constitute the daily ‘experience of space’ and encompass both “the form used in a system, and the ways of using this system (i.e. rules)” on a regular basis (Certeau 1984, 98: original emphasis). In other words, the daily spatial practices of individuals constitute the conception of space as well as the production and reproduction of spatio-temporal organization and experience. While Certeau emphasizes
the discourses embedded in the production and reproduction of space and place, I focus on the construction of space through the daily or weekly activities of individuals; in this case, the construction of the school-space encompassing the activities of homeschoolers. Because geographies of everyday life are both learned through our lived experience in the world around us and through intentional ‘teaching’ of how to interact with the people and places we encounter on a daily basis (Golledge 2001), I contend that homeschoolers, by administering a system of schooling outside the traditional school infrastructure are not only reconstructing the concept of appropriate schooling for themselves, they are also impacting both the traditional school infrastructure as well as the social geographies of everyday lived experience that are inextricably tied to that infrastructure.

Collins and Coleman (2008) argue that schools are “highly specialized environments which (temporarily) isolate and segregate children from wider social and spatial contexts” (283) and that they also produce and reproduce individual and social identity (see also Butler and Hamnett 2007). While doing so, however, traditional school environments are not disconnected from those wider contexts; rather, they are part of a set of complex socio-spatial processes and are “central to the social geographies of everyday life” (Collins and Coleman 2008, 281).

Meanwhile homeschooling offers an equally specialized environment, one that isolates and segregates in different ways and with different consequences for students, their parents and society in general. Furthermore, the choice to homeschool produces and reproduces an alternative infrastructure that is reflective of the social circumstances and consequences implicated in larger school choice debates. Since the 1970s, research examining school restructuring in the United States has generally tracked the movements
of children among different formal schooling environments, typically among public, charter or private schools within the traditional school infrastructure. Thus, in order to more fully understand contemporary restructuring in American schooling, it is important to understand the breadth and depth of the homeschooling movement and its impact on the structure of traditional schools.

In 1999, the National Center for Education Statistics (NCES) estimated that around 850,000 children ages 5-17 were being homeschooled in the United States (Bielick, Chandler, and Broughman 2001). A recent Issue Brief released by the NCES (2008) estimates that the number of homeschoolers rose to 1.5 million in 2007, a relative increase of 74% over 8 years. The growing popularity of homeschooling is concurrent with systematic changes brought about by the increasing privatization and marketization\(^1\) of public schooling (in the form of voucher programs, charter schools and school choice reform), which are changing the everyday lived experience of children and parents from New Zealand (Thrupp 2007) to Los Angeles (Andre-Bechely 2007) to London (Butler and Robson 2001). For example, not only are individual public school demographics changing (Butler and Hamnett 2007), but children frequently travel long distances across metropolitan areas to attend preferred schools, while parents are willing to drive farther to get their children to preferred schools. Or, as in the case of homeschooling, parents are willing to stay at home with their school-age children; the home becomes the family’s preferred school.

\(^1\) Though they are related, a distinction can be made between privatization and ‘marketization’ in education. Privatization refers to the use of for-profit organizations to manage public schools, such as in Philadelphia (Gold, Christman, and Herold 2007). Marketization, on the other hand, refers to school choice reforms which encourage consumer-oriented competition between public schools by allowing students to travel to schools outside their local school districts, to attend schools which they or their parents find ‘preferable’ to the local schools (Lubienski 2005).
The term ‘school choice’ is generally used to describe the array of programs designed to allow parents to decide which school their child will attend, rather than relying on the traditional spatial catchment system—where children attend schools based on their location and proximity to schools. However, while there are numerous research findings in educational geography investigating the spatial qualities and implications of school choice reforms in traditional school environments (e.g. Clark 1988; Bradford 1991; Lankford and Wyckoff 2000; Valentine 2001; Taylor and Gorard 2001; Renzulli and Evans 2005; Andre-Bechely 2007), the spatial implications of homeschooling have remained virtually unstudied. Yet, over the last several decades homeschooling families have developed a substantial educational infrastructure with different spatial and temporal geographies from the traditional school infrastructure.

Spatially, homeschooling establishes the home as the primary site for schooling, with a parent-driven physical and virtual network of co-ops and support organizations active at multiple scales (local, regional and national) that replaces the physical infrastructure of traditional schools. Temporally, homeschoolers are not tethered to standard schedules, allowing them to create schedules that suit individual and family preferences and to make schedule adjustments with relative ease. Without the tethers of the spatially and temporally regulated infrastructure of traditional schools, homeschoolers are potentially free to school anywhere and anytime they choose. Thus, as a phenomenon which is embedded within wider sociospatial and educational processes, it can be argued that the infrastructure of homeschooling will be represented differentially not only on the individual family level, but in discernable patterns across space and scale. This thesis, then, explores the infrastructure of homeschooling as manifested in three Virginia school
districts in an effort to understand the implications of this expression of school choice for the restructuring of education in the United States.

1.2 Homeschooling and the ‘failure’ of American schools

Homeschooling families have been characterized as primarily motivated by one of three educational factors. In 1986, Van Galen coined the terms “ideologues” and “pedagogues” to describe the motivational differences between two groups of homeschoolers. Ideologues are described as strongly religious (predominantly Christian, though not exclusively), tending to homeschool because they want control over the curricular content of their children’s education. In contrast, pedagogues are described as more concerned with the structure and methods of education than with the content and are frequently associated with “unschooling” and other alternative pedagogies (Van Galen 1986; Knowles, Marlow, and Muchmore 1992; Lines 2000; Bauman 2002; Gaither 2008a). Though problematic in its bimodal inference, this understanding of two primary and distinct groups of homeschoolers has, until recently, been the starting point for much research on the subject.

More recently, however, popular media and special interest groups have begun to write about a third group frequently called “mainstream” homeschoolers2 (e.g Hammons 2006; Basham, Merrifield, and Hepburn 2007; Thiem 2007; Gaither 2009). Along with a growing number of the American population, these parents see public schools as physi-

---

2The term “mainstream” used here stems from the idea that a growing number of homeschooling families more accurately reflect the general American demographic than homeschooling populations have in the past. Though an increasing number of homeschoolers appear to be motivated for reasons other than religious ideology or pedagogical criticism, to date I have not encountered any qualitative analyses to support the claim that this emerging group of homeschoolers is more similar to the average American family demographically. However, the dramatic rise in the number of homeschoolers in recent years is frequently attributed to the growing acceptance of homeschooling as a viable education alternative by the general American populace, adding tangential weight to the term “mainstream.”
cally and emotionally unsafe for their children. Mainstream homeschool parents—like many parents who choose to exercise school choice—often feel that public schools lack the appropriate resources or teacher quantity and quality for academic advancement, yet generally have no problems with either the curriculum or pedagogy of a traditional education. Regardless of their reasons for homeschooling, the choice to remove children from the traditional school infrastructure—or to exercise school choice in general—implies a failure on the part of the public school infrastructure to meet the educational goals of an increasing number of American parents.

Proof of the failure of the current American educational system, say proponents of school choice reform in general and homeschooling in particular, can be seen in rising crime rates and poor academic performance of public schools (Berliner and Biddle 1995; Ray 2000a, 2000b, 2002). Proponents of school choice frequently see public schools as fiscally inefficient, claiming that for-profit organizations can run schools far more efficiently (Gold, Christman, and Herold 2007) or that homeschooling only costs an average of $450 per student per year (Ray 2002). However, this claim does not account for the labor costs of the at-home parent or the possible loss of a portion of the household income. Advocates also highlight the academic achievements of homeschoolers and private school students alike, concluding that the ‘individual’s gain’ is ‘society’s common good,’ (Ray 2000a, Title; Belfield 2002; Farris and Smith 2004). Critics, however, argue that the movement away from public education has a disproportionately negative effect on minorities, reinforcing disparities between privileged and underprivileged groups and even threatening the democratic foundations of American society (Ball 1996; Lubienski 2000; Apple 2001; Campbell 2006).
Given the spatial rationale underpinning the traditional school infrastructure, public schools almost invariably reflect the socio-economic, linguistic, religious and racial/ethnic characteristics of the particular communities within which they are embedded. Private schools typically represent a more affluent and religious demographic often drawn from a wider spatial extent than public schools, and children who are privately schooled generally achieve higher academic attainment than public school students (Princiotta and Bielick 2006). Homeschools, on the other hand, are disproportionately represented by white, two-parent households, with one parent (usually the mother) out of the workforce and with a higher rate of parental college level education than their public school counterparts (National Center for Education Statistics 2008). Limited academic achievement data places homeschooled children’s performance levels between private and publicly schooled children (Princiotta and Bielick 2006). Such academic achievement reflects, in part, the privileged status that enables the choice to homeschool.

Considering the size of the homeschooling population (more than voucher and charter school students combined), the rejection of the traditional school infrastructure implicit in the decision to homeschool, and the privileged status of the homeschooling demographic, we need to understand how homeschooling contributes to the restructuring of American education and, therefore, the social geographies of everyday life.

1.3 Need for the study

Homeschoolers now represent at least 2.9% of the K-12 population in the United States, yet the literature on homeschooling is dominated by popular media and limited to examinations of the development of the movement and the regulatory, socialization, and academic achievement issues surrounding homeschooling (e.g. Klicka 1988; Rudner
Similarly, the literature on the geographies of education is currently limited to those geographies experienced by children and parents in the traditional school infrastructure.

Geographers have shown that debates about school choice raise important geographic questions because the issue of school choice is embedded in the complex intersections among race, class, and social processes which interact with the traditional school infrastructure in varied and unequal ways across space (Butler and Hamnett 2007). Geographers have explored ways in which desegregation, ‘white-flight,’ gentrification and school choice have changed and continue to change the structure of traditional education (e.g. Clark 1987, 1988; Henig 1994; Andre-Bechely 2007; Gordon and Monastiriotis 2007; Thrupp 2007). Collins and Coleman (2008, 294) argue that “[t]hrough the ‘marketization’ of education, the linkages between schools and their surroundings are being re-written in ways that are consequential for social geography.” Homeschooling, however, “is a more radical departure from education as it is currently practiced, it affects more schools, and it has the potential to force numerous adjustments to current curricular practices” (Bauman 2002, par. 4). Yet, in spite of the growing presence of a significant student population demarcated specifically by the choice to homeschool, geographic inquiries into the temporal and spatial geographies of homeschooling are limited in number and scope (i.e. Levy 2007; Thiem 2007).

For instance, Thiem (2007), perhaps the only geographer to address homeschooling directly, discusses the advantages of using a geographic perspective to analyze the development of homeschooling by calling attention to the manipulation of scale by homeschool parents in fighting state level regulation through use of federal education
policy. Similarly, Levy (2007) concludes that increased school-integration enforcement in the 1980s caused a number of white Americans to begin homeschooling, prompting state legislators to legalize the activity in distinct patterns of diffusion. While both of these authors examine the development of homeschooling and its political and social implications on a broad scale, neither addresses the nature of the specialized environments provided by homeschooling.

We need a geographic exploration of the infrastructure of homeschooling that will describe the homeschooling infrastructure and situate homeschools in relation to the traditional school infrastructure. As the ultimate form of privatized education, the decision to homeschool not only represents a rejection of the traditional school infrastructure, but it also represents a striking alternative construction of the temporal and spatial geographies of education and everyday life (Nemer 2002). Therefore, understanding the infrastructure of homeschooling will contribute significantly to discussions about the implications of homeschooling on the restructuring of American education and society.

1.4 Thesis questions

American education is in the process of substantial restructuring, influenced strongly by privatization and marketization. As the ultimate form of privatization, how does the growing homeschool movement interact with the restructuring of traditional schooling? How is the homeschooling infrastructure reshaping the social geography of everyday life the United States? What are the spatial and temporal implications of

---

3The current restructuring of American education is being impacted by numerous events and political maneuverings including but not limited to fiscal crises in no-new-taxes regions, No Child left Behind standardized testing, and Annual Yearly Progress (AYP), new calls for teacher re-accreditation, and by evolving technological platforms for disseminating information. All of these, however, are resulting in a stronger push toward the privatization and marketization of schools.
homeschooling for the institution of schooling? An examination of the infrastructure of homeschooling will describe and explain the spatial and temporal characteristics of homeschooling, revealing the extent of its similarities and dissimilarities to the traditional school infrastructure and thereby contributing to our understanding of how the geography of homeschooling relates to school choice, how it results in educational restructuring, and how it is changing social geographies.

The primary question, therefore, is: what is the infrastructure of homeschooling? In order to address the possibility of infrastructural differences across space and among different motivation-related homeschool groups, the study asks how the homeschooling infrastructure is constructed, in general, and how is it constructed among the three primary motivation-related homeschooling groups. It also asks how the homeschooling infrastructure is different from (or similar to)—as well as where it overlaps with—the traditional infrastructure. In this way, we can understand how homeschooling contributes to a restructuring of American education.

1.5 Chapter summaries

In order to understand the homeschool infrastructure and its implications for American educational restructuring, Chapter Two reviews the literature on the geographies of education with a focus on school choice and homeschooling. I explore the development of homeschooling, its current demographics and some of the debates about the social and educational implications of homeschooling. I argue that an examination of the homeschooling infrastructure will not only reveal the differences and similarities between the traditional school infrastructure and this alternative infrastructure, but will
also show how such similarities and differences reflect the particular character of the privileged status held by homeschooling families.

Chapter Three describes the research design and the methods used for data collection and analysis. Virginia was among the first states to legalize homeschooling, having passed legislation permitting the activity in 1984 (Bunn 2008). Regulation in the state is considered ‘moderate’ compared to other states (Homeschool Legal Defense Association 2008) and individual school districts are responsible for monitoring homeschool activities and determining homeschoolers’ access privileges to the public school infrastructure (Rowland 2005; Virginia Department of Education 2008b).

Motivational geographies—the spatial variations in the stimuli that contribute to changing behaviors—underpin the decision to homeschool. Homeschooling motivations are hypothesized to exist in correlation with particular social contexts. In the case of Virginia, the three motivational geographies for homeschooling may be associated with the demographic characteristics of at least three counties (Bedford, Floyd and Chesterfield). In particular, Bedford County is adjacent to Lynchburg City, home of the late Reverend Jerry Falwell,4 Liberty University and a significant number of conservative Christian organizations—organizations reflective of the definition of ideologues. Meanwhile, Floyd County is known for its artistic, “back-to-the-land” alternative communities, and a counter-cultural tradition that may reflect the pedagogical homeschooling group. Finally, keeping in mind the idea that mainstream homeschool parents are concerned with safety and academic achievement, the county of Chesterfield is located south of the City of Richmond, where schools struggle to survive in the face of crime, poverty, and low

Annual Yearly Progress (AYP).

---

In order to uncover homeschooling infrastructures, participating homeschool parents in each county filled out brief surveys designed to establish a general statistical comparison with the NCES survey and were asked open-ended questions regarding what activities their children participate in and where these activities occur; what curricula (if any) are utilized and where and how curricula are acquired; what schedule (if any) is followed; what groups they associate with; where they go (literally and virtually) for support; and why they choose to homeschool. Interviews were conducted with 23 homeschooling moms over the course of three months during the summer of 2008.

Utilizing a variety of software tools, interviews were transcribed, coded, and analyzed for spatio-temporal patterns which reveal the infrastructure of homeschooling. In order to understand the connectivity between individuals within this study, the social network analysis tool Pajek was used to visualize the relationships between participants, particularly by analyzing their membership in support-organizations and their use of online resources. To compare the spatio-temporal geographies of homeschoolers to traditionally-schooled children, maps were generated which are informed by Torsten Hägerstrand and Mei-Po Kwan’s space-time models.

Chapter Four is a discussion of the study results. I explore the homeschooling infrastructure and the spatial distribution, isolation, and interaction among homeschoolers in the three study areas as well as between homeschoolers and the public school infrastructure. There are distinct infrastructures among the three motivation related homeschooling groups. However, the study results indicate that socio-demographic and homeschooling activities are a more accurately describe the character of homeschooling motivation than the response to survey questions.
Finally, in Chapter Five, I conclude that the infrastructure of homeschooling is constructed around the idea of flexibility and individual choice. However, because of the principle of social homophily, it is expressed differently among the different social and motivational homeschooling groups. Furthermore, the distinct separation between the homeschool infrastructure and the traditional school infrastructure described in Chapter Four is fostered by a public-school regulatory structure which requires homeschooling parents to relinquish a portion of their control over their children’s academic schooling in exchange for the privilege of participating in extracurricular activities. I argue that creating open-door policies by funding school districts for registered homeschoolers will encourage greater homeschool-public school interaction and therefore enable authorities to better monitor the welfare of homeschool children.

I also conclude that the homeschool infrastructure needs to be further explored, with specific emphasis on racial and religious minorities. An examination of the infrastructures of minority homeschoolers would not only contribute to the growing literature on homeschooling, it would also contribute significantly to a more robust understanding of the implications of school choice for racial resegregation in the United States. This study describes the relation among homeschoolers, school choice, and the overall restructuring of education by exploring the infrastructure and ‘the social geographies of everyday life’ for homeschoolers in Virginia.
2. Geographies of school choice, homeschools, and the rise of a movement

There is a rapidly expanding literature on homeschooling, beyond the substantial advocate and popular media coverage that has grown in tandem with the movement itself. Emerging largely from the fields of education, policy, and law, homeschool research centers on the demographics (e.g. Princiotta and Bielick 2006; Isenberg 2007) and motivations of homeschool families (e.g. Collom 2005; Princiotta and Bielick 2006; Basham, Merrifield, and Hepburn 2007; Green and Hoover-Dempsey 2007), academic and social achievements of homeschooled children (e.g. Rudner 1999; Belfield 2004; Haugen 2004; Collom 2005), legislative actions (e.g. Rowland 2005; Yuracko 2008), and political and social implications of the movement (e.g. Lubienski 2000; Apple 2001; Reich 2002; Cooper and Sureau 2007). Geographers, however, have remained largely absent (with the exception of Thiem 2007) from discussions involving this growing educational sector and have instead focused their efforts on geographies of traditional education.

This chapter reviews work on geographies of K-12 education—both as spaces in which children are embedded and as spaces that are embedded in wider social processes, but especially as the geographies relate to school choice. I will draw linkages between geographies of education, school choice and homeschooling. I will then review the historical context and development of the contemporary homeschool movement. This review includes discussions of the motivations for homeschooling, current regulatory statutes, academic achievement statistics, socialization studies, and the demographic makeup of the homeschool population. This chapter concludes with a discussion of how homeschooling geographies can benefit from and add to school choice debates, work on
geographies of education, and the understanding of the restructuring of American education.

2.1 Geographies of traditional education

Contemporary geographies of education generally focus on the nature of educational spaces (the built environment; the interpretation of and social relations within school spaces) and their role in social reproduction (e.g. Holloway, Valentine, and Bingham 2000; Armstrong 2003; Holt 2003, 2007; Thomson 2007), as well as on inquiries into larger patterns of access, opportunity and achievement, student mobility and migration, knowledge-economy formation, and school choice geographies within the sphere of traditional schooling (e.g. Clark 1987; Bradford 1991; Warrington 2005; Waters 2006; Butler and Hamnett 2007; Ledwith 2009). Of particular consequence to this study is the literature on school choice and the restructuring of education—though homeschooling, by removing children from traditional school spaces, implies a dramatically different geography for children themselves, as well as for parents.

2.1.1 Schools as spaces of individual and social reproduction

Research at the intersection of geographies of education and children’s geographies (see e.g. Holloway and Valentine 2003; Holt 2003; Catling 2005; Holt 2007) describes the strongly regulated spaces and routines in traditional schooling both in the United States and the United Kingdom. Students “spend most of their weekday in a very time-disciplined environment… where all their activities from arrival, registration and lessons, through to eating and playing, are governed by the daily rhythm of timetables and bells” (Holloway and Valentine 2003, 108) while school spaces are organized in ways intended to “facilitate adult authority and surveillance, and aid social and behavior-
al control of children” (Collins and Coleman 2008, 284; see also Catling 2005). Such regulated spaces and routines are central to the production and reproduction of individual and social identity in an educational context.

For example, Thomas (2005) argues that racial difference and categorization are performed through spatial practices as demonstrated by teenage girls in an American high school. Their identification with racial difference is reinscribed through the practice of sitting with same-race friends and by identifying others’ racial identities. Meanwhile, Holt (2003, 2007) identifies the movement of ‘disabled’ children from segregated ‘special’ to mainstream schools and classrooms as part of a wider educational ‘inclusion’ agenda in the UK (a movement reflected in the United States as well). ‘Disability’ is identified as a sociospatially constructed identity variously reproduced in the context of school playgrounds. More than simply being a space for identity reproduction, Holloway, Valentine and Bingham (2000) argue that the structure of the educational institution also produces identities in children. Specifically, they argue that the gendered character of school policy, teacher practice, and student culture are ‘exceedingly important’ in the attitudes of male and female students toward computers and in the patterns of computer use which generally favor boys rather than girls.

Studies examining children’s geographies in schools demonstrate the importance of school spaces to the development of individual and thus social identity. Homeschoolers, then, are being moved from these environments of identity production and

---

5 Thomas refers to *performativity* as the process by which activities—activities which are constrained by social and cultural norms and meanings—produce and reproduce social constructs, such as race, differentially across space. In other words, drawing on Butler’s performativity theory (see for e.g. 1993, 1997) and a geographic understanding of the spatiality of social processes, Thomas (2005) believes that “race is enacted through the symbolic, psychic, and social activities of subjects” (1233) and is interpreted, described and enacted differently depending on the spaces within which it is being performed.
reproduction to what alternative kinds of spaces of identity production and reproduction? How are alternative spaces chosen once parents make the decision to homeschool? How much schooling actually occurs in the home versus some other alternative space? How do homeschool spaces reproduce identity?

Fluri (2001) describes the use of homeschooling by white supremacists to isolate and segregate their children from minority ‘others’ in order to intentionally reproduce white-racialist ideologies. While this is perhaps an extreme example of segregational tactics, the nature of homeschooling allows parents far more supervision over their children’s social activities than the traditional school infrastructure—where such supervision is shared with teachers and other school authorities and where students *en masse* work to transgress both teacher and parental supervision—and therefore implies more homogenous social networks for homeschooled children than for traditionally schooled children. However, homeschools, like traditional schools, are embedded in space and therefore also interact with wider sociospatial processes.

### 2.1.2 Schools as embedded spaces

Holloway, Valentine and Bingham’s (2000) work establishes the connection between localized identity production and reproduction in schools and the wider social processes in which it is embedded. On a larger scale, work on educational equity in the United States has established the effects of desegregation policy on the development of white middle-class suburbs and on the increased private school enrollment through the phenomenon commonly known as ‘white flight’ (Clark 1988; Bradford 1990, 1991; Fairlie and Resch 2002; Renzulli and Evans 2005; Ledwith 2009). Most of this work, however, has been uni-directional and ‘inward-looking’: describing the effects of com-
community composition on school quality, not the effects of schools and school quality on local communities or society at large.

Recent exceptions look at how traditional schools are “sites of common experience within neighborhoods, which link different generations and provide a physical site for the maintenance of social contacts” (Collins and Coleman 2008, 291). Witten, et al. (2001; 2003) explored the function of a primary school targeted for closure in New Zealand. They conclude that small schools, at least, often serve as a meeting place for parents, “a place to catch up with community news, socialize with other parents, make arrangements for children to play together and so on” (Witten et al. 2001, 14) and that their closure jeopardizes local community cohesion. Others have found that successful schools may play a central role in fostering a community’s “prosperity and sense of self” (Butler and Robson 2001, 2149). Such localized examinations suggest the importance of schools for overall social cohesion, especially when considered next to the literature on school desegregation and school choice, both of which are implicated in the rise and continued growth of homeschooling.

2.1.3 School desegregation and the geographies of school choice

Following Brown v. Board of Education (1954) and the civil rights movement of the 1960s through 1980s, the purpose of the American educational system shifted somewhat from one of providing equal opportunity (separate but equal) to equal-integrated opportunity, based on the premise that the integration of students by race within schools would contribute significantly to the racial integration of society in general (National Center on Excellence in Education 1983; The Forum for Education and Democracy 2008; Ledwith 2009). However, desegregation has had a complicated and sometimes counter-
productive history and the impact of desegregation law on school and community pat-
terns has been well documented.

In their seminal work, Coleman et al. (1966) established the connection between
enforced desegregation policy and declining white student enrollment in public schools—
a connection supported by a number of later studies and subsequently termed ‘white
flight’ (e.g. Farley, Richards, and Wurdock 1980; Clark 1987; Lankford and Wyckoff
2000; Fairlie and Resch 2002). White students entered private schools (Clark 1987, 1988;
Renzulli and Evans 2005), migrated to less minority-populated areas—typically from
inner cities to their growing suburbs (Ledwith 2009), or began homeschooling (Dobson
2000; Levy 2007). Thus began the movement toward ‘school choice.’

Andre-Bechely (2007) describes the process by which the implementation of
school busing policies for integration led parents to demand more schooling options.
Parents were often loathe to see their children bused substantial distances to schools that
may or may not have offered them the academic and social support many families felt
was necessary. Beginning in the 1970s, Magnet schools were established in order to
offset urban racial segregation and white flight to the suburbs by offering a special
curricular theme or method of instruction that parents could access beyond their regularly
designated catchment zones. Magnet schools offered parents more determination in how
far and to which schools their children would have to go, establishing the framework for
future school choice policy (Blank 1989). However, ‘choice’ entails some knowledge of
the structure and access rules in operation and is constricted by inherited socioeconomic
and sociospatial processes (Butler and Hamnett 2007). Thus, in spite of its initiation as
one method of social and school integration, school choice policy is now being impli-
lected in student sorting and the resegregation of schools (Lankford and Wyckoff 2000; Butler and Robson 2001; Renzulli and Evans 2005; Andre-Bechely 2007; Butler and Hamnett 2007; Ledwith 2009).

Geographers have taken great interest in patterns of access, opportunity, and racial segregation as they relate to school choice and have investigated school choice spatialities by mapping local educational opportunities, tracking student movements, and measuring the effects of open enrollment policies on inherited patterns of educational inequality (e.g. Bradford 1990, 2006; Taylor and Gorard 2001; Warrington 2005; Andre-Bechely 2007; Butler and Hamnett 2007; Gulson and Symes 2007; Thiem 2008; Ledwith 2009). For instance, drawing from racial competition theory and analyzing school quality and composition from three national datasets, Renzulli and Evans (2005) conclude that competitive pressures between minority and white students spur white charter school enrollment. Meanwhile, Gordon and Monastiriotis (2007) show how the children of middle-class British families living in less advantaged areas tend to travel farther to school than their less advantaged neighbors, thereby gaining access to better schools. Similarly, Ledwith (2009) shows that open-enrollment policies in Los Angeles County actually allow “white and wealthier students… to maintain or create social and spatial distance from poor and minority students” (1109).

Reflecting the growing concerns about the impact of school choice policy on the traditional public school infrastructure, the ‘school choice’ movement has led to the proliferation of charter schools, the introduction of school vouchers, and a growing online education market—virtual charter schools. While school choice is typically associated with these alternative school structures, the number of homeschoolers in the United
States is greater than charter and voucher students combined⁶ (Bauman 2002; National Center for Education Statistics 2007) and “taking the average across the 23 states,⁷ the home-school sector is about one-fifth the size of the private sector (but in Arkansas and Montana, it is almost half the size)” (Belfield 2004, 4). While several authors have touched on geographical facets of homeschooling (Isenberg 2007; Levy 2007), Thiem⁸ (2007) is the only scholar who has begun to examine homeschooling through a geographic framework.

In an effort to demonstrate the power of a critical geographical lens for understanding educational phenomena while contributing to the literature on spatial politics, Thiem (2007) argues that homeschool advocates’ active manipulation of space, place and scale substantially contributed to the development of the homeschooling movement. Her argument takes two distinct paths. First, Thiem’s examination reveals the efforts of homeschool advocates to reconstruct the social and political concepts of the home as a legitimate place for schooling. For example, homeschooling combines two distinct modes of social reproduction into one by “relocating education from schools, which are state-sanctioned spaces for instilling academic and social skills” to the home—a space that is the epitome of the private sphere (Thiem 2007, 24). In doing so, homeschoolers challenge established conceptions of public and private space, reluctantly inviting state inspection

---

⁶ Charter schools and vouchers programs, though interacting with the private education sphere, are not generally considered part of the private education sector. Rather, they occupy a somewhat grey ‘hybrid’ space, offering more curricular and pedagogical options than traditional public schools, but also more regulation and funding than traditional private schools.

⁷ Due to the limited availability of data regarding homeschoolers, Belfield (2004) was only able to acquire statistics for 23 states for the study.

⁸ Claudia Hanson Thiem is a PhD student at the Department of Geography, University of Wisconsin-Madison. Informed by critical geographic theory, she studies economic and political geography as well as U.S. education and has published one book section (2007) and one article (2008) on educational restructuring in the United States.
into the home while struggling to maintain the authority of parental rights and autonomy from the state.

Second, Thiem describes the effective networking of dispersed homeschooling spaces for the manipulation of a similarly fragmented landscape of educational policy. In particular, strong local and state homeschooling organizations have played an important role in building the homeschool community by sponsoring events and connecting new homeschoolers to support groups. Similarly, national homeschool organizations have aided in negotiating local and state education policies while simultaneously avoiding federal authority through the mobilization of state and local organizations. For instance, organizations such as the Homeschool Legal Defense Association (HSLDA) have not only helped homeschoolers understand and interpret their state’s homeschool policy, they have also played a central role in the development of new local, state, and national homeschool policies.

Briefly situating homeschooling in the larger movement toward neoliberalization of the American education system, Thiem (2007) recognizes the potential for homeschooleds to effect the “spatial constitution of institutional education” (32). In other words, Thiem sees homeschooling as an important element in the restructuring of the institution of education. Therefore, by describing the infrastructure of homeschooling, the current study seeks also to describe the relationship between homeschooling and the restructuring of ‘institutional education’ in the United States.

This section has demonstrated how contemporary geographies of education are concerned not only with the spaces in which education is conducted, but also with the ways in which those spaces are implicated in the production and reproduction of child-
ren’s identities. Simultaneously, school spaces are embedded within—and being produced and reproduced by—wider social processes. Specifically, this section examined the development of school choice as a result of desegregation and the subsequent movement toward resegregation in which school choice policy can be implicated.

Next, I will discuss the development of homeschooling in the United States as it has changed over the years; from the typical method of social and academic reproduction in Colonial America, its eclipse by the rise of common schools and mandatory attendance in the 1800s, and its resurrection as a rejection of the established school infrastructure.

2.2 The development of homeschooling

Over the last four decades, homeschooling in the United States has evolved from a small fragmented group of grassroots practitioners to a substantial, well-organized institution of political and educational agency. This section reviews the development of homeschooling as practiced before the common school movement of the mid-to-late nineteenth century to the contemporary homeschool movement. I will discuss issues of academic, social, and regulatory concerns explored in the homeschool literature, while establishing the role homeschooling plays in school choice debates. Throughout, I will examine common assertions relating to the movement and its participants, specifically examining conflicting data and perspectives.

2.2.1 Historical context

In spite of significant changes in the form, content, and availability of schooling since the development of common schools in the United States, homeschool advocates typically point to homeschooled as a return to the oldest form of education. One of the leading voices in this movement is that of Dr. Brian D. Ray, a homeschooling parent,
president and founder of the National Home Education Research Institute (NHERI), founding editor of the *Home School Researcher*, and an active homeschool advocate. Ray (2002) claims that “today’s home education movement springs from a rich heritage and tradition” (31), referring primarily to the context in which it was the parents’ “responsibility for teaching their children… Christian doctrine, vocational skills, and how to read, and to a lesser extent, how to write and figure” (2002, 31). In the seventeenth century in northeastern America the family Bible was frequently the main platform for developing reading and writing skills, as well as for delivering social customs and morals (Cremin 1970; Gaither 2008a). Protestant colonies stressed the centrality of the family for education, even as they began to establish community spaces for education.

As early as 1647, colonial authorities passed legislation establishing minimal educational responsibilities of parents and for the establishment of free schools. Gaither (2008a) discusses the use of “dame schools” by colonists and settlers when common schools existed but were not explicitly regulated. Dame schools were typically run out of the home of a woman who taught local children of various ages. The turn of the nineteenth century saw the rise of a variety of educational settings from church, charity and Sunday schools to public, private entrepreneurial and incorporated schools (Cremin 1980). These different schools typically catered to different classes. Sunday schools, for instance, were initially established in order to offer a rudimentary education to children who worked on weekdays and were therefore generally of the lower classes. Early

---

9 In 1647 the Massachusetts legislature passed the “Old Deluder Satan” Act, which sought to establish schools as a means of educating the populace for good Protestant citizenship (Cremin 1970).

10 Milton Gaither is also a homeschooling parent and advocate of homeschooling. Though his blog, articles, and comprehensive book *Homeschooling: An American History* are perhaps the most balanced examinations of the movement available, his bias reveals itself in his refusal to examine the movement’s impact on public education.
common schools were monitorial, grammar, or mission schools, generally available only to boys whose parents could afford to relinquish their time. In contrast, parents who could afford to send their children to private schools or to hire a tutor often did so. Though implicitly acknowledging the socioeconomic restrictions most families faced in accessing individual tutors, Gaither (2008) emphasizes the use of the tutor, specifically, as a recommended alternative to schools, which were considered “unhealthy and immoral” (19) by wealthy landowners and entrepreneurs. However, in spite of an elitist aversion to cross-class schooling, by the mid-nineteenth century the epicenter of education had moved away from the home and family toward publicly sponsored common classrooms (Cremin 1980, 1988).

Though small one-classroom school houses and boarding schools were available to many communities and social classes as early as the mid-eighteenth century, common schooling as a state funded institution with compulsory attendance policies did not emerge until the mid- to late-nineteenth century (Cremin 1988). Advocates of common schooling (now generally referred to as public schooling) saw it as a way of educating the growing immigrant population in ‘American’ ways. Horace Mann, named first Secretary of Education for Massachusetts in 1837 and considered the founder of the common school movement, believed that through common schools individuals would learn to fulfill their civic duties and support the functioning of the newfound democracy (Cremin 1980; Jorgenson 1987; Rowland 2005). It was largely through his efforts that the state of Massachusetts passed the Compulsory Attendance Act of 1852 (Figure 2.1), the first of its kind in the nation (Jorgenson 1987).
Because of his position as propagator of early truancy laws, Mann is frequently vilified by critics of public education for taking schooling away from God and parents and putting it in the hands of the government (e.g. ExodusMandate.org 2008). However, Mann was neither alone in his belief in common schooling nor was he a secular rebel: “The overwhelming majority of reformers and advocates for public education in every state of the Union were Evangelical Protestants, many of them ministers” (Gaither 2008a, 38). It was widely believed that a public education system would serve as the mechanism not only for creating a literate population (as many immigrants were wholly-or at least English-illiterate) but also for conferring the values of a Protestant society (Cremin 1980; Gaither 2008a). Catherine E. Beecher, especially, promoted the Westward expansion of

---

Catherine E. Beecher was the daughter of Reverend Lyman Beecher, an influential and controversial Presbyterian minister (1775-1863), and oldest sister to Harriet Beecher Stowe (1811-1896), the abolitionist and author (Cremin 1980, 145-56). Born in 1800, Catherine Beecher established several girls’ schools (starting with the Hartford Girls Seminary in 1823 in Connecticut), organized efforts to train and send
schools in a campaign to “win the West for Christ,” for which “she considered the common schools to be crucial” (Cremin 1980, 145). “Schools were seen as places that both protected children from the physical and moral threats of urbanizing and industrializing society, and protecting society from the disorder associated with large numbers of working class [particularly immigrant] children on the streets” (Collins and Coleman 2008, 288; see also Valentine 2001).

Figure 2.1 depicts the diffusion of compulsory attendance laws across the United States by the year they were enacted. The enactment of compulsory attendance laws follows a similar pattern to the establishment of state public school systems in general; from the Northeast westward and finally in the South. Northeastern states were strongly influenced by the activities of Mann and others, such as Beecher, who traveled extensively throughout the region promoting the common school agenda. Western territories were encouraged to establish public schools through the township system of land division which allotted one sixteenth of each township “for the maintenance of a public school within said township” (Cremin 1980, 160). Southern states, however, were not enthusiastic about supporting public schools with increased taxation but were forced to provide public schools as part of their readmission into the Union after the Civil War (Cremin 1980). On the heels of state sponsored public school systems, came legislation mandating teachers, especially female teachers, West and published a succession of writings which helped promote and shape the common school (Cremin 1980).  

---

12 Townships are a part of the Public Land Survey System (PLSS) established shortly after the American Revolution and codified in the Land Ordinance of 1785 for the purpose of dividing up Western Territories for sale and settlement. The standard township is six by six miles square and one sixteenth of this was designated for the purpose of creating schools in the township, though the actuation of this varied dramatically from township to township. (Cremin 1980; National Atlas of the United States 2009)
attendance. By 1918, every State except Alaska\textsuperscript{13} had compulsory attendance statutes (Jorgenson 1987; Infoplease.com 2007).

In spite of the general consensus supporting the establishment of tax-funded schools, some groups were uncomfortable with the Protestant ideology underpinning the public school curriculum (Cremin 1980; Gaither 2008a). Catholics in particular struggled to defend their right to school children outside the public school sphere. In 1922 the state of Oregon passed legislation requiring all children to attend public schools (Cremin 1988; Cooper and Sureau 2007). The case was brought before the United States Supreme Court in 1925 (\textit{Pierce v. The Society of Sisters}) and the Court ruled in favor of the Sisters, establishing legal precedent giving parents the right to determine where their children should be educated.

Though debate concerning the responsibilities and rights of public and private schools continued through the early- and mid-nineteen hundreds, the general populace agreed that children should attend some kind of formal school and therefore homeschooling as an educational option was virtually non-existent. The homeschool advocacy narrative asserts, however, that home-based education has been practiced by at least some individuals throughout the era of the (traditional) common school. Gather (2008a), for instance, discusses home-based schooling conducted by populations not included in early common school legislation, such as slaves or later, blacks in general. Ray (2002) calls attention to the 1940 establishment of the Alaskan Centralized Correspondence Study (CCS), a distance education program which allowed students living in the Alaska bush to earn high-school diplomas through the mail, as an historical example of homeschooling.

\textsuperscript{13} Alaska passed compulsory attendance laws in 1929 with provisions for families with children living in remote and difficult to reach areas (Infoplease.com 2007).
However, the current movement is generally considered to have begun in the mid- to late-1960s, concurrent with the counter-cultural, anti-war, anti-government protests of the time.

2.2.2 Development of a movement

Inspired by the counter-cultural movement and public school critics of the mid-1960s, a small number of parents began withdrawing their children from public and private institutions and educating them at home. These parents faced prosecution for child neglect under truancy laws enacted during the rise of common schooling. Some parents shuttered windows and kept children indoors during school hours, even going so far as to rehearse cover stories for inquisitive friends and neighbors in order to hide their homeschooling activities (Thiem 2007). Others simply moved to more rural areas where the combination of isolation and being new in town tended to keep inquiry to a minimum.

Van Galen (1986), in one of the earliest scholarly works on the subject of homeschooling, coined the terms “pedagogues” and “ideologues” to distinguish between what she saw as differences in motivations of two groups of early homeschooling parents. According to Van Galen, the early pioneers of contemporary homeschooling drew on the writings of education reformers such as Ivan Illich (1970) and John Holt (1969, 1974, 1976). These “pedagogues” believed that public schools stifled the creative instincts of the child, producing intolerable conformity and punishing children for their individuality. Pedagogues were primarily motivated by a desire to create child-centered education that supported the learning style, pace and strengths of the individual child.

According to Van Galen (1986) and Knowles, Marlow and Muchmore (1992), by the late-nineteen-seventies a second wave of homeschoolers (ideologues) began to
emerge. Motivated by a criticism of the secular nature of public schools these parents wanted moral and biblical instruction for their children which public schools were legally unable to provide. Ideologues did not aim to change the pedagogy of public education so much as the content of the curriculum, often converting spaces in their homes to resemble the familiar educational infrastructure of public-school class rooms.

However, the historical distinction between religiously motivated and pedagogically motivated groups of homeschoolers has recently been challenged (Stevens 2001; Gaither 2008a): “both groups were clearly driven by ideological commitments, and both certainly employed a wide range of pedagogies” (Gaither 2008a, 143). The overall sentiment of the movement, Gaither argues, was expressed as an anti-government, counter-cultural narrative which was reproduced by conservatives and liberals alike. He argues that “[t]he New Left ‘hippie’ movement was at heart a religious one” (Gaither 2008a, 97). While perhaps not attending church or claiming a primary Christian denomination, many of these ‘back-to-the-landers’ exercised self-styled religious or spiritual practices which were included in their homeschooling activities, though perhaps not as explicitly as their Bible-teaching contemporaries. Gaither (2008a) and Stevens (2001) also call attention to several popular conservative Christian homeschool activists of the mid-1960s, including Paul Lindstrom, once-public school teacher turned Calvinist pastor, homeschool activist, and founder of the Christian Liberty Academy of Satellite Schools (CLASS)—a correspondence school started in 1967—and Raymond and Dorothy Moore, Seventh-Day Adventists and founders of the Moore Foundation—an education research

---

14 Gaither (2008a) contends that the contemporary homeschool movement was pioneered by four individuals—John Holt, Raymond and Dorothy Moore, and Rousas J. Rushdooney—all of whom were openly critical of public education in the late 1950s-early 1960s and became popular early advocates and supporters of the movement itself. The Moores and Rushdooney, specifically, advocated conservative Christian family values and homes-centered education as a return to the hearth of American morals.
institute highly critical of early childhood formal education practices. The Moores and other religiously-oriented families like them were homeschooling as early as the 1940s (Gaither 2008a).

Gaither (2008a) suggests that media attention is the reason left-leaning homeschoolers are credited with the initiation of the modern movement. He argues that the movement toward the creation of an alternative, small-scale society by the ‘New Left’ was more visible in the popular media than the actions of the religiously motivated homeschoolers. Also, because of the grassroots nature of the early homeschool movement, homeschoolers created localized support networks which overlooked normally divisive social characteristics, such as religion, class or ideological/pedagogical motivation.

Drawing on Stevens (2001), Gaither (2008a) argues that a more appropriate categorization of homeschoolers stems from their differential willingness to include or exclude others from their activities. He likens the distinction between homeschooling groups to open or closed communion, whereby an individuals’ particular denomination or church determines issues of religious pluralism, creating a continuum of ideological inclusion and pedagogical practice. While his metaphor is decidedly religious and difficult to assess due to the paucity of data, the suggestion of a continuum of motivations and practices reflects the growing body of contemporary research on the subject.

Numerous studies examining parental motivations for homeschooling have shown that, in spite of dominant demographic characteristics (particularly white and middle-class), the motivations and practices of homeschooling families are diverse but overlapping (Belfield 2002; Collom 2005; Collom and Mitchell 2005; Green and Hoover-
Dempsey 2007). In other words, studies suggest that the spectrum of pedagogical methods (from unschooling to classical to progressive methods) and that of ideological motivations (from the religious to the atheistic) are not consistently correlated. These studies indicate that distinguishing between homeschooling parents on the basis of motivation may be too simplistic to adequately characterize the population. However, the grouping of homeschooling parents into these two motivational categories remains the prevailing starting point for most popular and academic research on the topic (Bielick, Chandler, and Broughman 2001; Bauman 2002; Belfield 2004; Princiotta and Bielick 2006; Basham, Merrifield, and Hepburn 2007).

Regardless of teaching style, or ideological motivations, the homeschooling literature describes a movement largely propagated by conservative Christians through the 1980s and 90s, and asserts that it was the growing secularization of public schools that drove these parents (Van Galen 1986; Knowles, Marlow, and Muchmore 1992). The successful defense of secular evolutionary education in American courtrooms beginning in 1968 (e.g. Epperson v. Arkansa, 1968; Lemon v. Kurtzman, 1971; McLean v. Arkansas Board of Education, 1982) is frequently cited as evidence of this secular push from public schools (Gaither 2008a; Homeschool Legal Defense Association 2008). While it is easy to connect the teaching of evolution in public schools to the increase in homeschooling Christians,\footnote{Though most homeschooling literature, both academic and popular, refers to the increased secularization of schools as a driving force behind the movement of Christian parents toward both homeschooling and other school choice options, I have seen no research to confirm or disaffirm this assertion.} more recent research suggests that the “conservative Protestant celebration of the stay-at-home mom” (Gaither 2008a, 142) as well as the enforced desegregation of public schools (Levy 2007) may also have played important roles.
Levy (2007) and Rowland (2005) have shown that states and local school authorities generally did not adopt regulation regarding homeschoolers until their numbers made them impossible to ignore politically. For example, Rowland’s (2005) assessment of the regulation of homeschooling from district to district in Virginia describes a direct relationship between the number of homeschoolers within those districts and their increasing interactions with local school authorities. Furthermore, Levy (2007) found that the diffusion of homeschooling regulation in the United States (see Figure 2.2) correlates positively with the enforcement of desegregation legislation in state schools. This correlation suggests that a growing number of homeschool families were motivated at least in part by racial concerns. While the white-flight phenomenon from public to private schools and from urban to suburban communities is well documented (Clark 1987; McDowell, Sanchez, and Jones 2000; Fairlie and Resch 2002) and white racialists are known to use homeschooling as an educational alternative (Fluri 2001), this is the first study suggesting that the same factors which contributed to ‘white-flight’ also contributed to the rise in homeschooling.

Changing tax regulations associated with the desegregation of schools may have contributed tangentially to the growth of homeschooling among Christians:

In the 1980s, changes in the tax regulations for Christian schools forced the smaller among them to close down by the hundreds. Suddenly, the parents of the students attending these schools were faced with a choice between government school attendance and homeschooling. For many, this really wasn't a choice at all, and these Christian families became part of a large second wave of homeschooling, joining earlier homeschoolers and boosting the numbers to record highs. (Dobson 2000, 6)

Changes in tax regulations included court-mandated withdrawal of tax-exempt status for private schools that discriminated against minorities (e.g. Bob Jones University v. U.S.
and *Goldsboro Christian Schools, Inc. v. U.S.*, 1983) (Internal Revenue Service 1984; Cremin 1988; Gaither 2008a). Gaither (2008a), one of the few homeschool advocates to examine this issue with any depth, attempts to reverse the causal relationship between the closing of discriminatory private schools and the growth of homeschooling, asserting that it was because homeschooling was becoming so popular within this particular population that so many of these schools closed, not because of the changing tax code. Correlations between desegregation and rising homeschool populations, however, lend weight to the suggestion that race was a factor in the decision to not attend public schools. Unfortunately, with the exception of Gaither (2008a) and Levy (2007), race is almost entirely missing from the literature on homeschooling—unless it is in the advocacy media where it is purported that anyone, regardless of race, creed, or gender, can successfully home-school (e.g. Taylor 1997; Dobson 2000; Ray 2000a; Anonymous 2005; Gathercole 2007).

In 1980 several states, Oklahoma and Alaska for instance, had religious or distance education exemptions written into their compulsory attendance laws, but otherwise homeschoolers were either tolerated, or prosecuted under truancy laws. Only two states, Nevada and Utah, had provisions specifically for homeschoolers (Rowland 2005), while the practice was expressly illegal in 30 states (Bauman 2002). Since then, the increasing acceptance and regulation of the homeschooling has paralleled increases in homeschooling population (Levy 2007). In 1985 there were an estimated 50,000 children homeschooling in the United States (Lines 2000). By 1993 homeschooling was legal in every state, and the population had grown to around 600,000 (Bielick, Chandler, and Broughman 2001; Ray 2002; Princiotta and Bielick 2006). Favorable popular opinion of homeschooling rose along with the growth in homeschooling population; in 1985 only
16% of Americans thought homeschooling was acceptable, in 2001 the figure was 41% (Gallup 2001 cited in; Basham, Merrifield, and Hepburn 2007).

In 2007, homeschool population estimates ranged from 1.5 million (National Center for Education Statistics 2008) to as many as 2.4 million (Ray 2006). Even the more conservative estimate represents 2.8% of the K-12 population, more than voucher or charter school students combined and more than one-fifth of the number of private school students. One indication of the general acceptance of a home-based education might be found in the Federal Application for Federal Student Aid (FAFSA), used by most colleges and universities to determine student eligibility for Federal financial aid. FAFSA included “Homeschooled” as a option for indicating high school completion status for the first time in 2009 (U.S. Department of Education 2009).

That so many parents are choosing to homeschool has facilitated the use of a new term or category of homeschool family: “mainstream” homeschoolers (Basham, Merrifield, and Hepburn 2007; Gaither 2009). The use of the term mainstream to describe this growing group of homeschoolers stems not from an assumption of average “American-ness” as much as the assertion that “for an increasing number of Americans, [homeschooling is] just one option among many” (Gaither 2008a, 223). In other words, these parents are less concerned with protesting the conformity or secularism reproduced in public schools. They are also less likely to be homeschooling as a statement of anti-government protest. Rather, mainstream homeschoolers typically fear for their children’s physical safety in public schools—a fear fed by the rising number of school shootings and school violence reports—and are concerned with the capacity of public schools to procure an appropriate academic experience for their children (Basham, Merrifield, and
Hepburn 2007). These families share a concern over issues of standardized testing, accountability, safety, and scholastic efficacy that have pushed many parents to seek alternatives to traditional public schooling and that have been politicized under the umbrella of ‘school choice’ (Belfield 2002; Renzulli and Evans 2005).

2.2.3 Regulating the home

Homeschool regulation varies dramatically by state, not only in the degree to which it is overseen, but also in the establishment and enforcement of regulatory statutes. While Oklahoma had provisions for homeschoolers written in to its original attendance statutes, it was not until the mid- to late-1900s that most states passed legislation for the purpose of either explicitly regulating (e.g. Pennsylvania) or exempting (e.g. Texas) homeschoolers educational activities. Figure 2.2 depicts the date of the establishment of homeschooling regulation—by legislation or legal precedent—by state. Though the pattern is less distinct than the diffusion of compulsory attendance regulation seen in Figure 2.1, homeschooling regulation roughly correlates counter to the compulsory attendance pattern (states that passed early compulsory attendance laws tended to regulate homeschooling later). In contrast, Levy (2007) demonstrated that the enactment of homeschool regulation correlated strongly with the enforcement of desegregation laws.
While early court battles established the basic right of parents to homeschool their children, most legal action in the last 10 years has centered on the degree to which states can or should oversee homeschooling activities and whether or not homeschoolers should have access to public resources (Croskey 2008; Homeschool Legal Defense Association 2008; Yuracko 2008). However, debate over the effectiveness of homeschooling—its impact on the academic and social success of homeschooling students—is hindered by a dearth of reliable data.

Homeschooling is considered legal across the United States. However, because it is not regulated at the Federal level and each state is responsible for determining how to
define and regulate the practice, legislative policy and legal precedent varies significantly across the nation and, consequently, data on homeschoolers is similarly fragmented.

The Homeschool Legal Defense Association (HSLDA), divides state level regulation of homeschooling into four categories based on notification and testing requirements (Figure 2.3). Regulations vary from completely hands-off (e.g. no notification of any kind is required in states such as Alaska or Texas) to notification, testing and even regular household visitations by authorities (as in Pennsylvania or North Dakota).

Figure 2.3 – Homeschooling is regulated on a state-by-state level from no regulation to somewhat strict requirements of both children and parents. Map and legend courtesy of the Home School Legal Defense Association (2009).
However, even in the seven states with relatively strong regulatory statutes, enforcement of homeschool laws is feeble at best and many homeschool parents fail even to register their activities with authorities, a rebellion that is cultivated by many homeschool advocates (Lines 2000; Bauman 2002; Belfield 2004; Yuracko 2008). In some states, such as California, homeschooling parents register as teachers in a private institution’s distance education program in order to legally run home-schools (Homeschool Legal Defense Association 2008; NPR.org 2008; Yuracko 2008). Thus, defining and tracking homeschool activities, much less assessing homeschool population characteristics, is difficult.

The idea of regulating homeschooling is particularly abhorrent to many homeschoolers and a rhetoric of wariness pervades much of the support media. For example, the *Home Educator’s Family Time* magazine asks: “If you ‘comply’ when you are not required to do so, will it become that much easier for the government officials to make your neighbor or your children ‘comply’ when it is their turn? Will you be setting a precedent for them?” (Stevenson 2004, par. 5). Others ask homeschooling parents not to participate in research (Kaseman and Kaseman 1991) or to avoid accessing public school resources (Cardiff 1998; Kaseman and Kaseman 2000). Such sentiments undoubtedly have a negative impact on the collection of accurate homeschooling data (Bielick, Chandler, and Broughman 2001; Princiotta and Bielick 2006).

The HSLDA, a national advocacy organization which connects homeschoolers with legal counsel, information, and support, has acted as an important facilitator of political force for the movement, in large part determining the minimalistic stance most
states have taken toward homeschooling. Founded in 1983 by Michael Farris,\textsuperscript{16} the HSLDA is the foremost legal organization advocating homeschool rights. A conservative Christian organization, the HSLDA bases its defense of homeschooling primarily on the principle of religious freedom put forth in the 1\textsuperscript{st} Amendment or the right to privacy established in the 4\textsuperscript{th} Amendment. Since 1983 the organization has brought hundreds of lawsuits against state and local authorities (especially social services agents) and successfully blocked numerous state and federal legislative efforts seen as potentially threatening to the parents’ absolute authority over their children’s education (Belfield 2004; Home-school Legal Defense Association 2008; Yuracko 2008).

The HSLDA has continuously managed to prevent homeschooling from being regulated at the federal level. For instance, in 1994 when the U.S. Congress was preparing to re-ratify the Elementary and Secondary Education Act (ESEA) and include a provision requiring states to assure teacher qualification for their subject areas, the HSLDA, perceiving the possibility of a threat to the freedoms of homeschoolers, sent an “urgent alert” message through its fax network and mailed letters of warning to all of its 38,000 members (Stevens 2001, 157-65). Within two days of the initial fax, several phone lines on Capitol Hill were already jammed. By the end of a week, individual members of Congress reported getting hundreds of thousands of phone calls. Not only was the amendment requiring teacher certification removed, a new clause was added specifically exempting homeschoolers from all requirements therein (Associated Press 1994; Stevens

\textsuperscript{16} Michael Farris, has written substantial “popular” media on homeschooling and is a founding member of Patrick Henry College, a Christian college opened in 2000 specifically oriented toward the further education of homeschooled students. Other organizations created at the behest of the HSLDA’s board of directors include the Home School Foundation (http://www.homeschoolfoundation.org), Generation Joshua (www.generationjoshua.org), and the HSLDA-PAC, a political action committee created to pick out and support specific political candidates (Homeschool Legal Defense Association (HSLDA) 2008).
2001; Cooper and Sureau 2007; Thiem 2007). Popular and academic literature generally discusses this event as an example of the HSLDA “flexing its political muscle” or of the power of unifying a disparate population over the issue of homeschooling (Cooper and Sureau 2007; Gaither 2008a; Yuracko 2008).

Even the most recent update of ESEA, now known as the No Child Left Behind Act, explicitly exempts homeschoolers. Yuracko (2008) argues that the Federal Government is not the only authority to back away from regulating homeschooling. “States are not only looking the other way when homeschoolers do not comply with state laws, but are actually changing their laws to grant even greater freedom to homeschoolers” (Yuracko 2008, 130). This reluctance to confront the home-education lobby is not only shaping the nature of the homeschool-public school relationship; it is making the task of ensuring the welfare of homeschooled children a difficult one.

The ambiguity concerning homeschool regulation in most states leaves many children vulnerable to parental neglect or abuse, an issue which has prompted strong criticism of the movement (Lubienski 2000; Reich 2002; Yuracko 2008). Yuracko (2008) makes a case for greater and more uniform regulation of homeschooling, arguing that there is a constitutionally mandated minimum education which cannot be assessed at current regulatory levels. Furthermore, under the federal Equal Protection Clause, states must prohibit extreme forms of sexist homeschooling—demonstrated in a popular conservative Christian homeschool curriculum (where the woman’s subordination to her husband is established) and which Fluri (2001) documents in her discussion of the

---

17 SEC. 9506(b) of the No child Left Behind Act states that “[n]othing in this Act shall be construed to affect a home school, whether or not a home school is treated as a home school or a private school under State law, nor shall any student schooled at home be required to participate in any assessment referenced in this Act” (Estrada 2007, par. 4).
homeschooling activities of white racialists—which assert that a woman’s domain is in the home and that knowledge which would tempt them away from the home is dangerous. “Under existing laws, it is impossible to know how often and to what extent such beliefs lead to significantly inferior substantive educations for homeschooled girls” (Yuracko 2008, 157). While the HSLDA maintains that parents have absolute authority over their children’s education, Yuracko argues that it is ultimately the responsibility of the state to assure that homeschooled children are receiving an education equal to that available in state schools and that without proper regulatory authority to assess homeschool practices there is no way to assure any degree of equality.

Many homeschoolers are utilizing loopholes in distance education and charter school policies to school their children at home while being enrolled in the guise of “independent studies” (see Carothers 2000; Trotter 2001; Colom and Mitchell 2005; NPR.org 2008). There are also an increasing number of online charter schools (185 nationwide, according to Dillon 2008) and other forms of online education that blur the definition of homeschooling. It is unknown how many homeschoolers are enrolled full time as public school students in a distance learning or independent study situation. However, a recent lower court case in California has revealed that there are at least 66,000 “independent study” homeschoolers in the state (NPR.org 2008).

Educational regulation in the United States is primarily the responsibility of individual states. While traditional public schools share similar regulatory statutes across state boundaries, homeschool regulations vary from state to state. Inconsistent cross-state regulation, as well as an anti-regulation attitude cultivated within the movement, contri-
butes to conditions in which assessing the academic and social success of homeschoolers is difficult.

2.2.4 Measuring the academic achievements of homeschoolers

Popular media on homeschooling are frequently concerned with students’ academic achievements and with the ‘amazing’ success homeschoolers have demonstrated (see for example Trotter 2001; Luna 2003; Anonymous 2005; Hammons 2006). Home-school advocates frequently name famous (especially famously intellectual) individuals who were educated at home to support homeschooled children’s academic potential, including Albert Einstein, Thomas Jefferson, Whoopi Goldberg or the Jonas Brothers (see Gaither 2008a; Bridgeway Homeschool Academy 2009). However, assessing the academic achievement of homeschoolers has proven problematic due to an overall paucity of data and the selective bias evident in data that is available (Welner and Welner 1999; Belfield 2002). Belfield (2004) warns that even in the nine states that require some form of testing, such regulations are poorly enforced and “home-schoolers can often choose which tests to take and when to take them (and have parents administer them)… and test results may be returned to parents without being recorded” (10). Compounded with the socio-economic advantage experienced by most homeschoolers, such factors indicate that claims about homeschooling students’ academic achievement should be read with a great deal of skepticism (see also Yuracko 2008; Welner and Welner 1999).

In an effort to systematically understand the academic achievements of homeschoolers based on the most standardized data available, Belfield (2004) analyzed the 2001 SAT test scores of 6,033 homeschooled students, comparing them to publicly and privately-schooled student scores of the same year. Controlling for family background,
and acknowledging the self-selective bias of college-bound students, he found that compared to public school students, homeschoolers who take the SATs generally score somewhat higher (15.4 points) on the Math test and statistically higher on the Verbal test (64 point difference) than public school students, though slightly lower than privately-schooled students on both tests (Table 2.1) (2004, 22). Though the raw averages score on the Math test for homeschoolers was higher than that of public school students, the homeschoolers actually did slightly worse than statistically predicted compared to their social cohort (that is compared to public school students of similar family background).

Table 2.1 - SAT scores for students in 24 states shows that homeschooled students consistently do better than their public and private school counterparts on the Verbal test while scoring between public and private school students on the Math test (Belfield 2004, 22).

<table>
<thead>
<tr>
<th></th>
<th>Homeschool</th>
<th>Public School</th>
<th>Private School</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SAT Total</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Raw test score</td>
<td>1093.1</td>
<td>1012.6</td>
<td>1089.7</td>
</tr>
<tr>
<td>Predicted test score</td>
<td>1054.5</td>
<td>1021.1</td>
<td>1057.5</td>
</tr>
<tr>
<td><strong>SAT Math</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Raw test score</td>
<td>526.6</td>
<td>510.1</td>
<td>545.1</td>
</tr>
<tr>
<td>Predicted test score</td>
<td>527.7</td>
<td>513.4</td>
<td>531.4</td>
</tr>
<tr>
<td><strong>SAT Verbal</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Raw test score</td>
<td>566.6</td>
<td>502.6</td>
<td>544.6</td>
</tr>
<tr>
<td>Predicted test score</td>
<td>526.7</td>
<td>507.8</td>
<td>526.1</td>
</tr>
<tr>
<td>% of SAT test-takers</td>
<td>0.5%</td>
<td>83.1%</td>
<td>16.4%</td>
</tr>
<tr>
<td>% of all students</td>
<td>1.5%</td>
<td>89.4%</td>
<td>9.1%</td>
</tr>
<tr>
<td>Observations</td>
<td>6033</td>
<td>975,117</td>
<td>192,353</td>
</tr>
</tbody>
</table>

Table based on Belfield (2004, 22) with ETS data from 2001 on 24 states. Predicted test scores are based on dependent and independent variables including: mothers education, father’s education, gender, grade level, disability, first language, ethnicity, citizenship, religion, and county-level poverty and household income, for example.

In one of the most frequently cited studies available on homeschoolers’ academic achievements, Rudner (1999) concluded that homeschoolers generally score between the
75th and 85th percentile on standardized tests. Though Rudner’s (1999) study included an impressive 20,760 K-12 students in 11,930 families, serious selectivity biases were insufficiently addressed. Students were administered either the Iowa Tests of Basic Skills (ITBS) or the Tests of Achievement and Proficiency (TAP) from the Bob Jones University (BJU) Press Testing and Evaluation Service. However, Rudner’s sample group was also recruited through BJU, a conservative Christian university which, it has been argued, has an image “of racial intolerance and religious orthodoxy… Accordingly, some of Rudner's conclusions (e.g., that homeschoolers are overwhelmingly white and Christian) should instead be read as limitations on some of his other conclusions (concerning, e.g., median income, marital status, and achievement levels on standardized tests)” (Welner and Welner 1999, par. 2) (see Table 2.2). In other words, Rudner’s results go further in describing the expected results for this particular demographic than in establishing the academic success of homeschoolers in general.

Table 2.2 - Racial/ethnic percents in homeschooling as described by Rudner (1999) and compared to the Home and Family involvement Survey of 1999 (published in Bielick, Chandler, and Broughman 2001).

<table>
<thead>
<tr>
<th>Race</th>
<th>BJU Study Sample (%)</th>
<th>NCES Survey Results (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>White non-hispanic</td>
<td>94.0</td>
<td>75.3</td>
</tr>
<tr>
<td>Black non-hispanic</td>
<td>0.8</td>
<td>9.9</td>
</tr>
<tr>
<td>Hispanic</td>
<td>0.2</td>
<td>9.1</td>
</tr>
<tr>
<td>Other</td>
<td>5.0</td>
<td>5.8</td>
</tr>
</tbody>
</table>

Ray (2002), attempted to reconcile problematic data by conducting a meta-analysis of 15 studies on homeschoolers’ academic achievement in different regions of the United States. He concluded that homeschoolers average academic success on various standardized tests ranged from the 58th to 89th percentile. While it might seem that such
an approach—combining the results of multiple research analyses—should eliminate the overall bias of the data, as Ray claimed it would, in fact the data become even more problematic. Unless the study samples that are being combined are controlled to represent the spectrum of the population, errors are compounded and propagated, further obfuscating the results rather than eliminating the original error (Yuracko 2008). Still, Ray (1997) asserts that "[r]egardless of race, gender, socioeconomic status, parent education level, teacher certification, or the degree of government regulation, the academic achievement scores of home educated students significantly exceed those of public school students” (53).

In spite of the multitude of problems embedded in current data available on homeschoolers’ academic achievement, overall the research does indicate that homeschoolers do at least as well as their public school counterparts, if not better. Homeschooling advocates are firmly convinced of the effectiveness of homeschooling and correlate these academic successes with benefits from smaller class sizes and individualized tutoring (Belfield 2004). Unfortunately, for the time being, assessing homeschoolers’ academic achievement remains difficult and contentious.

2.2.5 Social impacts of homeschooling

As problematic as it has been to measure the academic success of homeschoolers, issues of socialization, social isolation and social exclusion have generated much opinion and few empirical studies.

A large body of popular media has been written by homeschool advocates defending against questions of social adjustment (e.g. Taylor 1997; Ray 2002; Gathercole 2007; Wyatt 2008). Belfield (2004) stated that “homeschoolers report being more mature and
better socialized, participate in activities in their community, and socialize with children of different ages” (13). As one mother in Taylor’s (1997) report on homeschooling stated, while in public school her son “wilted like a flower” but “flourished” once out of school (111). Accounts such as this are common in news reports and advocacy media (Taylor 1997; Ray 2002; Dever, Ross, and Klein 2006; Ray 2006; Gathercole 2007; Wyatt 2008). Critics, however, argue that homeschoolers are not being properly schooled either in normal social behavior or for productive entry into society as adults.

The concern for and image of homeschoolers as being inadequately socialized and unable to function within American society may be rooted in the early years of the movement. In the 1960s through 1980s compulsory attendance laws explicitly forbade homeschooling in most states and parents were faced with criminal charges if their activities were discovered (Gaither 2008a). As mentioned previously, this often led parents to hide homeschooling activities from public view (Thiem 2007). However, with the growing homeschool population and large activity networks, this image no longer holds much substance. For instance, in 2003 it was found that the average homeschooler regularly participated in eight weekly social activities outside the home including extra-curricular activities with public school students and field trips and cooperative programs with other homeschoolers (Basham, Merrifield, and Hepburn 2007).

Haugen (2004) attempted to measure homeschoolers social adjustment as compared to public school students in Oregon. Using the Behavior Assessment System for Children (BASC) she concluded that homeschooled students consistently rated higher on measures of social skills while public school students consistently rated higher on measures of social maladjustment. Other studies have found similar results usually attributed
to the relatively close parental supervision experienced by homeschool students (Ray 2000a; Basham, Merrifield, and Hepburn 2007).

Of greater concern to many critics of homeschooling are the effects of the movement on the economic and social capital of public schools and their continued viability as sites of democratic and economic production and reproduction (The Forum for Education and Democracy 2008). Because homeschooling not only removes children and parents from local schools but also from the traditional school infrastructure entirely, the practice may be implicated in a degradation of social cohesion, both in schools and in the community at large, a concern expressed, though not explored substantially, by several homeschool critics (Lubienski 2000; Apple 2001). Apple (2001) sees homeschooling as the equivalent of gated communities, providing physical and ideological security for a privileged group, while siphoning away funds from already strained school systems. Similarly, Lubienski (2000) charges that homeschoolers remove vital social capital from public schools. Homeschooling implies an increased level of parental involvement, and several studies have confirmed that homeschool parents tend to be more actively involved not only in their child’s education but also in their local community politics and volunteer organizations (Driessen, Smit, and Sleegers 2005; Green and Hoover-Dempsey 2007). As these parents remove their children from public schools, so too do they remove themselves and the valuable time and energy that might otherwise have been directed toward the public school system.

### 2.3 Family demographics

The National Center for Education Statistics (NCES) has included questions for homeschoolers on their Home and Family Involvement Survey since 1999 (Bielick,
Chandler, and Broughman 2001) and released the initial results of the most recent survey conducted in 2007\textsuperscript{18} (National Center for Education Statistics 2008). Table 2.3 compares homeschool student characteristics proportionally to public school students according to the 2003 NCES Home and Family Involvement Survey.

According to the 2003 data analysis, homeschool students are more likely to be white, to live in two-parent households with one parent out of the labor force (usually the mother), to have three or more children in the family, and to have parents whose highest level of educational attainment is at least a bachelor’s degree (Princiotta and Bielick 2006). Counter to popular belief, homeschooling families do generally reflect the average American household income. However, few studies account for the fact that, unlike public school families, homeschooling families are more likely to only have one parent in the work force (54.2% as opposed to 19.7%) meaning that that one parent’s income is sufficient to cover the families living expenses. Homeschooling families are also more likely to have more children (62% of homeschooling families have 3 or more children as opposed to 43% of public school families); therefore their living expenses are ultimately higher overall.

\textsuperscript{18} The most recent NCES publication (National Center for Education Statistics (NCES) 2008) on homeschooling only includes information on the numbers and motivations of homeschoolers in their sample, therefore most of the comparative data for my survey is in relation to the 2003 NCES Home and Family Involvement Survey, for which an homeschooling analysis was published in 2006 (Princiotta and Bielick 2006).
Table 2.3 - Proportional Homeschool and Public School Student Characteristics as assessed by the National Home Education Survey (NHES) Program in 2003. (Princiotta and Bielick 2006, 9-10).

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Homeschool Students</th>
<th>Public School Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td>Grade Equivalent</td>
<td></td>
<td></td>
</tr>
<tr>
<td>K-5</td>
<td>43.3</td>
<td>47.4</td>
</tr>
<tr>
<td>Grades 6-8</td>
<td>27.8</td>
<td>24.7</td>
</tr>
<tr>
<td>Grades 9-12</td>
<td>28.9</td>
<td>27.9</td>
</tr>
<tr>
<td>Race</td>
<td></td>
<td></td>
</tr>
<tr>
<td>White, non-Hispanic</td>
<td>77.0</td>
<td>60.9</td>
</tr>
<tr>
<td>Black, non-Hispanic</td>
<td>9.4</td>
<td>16.3</td>
</tr>
<tr>
<td>Hispanic</td>
<td>5.3</td>
<td>16.9</td>
</tr>
<tr>
<td>Other</td>
<td>8.3</td>
<td>5.9</td>
</tr>
<tr>
<td>Number of Children in Household</td>
<td></td>
<td></td>
</tr>
<tr>
<td>One Child</td>
<td>10.1</td>
<td>15.8</td>
</tr>
<tr>
<td>Two Children</td>
<td>28.0</td>
<td>40.6</td>
</tr>
<tr>
<td>Three or more children</td>
<td>62.0</td>
<td>43.6</td>
</tr>
<tr>
<td>Number of Parents in Household</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Two Parents</td>
<td>80.8</td>
<td>69.5</td>
</tr>
<tr>
<td>One Parent</td>
<td>17.9</td>
<td>27.3</td>
</tr>
<tr>
<td>Nonparental Guardian</td>
<td>1.3</td>
<td>3.2</td>
</tr>
<tr>
<td>Parents' Participation in Labor Force</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Two parents-both in labor force</td>
<td>25.0</td>
<td>49.3</td>
</tr>
<tr>
<td>Two parents-one in labor force</td>
<td>54.2</td>
<td>19.7</td>
</tr>
<tr>
<td>One parent-in labor force</td>
<td>15.9</td>
<td>24.7</td>
</tr>
<tr>
<td>No parent in labor force</td>
<td>4.9</td>
<td>6.3</td>
</tr>
<tr>
<td>Household Income</td>
<td></td>
<td></td>
</tr>
<tr>
<td>$25,000 of less</td>
<td>25.8</td>
<td>26.2</td>
</tr>
<tr>
<td>25,001-50,000</td>
<td>28.4</td>
<td>26.9</td>
</tr>
<tr>
<td>50,001-75,000</td>
<td>24.1</td>
<td>21.5</td>
</tr>
<tr>
<td>75,001 or more</td>
<td>21.7</td>
<td>25.3</td>
</tr>
<tr>
<td>Parent's Highest Educational Attainment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>High school diploma or less</td>
<td>24.5</td>
<td>34.2</td>
</tr>
<tr>
<td>Voc/tech degree or some college</td>
<td>30.8</td>
<td>32.6</td>
</tr>
<tr>
<td>Bachelor's degree</td>
<td>25.0</td>
<td>17.8</td>
</tr>
<tr>
<td>Graduate/professional school</td>
<td>19.6</td>
<td>15.4</td>
</tr>
</tbody>
</table>

There is some debate as to whether the current homeschooling population continues to be disproportionately Christian. Belfield claims: “whereas around half of all public students and two-thirds of religious school students profess a religious faith, the figure for home-schoolers is just above two-fifths” (2004, 5). This contrasts sharply with
Rudner’s (1999) survey which found that 94% of homeschool parents claimed a religious faith.

The number of conservative Christian homeschoolers may be to some extent geographically regulated. Isenberg (2007) found that as more homeschoolers of a particular religious denomination moved within proximity of each other, rates of homeschooling actually began to decline. The author attributed this to the cooperative creation of small private religious schools. However, this movement from individual homeschooling to group “homeschooling” is not limited to conservative Christian groups, adding to the difficulty in describing the population.

2.4 Chapter summary

Geographies of education explore the ways in which educational spaces shape individual and social identity as well as the ways in which educational infrastructures are embedded in wider social contexts. This chapter has discussed these educational geographies, especially as they relate to school choice, educational restructuring and homeschooling. It situated homeschooling in the historical context of American education by describing the development of the common school movement—especially with the advent of compulsory attendance laws in the mid- to late nineteenth century—and the rise of the contemporary homeschooling movement, beginning in the 1970s. Finally, this chapter outlined the current demographics of the homeschool population as well as the regulatory, academic, and social research that figures so prominently in the homeschool literature.

Other than Thiem (2007) there is a substantial gap in the educational geography literature where homeschooling is concerned. Yet, homeschoolers consist of a population
which is defined by its relocation of students *out* of the traditional school sphere, a distinctly spatial quality. Therefore, geographic theories and methods are especially well-suited for research on this relatively understudied population. Informed by work on the geographies of education and the historical-contextual framework of homeschooling, this study will describe and explore the homeschool infrastructure. To this end, the following chapter describes the study design and methods used, as well as the resulting spatio-temporal and socio-temporal structures which describe the infrastructure of homeschooling in Virginia.
3. Study methods and results

In this chapter I explain the reasons for my research methods, describe the research design, and discuss the results. I employ qualitative methods for my data collection and analysis, applying analytical and visualization software applications to understand the results. In order to explore the socio-geographic terrain of homeschooling in Virginia, I first mined for student population data via the Virginia Department of Education website and solicited information from homeschooling parents in the three school districts chosen for the study. The interview data were coded and analyzed, and visualizations of the spatio-temporal and socio-spatial components of the homeschool infrastructure were generated.

3.1 Data-collection methods

I began by selecting my research state, choosing Virginia for several reasons. Not only did I grow up in Virginia and have the advantage of contacts in several regions of the state, Virginia has also seen a dramatic increase in the number of registered homeschoolers in the last several years from 22,701 in the 2002-03 school-year to 27,361 in 2007-08 (Virginia Department of Education 2008c). Virginia is considered a moderately regulated state (see Figure 2.3)—homeschoolers must register under one of three compulsory attendance exemptions: a general homeschooling statute, a religious exemption, or a personal tutor exemption (see Table 3.1). Requirements range from simply sending an annual letter of intent to the local school board chairperson (religious exemption), to submitting proof of teaching abilities (as a portfolio or lesson plan), high school diploma, or teaching certification, and submitting annual standardized test scores to the local superintendent (homeschool and tutor exemp-
tions) (Homeschool Legal Defense Association 2008; Virginia Department of Education 2008d). The differences between religious exemptions and homeschool or tutor exemptions are typical of moderately regulated states (Homeschool Legal Defense Association 2009).

While state requirements for homeschoolers are relatively minimal, individual school districts are responsible for collecting homeschool registrations and—if they are registering under the parent or tutor exemptions—for confirming the homeschool’s qualifications. Individual school districts are also free to determine homeschoolers’ level of access to public school resources. As of 2004, fifty-two percent allowed access to classes and extracurricular activities, 34% denied all access, 5% allowed access to classes but not extracurricular activities, and 9% had no policy regarding homeschoolers (Rowland 2005). Several Virginia counties encourage homeschoolers to enroll in distance (online) education classes through their local public schools to qualify for graduation certification (Desrets 2008).

A district’s decision to allow homeschoolers to participate in public school classes affects homeschoolers’ right to compete in interscholastic sports in Virginia. The Virginia High School League (VHSL), the organization which regulates interscholastic events among public schools in Virginia, requires students to be in school at least three days a week (usually interpreted as two classes) before they can participate in competitive activities (Virginia High School League 2008).

In order to select school districts for the study, I retrieved data from the Virginia Department of Education (2008c) on public and home-school registration by school district for the school year 2007-2008 (the most recent available data). I used ArcMap 9.2

<table>
<thead>
<tr>
<th>Legal Option:</th>
<th>Option 1: Operate a home school</th>
<th>Option 2: Religious exemption</th>
<th>Option 3: Use a private tutor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attendance:</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>Subjects:</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>Qualifications:</td>
<td>Either: 1) possess a high school diploma, or 2) be a certified teacher, or 3) use an approved correspondence course, or 4) submit evidence parent can teach or 5) submit a curriculum that includes state objectives for language arts and math</td>
<td>None</td>
<td>Teacher certification</td>
</tr>
<tr>
<td>Notice:</td>
<td>File an annual notice of intent with local Superintendent by August 15; if starting or moving into the state after school year has begun, file notice as soon as practicable and comply with applicable requirements within 30 days of such notice</td>
<td>File request to acknowledge religious exemption with the local school board chairman</td>
<td>Send letter to local superintendent asking him to recognize that parent (tutor) has the qualifications prescribed by the state Board of Education (i.e. teacher certificate)</td>
</tr>
<tr>
<td>Recordkeeping:</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>Testing:</td>
<td>Administer a standardized test or have child otherwise evaluated every year (for those six years or older on September 30 of the school year); submit results to local superintendent by August 1</td>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>
to narrow down possible study districts to those with either a high absolute number or high percentage of homeschoolers (Figure 3.1 and 3.2).

Figure 3.1 - Total number of registered homeschoolers in Virginia, by school district. Map created by author, data courtesy of the Virginia Department of Education (2008b).

**VA School Districts 2007**

Total Homeschoolers

- 0 - 123
- 124 - 303
- 304 - 590
- 591 - 1133
- 1134 - 1871

Figure 3.2 – Percent of homeschoolers in Virginia school districts in relation to public school children. Map created by author, data courtesy of the Virginia Department of Education (2008a, 2008b)

**VA School Districts 2007**

Percent Homeschoolers

- 0.4% - 1.4%
- 1.5% - 2.5%
- 2.6% - 4%
- 4.1% - 6%
- 6.1% - 8.9%
In order to inquire into possible differences in infrastructural composition and use by homeschooling families of differing motivations, I targeted three school districts. Bedford, Chesterfield, and Floyd (Figure 3.3) were chosen because of the prominent social characteristics associated with the three homeschooling motivational groups—religious conservatism, counter-cultural alternatives, and “mainstream”—established by the literature (e.g. Van Galen 1986; Collom and Mitchell 2005; Basham, Merrifield, and Hepburn 2007). Table 3.2 provides a comparison of general population characteristics, including homeschoolers, among the three counties, Virginia, and the United States as a whole.

Figure 3.3- The three study areas are chosen to represent the three “motivational geographies” based on local human geographies. Map created by author with ArcMap 9.0 with data from the VA Department of Education (2008b).
Table 3.2 - Demographic comparison between the 3 study areas, Virginia and the United States as a whole. Data source: American Factfinder (U.S. Census Bureau 2008a).

<table>
<thead>
<tr>
<th></th>
<th>Bedford</th>
<th>Chesterfield</th>
<th>Floyd</th>
<th>Virginia</th>
<th>United States</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total population, 2006 estimate</td>
<td>66,507</td>
<td>296,718</td>
<td>14,789</td>
<td>7,642,884</td>
<td>299,398,484</td>
</tr>
<tr>
<td>Total full-time public school students, 2007-2008 school year</td>
<td>11,032</td>
<td>58,969</td>
<td>2,059</td>
<td>1,231,987</td>
<td>53,770,104</td>
</tr>
<tr>
<td>Total registered homeschoolers, 2007-2008 school year</td>
<td>684</td>
<td>1,861</td>
<td>151</td>
<td>27,316</td>
<td>1.5 mil</td>
</tr>
<tr>
<td>(as percent of students within unit)</td>
<td>(6.2%)</td>
<td>(3.16%)</td>
<td>(7.33%)</td>
<td>(1.7%)</td>
<td>(2.8%)</td>
</tr>
<tr>
<td>White persons (non-Hispanic), 2006</td>
<td>91.9%</td>
<td>74.2%</td>
<td>97.3%</td>
<td>73.3%</td>
<td>80.1%</td>
</tr>
<tr>
<td>Median household income, 2004</td>
<td>$48,518</td>
<td>$63,931</td>
<td>$36,400</td>
<td>$51,103</td>
<td>$48,451</td>
</tr>
</tbody>
</table>
3.1.1 Bedford County

Bedford County is part of the Lynchburg Metropolitan area, and is southwest of Lynchburg City, home of the late Jerry Falwell. As arguably one of the most influential conservative Christian commentators of the last century, Falwell was founder and pastor of the Thomas Road Baptist Church (a megachurch located in Lynchburg), a popular televangelist, and founder of Liberty University—“Training Champions for Christ”—and the Moral Majority, an influential evangelical Christian lobby group (Falwell.com 2008). This strongly religious character makes Bedford a good target for reaching a sample of the ideological homeschooling population.

Bedford County\textsuperscript{19} has a population of around 66,500 people, 91.9\% of whom are white, with a median income of $48,518 (U.S. Census Bureau 2008b). Bordered by the Blue Ridge Mountains to the west, the James River to the northeast and Smith Mt. Lake to the south, Bedford had an agrarian based economy until the late nineteenth century when the railroad brought industry to the area. Today, Bedford’s economy relies heavily on pharmaceuticals, textiles, and paper production (Bedford Chamber of Commerce 2008).

For the 2007-2008 school year, the Bedford County School System enrolled 11,032 pupils and registered 684 homeschoolers representing 6.2\% of the student population\textsuperscript{20} (Virginia Department of Education 2008c, 2008e). This relatively high proportion of homeschoolers, along with the strong Christian tradition within the area, makes Bedford a good candidate for accessing distinct homeschool geographies.

\textsuperscript{19} In Virginia school districts follow county and city boundaries.

\textsuperscript{20} I was unable to obtain data on all school age children (including public, private, homeschooled and truant children) by district in Virginia. Therefore, my calculations of percent of homeschoolers per district are in direct relation to the total number of public school students, regardless of private school attendance. This is the same method of calculation used by most researchers, so comparisons between data sets are not compromised unless otherwise indicated.
3.1.2 Chesterfield County

Adjacent to the southern border of Richmond City, Chesterfield has a population of almost 300,000 and is undergoing a suburban gentrification which emphasizes the aesthetic of a rural colonial Virginian countryside (Chesterfield County Planning Department 1997). While Chesterfield is more racially diverse than Bedford or Floyd (74.2% white), there are significant racial patterns within the county—mostly associated with proximity to urban areas.

Initial indications were that Chesterfield homeschoolers might represent a more mainstream participant sample due to concern over school environments—the Richmond Metropolitan Statistical Area, for example, of which Chesterfield is a part, has the State’s second highest school crime rate (Virginia Department of Education 2008a). However, average annual household income is significantly higher in Chesterfield than in Bedford or Floyd at $64,000 and the region’s school systems have made AYP since the implementation of No Child Left Behind (NCLB) (Virginia Department of Education 2008c). Overall, however, Chesterfield reflects the median statistical demographics in Virginia and is therefore considered suitable for possible representation of the mainstream group of homeschoolers.

3.1.3 Floyd County

Floyd County has remained isolated from commercial and industrial development through the years. Located on the edge of the Blue Ridge Mountains overlooking the Piedmont Valley to the east, Floyd has no major highways running through it and no major industry. Throughout the nineteenth–twentieth centuries, Floyd has been an
agricultural community focused primarily on cattle and tree farming/lumbering—the county seal includes the motto “To Grow is to Prosper” (Floyd County 2009).

In the 1970’s, however, “Floyd County was ‘discovered’ by back-to-the-landers seeking rural refuge. Many of the new residents were artists or artisans” (Floyd County 2009, *A brief history*, p. 6). Today, this legacy of Appalachian agricultural tradition, alternative artisan creativity, and the geography of the Blue Ridge Mountains has been harnessed to encourage a growing tourism industry (Floyd County Chamber of Commerce 2008). The town of Floyd—county seat as well as the business hub (population 432)—has been undergoing renovations centered around the region’s artistic community and, specifically, the Friday Night Jamboree, a popular Bluegrass and Appalachian Folk music event.

The population of Floyd County is approximately 15,000 (U.S. Census Bureau 2008b). This rural county has the highest percentage white population in the study (95.3%) and the lowest median income ($36,400). In the 2007-2008 school year, Floyd County Public Schools enrolled 2,059 students and registered 151 homeschoolers, representing 7.33% of the student population (Virginia Department of Education 2008c, 2008e).

3.2 **In-person interviews**

Once the three target areas were selected I solicited volunteers for an in-person survey and interview session through publicly posted homeschool organization websites and through the moderators of homeschool Yahoo!Groups, each created to serve parents in at least one of the localities under study. Over the course of about one month I received 23 response emails volunteering to participate in an interview. Three interviews did not
take place because of scheduling conflicts, leaving me with 20 interviews: 8 in Chesterfield, 8 in Bedford, and 4 in Floyd. I then contacted potential participants in Floyd by telephone. These people were recommended by local acquaintances and previous study participants. Three more interviews were established, resulting in a total of 23 interviews. All interviews took place between 1 June and 30 August 2008.

Confidentiality is important for protecting the interests of research participants (Seidman 1991) and in general respondents who are involved in sensitive issues are less likely to participate when a researcher cannot assure confidentiality (Kimmel 1988). For various reasons, homeschooling families have generally attempted to avoid scrutiny by researchers or government officials. Therefore, an assurance of confidentiality and a good rapport is essential in recruiting participants for this particular research.

Interviews were conducted at the participant’s home or, in two cases, in a local coffee shop, depending on participant preference. Each interview began with a brief explanation of the focus of my thesis, an explanation of participant confidentiality, and a brief survey. The survey was designed to mimic portions of the 2003 Parent and Family Involvement Survey of the National Household Education Surveys Program (NHES) as reported by the National Center for Education Statistics (Princiotta and Bielick 2006) in order to situate my sample within the established homeschooling demographic (Appendix A).

---

21 Homeschooling families are traditionally reluctant to speak with researchers for fear of exposure soliciting government intervention in their activities (Bates 1991; Princiotta and Bielick 2006). The general wariness homeschool families often feel toward participating in research activities is stated succinctly by Kaseman and Kaseman (1991): “[research] leads to increased control and regulation of homeschools, it forces homeschools to become more like conventional schools, and it weakens the grassroots homeschooling networks and organizations that are the foundation of the homeschooling movement” (par. 4).
After each survey was completed I conducted a semi-structured, in-depth interview, which centered on the spaces, activities, and resources used by each participant and generally lasted from 1-2 hours (Appendix B). Interviews were recorded, with signed consent, using a digital voice recorder. Though participants were given the option to refuse, all participants agreed to the voice recording and though a few expressed concern that the instrument would be unable to pick up their voices, none exhibited distress at its presence.

Overall, 23 interviews generated approximately 35 hours of voice recorded data. Interviews were transcribed with the voice recognition software Dragon NaturallySpeaking (Nuance 2005) resulting in 216 pages of interview data. Following transcription, each interview was loaded as an individually participant-associated document into Atlas.ti (2008), a qualitative research and data analysis software application.

In order to gauge the fit of my sample group as compared to the larger homeschool community, I gathered data on participant demographics, as well as motivations, and compiled summaries of the characteristics both by county and overall. In assessing the group’s characteristics, I sought general patterns and outliers, which allow me to understand both the depth and the breadth of the sample population.

### 3.2.1 Results: Study participants’ socio-demographic characteristics

The final number of participants was 23 (eight in Bedford, eight in Chesterfield, seven in Floyd); all mothers in two-parent households with a total of 60 children currently being homeschooled (six homeschooled young adults were no longer in the household). The average number of children in each participating family was 2.6, with significantly larger families in the Bedford area (3.4 kids) than in Chesterfield (2.1) or
Floyd (2.3) (see Table 3.3 and 3.4). The range was from 1 to 6 children. However, participant families were on average slightly smaller (13 families of one or two children and ten families of three or more children) than the findings of the NCES survey (62% families with three or more children) (Princiotta and Bielick 2006, 11).

<table>
<thead>
<tr>
<th>Table 3.3 – Student demographic comparison between study areas.</th>
</tr>
</thead>
<tbody>
<tr>
<td>All</td>
</tr>
<tr>
<td>Average Number of Children in Family</td>
</tr>
<tr>
<td>Average Age</td>
</tr>
<tr>
<td>Average Years Home Schooling</td>
</tr>
</tbody>
</table>

The average age of the homeschooling children was 9.1 years (indicating overall correspondence with public school children) with children in Floyd averaging slightly older (10.5 years) and in Chesterfield slightly younger (7.4 years) than the overall sample average. Age range was from 2.5 to 18 years old. That several parents indicated that their youngest children were homeschoolers is reflective of the general promotion of lifelong learning assumed by all the study participants. The number of years families had been homeschooling varied similarly by county with an average of 6.7 overall, 7.5 in Bedford, 4.9 in Chesterfield and 8 in Floyd.

All participants were the mother of the family, several had in-home work and one had a part-time business out of the house. Two of the fathers also worked at home and chimed in on our conversations. The mother was the primary educator according to 91% of participants, with 100% in both Chesterfield and Bedford Counties. In Bedford one parent listed a tutor as a secondary educator, while in Floyd one family claimed both
parents as primary educators, and one family, Unschoolers, claimed the children themselves as the primary educators.

Table 3.4 - Demographic comparison of NCES 2003 data (Princiotta and Bielick 2006) to the study population.

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>2003 NCES Survey</th>
<th>Study Results</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>All students</td>
<td>Homeschooled</td>
</tr>
<tr>
<td>Race/Ethnicity*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>White/non-Hispanic</td>
<td>62.3</td>
<td>77.0</td>
</tr>
<tr>
<td>Non-white</td>
<td>37.7</td>
<td>23.0</td>
</tr>
<tr>
<td>Number of children in the household</td>
<td></td>
<td></td>
</tr>
<tr>
<td>One child</td>
<td>15.8</td>
<td>10.1</td>
</tr>
<tr>
<td>Two children</td>
<td>40.5</td>
<td>28.0</td>
</tr>
<tr>
<td>Three or more children</td>
<td>43.7</td>
<td>62.0</td>
</tr>
<tr>
<td>Household Income**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>$25,000 or less</td>
<td>24.4</td>
<td>25.8</td>
</tr>
<tr>
<td>25,001-50,000</td>
<td>26.1</td>
<td>28.4</td>
</tr>
<tr>
<td>50,000-75,000</td>
<td>21.6</td>
<td>24.1</td>
</tr>
<tr>
<td>75,000 or more</td>
<td>27.1</td>
<td>21.7</td>
</tr>
</tbody>
</table>

*One family consisted of white parents with 2 adopted minority (non-white) children.
**One parent declined to answer.

### 3.2.1.1 Race

While all of the study participants were white, one family consisted of white parents with two children adopted minority children. The large racial discrepancy between the homeschooling population and the public school population as well as the suggestion by homeschool critics—as evidenced by white racialists—that homeschooling is a racially segregated activity, prompted me to use available data to do an initial analysis of the distribution of homeschoolers in Virginia in relation to the distribution of white or non-white students. Figure 3.4 demonstrates the small positive correlation ($R^2 = 0.0707$).
between the number of homeschoolers and the number of white student populations as percents of the total student population by county in Virginia.

Figure 3.4 - A correlation exists between the percentage of white students by county and percent of registered homeschoolers. Data from (Virginia Department of Education (VDOE) 2008a).

This positive correlation confirms that whites are more likely to homeschool than minorities, reinforcing the idea that some homeschooling at least, is racially motivated. At the same time, however, it does not show a correlation between increases in minority population and increases in homeschooling, which might have indicated localized ‘white flight.’ Therefore, these results suggest that the racial discrepancies in homeschooling have more to do with the social contexts which facilitate the choice to homeschool (e.g. socio-economic status, established local homeschool support networks), than purely racial motives. For example, given the available data, there is currently no way to tell if rates of minority homeschooling coincide with overall rates of homeschooling or with minority populated areas.
3.2.1.2 Household income

Participants had a higher average income than the national average of homeschool families. No participants interviewed made less than $25,000 a year (25.8% in NCES survey) (Princiotta and Bielick 2006, 10). Three participant families made $25,001-$50,000 a year (28.4% in NCES), nine families made $50,001-$75,000 a year (21.4% in NCES), and 10 families made $75,001 or more a year (21.7% NCES), while one participant refused to answer. Household income was differentiated between study areas: all families interviewed in Chesterfield had an income over $75,000 a year, while none of the families interviewed in Floyd made more than $75,000 a year (see Figure 3.5). The average household income of participant families was slightly above that of their local school district.

Figure 3.5 - Comparison of household income among study areas.
3.2.2 Motivations for homeschooling

Because of the need to categorize homeschoolers by their motivations, study participants were asked about their reasons for homeschooling. Overall responses reflect the general trend established by the NCES surveys, with a few differences, especially between study areas (Table 3.5).

The academic and physical environment of schools, as well as religious/moral and pedagogical reasons were all important to participants, with “Other” reasons obtaining a substantially higher percentage (21.7%) than in the NCES survey (14%). ‘Other’ included such things as flexibility, family time, child's emotional well-being, diet and parents' personal satisfaction in educational involvement. Surprisingly, the percent of participants who claimed religious/moral reasons as being predominant in their choice to homeschool (26.1%) was substantially less than the NCES results (36%). However, considering that the percent of pedagogically oriented participants is substantially more (study-17.4%, NCES-7%), this variation may be attributed, at least in part, to the intentional sampling methods used to solicit interviews from each of the motivational homeschooling groups (rather than random sampling), as well as the small sample size. Not only does the general trend of the participants reflect that of the NCES data (2008), it also reflects a correspondence between the three predicated social characteristics and homeschooling motivation.

Thiem (2007) asserts that “based on their motives for homeschooling, parents join specialized support groups, subscribe to different publications, attend separate conferences, and often spar over the legitimate representation of their interests” (23). In order to test this assertion and explore the connections between homeschoolers’ family charac-
teristics and the infrastructure of homeschooling, I applied a geographic perspective to the data.

The following sections describe methods used in the generation of visual representations of the homeschool infrastructure. Informed by the socio-demographic analysis of the study population, I generated space-time maps and sociograms—diagrams illustrating social networks—to assist in visualizing the spatio-temporal and socio-spatial elements of the infrastructure of homeschooling in Virginia.
Table 3.5 - Participants reasons for homeschooling.

<table>
<thead>
<tr>
<th>Motivation</th>
<th>2007 Participants reasons for homeschooling as percent of school districts and total</th>
<th>2007 Participants primary reasons for homeschooling as percent of school districts and total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Bedford</td>
<td>Chesterfield</td>
</tr>
<tr>
<td>Motivation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Environment/Physical</td>
<td>100.0</td>
<td>87.5</td>
</tr>
<tr>
<td>Environment/Academic</td>
<td>100.0</td>
<td>87.5</td>
</tr>
<tr>
<td>Religious/Moral</td>
<td>71.4</td>
<td>50.0</td>
</tr>
<tr>
<td>Nontraditional Pedagogy</td>
<td>71.4</td>
<td>62.5</td>
</tr>
<tr>
<td>Physical/Mental Health</td>
<td>0.0</td>
<td>12.5</td>
</tr>
<tr>
<td>Special Needs</td>
<td>42.9</td>
<td>75.0</td>
</tr>
<tr>
<td>Other**</td>
<td>71.4</td>
<td>75.0</td>
</tr>
</tbody>
</table>

*Totals may equal more than 100% because participants were asked to indicate as many reasons as applied.

**Other reasons included flexibility of schedule (26%), quality family time (17%), and emotional safety, creativity and the desire to NOT have another person raising their child, each 4%.
3.3 Space-time maps

One way to visualize the spatio-temporal geographies of individuals is through the use of Hägerstrand or space-time maps. Conceptualized by Torsten Hägerstrand in the late 1960s (Hägerstrand 1967; Ellegard, Hägerstrand, and Lenntorp 1977), space-time maps illustrate the path of an individual through the spatio-temporal environment. Using a two-dimensional planar representation of an individual’s spatial environment, as well as a third, vertical axis representing the passage of time, the individual’s path can be captured as a cubic ‘prism’ or ‘aquarium’ in space-time (Kwan 2003; Corbett 2009). Explorations in the social sciences have used space-time maps to demonstrate differential accessibility restrictions in terms of transportation systems (Miller 1991) and gender (Kwan 1998). Figure 3.6 shows a space-time map developed by Kwan (2003). The image visualizes the movement of a woman outside her home in Columbus, Ohio, and is color coded to represent her feelings about the environment she is travelling through. By simplifying or standardizing such paths, useful comparisons can be made between the movements of different individuals. Figure 3.7 illustrates the space-time paths of a number of women in the Columbus, Ohio area. The figure shows that the women in the study sample have somewhat fragmented space-time path; i.e. they travel through a variety of dissimilar spaces in the span of a day.
Figure 3.6 – A space-time path is represented by a continuous trajectory along a vertical (temporal) axis and horizontal (spatial) plane. In this image, a woman’s feelings about the urban environment are mapped as she travels outside her home. Her path is color coded—blue is neutral (at home), green is positive and red is negative feelings. Image courtesy of Kwan (2003).

Figure 3.7 - Standardizing individuals’ space-time paths allows for easier comparison between movements. Image courtesy of Kwan (2003).
3.3.1 Homeschoolers’ space-time maps

During the interviews, participants discussed their movements across space-time as represented by their weekly activity schedules. Using Excel spreadsheets, I created tables of weekly schedules for 22 of the study participants (e.g. Figure 3.8). For the 23rd family, the unschoolers, unlike the rest of the participants, schedules were generally a matter of day-by-day planning (or a lack thereof) and were individualized among the students in such a way that the parents were not necessarily aware of their children’s plans or specific whereabouts. For this reason, diagramming a regular schedule of their activities was impractical. However, using the schedules of the remaining 22 study participants, I was able to generate space-time maps representing the typical movement of the study population.
Figure 3.8 – Example weekly schedule of a homeschooling family with nine regular out-of-the-home activities.

<table>
<thead>
<tr>
<th>Time</th>
<th>Monday</th>
<th>Tuesday</th>
<th>Wednesday</th>
<th>Thursday</th>
<th>Friday</th>
<th>Saturday</th>
<th>Sunday</th>
</tr>
</thead>
<tbody>
<tr>
<td>6am</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7:00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8:00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9:00</td>
<td>Morning routine (wake, breakfast, etc)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10:00</td>
<td>Schooling</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11:00</td>
<td>Co-op</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12pm</td>
<td></td>
<td>Co-op</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1:00</td>
<td>Lego League</td>
<td>Dance</td>
<td>Music</td>
<td></td>
<td>Field Trips, 'Support Family Time,' 'Fun' Day</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2:00</td>
<td>Gymnastics</td>
<td>Dance</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3:00</td>
<td></td>
<td></td>
<td>Park Day</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4:00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5:00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6:00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7:00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8:00pm</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- **Home activities**
- **Non-home activities**
- **Variable home/non-home activities**
Using *Adobe Illustrator* 9.0, I developed a standardized space-time prism with a simplified horizontal plane depicting the typical set of spaces through which homeschoolers and public-schoolers move on a weekly basis (Figure 3.9). The horizontal plane includes the student’s home, a friend’s home, a public school, a co-op, a community center (e.g. YMCA, park, or playground), and a private training center (e.g. music studio, dance studio, etc.).

I created a Monday through Friday timeline for three reasons. First, study participants’ schedules generally revolved around weekly, rather than daily activities. Second, I wanted to explore how homeschooler’s paths differed from public-school students’ paths on a regular basis. Finally, the standard weekend, Saturday and Sunday, was generally considered an open-schedule for study participants. As with public school students, weekends were not generally considered ‘school time’ and included field trips, theater practice, church activities and family time.

Aligning a vertical timeline to each ‘space’ (Figure 3.10) I mapped the typical times (duration and absolute time) each student spent in that space (Figure 3.11), and then traced the movement from one space to another (Figure 3.12). For the public-schooler’s space-time path, I assumed regular attendance at a public school, with some afternoon activities in the ‘community center’ space, representing the student’s participation in a sport activity. I generated space-time maps that demonstrate the fundamental differences among homeschoolers’ and public-schoolers’ spatio-temporal geographies (Figure 3.13). Finally, by color-coding the study participants by location, and using *Adobe Illustrator*’s layering function to hide individual paths, I was able to view the space-time paths of

---

22 Though both a homeschooler’s and a public school student’s week may include visiting multiple ‘friend’s homes,’ recreational facilities, and community centers, I reduced each of these to one for the sake of image clarity.
selected individuals and groups, comparing their spatio-temporal geographies (Figure 3.14).

Figure 3.9 – Base-map for space-time diagrams. The horizontal plane includes a standardized representation of school-associated spaces for homeschool and public-school students. The vertical access represent a five-day week (Monday-Friday) divided into two-hour segments.

Figure 3.10 - Space-time diagram with vertical axes associated with each place.
Figure 3.11 – Students’ time spent in each particular space is traced in red along the vertical timeline associated with that space. This student’s space-time map reflects the schedule described in Figure 3.8.

Figure 3.12 - Lines tracing the movement of students from one 'space' to another are added, connecting intervening times.
Figure 3.13 - Space-time map depicting the movement of a public school student (red path) as compared to a homeschool student (yellow path).

Figure 3.14 – The space-time path of all study participants, color coded by location.
3.3.2 Space-time map results

The space-time maps of homeschooler activities charted the differences among homeschool and public school students’ spatio-temporal geographies while also demonstrating the similarities and differences among study participants’ geographies.

Generally, study participants left home later (usually between 10am and 12 noon) and returned earlier than the sample public school student (between 2pm and 4pm). Because their schedules are open during the day, many study participants noted their preference for activities and classes taking place during regular school hours, when classes are either geared specifically toward homeschoolers or simply less crowded because most school-age children are in school. One participant in particular, however, felt just the opposite: “even though we homeschool and people think that you are free during the day, I don't like to schedule their sport or dance classes until late afternoon, maybe after four.” This participant’s space-time path charted a schedule that left and returned home later in the day than most of the study participants. However, this was generally true for participants in her study area (Bedford) compared to the others (Figure 3.15).

In comparing the three study areas, one of the first distinctions is the number of regularly scheduled out-of-home activities in each county. The Bedford group generally spent more time at home than the Chesterfield (Figure 3.16) and Floyd (Figure 3.17) groups and had a much lower average number of weekly activities (1.75) scheduled than Chesterfield (5) or Floyd (2.8). This is not to say that the Bedford group did not leave home: the ‘regular’ schedule used to create the space-time maps does not include bi-monthly and monthly activities (e.g. field trips, Scouts, 4-H) or Sunday church activities in which each family in Bedford participated. Note, however, that the Co-op attended by
most Bedford participants meets only on Fridays (Figure 3.15), while in Chesterfield and Floyd, local Co-ops kept a Monday/Wednesday or a Tuesday/Thursday schedule. A couple of the Bedford participants did supplement the single day of Co-op activities with an extra day or two of regularly scheduled support-family activities. Bedford participants were also more likely to have a classic educational approach, a space specifically designed for schooling and to keep their children to a more rigorous academic schedule in the home.

**Figure 3.15 - Space-time map of the Bedford study participants.**

Chesterfield, the most highly populated, most affluent and most suburban of the three study areas also had the most active study participants. With an average of five out-of-home activities each week, Chesterfield participants were more likely to fill a few days each week with activities, bouncing from co-op classes to piano lessons to karate (Figure 3.16). The one Chesterfield participant who only scheduled one weekly out-of-home activity also happened to be the most academically rigorous Chesterfield participant,
allotting each day of the week to a particular subject and more in line with the scheduling trend in Bedford. Chesterfield participants’ children also spent more time in classes offered by a private business (e.g. dance or music studio) than participants in Floyd or Bedford. This difference is easily attributable to Chesterfield’s status as the most affluent of the three study areas. However, participants in Floyd, the least affluent of the study areas, also enrolled their children in more private-business classes than participants in Bedford.

**Figure 3.16 - Space-time map of Chesterfield study participants.**

Overall, Floyd participants (Figure 3.17) had a more diverse spread of activity spaces than participants in Bedford, though they spent less time in these activities than participants in Chesterfield. In part, this may be due to the fact that two of the Floyd participants took their children to weekly activities in neighboring Montgomery County, a more populated area (total population 83,629) with more homeschool-oriented activities available. However, as demonstrated in the socio-demographic characteristics above,
Floyd participants were a more diverse group and tended to fall somewhere between Bedford and Chesterfield demographically. That their space-time maps reinforce this image of ‘between-ness’ suggests the importance of homeschoolers’ social characteristics for the expression of their collective infrastructures.

Figure 3.17 - Space-time map of Floyd study participants.

This section described the methods used to generate space-time maps of study participants. In doing so, the movements of homeschoolers from home to other spaces of homeschooling activity were revealed, as were the kinds of spaces in which out-of-home activities take place. The following section explores the spatiality, temporality and characteristics of these activities, both in-home and out-of-home.
3.4 The physical spaces of homeschooling

While homeschooling today does not take place exclusively in a family’s home, home is still the epicenter of activity and the location of most homeschoolers more traditional schooling activities. Extracurricular or recreational activities are more likely to take place outside the home environment than academic activities such as math or English studies. This is hardly surprising in the case of sports activities such as soccer, baseball or swimming, as few families own the facilities for such activities—nor do they have the capacity or desire to host the number of children involved in most group sports. Parents were also more likely to seek community-based collective support for art and other creative activities than for math or English grammar lessons. The home functions, then, as a classroom generally would in the traditional school, albeit with greater freedom of movement and scheduling on children’s part.

3.4.1 Home-school space

In trying to understand the infrastructure of homeschooling, one of the first questions I sought the answer to was: what does homeschooling look like in the home? In other words, do homeschoolers create spaces specifically designated for school activities? If so, do they use these spaces in the same ways as public school students (being restricted to these spaces for particular kinds of activities at specific times)? Based on preliminary readings and my own experience as a homeschooler, I presumed that most, if not all the study participants would have some kind of space designated either for schooling activities, resource storage and organization, or both.

Within the home, 65% of study participants had a room specifically designated as a school room. These spaces often mimicked the traditional school space, with desks,
writing materials, bookshelves and even computer workstations. The remaining 35% had either smaller spaces assigned for schooling activities (such as a desk or work table) or at minimum a set of shelves containing school materials or a desk and computer available for school activities within an office or living room space. However, none of the study participants required their children to actually use these spaces for anything more than storage of academic materials. Rather, these places were optional study spaces where children could retreat when household activities disturbed their studies. As one parent reported, “I don’t care where they do it; their location makes no difference to me whatsoever as long as they get the work done and do it in a timely manner.” In fact, while some students had desks or worktables set up for them individually, the most popular spaces for studying were the family living room and kitchen-dining area.

By allowing children to conduct their academic activities in family living spaces, parents then had a greater capacity to multi-task—simultaneously helping their children through math worksheets, reading or writing activities while tending to daily household chores. Younger children more in need of parental supervision were more likely to do their work in the family living spaces. Older children, however, were more likely to have their own desk either in their bedroom or in a designated school space and were more likely to do their schooling activities at their desks. Thus, the spaces utilized by students in the home appear to be more a function of the students’ capacity for and choice of self-regulation than of the availability of a designated space for schooling. Schooling literally took place within the home and the home was not converted into a typical school.

23 Not all study participants wanted to multi-task, however. One parent, for example, stated that “when we sit down and do school, we pretty much just do school. I’m not trying to cook or do something else also.”
While traditional school policies recognize the increased self-regulating capacity of children as they grow—expressed in the increased opportunity for selecting classes as students progress from primary to secondary schools—such policies are predicated more on student’s chronological age than a demonstration of self-regulating capabilities. Homeschooling students, however, generally enjoy flexibility not only in the spaces of academic activities (generally being allowed to choose on a day-to-day or even moment-to-moment basis where ‘within reason’ they would like to work) but their opportunity to choose is predicated on their ability to convince the parental authority of their self-regulating capacity, rather than on their age. Performance, not cohort age, shapes the space and place of homeschooling.

Considering the importance of academic performance to homeschooling parents in this study (only two participants said that academic quality was not an important factor in their decision to homeschool), it is not surprising that the three academic Rs (reading, writing and arithmetic) were a priority in home activities. However, the degree to which such school subjects were considered the exclusive responsibility of the parents and the home space is somewhat surprising. As one parent explained:

All our reading, writing and arithmetic courses we do at home. We tried doing things elsewhere in other groups, but the academic seems to be a roadblock area. There are just too many differences that people have about what to use and how to do it that there is usually a point of consternation that you reach. So we found it was better just to keep the academics at home.

At least half of the study participants expressed some version of this sentiment, and even those who were more willing to share the responsibility for their children’s academic training set limitations on which activities they could participate in and where.
While some students took a science or history class at a local co-op, several students participated in local book clubs or reading groups and at least one homeschool group gathered to present weekly ‘research’ reports, the study of mathematics was exclusively conducted in the home and directed for individual students by their own parents. This unanimous resistance to outsourced math training is not necessarily representative of the mode, however; homeschool co-ops in at least two of the three study areas offered middle- and high-school level math classes and one offered a ‘Math Lab’ for kindergarteners.

Several parents indicated that one or more of their children were either particularly adept at or frustrated by math. In each case it was the flexibility of being able to change workbooks or even use more than one at a time in order to convey a concept that was cited as a reason for and advantage of homeschooling:

You name it and I probably have it on my shelf. Because there are certain things that are very good in certain areas and certain things that are not. *Math U See* has a wonderful teaching method the way that they get the problems across in a really straight way because they don't have a lot of repetition. But then *A Beka* has a lot of colorful pages and every once in a while there's a coloring page or some fun poetry in it and it has the repetition. But I don't necessarily like the way that they teach the math concepts. So we go back and forth it; depends for each student. I used the *A Beka* for math because they have all of the repetition but then I will use the *Math U See* because I love their teaching style. And then later we are moving over to *Bob Jones* because that gives pre-algebra skills.

While 26% of the parents interviewed explicitly stated that flexibility was one of their reasons for homeschooling, flexibility was valued by all the study participants. Several participants reported halting math studies or reading altogether for extended

---

24One exception was a seventeen-year old student who was starting an advanced algebra class at a local community college in the fall of 2008.
periods of time when their children became particularly frustrated and discouraged by their inability to grasp particular concepts.

Early on through the year I realized I couldn't follow the guidelines for reading for my son because he wasn't ready. He didn't want to sit down and read. So I didn't make him read anything. That was after going through some frustration. Then six months later, I suggested that we start reading something together. I suggested that I would read it to him, and we picked out a book together and then we didn't read it right away, and a week later he picked it up. When I was busy doing something and he ended up reading it himself but then once he started reading. He said ‘Mom, I didn't realize reading would be so much fun.’ So I started to realize something that I've come to feel along the way. Is that when they are ready they will pick up things and learn how to do them.

These same parents also expressed their frustration at what they remembered as negative learning experiences in the traditional school sphere, and their desire to protect their children from a similarly harsh learning environment. In other words, study participants generally felt that the home offered a level of emotional security for their children that was not only unavailable in the public school sphere, but also content specific (e.g. math was more emotionally destabilizing than art). By restricting stressful academic activities to the home, parents felt they could more closely monitor and adjust to their children’s individual needs.

One of these needs, however, is for the development of social skills and attachments. To varying degrees, then, study participants actively sought out group activities, both within—working with other homeschool families within each other’s living spaces—and outside the home.
3.4.1.1 ‘Support’ families

One of the homeschooling family’s most important and regular resources is other homeschooling families. I refer to such families as ‘support’ families because of the mutually and dynamically supportive nature of these relationships. Only two of the twenty-three participating families did not have at least one other homeschooling family with which they regularly shared academic and/or social activities. However, even those two families participated in group activities; they simply did not have a particular support family. More often than not, two or three families would gather once or twice a week for some kind of social learning event. From reading books and discussing them, to cooking food from different world regions, to meeting at a local park for playtime, these gatherings tended to facilitate social interaction while simultaneously shifting the parents’ focus from their children as individuals to a collective subset of age or interest groups. Occasionally these families also acted as temporary relief from a parent’s supervisory position as children would be left in the care of one family for a few hours each week on a rotating basis. The off-duty parent(s) were then free to run errands, practice sport activities or attend classes themselves. Unless they were participating in a small group field trip, these exchanges tended to take place almost exclusively among home spaces.

As we have seen, the home is a central space in the activities of homeschoolers. It is where the predominance of academic activities occur, and is the meeting place for small informal support groups. However, as both their numbers and favorable popular opinion of homeschooling grows, their presence on landscapes beyond the home becomes more visible.
3.4.2 Homeschooling beyond the home

Like students in traditional schools, homeschool students participate in a number of extracurricular activities which also occur in spaces outside the home. While a few of the study participants did admit that they preferred not to leave the home-space on a regular basis, participants were involved in an average of 3.2 weekly out-of-home activities. This varied dramatically from family to family with several families claiming only one regularly scheduled out-of-home activity, while others felt overwhelmed by the number of commitments they had. For instance, one mother of five spent a great deal of time shuffling kids among 11 regularly scheduled sports activities, enrichment classes (i.e. classes which are not part of the regular school curricula—karate, gardening), music lessons and playgroups, often complaining of not getting enough time at home: “You know, my husband teases me a lot and says, ‘where is the home in homeschooling?’ because we are away a lot. We try, at least three days a week, to do our core curriculum at home.” Even among those families who only attended one regularly scheduled out-of-home activity, that activity, or—more appropriately perhaps—event was, without exception, a day (10am to 3pm, for example) of classes, workshops and socializing in one particular place. That place was typically organized as a local parent-run educational co-operative for homeschoolers.

3.4.2.1 Parent-run homeschool co-operatives

One of the signature activities of homeschoolers—for which there is little-to-no academic literature (Isenberg 2007), but numerous examples—is the creation of and participation in parent-run and -organized educational co-operatives. Such co-ops are often initiated when several homeschooling families find their group becoming too large
to meet at one another’s homes or when one or several families seeking greater community interaction take it upon themselves to solicit and organize parent-teacher volunteers and to hire individuals to lead workshops or classes. Meeting once or twice a week in spaces which have usually been rented from a local church or community center, these co-ops may charge per-workshop or class fees, monthly membership fees, or both. Study participants were all currently members of or had recently enrolled their children in classes at one of five homeschooling co-ops; two in Bedford, one in Chesterfield, and two in Floyd. These co-ops ranged from a group of three families renting space at a local church on an hourly basis to a highly organized co-op with several hundred member families renting an entire building.

The smallest of these co-ops was only marginally different from the support family gatherings. It consisted of an informal collaboration between families in which individual parents would temporarily teach a specific topic to a collective group of children, based on age or interest, and often assigning homework and ‘grading’ or assessing the quality of and giving feedback for that work on a weekly basis. These small informal co-ops collectively paid rental fees, in this case on an hourly basis, for the use of a space, but otherwise did not hire outside teachers or pay one another for services. The larger co-ops, however, not only offered monetary compensation to parent-teachers (in the form of per-class salaries and/or discounts on classes for their own children) but also occasionally brought in paid-instructors to teach frequently requested subjects.

‘Extracurricular’ classes represent the majority of available co-op classes. For instance, one co-op offered a variety of nine math, English and science classes, while sixteen art, dance, music and martial arts classes were also offered during the same
session. Another co-op offered “arts and fun” classes to almost 100 members. Language arts, including Spanish and Latin, were popular extra-home classes, though several parents indicated that they either hired a tutor or used a language program such as Rosetta Stone for linguistic training. The overwhelming predominance of art and other ‘extracurricular’ classes being offered through these co-ops may be suggestive of homeschooling parents’ understanding of the social opportunity in less discipline-heavy tasks, though for some art simply did not come naturally: “What we were weak in was art. We always meant to include art, but it was always happenstance. Haphazard.”

Co-ops not only offer workshops and classes, they also facilitate social gatherings and act as the meeting space for committee meetings and curriculum sales. As one parent reported:

I don't actually have [my son] in any of the classes. The opportunity is there but we don't really utilize that right now. I just use it as a meeting space these days. You know, moms get together there and have meetings. There was a curriculum fair about a month ago, and everybody brought their curriculum and everything that they wanted to sell that they could bring.

Collectively renting a space in which to meet and share activities seems to give homeschooling parents a sense of security that even the local library community room may not offer. Speaking of her introduction to the new co-op in her area, one homeschooling mom exclaimed “I thought it was great! Here was this great place where we could meet people… It’s hard to find places where we haven't been kicked out of, like the library. Churches want $300 a month to do things.” However, not all of the study participants felt they had the energy or resources to participate regularly. The same parent who was excited by the arrival of her local co-op was also overwhelmed by the magnitude of
it: “there's too much going on! I keep having to say ‘no, I'm not a teacher.’ They kept asking me and I said I can’t, I just feel I’m too busy already.” Others had difficulty budgeting for the price of classes, saying, for instance,

…each class is seven dollars for the paid teachers, so it was seven dollars per class per hour. So, that's not so bad, but when you add up four classes once a week for seven weeks with two kids, it adds up. But one of the principles that we wanted to stick with was to pay to teachers well for their time, and so hopefully get quality teachers. I think it showed. But financially how it all worked out was kind of difficult.

3.4.2.2 Private business and homeschoolers

Another indication of the growing acceptance of homeschooling among the general American populace may be seen in the way businesses have begun to recognize opportunities available in catering to a growing population of students who are not necessarily anchored to the schedule of traditional schools. For instance, several parents in one area reported bringing their children to a major art supply store in their area for art classes held midday for homeschoolers. On signing her son up for at a local martial arts studio one participant said “the director there is very supportive of the homeschoolers, and we are finding that if we approach a business that is normally dead during the week, during school, they are like ‘yeah, sure we will do a program or put together a homeschool class.’”

Study participants also reported attending homeschool days at state parks, historic villages and museums, such as Colonial Williamsburg, the Nauticus Museum in Norfolk, Virginia and the Biltmore Village in Asheville, North Carolina. A quick online Google

25 Both Historic Williamsburg and Biltmore Village host annual homeschool events which are advertised on their respective websites (Biltmore.com 2009; The Colonial Williamsburg Foundation 2009). Colonial Williamsburg has been working specifically with homeschoolers since it began its thematic plan on ‘Becoming American’ in 1995 (Chilton 2009, personal communication).
search conducted 10 June 2009 revealed a number of other organizations, from the Walt Disney World Resorts and the Kennedy Space Center to the National Museum of the US Air Force and the California Science Center that also hold annual or semi-annual homeschool-oriented events. While only three of the study participants had taken their children to these specific events, all but two families participated in field trips on at least a semi-annual basis to various museums, zoos and parks throughout the Central East Coast region.

3.4.2.3 Homeschoolers and traditional schools

According to Princiotta and Bielick (2006, 3) one out of five homeschoolers were enrolled part time in public or private school in 2003. As depicted in the space-time map of all study participants (Figure 3.14) none of the group were enrolled part time in a K-12 public or private school (private businesses offering crafts and recreational classes are not included as private schools; see Figure 3.14). However, three participants had children in university or community college, and one 13 year-old child had just started public school full-time for the first time. Four participants had, at one point, taken a child to a public school, university or hospital for speech therapy, though only two currently did so.

When asked about their interactions with local school authorities two themes emerged. The first respected the local school authority’s willingness to work with homeschoolers, but wanted to stay under the radar as much as possible. “I have heard good things about [the] schools, but I just haven't pushed the issue… we do file a religious exemption, and we just don't want to raise flags”; “I register and then leave it at that. I don't even use their resources.”
The second theme centered on negative interactions with school officials. Usually these were parents who had expressed interest in enrolling their children part-time for extracurricular activities. Some participants reported feeling rejected by public school authorities. For instance, one parent claimed:

I approached the public schools once when he was in speech therapy and I said you know ‘I would be interested in taking my son to learn violin lessons with you…’ I pretty much got a cold shoulder with them saying ‘I don't think [the violin teacher] is going to do that but you can call this number if you want.’ I just didn't feel very welcome so I decided that we would just rather work with the guitar on our own.

While several parents had heard, from friends, of successful relationships between homeschoolers and local school district authorities, none reported enjoying such a relationship at the time of the interview.

Parents who were interested in accessing public school resources were typically interested in having their children participate in sports activities. Several participants described negative experiences associated with trying to get their children on to local public school sports teams. One parent, whose child wanted to play soccer on the local high-school team and recently enrolled in public school for the first time in order to do so, described the interaction with a local school authority as feeling somewhat coercive:

…all that we were looking to do was to enroll him part-time possibly. But he kind of experienced a hard sell by the principal. [The principal] said, ‘in addition to your two classes, if you want to do art, band, all of the fun stuff you need to be here full-time. Would you like to go full time?’ [My son’s] eyes got all saucer-like. He had just taken a tour of the school and saw the classrooms… and a fully equipped science lab. Mostly our science lab is outside. Lots of room to run around and for sports: plant a garden, whatever. But it's not the same as seeing a hanging skeleton and whatnot, and amazing microscopes. So he got sucked into that.
Many participants saw sports as a way for their children to interact with non-homeschoolers and were disgruntled that they were not allowed to participate without sacrificing a portion of their child’s week to other public school activities. A 2008 initiative set before the Virginia General Assembly failed to give homeschoolers access to public school sports (Williams 2008). However, being rejected by the public school system, these parents have found local community sports teams to join or established local and regional homeschool teams and organized—usually through their online support networks—regional homeschool sports competitions. For at least one family, however, sports activities were simply not a priority: “We haven't really focused on sports… because we wanted to have a little bit more of an academic focus,” though their children did swim at the local YMCA at least twice a week.

3.4.3 **Chapter review**

Through the generation and exploration of space-time maps of homeschooler activities, the first half of Chapter 3 has demonstrated that the physical infrastructure of homeschooling consists largely of the home—reconceptualized as a space for academic activities—and a variety of other spaces conscripted, for the most part, for non-academic activities. Study participants’ activities spatially were not only differentiated among academic and extracurricular activities, however. As illustrated in the various space-time maps (Figures 3.13-3.17) and suggested in the preceding sections, they were also temporally differentiated. As one participant explained, “we like to have our academic stuff earlier in the mornings and in the house and then do our extracurricular stuff outside the house in the afternoons,” and another confirmed, “that [the morning] seems to be when we are the most fresh.”
What the preceding sections did not do, however, was to illustrate the specific connections among study participants or illuminate shared information pathways or ‘virtual’ spaces. Because contemporary homeschooling relies heavily on strong social networking among its participants, I turned to social network theory. Once again informed by the demographics of the study participants, as well as data on the curricular and Internet resources utilized by the study participants, the following section reviews methods of Social Network Analysis and discusses the resulting network diagrams as part of an explanation of the infrastructure of homeschooling.

3.5 Infrastructure as a social network

*Individuals, by their agency, create social structures while, at the same time, social structures develop an institutionalized reality that constrains and shapes the behavior of the individuals embedded in them.*

(Hanneman and Riddle 2005, Ch. 17 par. 2)

In order to explore the networks which, in part, constitute the infrastructure of homeschooling, I turned to the theory of social networks. Social networks are groupings of social actors (e.g. individuals or organizations). Social network theory assumes that actors are intimately connected to and influenced by other actors (Knoke and Yang 2008). This connection may be, for example, through a family relationship, a work relationship (e.g. employer-employee, colleagues, or business affiliation), a literary relationship (e.g. author A cites author B), or even consumer relationship (e.g. producer-consumer, consumer-consumer—buying the same items or shopping at the same stores) (Tampubolon 2004; Carrington, Scott, and Wasserman 2005; Hanneman and Riddle 2005; Knoke and Yang 2008). Furthermore, when two or more individuals participate in similar activities or use similar resources, they are participating in the production and
reproduction of a social space. This space is, in turn, generating a sense of social identity, whether or not these individuals know or interact with one another directly (Mrvar n.d.; Knoke and Yang 2008; Batagelj and Mrvar 2009).

Social Network Analysis (SNA) seeks to discover the patterns of relationships in social spaces; e.g. if specific parts of a network are more connected among themselves than other parts, or more “cohesive” (Tampubolon 2004).

The relationship between individuals may be measured in one of two ways. In one, the relationship is defined by a direction of influence (e.g. authors citing other’s work), or direction of power (e.g. employer-employee relationship) (Hanneman and Riddle 2005; Knoke and Yang 2008). For instance, in Figure 3.18, author C cites the works of authors A, B, and D, while author B cites only author D, but is cited by authors A and C. Neither A nor D directly cites the other. Alternatively, the relationship may be assigned a value by assessing the strength of the connection between actors (Figure 3.19) (Mrvar n.d.; Hanneman and Riddle 2005).

Valued social networks may be illustrated by assigning an arbitrary value to the strength of relationships. For example, the strength of a father-daughter relationship may be considered stronger than an uncle-niece relationship. Conversely, the strength of a relationship may also be determined by counting the number of shared events between two individuals. This second approach to a valued network—in which the relationships among actors are determined by shared events—is referred to as a two-mode valued network. In a two-mode network an event is any social entity that constitutes a relationship between two individuals. For instance, social gatherings (e.g. both individuals attend the same birthday parties or business meetings), information and entertainment resources
(e.g. both individuals read the same newspapers, books, or websites), and even spaces (e.g. both individuals workout at the same fitness center or go to the same bar) may each constitute a social event. Figure 3.19 illustrates the number of times two authors (referred to as actors) cite the same authors (referred to as events), representing a valued social network.

Figure 3.18 - The relational structure of a social network may be seen in terms of the movement of information.

Figure 3.19 - The relational structure may also be seen in terms of the weighted value of the connection between actors.

The classic example of a two-mode SNA is Davis, Gardner and Gardner’s (1941) study of the social relationships between women in the South as measured by their joint participation in social events. This study examined the patterns of informal interactions among women whose attendance at a variety of social events reflected their different social classes. The data from this study has been examined and reexamined through the years (Mrvar n.d.; Carrington, Scott, and Wasserman 2005; Hanneman and Riddle 2005; Knoke and Yang 2008) and I will use it to demonstrate SNA tools.

SNA tools, such as Pajek (Batagelj and Mrvar 2009), help visualize the connectivity among actors. A diagram of a social network is a sociogram—a visual representation of social relationships (Knoke and Yang 2008). In order to create a two-mode sociogram, data is first organized into a bipartite matrix. A bipartite matrix is a table representing the connections between two groups of entities (actors and events)
(Figure 3.20). Though a bipartite matrix does not show how actors are directly connected, it can be converted to show how actors are connected through co-attendance in particular events or groups of events (Knoke and Yang 2008). For example, the diagram in Figure 3.21 represents women and their attendance at certain social events as recorded in the bipartite matrix in Figure 3.20. It does not show a direct link among women or among events.

In order to depict those relations between individual people (or events), the two-mode data is reduced to a valued bipartite matrix (Figure 3.22). The shaded blocks in Figure 3.22 represent the relative number of shared events among actors. The more events that are co-attended by two individuals the higher the value (strength) of their link. The resulting sociogram (Figure 3.23) is a mapping of the social network, demonstrating the interrelations among women based on their co-attendance at particular social events.

The social network may then be disaggregated, and examined for the existence of hierarchical structures (Figure 3.24) and islands (distinct groupings) of shared event attendance. The hierarchical structure of a social network reveals the strength of a relation between two individuals by depicting the ‘depth’ of their connection to one another (how many links connect them). It allows for an analysis of the specific events that are co-attended by individuals and groups of individuals, offering insight into the strength of the relationship as well as the ‘local’ or ‘global’ nature of events.
Figure 3.20 - A bipartite matrix representing the participation of women in social events. Filled boxes represent a woman’s attendance at the corresponding event. Image courtesy of Mrvar (n.d., 2) with data from Davis, Gardner and Gardner (1941).

Figure 3.21 - Graphic of a bipartite matrix representing the participation of women in social events. Image courtesy of Mrvar (n.d., 2) with data from Davis, Gardner and Gardner (1941).

Figure 3.22 - Bipartite matrix in which women are represented as connected to one another through their attendance at the same event. Connections have a value which represents the number of shared events between any two individuals. Image courtesy of Mrvar (n.d., 5) with data from Davis, Gardner and Gardner (1941).
Figure 3.23 - Sociogram of a valued two-mode network of women and their co-attendance at events. Each line between vertices is labeled with a numbered value representing the number of shared events between the two women. Image courtesy of Mrvar (n.d., 4) with data from Davis, Gardner and Gardner (1941).

Figure 3.24 - The hierarchical organization of a social network, color coded into 'islands,' illustrating the level of interconnection among entities. Image courtesy of Batagelj and Mrvar (2008).

Hierarchy of Event Co-Attendance
3.5.1 Homeschoolers’ social networks

The infrastructure of traditional public schooling assures that children from relatively diverse backgrounds have the opportunity of collectively participating in activities within similar spaces and with similar resources. The homeschool literature claims that the motivation to homeschool is as diverse as the population (which is arguably not very diverse), and that homeschooling is an option for families from every walk of life, thus implying that the homeschooling infrastructure is also available to all.

However, geographers and other social scientists have demonstrated that access to resources is not equitable across gendered, racial, and ethnic/cultural groups. Moreover, the principle of social homophily suggests that groups of individuals of particular “sociodemographic, behavioral, and intrapersonal characteristics” are more likely to socialize with others of similar characteristics and backgrounds (McPherson, Smith-Lovin, and Cook 2001, 415). Therefore, homeschooling families of particular demographic and social characteristics, living in proximity, are more likely to be closely associated with similar homeschooling families and therefore more likely to offer support to families with whom they can identify (which translates into social and resource capital). In order to test this assertion, a SNA was conducted whereby study participants—social connectivity was determined by the similarity of their activity and resource use (events).

Using Atlas.ti to analyze the transcribed interviews, I identified 242 individual terms relating to activities (e.g. soccer, music lesson, park days), websites (e.g.

---

26Social homophily is “the principle that a contact between similar people occurs at a higher rate than among dissimilar people” (McPherson, Smith-Lovin, and Cook 2001, 416) and dictates that “people’s personal networks are homogeneous with regard to many sociodemographic, behavioral, and intrapersonal characteristics” (415).
Google.com, LaNiche.org, VAHomeschoolers.org), curriculum (e.g. Math U See, Sonlight, Apologia), support groups (e.g. Home Educators Association of Virginia, Richmond Area Homeschoolers), and other resources (e.g. homeschool conference, library, YMCA) utilized by participants. Henceforth these terms are referred to collectively as *events* (Figure 3.25). *Atlas.ti*’s auto-coding feature allows the user to search for and code a specific term throughout a document or set of documents; however, it does not differentiate among the contexts of a given term. For instance, a study participant might say that they do not go to the library, but *Atlas.ti* will code ‘library’ nonetheless. Therefore, I ‘cleaned’ the coded documents after running the auto-coding feature in order to remove mis-coded participant-event associations.

*Atlas.ti* generated *wordcount* matrices which were exported to *Excel*. A *wordcount* matrix is similar to a *bipartite* matrix in that it shows the relationship between two units, in this case the terms representing the various *events* of homeschoolers and the study participants. Rather than a simple measure of ‘presence’ in a block—corresponding to one *actor* and one *event*—a *wordcount* matrix presents the number of times each term is counted in a document (Table 3.6). I converted the *wordcount* matrix into a simple *bipartite* matrix in *Excel* by replacing each count with a simple binary measure—1 (one) equals ‘presence,’ 0 (zero) equals no ‘presence’ (Table 3.7).
Figure 3.25 - *Atlas.ti*’s coding process included the identification of the resources and events which collectively illustrate a homeschooling geography. This image depicts the identification of one participant’s homeschool support organizations. Areas of the text have been blocked out to preserve the participants’ anonymity.
Table 3.6 - Sample wordcount matrix with participant ID (generated by Atlas.ti) in rows and several events in columns.

<table>
<thead>
<tr>
<th></th>
<th>HSLDA</th>
<th>Iditarod</th>
<th>Institute for Excellence in Writing</th>
<th>Jacksonville Center</th>
<th>Jefferson Center</th>
<th>La Niche</th>
<th>Latin</th>
<th>Lego League</th>
</tr>
</thead>
<tbody>
<tr>
<td>P47</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>P48</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>4</td>
<td>10</td>
<td>0</td>
</tr>
<tr>
<td>P49</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>P50</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>P51</td>
<td>0</td>
<td>0</td>
<td>9</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>P61</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>P62</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>5</td>
<td>2</td>
<td>0</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>P63</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>P64</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>12</td>
<td>4</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>P65</td>
<td>1</td>
<td>0</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>7</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>P66</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>P67</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>P68</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>0</td>
<td>14</td>
<td>6</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>P69</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>0</td>
<td>14</td>
<td>6</td>
<td>2</td>
<td>0</td>
</tr>
</tbody>
</table>

Table 3.7 - The wordcount matrix in Table 3.6 is converted to a simple bipartite matrix.

<table>
<thead>
<tr>
<th></th>
<th>HSLDA</th>
<th>Iditarod</th>
<th>Institute for Excellence in Writing</th>
<th>Jacksonville Center</th>
<th>Jefferson Center</th>
<th>La Niche</th>
<th>Latin</th>
<th>Lego League</th>
</tr>
</thead>
<tbody>
<tr>
<td>P47</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>P48</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>P49</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>P50</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>P51</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>P61</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>P62</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>P63</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>P64</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>P65</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>P66</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>P67</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>P68</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>P69</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>
Separate bipartite matrices were created, each with the study participants as actors and a different group of events (as well as two with the overall participant-event relations). For instance, during each interview and in a follow-up email, participants were asked to list the websites most frequently used for homeschooling purposes. Subsequently, a bipartite matrix was created relating participants and their use of specific websites.

Matrices were loaded in to Pajek to create two-mode (Figure 3.26) and then valued two-mode (Figure 3.28) sociograms. Finally, each sociogram was exported to Adobe Illustrator 9.0 in order to create a clear image presentation (see Figure 3.28).

Figure 3.26 – Unedited two-mode sociogram of participants and their most frequently used websites. Note that each line has an equal value and is a link between a participant and an event. Created by author using Pajek.
Figure 3.27 - Unedited two-mode valued sociogram in Pajek. Created by author using Pajek.

Figure 3.28 - One-mode sociogram of participants and frequently used websites. The degree of connectivity between participants is represent both by distance between vertices and color of connecting lines, whereby black equals more shared websites and lighter gray equals less shared websites. Created by author using Pajek.
In order to assist in exploring and interpreting the relation between study participants, nodes were color-coded to represent participant characteristics of interest, including participant location (Bedford, Chesterfield, or Floyd—e.g. see Figure 3.29), primary motivation (School Environment, Religious/Moral, Pedagogy, Other), religiosity (practicing, non-practicing), and income ($25,000-49,999, $50,000-74,999, $75,000+). Each of these characteristics was chosen because it factors prominently in discussions of homeschooling, school choice and educational access, equity and infrastructure.

Figure 3.29 – *Valued two-mode sociogram representing participants as related by their most frequently used websites. Color coded by participant location. Created by author using Pajek.*
3.5.2 Sociogram results

The first sociogram examined (Figure 3.30) will be referred to as the ‘universal’ sociogram as it includes all event co-attendance extracted from Atlas.ti (n=242) and in order to differentiate it from subsequent sociograms (those generated using a subgroup of events—Websites and Curriculum). The minimum number of co-attendance events between any two individuals in the universal sociogram was three (i.e. all individuals had at least three shared events with every other individual), the maximum was 17.

Figure 3.30 - 'Universal' sociogram, showing co-attendance of all study participants and events, color-coded by location.

A strong locational bias is immediately apparent in Figure 3.30. This is readily attributed to the existence of location specific support groups, co-ops and other activities. However, in spite of this locational bias the entire network can be described as relatively cohesive. This is evidenced both by the fact that every participant shares at least three events with every other participant and that participants positioned toward the center of the network often share as many, if not more events with participants from a different area than their own.
Referring back to the initial two-mode network generated by Pajek, I identified the events shared by individuals across the network. Figure 3.31 depicts the separation of participants into groups based on an analysis of the kinds of events that are shared, and participant characteristics. For example, the single Floyd participant (red) in Group A shares more of the same kinds of events with Group A than with Group B, where the majority of Floyd participants are positioned. At the same time, being positioned toward the outside of the network and bordering Group B, that participant has a lower number of shared events with the core of the network and more in common with Group B than with Group C. In this case, the stray Floyd participant was the only individual from Floyd who was also the most explicitly Christian homeschooler interviewed in Floyd. Note that the Bedford participant located closest to her in this ‘universal’ social space was not happy about the exclusivity of some of the local Christian homeschool groups and followed several unschooling and other non-religious websites, even though she herself was a practicing Christian.

The characteristics which uniquely defined the different groupings in Figure 3.31 were relatively few. Generally, rather than easily falling into one or another grouping, the study participants fell along a spectrum of event co-attendance. Therefore, the characteristics that define each of the groups below do not individually characterize that group. Rather, it is that particular combination of characteristics which defines the group. For example, though Group A is defined in part by an explicit religiosity, it is also defined by the relative lack of out-of-home activity: some participants not in Group A were also explicitly religious and others also participated in fewer than five out-of-home activities, but not both.
The characteristics that define the groups in Figure 3.31 include the following:

- **Group A** – Christian with explicit biblical teachings as part of the regular academic schedule; fewer than five regularly scheduled out-of-home activities.
- **Group B** – Non-traditional pedagogy.
- **Group C** – Curriculum fair attendance; Home Educators Association of Virginia.
- **Group D** – Use of *Sonlight* (curriculum package) and *Story of the World* (history curriculum series); dance and music lessons; and Groups A and C characteristics.
- **Group E** – “Unschooling.”

27 The Chesterfield family in Group E had included two older children who were unschooled (one of whom no longer lived at home). The youngest child, however, had learning disabilities which precluded independent learning. Therefore, the interview from this participant was dominated by the schedule and resources used for the youngest child, but many of those resources originated from ‘unschooling’ homeschool groups.
3.5.2.1 Online networks

Another way to diagram the social connectivity of homeschoolers is through their internet use. By removing all non-internet related events from the matrix used to create the ‘universal’ sociogram, I was left with a matrix that included participants and their shared frequently-used websites for a total of 186 events (many of which double as local, regional or national support groups or curriculum providers that have an online presence). The minimum number of co-attendance events was two—however, unlike in the ‘universal’ sociogram, not all participants shared an event—the maximum was ten. The resulting sociogram (Figure 3.32) once again shows the impact of location.

Several outliers, however, merit exploration. In particular, the one Floyd (red) participant with a stronger connection to the Bedford part of the diagram (green) is the same participant who was part of Group A in Figure 3.31. This consistency indicates that this participant’s social characteristics outweigh location in determining the expression of the homeschooling infrastructure she experiences. The Bedford participant (green) located more closely to the Chesterfield cluster (purple) was not, however, a part of the overlapping Group D. After examining this participant’s interview data, it became clear that, though her family shared in many of the characteristics of the overall Bedford group, they were less involved in the local support network. Also, as the only family with a special needs child in the Bedford sample, resources trended toward those of religious affiliation in the Chesterfield sample, where several participants had special needs children.
Figure 3.32 - Sociogram of participants' most frequented websites with groupings according to the kinds of websites used.

Figure 3.33 - Sociogram of participants' most frequented websites with central clusters delineated.
Of further interest is the clustering of three central groups of participants (Figure 3.33). Located within the central portion of this social space, these homeschoolers (central in Figure 3.33) all shared at least five co-attendance *events* with every other participant within the three groups. Each group, however, also shared at least two more *events* among themselves. What characterized each of these groups was a particular kind of website. For instance, the Bedford (green) group shared a Christian orientation (in particular, two local support groups and Christianbooks.com), while the Chesterfield (purple) group used more secular homeschool and traditional education support websites (e.g. Enchantedlearning.com, Edhelper.com) and the third (mixed purple and red) shared the use of non-education oriented resources (e.g. Merriam-Webster Online, Youtube.com). Once again, the Chesterfield participant (purple) grouped with the two Floyd participants (red) is the same one in Figure 3.31, Group E, who unschooled her older children.

While recognizing the importance of place in influencing the structure of study participants’ homeschooling activities, the several outlying participants suggest that other factors, such as religiosity or motivation for homeschooling, do also factor into the development of the homeschooling infrastructure. Therefore, in order to ascertain the degree of connectivity between participants based on the ideological and motivational characteristics described above, all *events* with local specificity (e.g. Richmond Area Homeschoolers, Floyd Virginia Homeschoolers, or Bedford Area Homeschoolers) were removed from the matrices and new sociograms were drawn. Figure 3.34 shows the connectivity of participants through non-location specific website use. The results indicate that location is an important and inescapable element in local homeschooling.
structure. Without the location specific events, much (but not all) of the distinct social structure of homeschooling, seen in Figure 3.33, disappears.

Figure 3.34 - Sociogram of participant associations with location specific events removed from the data. Nodes (participants) colored by location. Note that clear distinctions between participants in different locations seen in Figure 3.29 has been modified. Created by author using Pajek.

In order to further explore what characteristics, if any, define the structure of homeschooling after controlling (to the extent possible) for location, I generated a series of sociograms based on all events minus local-specific events. Figures 3.35 through 3.38 show the patterns of connectivity of study participants color-coded to depict participant location (Figure 3.35), primary motivation for homeschooling (Figure 3.36), religious piety (practicing or non-practicing) (Figure 3.37), and annual household income (Figure 3.38).

---

28 Because so many of the study participants are members of the same co-ops in their area it is likely that they share ideas and resources among themselves. Therefore, despite the removal of location-specific events from the data matrices, some degree of local influence is expected.
Figure 3.35 - Sociogram of study participants; controlled for location, color-coded by location.

Figure 3.36 - Sociogram of study participants; controlled for location, color-coded by primary motivation for homeschooling. Note that 'School Environment' is the combination of physical and academic environment responses.
Figure 3.37 - Sociogram of study participants, controlled for location, color-coded by religious piety (practicing/non-practicing).

Figure 3.38 - Sociogram of study participants, controlled for location, color-coded by annual household income.
The preceding sociograms revealed several important patterns. First, removing the location specific data generates a stronger—more closely associated—core grouping of participants, with less socio-spatial distinction between groups. Second, location continues to be a strong influence in spite of the removal of location-specific events from the data matrices (Figure 3.35). Third, study participants’ self-described primary motivation for homeschooling does not appear to have a large impact on their socio-spatial networks (Figure 3.36). Fourth, based on an analysis of the interview data in which participants’ church attendance and Bible-oriented teaching becomes an indication of their religious piety, there is some correlation between patterns in the socio-spatial network and religious practice (Figure 3.37). Finally, there is some correlation between annual household income and socio-spatial networks (Figure 3.38). When examining participant income patterns it is important to note the strong relationship between study location and participant income (see Figure 3.5). However, there appears to be a pattern in which outliers in Figure 3.35 (color-coded by location) are part of the local group in Figure 3.38 (color-coded by household income). In other words, where location does not determine a participant’s social network characteristics, income does. This suggests that socio-economic status does play a role in the structural expression of homeschooling.

3.5.2.2 Resources

The acquisition and use of academic material is of interest in this exploration of educational infrastructure because of the role that publishers and distributors play in shaping the content of traditional learning. Study participants were asked what kinds of
academic materials\(^{29}\) they used and where these resources were acquired. In this way, I was able to describe not only which publishers were most popular among study participants, but also what methods of distribution were most frequently used.

Figure 3.39 shows the lack of distinct patterns in the use and acquisition of academic resources among study participants. The single outlier (red, upper right) is the unschooling participant in Floyd. This absence of pattern suggests that similar resources are available to homeschooling families across the socio-economic and socio-spatial spectrum. An examination of the interview data seems to confirm this result, simultaneously revealing some interesting spatialities.

\[\text{Figure 3.39 - Sociogram of study participants' academic resources. Note that there is no distinct pattern or clustering.}\]

While 95\% of parents interviewed had ordered curriculum directly from a homeschooling publisher, only 13\% had used materials from a local public or private school. Several participants showed me large catalogues of homeschooling material distributed

\(^{29}\) For the purposes of this study, academic materials include the books, worksheets, lesson plans, computer programs and audio (CD) and audio-visual (DVD, television) resources employed to facilitate academic learning.
almost exclusively from Christian homeschool-oriented publishers and distributors. These were used by religious and non-religious participants alike. For instance, one of the most popular curriculum sources was Sonlight, a company which has created substantial lesson plans for grades K-12. Sonlight offers a timeline for reading activities, as well as a series of books, texts, and workbooks compiled from various publishers which it makes available through its website or via hardcopy catalogue. The lesson plans for literature, for example, establish a timetable for reading particular books at particular times throughout the year at a particular grade level. While much of Sonlight’s suggested material is Christ-oriented, a large portion of it can also be found in public school reading programs. Also, the lesson plans are read as mere guidelines and therefore parents can choose which books to include in their own child’s curricular options. One parent in particular discussed her decision to use the Sonlight program when introduced to it through her local homeschool support group:

[I] am not religious; it’s just not in my whole view of things. And so somebody came in and talked about Calvert one time, and I had heard about that and I had heard that people basically used Calvert when they are brand-new to homeschooling and terrified, which fit the profile of this person. So when this person had talked about Calvert, I had thought ‘Yeah, yeah, whatever. We do things our own way and I don't need any of this religious stuff.’ So, whatever. But then this new person brought in Sonlight, and she was not a religious homeschooler. But here were all these great books, and I thought wow that looks really cool.

Meanwhile, seventy-five percent of parents claimed their friends or other homeschooling families as a significant source of curricular materials.

Only three families (all from Floyd) had utilized a correspondence course by mail. While 52% of families had utilized an online course, only one family had used a course offered through a public or private school. Thirty-four percent of all participants utilized
video or DVD courses, though the majority of these families lived in Bedford (five out of eight).

Though the question was not posed, the fact that study participants were recruited online indicates at least some internet activity and biases the study toward those home-school families who use internet resources. All participants indicated during the interview that the internet is a valuable resource, though some used it more than others. Google, for instance, was one of the first resources mentioned when participants were asked about where they get lesson ideas; 13 participants indicated that it was one of their top 10 most-visited websites.

Most participants saw value in their children learning computer technology (e.g. Word, Excel, etc.) but many were hesitant about letting their children roam the internet. One mother of six claimed, “I do not allow them to go online without direct supervision. That is, we don't feel that their maturity level can handle the things that could potentially pop up.” Student use of the internet, however, did vary depending on the age of the student. Younger children were generally given less time online and were more closely monitored by their parents.

The resources acquired and accessed by study participants once again demonstrate the differences between motivation-related homeschool groups and their concurrent homeschooling geographies. This chapter has explored homeschooling infrastructures and elucidated differences and similarities among them. The following chapter answers the thesis questions through a discussion of the results of this spatio-temporal and socio-spatial exploration.
4. Discussion

4.1 Introduction

This study sought to explore the infrastructure of homeschooling. It asked how that infrastructure is constructed. It asked whether it is constructed differently among the homeschooling population, and if so, specifically whether infrastructural patterns are different among the three primary motivation-related homeschooling groups. Finally, it sought to describe the homeschooling infrastructure in relation to the infrastructure of traditional schooling.

Study results indicate that there are indeed distinct differences between the homeschool infrastructure and the traditional school infrastructure, as well as among the infrastructures of the three motivational homeschooling groups. This chapter discusses the study results; initially comparing homeschools to traditional schools, the discussion then explores the separation between the home- and traditional-school spheres. Finally, dissimilarities among participants in the three study areas reveal three subtly distinct educational geographies.

4.2 Homeschool and traditional school infrastructure

For students in traditional schools there is generally a clear distinction between the spaces of school and those of the home. Certainly, homework crosses the spatial bounds of the school sphere, bringing the academic into the home space, while boarding schools act as both school and living quarters. However, school and home are generally considered distinctly separate spheres. Homeschools confuse and abandon this distinction. Remaining almost entirely free of regulatory intervention, Virginia homeschoolers nonetheless attempt to reproduce (and even improve upon) the structures and results of
the traditional academic environment. However, homeschoolers’ reasons for homeschooling and the socio-spatial context in which they live have substantial impacts on patterns in the particular spatio-temporal expressions of the homeschooling infrastructure.

Generally, homeschoolers devote less time to strictly academic pursuits (e.g. math, language arts, and history) than do traditionally-schooled students and they typically operate four days a week (keeping Friday aside for socializing, field trips, and occasionally make-up work) in the morning hours before noon. Homeschooling parents also draw from a wider selection of academic materials than most teachers in traditional schools are able to do—being bound by local and state curriculum mandates—and have fewer pupils among whom to divide their attention. As a result, homeschooling parents are better able to adjust their academic schedule to their individual child’s needs.

Because of the large homeschooling support network which includes support families, local homeschool support groups and co-ops, and regional and national support organizations, homeschoolers have access to first-person experience and opinions about the quality and content of various resources and are able to access them often at little-to-no monetary cost. Materials are acquired from libraries, bookstores, online resource suppliers, distributors and retailers, friends, and local and regional curriculum exchanges and fairs. Often these resources are not necessarily designed with homeschoolers in mind. However, as the population of homeschoolers has grown, private businesses and other educational enterprises increasingly include them in their marketing strategies. Study participants often receive teacher-discounts on the purchase of materials or entrance to museums, zoos, or other educational or extracurricular facilities, encouraging their participation in educational activities beyond the home. Yet, while many homeschoolers
avail themselves of local community activities (e.g. swimming at the YMCA or participation in local clubs or theater groups), few involve themselves in local public schools.

Each of the school districts in this study allows homeschoolers to take classes part-time at their local school. However, rather than acting as an incentive to enroll part-time, the VHSL’s regulation prohibiting participation in school competitions (including sports, debate, forensics, etc.) without part-time enrollment, combined with the general wariness of homeschoolers regarding public schools and the negative experiences some homeschoolers have encountered when attempting to work with public schools, appears to spur homeschoolers to remove themselves further from public school interaction. One study participant communicated this succinctly when asked about participation with public schools:

I called about sports. You know about the extracurricular stuff. But then I found out that you are committed to that to some degree; you have to give back. And [I realized] that they want more control over the homeschoolers. And I can see it. I can see them trying to get the homeschool community back involved with the public schools. I have no need for it. I did at one point. I just didn't get very much help there. The only thing that I wanted was sports. Now my kids play soccer with a local community group…

This statement suggests that the reluctance to enroll in public school classes may be as much or more of an attempt by parents to control their children’s academic experience than a rejection of their children’s social cohort. The spatio-temporal analysis of study participants’ schedules (Figure 3.13-3.17) confirms such an assessment: academics are nurtured in the home while extracurricular activities are generally extra-home activities.

However, though most of the study participants were not explicitly critical of the social processes at work in public schools, several indicated that the social aspect of public schooling was a significant part of their choice to homeschool. Figure 4.1 reads as
a comic rebuttal to the idea that homeschooling is socially ‘inferior’ to public schooling. The image is telling, however, in that it expresses multiple levels of homeschooling parents’ fear and frustration over public schools. In Figure 4.1, the Patersons sit behind their daughter at make-shift desks hurling insults and spit-balls at her in an attempt to recreate the ‘authentic educational experience.’ Mrs. Paterson also smokes a cigarette, suggesting that bullies can get away with blatant disciplinary transgressions in public schools. Meanwhile, the Paterson’s daughter, marked as a ‘unique’ individual—referring to homeschoolers’ perception of the unique and special qualities of their children—by her cat-eye glasses, sits frustrated and unable to concentrate on her schoolwork. The cartoon suggests that the moral environment of public school is not supportive (condoning smoking, name calling, and physical abuse) and that public schools are unable to provide academic rigor (the distracted student).

Figure 4.1 - Comic expression of the social environment many homeschooling parents fear their children would be subjected to in public schools. Comic courtesy of http://www.harpers.org/subjects/MrFish.
The student is trapped by the spatio-temporal regulations of public school, and is forced to endure the abuse. Implicit in the cartoon is the message that, in contrast to public schools, homeschools provide safe, nurturing environments in which ‘unique’ children can be given the space to grow, academically and emotionally, without the unwelcome influence of socially ‘maladjusted’ children.

Thus, the home—the epicenter of the homeschooling infrastructure—is represented as a far superior place for academic pursuits. The cartoon demonstrates one of the ways in which the homeschool movement has redefined the home as an acceptable place for education, as discussed by Thiem (2007). Another indication of this reformulation of home-space into acceptable school-space is demonstrated by the recreation of typical school spaces within the home. However, study results indicate that the degree to which homeschoolers mimic the traditional school environment and content varies in distinct patterns across motivational geographies.

The following sections, therefore, disaggregate the discussion among the three study areas. In this way, the complex patterns of homeschooling infrastructure— influenced as they are by parental motivation, socio-demographic characteristics, and socio-spatial context—are elucidated.

### 4.3 Bedford homeschoolers

As expected, participants in the Bedford County school district were strongly religious. While 71.4% of Bedford participants claimed that religious or moral reasons factored strongly into their decision to homeschool, all of them claimed a Christian orientation in their teaching and half declared religious or moral incentives as their primary reason for homeschooling (Table 3.5). They also were the only group that
unanimously cited a concern over the quality of public schools as a reason for home-schooling. They had longer academic work days, participated in fewer out-of-home activities and were more likely to have a room specifically designed for homeschooling than parents in Chesterfield or Floyd. At the same time, their resource network was substantially limited to Christian-oriented curriculum and support groups. This suggests that Van Galen’s (1986) description of ‘ideological’ homeschoolers as more concerned with the content than the form of their children’s education holds true. It also suggests that ideologically-motivated homeschoolers are more exclusionary than their pedagogically- and mainstream-motivated contemporaries. However, Bedford participants had, on average, more children than participants in Chesterfield or Floyd (as well as the two largest families in the study), which may influence the feasibility of making frequent out-of-the-home journeys. In fact, all participants with four or more homeschoolers mentioned the time and energy involved in taking the family out for a day of activities and errands.

In Bedford, local co-ops met in church facilities and several of the local support groups of which participants were members were explicitly religious in nature. Therefore, in spite of the availability of secular resources, the local social support structure is strongly religious and resource-use tended to reflect this. Almost all the Bedford participants included Bible-oriented lessons as part of their daily activities and more frequently used Christian-oriented Internet resources than other participants.

Because many Christian-oriented homeschooling groups ask parents to make a testament of faith before being given membership, some homeschooling parents—even some Christian parents—find that gaining access to this part of the homeschool infra-
structure is undesirable. This was the case with one Bedford homeschooler whose space-time path and location within the study sociograms was consistently more in line with the Chesterfield group than the Bedford group. Though a devout Christian herself, she expressed concern over the exclusivity she encountered in the parts of the local Bedford homeschool infrastructure, had withdrawn from some of the local organizations in protest, and actively sought out resources and support (mostly online) from more diverse, secular sources. Her experience underscores some of the concerns expressed by homeschool critics (e.g. Lubienski 2000; Apple 2001) regarding the potential for social exclusion created by contemporary homeschool regulation and practices.

4.4 Chesterfield homeschoolers

The term ‘mainstream’ homeschoolers has been used to refer to a group of homeschooling parents for whom concerns about the public school environment—its physical, emotional and academic qualities—predominate in their reasons for homeschooling. While Chesterfield participants’ socio-economic status was above national and local county averages, their socio-temporal geographies give a fuller picture of the ‘mainstream’ homeschool infrastructure than previous attempts at defining this motivational group (see Gaither 2009). The first indication that this is a more recent group of homeschoolers is the youth of Chesterfield participants’ children. Though one of the Chesterfield participants had two children of college age who had homeschooled, the average age of homeschooling children in the Chesterfield sample was 7.4 years, substantially lower than Bedford or Floyd (study average was 9.1 years of age). The number of years of homeschooling and overall family size were also less in Chesterfield, suggesting that Chesterfield participants were generally newer to homeschooling.
Chesterfield participants’ primary motivations for homeschooling concern the environment of public schools—a characteristic generally attributed to mainstream homeschoolers—as well as the desire to develop a relationship with their own child, to nurture the singular and special qualities of their child, and to enjoy the flexibility of schedule the ‘lifestyle’ of homeschooling allows. If we assume that these ‘other’ primary motivations are also indicative of the ‘mainstream’ homeschool infrastructure, then 87.5% of Chesterfield participants may be motivated for ‘mainstream’ reasons (25% School-physical environment, 25% school-academic environment, 37.5% ‘other’). The one Chesterfield participant who claimed that her primary reason for homeschooling was religious was also one of the more isolated of the Chesterfield participants, doing out-of-home activities two days of the workweek and staying home to focus on academic work the remaining three.

Generally, however, the space-time maps of Chesterfield participants indicate that these homeschoolers rely more heavily on the out-of-home extracurricular activities to supplement their in-home academic activities than ideologically-motivated homeschoolers. The relative affluence of Chesterfield homeschoolers may facilitate access to private enterprise. However, the fact that Chesterfield has a larger population than Bedford or Floyd also suggests the availability of more non-homeschool oriented businesses that offer a greater variety of classes in which homeschoolers can participate (such as karate, tai kwan doo, dance, violin, etc) and therefore increases the opportunity for out-of-home activities. Chesterfield homeschoolers were also more likely to utilize online resources designed for parents and teachers in the traditional school sphere and to regularly test
their children to ascertain their standing in comparison to traditionally-schooled children, indicating acceptance more of traditional school expectations.

### 4.5 Floyd homeschoolers

Participants in Floyd displayed a greater breadth in homeschooling practices and beliefs than participants in Bedford or Chesterfield. Three of the seven Floyd participants claimed that an alternative pedagogy was the primary reason for choosing to homeschool. However, public school environment and religious or moral concerns also factored significantly with parents motivated primarily by an alternative pedagogy. On one side of the spectrum was the Floyd participant whose space-time path and sociogram location consistently followed Bedford patterns. This participant was one of the more outspoken religiously motivated participants in the entire study group. Two other Floyd participants—both non-Christian spiritualists—were primarily motivated by school environment and alternative pedagogy respectively, yet emphasized the importance of the moral character nurtured through a home-based education as opposed to that offered by public schools. The space-time maps of both of these participants also included less out-of-home activity than the study average, suggesting that ideologically motivated homeschoolers—whether Christian or not—tend toward more social isolation than homeschoolers motivated for other reasons.

On the other side of the Floyd spectrum was the family of unschoolers. As residents of two states, Virginia and Pennsylvania, this family traveled more frequently than other study participants and made a point of turning everyday occurrences into learning experiences. While many of the study participants elsewhere also emphasized the value of the commonplace as a learning opportunity, the unschooling family did not supple-
ment the learning experience with education-specific materials (e.g. math, English, or science workbooks). Instead, their materials were largely drawn from the adult world of information and art. For instance, none of the frequently used websites for the unschoolers included a homeschool or education support group. For the unschoolers in Floyd, and to a lesser extent for the semi-unschooler in Chesterfield, resources such as the British Broadcasting Corporation (BBC), National Public Radio (NPR), Google.com and YouTube.com provided ample learning opportunity. Unschooling then, at least as expressed in this study, does display an almost complete lack of a typical ‘school’ infrastructure. That there are resources online and elsewhere designed for and by self-styled unschoolers and that six of the 23 study participants included one of those as a favorite website (but not the unschoolers themselves) reinforces the notion of overlapping and intricate infrastructures.

Unschooling was the most distinct pedagogical style encountered in this study, as was its infrastructural expression. Though three other study participants (two in Floyd and one in Bedford) were also primarily motivated by an alternative pedagogical style, their space-time maps and sociogram location reflect a combination of the Bedford and Chesterfield patterns. In fact, when location specific data was removed, the resulting sociogram of website use (Figure 3.34) shows a strong relation—black connecting lines—between three participants, two from Floyd (pedagogically motivated—not unschoolers) and one from Chesterfield (motivated by school academic quality). The Bedford participant who claimed an alternative pedagogical motivation is not far from the center either, to the right and above the small group, though not as tightly related.
4.6 Homeschooling infrastructure

By disaggregating the results between the three study areas it is clear that the motivations that drive parents to homeschool have significant impact on their homeschooling geographies. Reinforcing the grouping described by Van Galen (1986), ideologically motivated homeschoolers—here more widely defined by their religious and spiritual views, rather than by the selection of a ‘primary’ motivation as established by NCES surveys (Princiotta and Bielick 2006; National Center for Education Statistics 2008)—use an infrastructure which more closely mimics the traditional school infrastructure, including ‘school’ spaces in the home and a rigorous academic schedule, with the addition of a significant religious or spiritual curriculum. With slightly larger families, ideologues tend to participate in out-of-home activities with less frequency than other homeschoolers, but also supplement this lack of movement by sharing time and space with neighboring support families.

The Christian-oriented infrastructure of support organizations which provide homeschool-specific curriculum, lesson plans, legal advice, discussion forums, and encouragement is used most frequently, though not exclusively, by the ideologues in this study. That some of these organizations require a testament of faith as prerequisite for membership, may have some bearing on the overall exclusivity expressed in the ideologues’ homeschool infrastructure. The popularity of Christian-oriented resources with homeschoolers who consider themselves of moderate faith or even non-religious entirely, once again demonstrates the flexible and customizable nature of the homeschooling infrastructure. Similarly, Christian homeschoolers seeking secular perspectives have a wealth of support organizations to choose from.
Trying to describe an infrastructure manifested by pedagogically-oriented home-schoolers is largely unproductive. As discussed by Stevens (2001) and Gaither (2008a), the practice of alternative pedagogies\textsuperscript{30} crosses ideological boundaries and does not appear to strongly influence the expression of participants’ homeschool geographies. The one exception is the practice of unschooling. However, with an unschooling sample of one there is no way of knowing how common the resources and methods employed by this family are. The existence of numerous unschooling-specific organizations suggests that there is more to connect unschoolers to the homeschool infrastructure than this study shows.

If unschoolers appear to represent the far end of the homeschool infrastructure—almost indiscernible from the day-to-day infrastructure of knowledge attainment—and ideologues more closely mimic the academic structure of public schools, the third group of homeschoolers may exemplify an infrastructure of contemporary school-choice privilege.

Termed ‘mainstream’ by virtue of a motivational and social demographic that reflects contemporary school-choice concerns about the academic and social environment of public schools, this group also expressed the desire to foster strong family ties and to enjoy a flexible schedule not dictated by school regulations. The ‘mainstream’ homeschoolers in this study reproduced the image of the American ‘soccer-mom,’ busy keeping track of children and schedules, running errands while whisking children from music lesson, to ballet, to baseball practice. However, in addition to a maze of out-of-home activities, these study participants also created a space for academic activities in the

\textsuperscript{30} A few of the pedagogies mentioned by study participants include the Charlotte Mason, Rudolf Steiner (Waldorf), classical and even progressive teaching methods.
home. Often less time was spent by this group of homeschoolers on academic pursuits than extracurricular ones, but the resources any one participant drew from spanned the education market from Christian-homeschool to secular public-education materials.

The ‘Mainstream’ homeschooling group was also more likely to pay membership fees for homeschool organizations such as the HSLDA or the Home Educators Association of Virginia (HEAV) and to regularly attend homeschool conventions and curriculum fairs. However, Chesterfield’s immediate proximity to Richmond, where an annual HEAV convention is held, undoubtedly eases the access restraints of distance and time.

The relative affluence of Chesterfield among the three study areas makes it difficult to ascertain the degree to which income-level imposes limitations on the infrastructure of individual families. However, all study participants had an income level above the local average, indicating that socio-economic context is also an important element in the choice to homeschool. For instance, a family that is homeschooling in Floyd on an annual household-income of $50,000—significantly more than the average household income of $36,000 in Floyd—would be hard pressed to continue living and educating in the same fashion upon moving to Chesterfield. Tangentially, this suggests that socio-economically disadvantaged groups are less likely to find homeschooling a viable school-choice option.

4.7 Chapter summary

This chapter examined the infrastructure of homeschooling as expressed in the space-time patterns and network associations which make up the everyday geographies of homeschooling families in Virginia. The infrastructure of homeschooling consists of a variety of spaces—centered on the home—and resources which have been tailored to or appropriated for customized educational procurement. The flexibility built into the
homeschool infrastructure allows parents a great degree of freedom to choose both the content and shape of their children’s ‘formal’ education.

However, as seen in traditional geographies of school choice (e.g. Lankford and Wyckoff 2000; Butler and Robson 2001; Renzulli and Evans 2005; Andre-Bechely 2007), the patterns of infrastructural expression are strongly influenced by socio-economic and socio-spatial contexts afforded by particular geographic locations. The degree to which local support networks constitute the homeschool infrastructure indicates that, in spite of the rhetoric of inclusion maintained by homeschool advocates, the reality is of socially exclusive support networks based substantially on the processes of social homophily. As homeschooling becomes an increasingly acceptable form of educational attainment, its potential for fostering educational and societal resegregation also increases.

In the end, while the homeschooling infrastructure is an infrastructure of personal and therefore individual choice, the socio-demographic and socio-spatial processes which are implicated in the resegregation of public education also shape the collective structures of homeschooling for individuals.
5. Conclusion

This thesis has explored the infrastructure of homeschooling as expressed through geographies of homeschoolers in Virginia. The spatio-temporal and socio-spatial networks which make up the everyday lived experience of homeschoolers are markedly different from those which constitute the everyday geographies of traditionally-schooled students, yet the two infrastructures are not unrelated. This study has shown that homeschoolers often seek to emulate the infrastructure of traditional schools, albeit with a degree of flexibility and individual customization unavailable in the traditional school structure. It has demonstrated that a geographic perspective elucidates important socio-spatial relationships that are too often overlooked in favor of expansive generalizations. As a result, this thesis underscores the need to understand the complexity of the homeschool infrastructure and to appreciate its importance as an agent of educational restructuring.

Proponents of homeschooling focus on the social and academic benefits of homeschooling for the individual child, emphasizing family cohesion and the ills of public education. Meanwhile, critics of homeschooling are concerned for the individual welfare of children isolated from society’s protective advocacy (Fluri 2001; Yuracko 2008) and for the state of public education, racial segregation and a working democracy influenced by the rejection of the traditional school infrastructure (Blacker 1998; Lubienski 2000; Apple 2001). However, the tradition of dissent which has been fostered by homeschool advocates throughout the homeschool movement suggests that current homeschool regulation in Virginia—which only provides public schools with funding for students who attend academic classes—pits public school interests against homeschool interests.
5.1 The homeschool—public school divide

Virginia’s public school funding is largely dependent on per-pupil enrollments (Virginia School Board Auditor 2001). As a result, districts with high rates of homeschooling have seen significant drops in funding. For example, homeschoolers make up 8.2% of the 282 K-12 students in the Highland County school district in western Virginia resulting in an annual loss of over $100,000 to the school district (Peterson 2008). Several Virginia school districts (including Bedford, Chesterfield and Floyd) have attempted to combat this loss of students by opening their doors to homeschoolers and/or contracting with virtual curriculum provider K\textsuperscript{12} Inc., in order to encourage homeschoolers to return to the public fold (Rowland 2005; Desrets 2008). Such public-private partnerships as K\textsuperscript{12} Inc. allow public school students to earn high school credit through online classes, which can be ‘attended’ at home. However, the sentiment expressed by participants in this study is one of frustration with and wariness toward traditional school systems and authorities.

Unlike traditional schools, most homeschool organizations do not place strictures on the frequency or constancy of attendance, nor do they require reciprocal commitments of time or obligatory class attendance by homeschoolers (with, perhaps, the exception of some homeschool co-ops). The VHSL’s part-time enrollment requirements, as well as the history of negative interactions between homeschooling parents and public school authorities (see Rowland 2005; Yuracko 2008) contribute to the continued wariness of homeschool parents concerning potential government intervention in their activities.

Yvonne Bunn, Director of Homeschool Support for HEAV declared in a recent online HEAV newsletter that virtual schools “lure homeschoolers with free counseling, free
textbooks, free resources, maybe a free computer, and the free services of a certified
teacher to oversee everything” while removing the parent’s ability to “individualize their
curriculum to suit their child's needs, interests, or learning style” (2008, par. 23).

Several states have established homeschool policies which apportion funds to
state schools for homeschoolers registered in their school districts. In Pennsylvania, for
instance, state funding subsidizes registered low-income homeschoolers with money for
curriculum material. In exchange, all public schools are required to offer open-access to
all public school resources for homeschoolers (Pennsylvania Department of Education
2008; Homeschool Legal Defense Association 2009). Iowa has a similar homeschool
assistance program which provides per-homeschooler funds to be used for supervising-
teachers and educational enrichment programs (Kellett 2008). Such programs provide an
incentive for homeschoolers to register their homeschooling activities while simulta-
neously providing funds for local school authorities to account for homeschoolers in their
school districts,31 thus increasing the capacity of school authorities to monitor home-
schoolers without requiring homeschoolers to relinquish their ability to customize their
child’s education.

While such policies are not likely to find favor with all homeschoolers, the grow-
ing population of ‘mainstream’ homeschoolers has demonstrated a desire to have their
children participate in non-academic activities, whether provided by public schools or
private enterprise. Considering the well-established power of the homeschool lobby

31 Though registration is already required by law in Virginia, several study participants admitted to
knowing multiple families of homeschoolers who did not register. Combined with Ray’s (2002) assertion
that homeschooling numbers are closer to 2.4 million than the NCES (2008) estimate of 1.5 million, such
claims suggest that local school authorities are failing to adequately track homeschooling activities in their
school districts.
(Stevens 2001; Thiem 2007; Yuracko 2008) accessing the ‘mainstream’ group of the homeschool population and fostering a new level of trust between homeschoolers and public school authorities is essential for the success of future homeschool policies. For example, state funding policy could include registered homeschoolers in school districts’ per-pupil funding—even if only as partially-funded students—and require school districts to utilize these resources for enrichment programs, facilities maintenance and improvement, and homeschool supervising officials. Such a policy would not only benefit students remaining in the public school system, it would also foster interaction between public schools and homeschools by removing the incentive for public school authorities to ‘lure’ homeschool students into taking classes in exchange for being allowed to participate in extracurricular activities.

5.2 Reflections and future opportunities

As a previously homeschooled student, the undertaking of this thesis has revealed a complex and justifiably controversial educational infrastructure, which I now view with considerable ambiguity. On the one hand, regardless of academic achievements, I see the parent-child relationship fostered by the homeschool environment as one of great potential, requiring a high-level of parental involvement, communication and value, and generating strong family bonds. On the other hand, I find the distrustful attitude of many homeschoolers toward public education and public school students deeply disturbing. Regardless of their absolute socio-economic status, homeschooling parents tend to possess a certain degree of social privilege and a sense of self-efficacy which increases their social capital (see, for example, Driessen, Smit, and Sleegers 2005; Green and Hoover-Dempsey 2007). The almost complete lack of interaction between homeschoolers
and the public school infrastructure in Virginia indicates, to me, the potential for increased social stratification, especially along racial lines, that the homeschooling infrastructure engenders.

However, the ambiguity of my own interpretation of homeschooling simply underscores the need for further exploration of the shape and implications of this educational infrastructure. In retrospect, accessing a larger sample of homeschoolers—including minorities and religious non-Christians—would substantially increase the depth of the study results. Though the study population chosen met most of the demographic expectations established by previous studies, the relatively narrow range of socio-demographic characteristics indicates that there are gaps in this infrastructural examination. While this study confirmed that distinctions exist among the dominant homeschool infrastructures (i.e. middle class religious and upper-middle class ‘mainstream’ homeschool infrastructures), a more directed sampling method would detail the character of outlying homeschool infrastructures (as demonstrated by the unschooling participants).

Similarly, while not focused on racial issues, this thesis demonstrated the connection between proportionally larger white populations and increased rates of homeschooling in Virginia school districts. There are distinct racial correlations, then, in homeschooling. However, other than Fluri (2001) and Levy (2007), race is an aspect of homeschooling that is little understood or explored. This study has described the homeschooling infrastructure as it is used by middle-class whites in Virginia. However, though racial and religious minorities are even less well-represented in homeschooling than in the general American population, exploring their expression of homeschooling would assist in revealing the breadth of the homeschool infrastructure. More importantly, it
would add to the growing literature on the impacts of school-choice on educational restructuring, specifically as it relates to the potential resegregation of American schools and society.

In this thesis I have described the homeschool infrastructure as expressed through the spatio-temporal and socio-spatial geographies of homeschoolers in Virginia. I have shown that the motivation to homeschool, as well as the socio-spatial and socio-demographic contexts in which homeschoolers are geographically situated, shape the infrastructure of collections of individual homeschools. I have also argued that the homeschool infrastructure is a significant part of the geographies of school choice and is therefore implicated in the same resegregational processes demonstrated in school choice literature.

Through the creation and regulation of public schooling, American society has established an educational infrastructure which has significantly influenced the geographies everyday of lived experience. However, as the traditional educational infrastructure undergoes restructuring brought about by the contemporary school choice movement, the decision to homeschool represents a movement toward flexibility and adaptability in school structure in the United States. By describing the shape of homeschool infrastructures, this thesis demonstrates an extreme expression of individualized, privatized education and, therefore, contributes to a more robust understanding of the restructuring of American education.
References


Appendix A

GEOGRAPHIES OF HOMESCHOOLING
GENERAL SURVEY

Participant # _______            Date ______________

Your decision to fill out this survey is voluntary. You can stop at any time. You do not have to answer any questions you do not want to answer. Your answers to the survey questions are confidential. They will be used to guide our discussion about your homeschooling activities and to create a statistical base for analysis. Surveys will be destroyed three years following the end of the study.

DIRECTIONS: Please circle the leading letter/number of your answer and fill in blanks where appropriate.

1. I am the parent/guardian of one or more children under 20 who homeschool.
   a. Yes (Continue at question 2)
   b. No (Please do not continue)

2. How many children in your household are homeschooled?
   a. _______ (Please list each child’s age and number of years of home instruction)
      i. Age _____ Years of home instruction _____
      ii. Age _____ Years of home instruction _____
      iii. Age _____ Years of home instruction _____
      iv. Age _____ Years of home instruction _____
      v. Age _____ Years of home instruction _____
      vi. If more than 5, please list here ____________________________________

3. Are there other children in pre-K-12 public or private schooling in your household?
   a. Yes (Please continue at question 5)
   b. No (Skip to question 7)

4. How many children in pre-K-12 schooling in your household are not homeschooled?
   a. _______ (Please list non-homeschooled child/ren’s age and if they attend public or private school.)
      i. _____ Public _____ Private_____
      ii. _____ Public _____ Private_____
      iii. _____ Public _____ Private_____
      iv. _____ Public _____ Private_____
      v. _____ Public _____ Private_____
      vi. If more than 5 please list here ____________________________________

5. Were any of the non-homeschooled children homeschooled prior to entering a public or private school?
   a. Yes
   b. No

6. Do any of the children listed in question 3 attend public or private school classes part-time? (Please do not include extracurricular activities)
   a. Yes (hours per week attended______ )
   b. No

7. Do any of the children listed in question 3 participate extracurricular activities administered by a public or private school?
   a. Yes (Please Specify ______________________________)
   b. No
8. Who is the primary educator of your child/ren?
   a. Mother
   b. Father
   c. Private Tutor or Teacher
   d. Other (Please specify ___________________)

9. Household income range:
   a. $25,000 or less
   b. $25,001 to 50,000
   c. $50,001 to 75,000
   d. $75,001 or more

10. Please tell us about all the sources of curriculum or books you use to home school. In home schooling, have you used curriculum or books …  
    YES  NO
    a. From a public library? ................................................................. 1  2
    b. Have you used curriculum or books obtained directly from a homeschooling catalog, publisher, or individual who specializes in home schooling materials? .......................................................... 1  2
    c. How about any obtained directly from another educational publisher? .......................................................... 1  2
    d. From a home schooling organization? ........................................ 1  2
    e. From a church, synagogue, or other religious organization? ........... 1  2
    f. From your local public school or school district? .......................... 1  2
    g. From a private school? ................................................................. 1  2
    h. From a retail bookstore or other store? ....................................... 1  2
    i. From any other sources? ................................................................. 1  2
       (Please Specify _________________________________________)

11. Have any of the following been used in your home schooling?  
    YES  NO
    a. A correspondence course by mail specifically designed for home schoolers? ................................................................. 1  2
    b. A course or instruction provided over the Internet, e-mail, or World Wide Web, NOT administered by a VA public or private school? ................................................................. 1  2
    c. A course or instruction provided over the Internet, e-mail, or World Wide Web, that IS administered by a VA public or private school? ................................................................. 1  2
    d. A course or instruction provided by television, video, or radio? ....... 1  2

12. There are many different reasons that parents choose to home school their children. Please tell me if any of these reasons apply to you.  
    YES  NO
    a. You are concerned about the school environment, such as safety, drugs, or negative peer pressure? ................................................................. 1  2
    b. You are dissatisfied with the academic instruction at other schools? ................................................................. 1  2
    c. You prefer to teach your child/ren at home so that you can provide
religious or moral instruction? ................................................................. 1 2
d. Your child/ren has/have a physical or mental health problem that has lasted six months or more? ................................................................. 1 2
e. Your child/ren has/have a temporary illness that prevents (him/her) from going to school? ................................................................. 1 2
f. Your child/ren has/have other special needs that you feel the school can’t or won’t meet? ................................................................. 1 2
g. You have another reason for home schooling your child? ................. 1 2
Please specify___________________________________

13. Of the reasons you just mentioned, which would you say is the MOST important?

a. CONCERN ABOUT SCHOOL ENVIRONMENT
b. DISSATISFIED WITH ACADEMIC INSTRUCTION AT OTHER SCHOOLS
c. TO PROVIDE RELIGIOUS OR MORAL INSTRUCTION
d. CHILD HAS A PHYSICAL OR MENTAL HEALTH PROBLEM
e. CHILD HAS A TEMPORARY ILLNESS
f. CHILD OTHER SPECIAL NEEDS
g. OTHER
Appendix B

SEMI-STRUCTURED INTERVIEW WITH HOMESCHOOL PARENTS

Questions will focus on what activities these parents engage in, where these activities take place, whether they are group activities or not, and how often they occur. The order of the questions may change to reflect the flow of the discussion.

1. What kinds of educational activities do you do in your home?
2. Where else do you conduct schooling activities?
3. Are you part of any homeschool group for students that meets on a regular basis?
   a. Where do these groups meet?
   b. What kinds of activities does each group focus on?
4. Do you attend local homeschool support groups for parents?
   a. Where do these groups meet?
5. Do you utilize any public or private school facilities or programs?
6. How and from whom do you obtain your educational materials?
7. Do you use online resources for…
   a. educational materials?
   b. answering legal, pedagogical, or other questions?
   c. keeping up with homeschool news?
   d. anything else?
8. Are there places that you do not have access to that you feel would add to your child(ren)’s education?
9. Does your child(ren) participate in activities with non-homeschooled children?
   a. What kinds of activities?
   b. Where and how often do they take place?
10. Do you attend homeschool conventions or curriculum fairs?
    a. How often?
    b. Where?