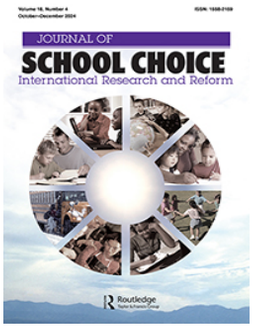

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ARTICLE

Gifted Students Learning in Homeschool Settings: Research and Policy Recommendations

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ABSTRACT

Despite upwards of 100,000 gifted students possibly being educated at home, research regarding this population is limited. The literature on gifted homeschooling includes topics such as motivations for homeschooling, modalities of instruction, and student achievement and social-emotional wellness. Recommendations for expanding the literature and providing better insight into these students' experiences include determining the demographics of gifted homeschool students, surveying methods and costs of instruction, and measuring educational outcomes. It is imperative to collect and make this information publicly available, and to prioritize research on this population. Doing so will ensure that policy better serves the needs of these unique learners.

KEYWORDS

Advanced education; education policy; gifted education; homeschooling; school choice; twice-exceptional students

Families make the decision to homeschool their children for a wide range of reasons (Dennison, Lasser, Awtry Madres, & Lerma, 2020; Green & Hoover-Dempsey, 2007; Green-Hennessy & Mariotti, 2023). These reasons may include ideology or a desire for greater religiosity in their children's schooling, a lack of educational satisfaction with their child's public or private school education, concerns about safety and their child's well-being, or as Dennison et al. (2020) hypothesize, a desire for more culturally appropriate teaching and curriculum. In this paper, we review research on families that homeschool due to a specific type of educational dissatisfaction: The lack of intellectual and academic challenge often experienced by advanced or gifted students in formal school settings.

The motivation to homeschool a child with special needs has been well-documented, with studies finding evidence that parents often choose to homeschool when they (and their child) become frustrated with a perceived mismatch between the child's academic needs and the services being received in their school (e.g., Cheng, Tuchman, & Wolf, 2018; Morse & Bell, 2018; B. D. Ray, Shakeel, Worth, & Bryant, 2021). This frustration is not limited to students with learning challenges, as caregivers are often disappointed at the mismatch between their child's capabilities and a school district's perceived

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inability to provide advanced curriculum and instruction (Jolly, Matthews, & Nester, 2013, 2017). Kula (2018) offered examples of specific issues that parents and gifted children encounter in elementary grades, such parents' frustration when teachers ask academically advanced children to serve as tutors in lieu of differentiated learning opportunities.

As noted by Jolly et al. (2013), parents describe their understanding of their children's giftedness as a major contributing factor in the decision to homeschool. When a parent recognizes that their child is advanced, this realization may contribute to the parent's feelings of urgency to assume responsibility over their child's education. What the classroom teachers recommend may oppose parents' views of what is best for their child. Indeed, parents' desire for autonomy over their children's education is a driving force for many who choose to homeschool (Dennison et al., 2020).

Although researchers have not determined the percentage of advanced students within the homeschooling population, the fact that parents have homeschooled gifted students for decades is widely accepted (Jolly & Matthews, 2017). As the number of homeschooled students continues to grow in the wake of the pandemic (Duvall, 2021; Jamison et al., 2023), the number of homeschooled students with advanced learning needs is almost certainly growing. Yet the research on advanced homeschooled students is thin, and policies and regulations to monitor and support the education of these students is largely nonexistent. In the following sections, we summarize key aspects of gifted education that are relevant to homeschooling, review recent research on gifted homeschooling, provide detailed recommendations for research, and conclude with policy recommendations to better support advanced students who are being homeschooled.

Gifted education

Although research on homeschooling in general is limited, the research on homeschooling of advanced students is largely nonexistent, with only a handful of studies appearing over the past decade. If one assumes that the number of gifted homeschool students is significant, this lack of scholarship and policy development may appear puzzling. But many of the limitations affecting general homeschool research also pertain to the study of gifted students, making any such research even more difficult.

For example, homeschooling laws and regulations vary greatly by state, ranging from light regulation in states like Texas, Michigan, and Alaska, to quite stringent regulations in states like Pennsylvania, New York, and Massachusetts (HLSDA, n.d.). Similarly, gifted education regulations vary greatly from state to state (Rinn et al., 2022). Even a foundational concept such as a definition of giftedness or advanced achievement varies: The federal government refers to gifted students as "those identified by professionally

qualified persons, who by virtue of outstanding abilities are capable of high performance … children who require differentiated educational programs and/or services beyond those normally provided by the regular school program in order to realize their contribution to self and society;" in a survey of 52 states and territories, 48 had their own definition of gifted education, each diverging from the national verbiage (Public Law 91–230, Section 806; Rinn et al., 2022). Further, states like Virginia leave gifted definitions to districts, leading to over 130 different definitions of gifted education (§ 22.1–16 of the Code of Virginia). The National Center for Education Statistics (2023) currently estimates that the U.S. has 3 million gifted students, representing over 6% of students, but variance in definitions and identification methods suggests this number could be a significant underestimate.

Further complicating the situation, twice exceptional (2e) students – those with both learning challenges and considerable advanced skills – are often overlooked and underserved in advanced programming (Foley-Nicpon, Assouline, & Colangelo, 2013). For these children, it is common for them to show readiness to perform at higher grade levels in certain subjects while still requiring remedial instruction for others. Parents of students who are 2e may be particularly motivated to pursue alternative educational settings that allow their children to receive the help and support they need across academic subjects. In our personal experiences, families of 2e students are among the most dissatisfied with their children's education. 2e students who receive intervention for their intellectual disability alone – not uncommon due to the stronger policy framework and available resources in special education – may even act out in response to the lack of challenge, especially those who are placed in a special education classroom (The Davidson Institute, n.d.).

Even more varied than state definitions of giftedness are the regulations and funding surrounding programming. In 2020, only 26 states earmarked funding for gifted or advanced education, and just 10 specified that funding needed to be used for programming (Rinn et al., 2022). As a result, students who move may not be considered gifted in another state, and the state in which a gifted student resides may not offer programming suited to their needs, whether they meet the requirements and are identified or not (National Association for Gifted Children, n.d.). Comprehensive studies of advanced education policies consistently provide evidence of a patchwork of policies across states, resulting in a tremendous range of practices regarding all aspects of advanced education (Plucker, Giancola, Healey, Arndt, & Wang, 2015; Plucke, Glynn, Healey, & Dettmer, 2018; Rinn et al., 2020, 2022).

Due to this variability in policy and practice, answering even the basic question of "how many U.S. students receive advanced education services?" is quite difficult. Given the well-documented complexities of estimating the number of homeschooled students in the U.S., it is easy to see why estimating the number of gifted homeschooled students would be a daunting task. For

example, current estimates suggest that 50,000-140,000 gifted students are homeschooled across the country, but in light of recent data indicating there has been a 50% increase in homeschooling since the 2017–2018 school year, as well as the spotty nature of pre-pandemic data collection, that figure is likely an underestimate (Jamison et al., 2023; Jolly & Matthews, 2012). The complexities of both gifted education and homeschooling make the study of their intersection in the American context challenging, to put it mildly.

Gifted and homeschooling

The majority of existing research comes from Jolly and Matthews, who have spent the last two decades compiling evidence about the interplay of gifted education and homeschooling. Their research compiles the narratives of many gifted and homeschooled students and their families (Jolly, Matthews, & Nester, 2012; Jolly & Matthews, 2012, 2013, 2017). These narratives detail the largely positive impact homeschooling has had on students' education and have spanned subjects such as motivations for switching to homeschooling, homeschooling strategies, and impacts of homeschooling on achievement as well as social-emotional development.

Motivations for homeschooling gifted students

Parents who choose to homeschool their gifted students do so for many reasons. As stated previously, gifted education can be sparse, leaving many students who need advanced instruction without rigorous academic opportunities (Rinn et al., 2022). According to a review of publications on gifted education programming by Jolly and Matthews (2012), parents have a few main concerns with gifted or advanced programming in local schools. First, many parents do not believe that schools can fulfill the academic needs of their students within a general classroom. Further, parents express concerns that programming is insufficient, and that communication regarding their child's progress is not frequent or clear. Parents also express concerns that classmates may tease or antagonize students due to their giftedness (Jolly & Matthews, 2012). Additional literature suggests that there is a growing population of families who pull their students from school to conduct home education due to general disillusionment with public education and the desire to provide a better education for their students (Jolly & Matthews, 2017; Kula, 2018; Matthews et al., 2024). Finally, parents of gifted students often pull their students into homeschooling after repeated efforts to better communicate with schools and advocate for their students (Jolly & Matthews, 2017); put differently, the decision to remove a gifted child from a school in order to homeschool them is rarely made lightly, and then only after considerable effort to work with the child's school.

Modalities of homeschooling gifted students

As with homeschooling generally, homeschooling for gifted students may look very different from student to student (Jolly et al., 2013). Although some families use premade curricula, such as that provided by the Davidson Institute, other parents choose to create their own curricular materials and activities. Often, this involves self-directed exploration of topics of the student's interest. As with homeschooling in general, many families that homeschool their gifted students cite the value of establishing an educational community with other families, engaging through online forums and blogs to provide parents with ideas for curriculum as well as connections for students (Jolly & Matthews, 2017; Kula, 2018). Other homeschooling modalities include online programs, personal tutors, and dual enrollment classes through local community colleges and universities. Many families report using multiple strategies as well as pivoting between modalities as they adapt to homeschooling their advanced students (Jolly & Matthews, 2017; Kearney, 1984).

Gifted and homeschooled student achievement

If the research on gifted education and homeschooling is limited, the research on achievement within that group is virtually nonexistent: To date, there have been no empirical studies on the educational outcomes of homeschooled gifted students. Only nine states require homeschool students to be assessed, no states publicly report testing results, nor are scores parsed by student demographics such as giftedness (HLSDA, n.d.). Jolly and Matthews (2017), relying on evidence from homeschooling blogs, offer anecdotal evidence that homeschooling "meet[s] children where they are, wherever that is, and move-[s] them forward towards their potential . . . [making it the] best-practice for all children" (Jolly & Matthews, 2017; see also Kessler, 2024). The lack of evidence to support claims such as these, however, begs the question of whether data would back them up at all. We simply do not know.

Gifted and homeschooled social-emotional wellness

There is a small amount of literature on the social-emotional impacts of home-schooling on gifted learners. Parents report that gifted students who are in a classroom may be bored and lack motivation. Further, parents report that students feel socially isolated in the classroom and may struggle to connect with peers due to differences in interests and motivation (Brown & Steinberg, 1990). On the other hand, Lee's (2016) research on six gifted and homeschooled students revealed that students in the homeschool setting have a largely positive perception of their educational experience. Students in the study reported having increased talent development opportunities, appreciated the self-paced

nature if their academics, and were able to engage in a variety of learning spaces such as community theaters, co-op groups, and individual learning sessions. These varied learning spaces were also sites of social mobility for students, where they could connect with like-minded peers and instructors.

International perspectives

Homeschooling gifted learners is not an idea specific to the United States. Across the globe, gifted students learn outside of the general classroom, and research on students from these other nations can be used to inform research and policy stateside. In Iran, for example, a study was conducted on young, gifted learners who engage in hybrid homeschooling. Iran's education system has no gifted schools or instruction at the primary level, and only once students get to secondary school can they enter a specific program for gifted instruction. This leaves many primary aged students without challenge, as the Iranian education system is centralized around memorization and direct instruction from the teacher to the student. Like studies conducted in the United States, primary motivations for homeschooling appear to be (a) the lack of rigor for students in the general classroom, (b) lack of congruency between parental and school views and goals for students, and (c) unmet expectations of education and teachers by the students. As a result, the parents interviewed in the study chose to conduct hybrid homeschooling, whereby students still met academic requirements of the school, but were also able to engage in more stimulating educational experiences outside of the classroom, often with a family-hired instructor (Nejatifar, Abedi, Ghamarani, & Asanjarani, 2023).

In Australia, there are over 19,000 students who engage in homeschooling, and between 2011 and 2017, the population grew by 82% (Conejeros-Solar & Smith, 2021). As in the United States, reporting on this population is varied, and there are no requirements to report giftedness and homeschooling concurrently, which leaves the number of gifted and homeschooled students unknown. In Australia, motivations for homeschooling also include lack of satisfaction with the traditional classroom, instructional materials not meeting students' needs or interests, and peer-related challenges relating to giftedness such as bullying. Further, homeschooled individuals in Australia experience perceived positive outcomes in the form of broader curriculum and social experiences (Allan & Jackson, 2010).

Summary of existing research

The research regarding the intersection of gifted and homeschooled students is sparse. The limited data regarding who these students are, what and how they are learning, and to what degree they are finding academic success, leaves researchers with a sizable hole to fill. To craft policies to support these

students, policymakers need access to literature that captures the experience of gifted and homeschooled students.

Research recommendations

Given the complicated nature of researching the experience of gifted, homeschooled children, it is essential for researchers to address not only unexplored or understudied topics of research in this area, but also the factors that have contributed to the lack of research. In establishing connections with those who have access to information about homeschooled children across the United States, it is important for researchers to be transparent about what information they want to know and for what purposes they wish to acquire this information. Reflecting an awareness regarding the interests of those who pursue homeschooling as an alternative method of education for their gifted children may help researchers access information about the topics recommended below. A summary of key themes in this section is included in Table 1.

Table 1. Summary of research gaps regarding advanced students and homeschooling.

Research Topic	Important Factors Based on Existing Studies		
The Number of Gifted Homeschooled Students	State regulations for reporting homeschooling (Carlson, 2020)	State regulations for identifying gifted students (Rinn et al., 2022)	At what age students began homeschooling and how long they were homeschooled (Kunzman & Gaither, 2013)
The Number of 2e Homeschooled Students	"Masking," where students' disabilities mask their gifts (Krochak & Ryan, 2007; Little, 2001)	Gifted students' emotional or behavioral disabilities (Missett, Callahan, & Hertberg-Davis, 2013)	Parents' ability and interest in catering to their child's unique needs (Winstanley, 2009)
Differences in Homeschooling Instruction	Different types of homeschooling instruction (Neuman, 2020)	Differences in teaching philosophies among homeschooled families (Kula, 2018)	Changes in instructional approaches over time (Kunzman & Gaither, 2013)
Cost of Homeschooling	The number of families who have access to Education Savings Accounts (EdChoice, 2023)	How ESAs are used to fund educational opportunities for gifted students (EdChoice, 2023)	The cost of educating a gifted homeschooled student
Academic Trajectory of Homeschooled Students	Differences in assessment practices between and within states (Carlson, 2020)	Academic performance of college students who were homeschooled (Yu, Sackett, & Kuncel, 2016)	The number of gifted homeschooled students who choose to apply to college; the number of these students who were accepted
Gifted Students of Color and Low-Income Students who are Homeschooled	Educational inequalities experienced by students from historically underserved populations (Plucker & Peters, 2016, 2018)	Parents' choices to homeschool influenced by inequality their children are likely to experience in public school (Dennison, Lasser, Awtry Madres, & Lerma, 2020)	The presence and quality of culturally-sustaining educational materials for homeschooling families

The number of gifted homeschooled students

Understandably, researchers who wish to explore the needs of this population of gifted students must be able to estimate how many students are being educated in the home. However, given the legislative differences between and within states regarding the assessment of homeschooled students (Carlson, 2020), as well as the differences in state regulations involving the definition of gifted students, identifications strategies, and tracking of gifted students (Rinn et al., 2022), it is difficult to paint an accurate picture of the homeschooled gifted student's experience.

Another factor that contributes to the convoluted state of educational research focusing on gifted students who are homeschooled can be found in the exploration of the unique educational timelines of each gifted, homeschooled student. The specific timeline of the homeschooling experience may differ greatly between students, with some receiving their instruction at home throughout the duration of their K-12 education, and others receiving public education at various times and for varying durations across the span of their academic careers. These differences are important to explore, as they can help to elucidate the impact of homeschooling on advanced students and reveal whether and how homeschooling families access educational resources that are appropriate for their children. For example, parents of children who were identified as gifted in elementary school may demonstrate different behaviors related to researching and accessing resources when compared to parents of children who were never instructed in public school settings and thus were not formally identified as gifted.

Furthermore, research indicates that the timeline of homeschooling experiences may be informed by children's experience of giftedness. Parents often choose to begin homeschooling their children in elementary school, as they have the advantage of time, interest, and focus on their children that is greater than what classroom teachers can provide (Winstanley, 2009). Kunzman and Gaither (2013) explained that many homeschooling parents return their children to traditional public education settings after a year or two, and that most parents who homeschool their children do so for an average of six years. However, as children age, parents may choose to take advantage of programs that traditional schools can provide, such as advanced placement programs or dual credit courses, where students can complete college-level courses while still in high school.

Thus, specific research recommendations involving the number of gifted students should include: (a) demographic characteristics of gifted children who are homeschoolers versus those who are not; (b) the ages that gifted children begin their homeschooling education; (c) the ages that gifted children begin (as well as return to) public education settings; (d) how the siblings of

homeschooled gifted students receive instruction; (e) the number of gifted students who have been homeschooled for the duration of their K-12 education; and (f) how all of the topics above were impacted by the pandemic and its aftermath.

Homeschooled students who are 2e

When describing students who are twice-exceptional, researchers often refer to the phenomenon of *masking*, which occurs when a child's giftedness masks their disabilities as well as when a child's disabilities mask their gifts (Krochak & Ryan, 2007; Little, 2001). When this occurs, classroom teachers may demonstrate a focus on one set of the 2e child's academic needs while neglecting others. This may also occur when gifted students also exhibit emotional or behavioral disabilities (Missett et al., 2013). Parents of 2e students are not as susceptible to masking, as they may demonstrate a deeper understanding of their child's history, interests, strengths, and areas of improvement.

Specific research recommendations for educational researchers interested in examining gifted homeschooled students must include a discussion about the concerns, supports, and experiences of students who are 2e as well as those who instruct them. These recommendations include: (a) the number of gifted children who are 2e; and (b) the age and demographic of students who are 2e; (c) who provides instruction for students in areas in which they excel; and (d) who provides instruction for students when they require remedial support.

Differences in homeschooling instruction

Although students homeschooled for most of their K-12 education may share similar experiences, they may still encounter differences related to types of instruction, curriculum, and homeschooling philosophies. Neuman (2020) expressed a concern that research about homeschooling rarely investigated different types of homeschooling, of which there are many. Kula (2018) outlined several methods of instruction that are common amongst homeschooling families, including Charlotte Mason's approach, which relies heavily on constructivism (Spencer, 2009), unschooling (Gray & Riley, 2015), the classical approach, or trivium (Sherfinski, 2014), and learning by discovery (Ausubel, 1961). Although parents tend to begin with a traditional, direct instruction approach, they often embrace more eclectic approaches to homeschooling over time (Kunzman & Gaither, 2013). The differences in these approaches indicate the wide variety of instructional techniques and content that may be available to students who share the experience of receiving all their education in the home.

Moreover, there are many modalities of homeschooling available for parents interested in leaving the public and private education systems. These could include independent/micro schools, online courses, tutoring, or homeschooling cooperatives (co-ops), in which several families meet regularly at libraries, churches, community centers, or homes and work together to make progress toward shared learning goals. In some cases, homeschooled students can even attend parent-instructed courses and enrichment activities led by other homeschooling families. Some students may attend such enrichment activities on a frequent basis, while others may only attend for a couple of hours once a week. Parents may choose to enroll their children in enrichment activities within their communities. In many states, homeschooled students can even participate in interscholastic sports. Therefore, gifted homeschooled students may experience a difference in the modality of education and the enrichment activities available to them during their time in home education.

Answers to these questions may be easily generated through a parent/caregiver survey that asks respondents to reflect on the curricular and instructional choices that guide their homeschooling practice. Research recommendations that address these differences could include: (a) the primary modality of homeschooling for homeschooled students who are gifted; (b) whether and how the primary modality of homeschooling for homeschooled students who are gifted differs from the primary modality of homeschooling students who are not gifted; (c) how homeschooled gifted students discover curricular and extracurricular interests; (d) how homeschooled gifted students pursue curricular and extracurricular interests within the context of their educational settings; and (e) how the modalities of instruction vary between homeschooled students within families.

The cost of homeschooling

Of course, parents who choose to homeschool their children must consider what homeschooling will cost. Depending on the state of residence, families who choose to homeschool their children today do not have to weigh this cost in the same way as homeschooling families of the past. A 2014 decision by the Arizona Supreme Court resulted in the first Education Savings Accounts (ESAs) program in K-12 education, designed to provide parents with a publicly funded, government-authorized savings account with restricted, but multiple educational uses (EdChoice, 2023). Some of the acceptable uses of these funds include school tuition, online education programs, tutoring, funds for college, textbooks, and resources for students with special needs. As of 2023, over 300,000 students have access to these ESAs funds. However, given the ever-evolving state of these programs, there are many questions that researchers have yet to answer. Research recommendations related to the cost of home education could include

investigating: (a) how expensive it is to homeschool the average student; (b) how expensive it is to homeschool a gifted student; (c) the number of gifted students who use ESAs to cover the cost of homeschooling; and (d) the extent to which ESAs cover the cost of homeschooling for gifted students as well as nongifted students.

The academic trajectory of gifted homeschooled students

Proponents of homeschooling have pointed to the favorable academic performance of homeschooled students on standardized tests (Ray, 2010). Others have suggested that, though homeschooled students do not demonstrate improved performance over traditional students once in college, these students demonstrated similar retention rates and GPA scores when compared to traditional students (e.g., Yu et al., 2016). However, these studies do not adequately address what researchers need to know about the academic trajectory of gifted homeschooled students. Given the variation of assessment practices between and within states (Carlson, 2020), taking standardized assessments is often optional for homeschooling families. There is likely a difference, whether in academic motivations or instructional approaches, between families who opt in to take standardized assessments and those who opt out. Also, homeschooled students who mirror traditional students' performance once in college cannot account for the college readiness levels of students who were not accepted (or those who did not apply) to university. This is a particular problem for homeschooled gifted students, who may lose out on many potential opportunities related to their academic potential if they are not prepared to enter postsecondary institutions. Therefore, research recommendations involving the academic trajectory of gifted homeschooled students should include: (a) how homeschooled gifted students compare academically to their non-homeschooled gifted peers; (b) the interests of gifted homeschooled students in pursuing postsecondary education; (c) whether the interests of gifted homeschooled students varies by time spent in home education settings; and (d) how homeschooled gifted students navigate the subsequent transition to postsecondary institutions.

Gifted students of color and low-income students who are homeschooled

Finally, it is important to address the experiences of gifted homeschooled students of color. Addressing the needs of gifted homeschooled students must include a discussion about the excellence gaps that demonstrate educational inequalities experienced by students from historically underserved populations. It is necessary to focus research efforts on shrinking these excellence gaps, particularly for students of color and economically vulnerable students (Plucker & Peters, 2016, 2018). There are social, attitudinal, and

behavioral mechanisms that hinder students of color and low-income students from achieving their potential within public school settings, and avoiding these mechanisms is of crucial importance for the parents of these children who choose to homeschool (Dennison et al., 2020). Any research attempt to explore the characteristics, needs, and trajectories of homeschooled students would be incomplete without a comprehensive look into the needs of gifted homeschooled low-income students and students of color. These research recommendations should include: (a) the demographic characteristics of students who are homeschooled; (b) what homeschooling families hope to avoid by homeschooling their gifted children; (c) the resources that are available to homeschooling families of color and limited economic means.

Conclusion

Until much of the research proposed above is completed, providing comprehensive policy recommendations is premature (if not impossible). Researchers do not know nearly enough to guide development of policies that could support homeschooling of advanced students. Of course, many of the policies that researchers would love to see (e.g., mandatory registration and annual assessment of homeschooled students) are anathema to many in the homeschooling community, making both research and policy creation quite difficult.

Some intermediate policy steps that could be taken include allowing students to take advanced courses in their local school when their parents may not have the skill or resources to teach the advanced topics. This is allowed to a limited degree in some states but could be made more widely available (and, in a similar vein, older homeschooled students should have access to college courses). A public repository of high-quality, advanced curricula for homeschoolers would be a helpful resource, as would expanded access to online education. Again, some communities have taken these steps, but more widespread adoption would likely benefit advanced students learning primarily in homeschool settings.

Given the growth of homeschooling in the U.S., and that a significant percentage of these students likely need advanced coursework, adding to the thin research literature on this topic should be a priority for scholars interested in both advanced learning and school choice. The results of such research efforts could enhance both researchers' and practitioners' understanding regarding the needs of gifted learners who are being, or who have been, homeschooled. Only then can we begin to reform gifted and homeschooling policies with an eye toward this unique group of students.

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References

Allan, S., & Jackson, G. (2010). The what, whys and wherefores of home education and its regulation in Australia. *International Journal of Law & Education*, *15*(1), 55–77. http://www5.austlii.edu.au/au/journals/IntJlLawEdu/2010/5.pdf

Ausubel, D. P. (1961). Learning by discovery: Rationale and mystique. *The Bulletin of the National Association of Secondary School Principals*, *45*(269), 18–58. https://doi.org/10.1177/019263656104526904

Brown, B. B., & Steinberg, L. (1990). Academic achievement and social acceptance: Skirting the "brain-nerd" connection. *Education Digest*, *55*(7), 55–60.

Carlson, J. F. (2020). Context and regulation of homeschooling: Issues, evidence, and assessment practices. *School Psychology*, *35*(1), 10–19. https://doi.org/10.1037/spq0000335

Cheng, A., Tuchman, S., & Wolf, P. J. (2018). Homeschool parents and satisfaction with special education services. In R. Maranto & D. A. Bell (Eds.), *Homeschooling in the 21st Century* (pp. 144–161). Routledge.

Conejeros-Solar, M. L., & Smith, S. R. (2021). Homeschooling the gifted: What do we know from the Australian, Chilean, and US context? In S. R. Smith (Ed.), *Handbook of giftedness and talent development in the Asia-Pacific* (pp. 1295–1324). Springer. https://doi.org/10.1007/978-981-13-3041-4_72

The Davidson Institute. (n.d.). *Homeschooling twice-exceptional children*. Davidson Institute. Retrieved July 11, 2024, from https://www.davidsongifted.org/gifted-blog/homeschooling-twice-exceptional-children/

Dennison, A., Lasser, J., Awtry Madres, D., & Lerma, Y. (2020). Understanding families who choose to homeschool: Agency in context. *School Psychology*, *35*(1), 20–27. https://doi.org/10.1037/spq0000341

Duvall, S. (2021). A research note: Number of adults who homeschool children growing rapidly. *Journal of School Choice*, *15*(2), 215–224. https://doi.org/10.1080/15582159.2021.1912563

EdChoice. (2023, April 17). *Fast facts on school choice*. http://www.edchoice.org/school-choice/fast-facts/

Foley-Nicpon, M., Assouline, S. G., & Colangelo, N. (2013). Twice-exceptional learners: Who needs to know what? *Gifted Child Quarterly*, *57*(3), 169–180. https://doi.org/10.1177/0016986213490021

Gray, P., & Riley, G. (2015). Grown unschoolers' evaluations of their unschooling experiences: Report I on a survey of 75 unschooled adults. *Journal of Educational Alternatives*, *4*(2015), 8–32. https://academicworks.cuny.edu/hc_pubs/480

Green, C. L., & Hoover-Dempsey, K. V. (2007). Why do parents homeschool? A systematic examination of parental involvement. *Education and Urban Society*, *39*(2), 264–285. https://doi.org/10.1177/0013124506294862

Green-Hennessy, S., & Mariotti, E. C. (2023). The decision to homeschool: Potential factors influencing reactive homeschooling practice. *Educational Review*, *75*(4), 617–636. https://doi.org/10.1080/00131911.2021.1947196

HLSDA. (n.d.). *Homeschool laws by state*. Home School Legal Defense Association. Retrieved July 11, 2024, from https://hslda.org/legal

Jamison, P., Merkler, L., Gordy, P., Ence Morse, C., & Alcantara, C. (2023, October 31). *Home schooling's rise from fringe to fastest-growing form of education. Washington post*. Retrieved January 21, 2024, from https://www.washingtonpost.com/education/interactive/2023/home schooling-growth-data-by-district/

Jolly, J. L., & Matthews, M. S. (2012). A critique of the literature on parenting gifted learners. *Journal for the Education of the Gifted*, *35*(3), 259–290. https://doi.org/10.1177/0162353212451703

Jolly, J. L., & Matthews, M. S. (2017). The chronicles of homeschooling gifted learners. *Journal of School Choice*, *12*(1), 123–145. https://doi.org/10.1080/15582159.2017.1354644

Jolly, J. L., Matthews, M. S., & Nester, J. (2012). Homeschooling the gifted. *Gifted Child Quarterly*, *57*(2), 121–134. https://doi.org/10.1177/0016986212469999

Jolly, J. L., Matthews, M. S., & Nester, J. (2013). Homeschooling the gifted: A parent's perspective. *Gifted Child Quarterly*, *57*(2), 121–134. https://doi.org/10.1177/0016986212469999

Kearney, K. (1984). At home in Maine: Gifted children and homeschooling. *Gifted Child Today*, *7*(3), 15–19. https://doi.org/10.1177/107621758400700305

Kessler, C. (2024). *Homeschooling a profoundly gifted child. Raising lifelong learners*. Retrieved July 11,from https://raisinglifelonglearners.com/homeschooling-a-profoundly-gifted-child/

Krochak, L. A., & Ryan, T. G. (2007). The challenge of identifying gifted/learning disabled students. *International Journal of Special Education*, *22*(3), 44–54.

Kula, S. (2018). Homeschooling gifted students: Considerations for research and practice. In J. Cannaday (Ed.), *Curriculum development for gifted education programs* (pp. 151–172). IGI Global. https://doi.org/10.4018/978-1-5225-3041-1.ch007

Kunzman, R., & Gaither, M. (2013). Homeschooling: A comprehensive survey of the research. *Other Education:The Journal of Educational Alternatives*, *2*(1), 4–59.

Lee, L. J. (2016). Cutting class: Experiences of gifted adolescents who switched to homeschooling. *Home School Researcher*, *32*(3). https://www.nheri.org/home-schoolresearcher-cutting-class-experiences-of-gifted-adolescents-who-switched-tohomeschooling/

Little, C. (2001). A closer look at gifted children with disabilities. *Gifted Child Today*, *24*(3), 46–64. https://doi.org/10.4219/gct-2001-537

Matthews, M. S., Jolly, J. L., Makel, M. C., Almhawes, A., Daniels, K. S., & Wojciechowski, J. H. (2024). Considerations of academically talented students' homeschooling families for returning to traditional schools. *Gifted Child Quarterly*, *68*(2), 137–153. https://doi.org/10.1177/00169862231222210

Missett, T. C., Callahan, C. M., & Hertberg-Davis, H. L. (2013). Gifted students with emotional and behavioral disabilities. In C. M. Callahan & H. L. Hertberg-Davis (Eds.), *Fundamentals of gifted education: Considering multiple perspectives* (pp. 369–376). Routledge.

Morse, M. L., & Bell, S. M. (2018). Homeschooling: A growing school choice option for meeting special educational needs. *International Journal of Educational Reform*, *27*(2), 156–172. https://doi.org/10.1177/105678791802700203

National Association for Gifted Children. (n.d.). *Gifted by state*. Retrieved July 11, 2024, from http://nagc.org.442elmp01.blackmesh.com/gifted-state

NCES. (2023). *Tabe 20 4.90. Percentage of public school students enrolled in gifted and talented programs, by sex, race/ethnicity, and state or jurisdiction: Selected school years, 2004 through 2020-21*. National Center for Education Statistics. Retrieved July 11, 2024, from https://nces.ed.gov/programs/digest/d23/tabl/dt23_204.90.asp

Nejatifar, S., Abedi, A., Ghamarani, A., & Asanjarani, F. (2023). Hybrid homeschooling: A missing piece of the gifted education puzzle. *Journal of Research in Childhood Education*, *38*(3), 373–386. https://doi.org/10.1080/02568543.2023.2265977

Neuman, A. (2020). Ask the young: What homeschooled adolescents think about homeschooling. *Journal of Research in Childhood Education*, *34*(4), 566–582. https://doi.org/10.1080/02568543.2019.1710628

Plucker, J. A., Giancola, J., Healey, G., Arndt, D., & Wang, C. (2015). *Equal talents, unequal opportunities: A report card on state support for academically talented low-income students*. Jack Kent Cooke Foundation.

Plucker, J. A., Glynn, J., Healey, G., & Dettmer, A. (2018). *Equal talents, unequal opportunities: A report card on state support for academically talented low-income students* (2nd ed.). Jack Kent Cooke Foundation. https://www.jkcf.org/research/equal-talents-unequal-opportunities-second-edition-a-report-card-on-state-support-for-academically-talented-low-income-students/

Plucker, J. A., & Peters, S. J. (2016). *Excellence gaps in education: Expanding opportunities for talented students*. Harvard Education Press.

Plucker, J. A., & Peters, S. J. (2018). Closing poverty-based excellence gaps: Conceptual, measurement, and educational issues. *Gifted Child Quarterly*, *62*(1), 56–67. https://doi.org/10.1177/0016986217738566

Ray, B. (2010). Academic achievement and demographic traits of homeschool students: A nationwide study. *Academic Leadership: The Online Journal*, *8*(1), 7. https://doi.org/10.58809/QPJR6206

Ray, B. D., Shakeel, M. D., Worth, F., & Bryant, V. (2021). Four key barriers affecting the choice to homeschool: Evidence from a fragile community. *Journal of School Choice*, *15*(2), 194–214. https://doi.org/10.1080/15582159.2021.1924583

Rinn, A. N., Mun, R. U., & Hodges, J. (2020). *2018-2019 state of the states in gifted education. National association of gifted children and the council of state directors of programs for the gifted*. https://www.nagc.org/2018-2019-state-states-gifted-education

Rinn, A. N., Mun, R. U., & Hodges, J. (2022). *2020-2021 state of the states in gifted education. National association for gifted children and the council of state directors of programs for the gifted*. https://nagc.org/page/state-of-the-states-report

Sherfinski, M. (2014). Contextualizing the tools of a classical and Christian homeschooling mother-teacher. *Curriculum Inquiry*, *44*(2), 169–203. https://doi.org/10.1111/curi.12046

Spencer, S. (2009). Knowledge as the necessary food of the mind": Charlotte Mason's philosophy of education. In J. Spence, S. J. Aiston, & M. M. Meikle (Eds.), *Women, education, and agency, 1600-2000* (pp. 105–125). Routledge.

Winstanley, C. (2009). Too cool for school? Gifted children and homeschooling. *Theory & Research in Education*, *7*(3), 347–362. https://doi.org/10.1177/1477878509343736

Yu, M. C., Sackett, P. R., & Kuncel, N. R. (2016). Predicting college performance of homeschooled versus traditional students. *Educational Measurement: Issues and Practice*, *35*(4), 31–39. https://doi.org/10.1111/emip.12133