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Parental Advocacy, Stress, and Efficacy: The Hidden Costs of Diagnosing Learning Disabilities

Katherine A. Behar
Antioch University, New England

Running Head: PARENTAL ADVOCACY, STRESS, AND EFFICACY

Parental Advocacy, Stress, and Efficacy:

The Hidden Costs of Diagnosing Learning Disabilities

by

Katherine Alana Behar

B.A., Stony Brook University, 2008
M.S., Long Island University, 2010
M.S., Antioch University New England, 2015

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The undersigned have examined the dissertation entitled:

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by
Katherine Alana Behar
Candidate for the degree of Doctor of Psychology

and hereby certify that it is accepted*.

Dissertation Committee Chairperson:
Martha Straus, PhD

Dissertation Committee members:
Barbara Belcher-Timme, PsyD
Gina Pasquale, PsyD

Accepted by the
Department of Clinical Psychology Chairperson

George Tremblay, PhD
on **2/16/17**

***** Signatures are on file with the Registrar's Office at Antioch University New England.

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Abstract

The allocation of educational resources has been a widely debated topic. While scholars and government officials have focused their attention on how resources are divided, significantly less attention has been paid to how parents are advocating for their children to obtain necessary resources themselves. Existing data agree that fighting for educational resources can cause stress to parents (Levine, 2006). This is especially true for parents of children with learning disabilities. These children often require more individualized academic and educational attention. Currently, little research exists which focuses on the relationship between parental stress and parental self efficacy (the belief that one has an ability to accomplish a task) and none of the existing research focuses on parents of learning disabled children specifically. Self-efficacy is particularly important for those seeking resources for their children because parents who believe they can gain resources for their children are more likely to attempt to do so. The purpose of this study was to understand the relationship between parental stress and parental self-efficacy as well as understand the impact socioeconomic status has on parental perception of efficacy. Using a series of regression models, I determined that there is a negative correlation between stress and self-efficacy but that socioeconomic status seems to have no impact on the strength of this relationship. Such results suggest that regardless of socioeconomic status, the more stress Generation X parents feel, the less self-efficacious they feel. While no significant moderation was found, understanding the relationship between self-efficacy and parental stress of Generation X parents is still important. This information can help inform mental health practitioner's conceptualization and treatment of parents of learning-disabled children.

Keywords: Generation X; learning disability; parental stress; self-efficacy; socioeconomic status

Parental Advocacy, Stress, and Efficacy:
The Hidden Costs of Diagnosing Learning Disabilities

This study explored the role of socioeconomic status in the relationship between parental stress and self-efficacy for Generation X parents of children with learning disabilities. The study also aimed to provide a better understanding of the role that stress and self-efficacy play in a parent's ability to advocate for his or her learning disabled child. Parents must often fight for resources for their children in schools, and, as a result, parental self-efficacy is crucial. Self efficacy plays an important role in how an individual approaches a stressful or difficult task; if parents feel that they are able to succeed, they are more likely to advocate for their children.

The transactional model of stress and coping is a framework for evaluating the processes of coping with stressful events. According to this model, stressful experiences are not "one size fits all" but rather, are mediated by a person's appraisal of the stressor. In addition, the social and cultural resources that an individual has at his or her disposal influence the impact of an external stressor (Antonovsky & Kats, 1967). When faced with a stressor, an individual first evaluates the potential threat (primary appraisal). By doing so, the individual is able to judge the significance of an event as stressful, positive, controllable, challenging, or irrelevant. If individuals feel they are facing a stressor, a second appraisal follows—an assessment of the coping resources and options available to deal with the stressor (Cohen, 1984). In other words, secondary appraisals address what one can do about the situation. This stress and coping framework supports the idea that individuals both evaluate and manage stress depending on social and cultural resources (Cohen, 1984). The current study hypothesizes that while all parents of children with learning disabilities face stress, those with more socioeconomic resources are able to translate stress into motivation while those with less resources experience stress as a roadblock.

According to the National Center for Learning Disabilities (2014), 2.4 million American public school students were identified as having a learning disability ("LD"). The Learning Disability category was one of the fastest growing categories of special education, increasing more than 300% between 1976 and 2000. In order to address the growing educational need in the US, the Individuals with Disabilities Education Act (IDEA) was developed to provide special education and related services to children and youth with disabilities who are 3–21 years old. The law guaranteed each child a free public education, appropriate to the individual's needs. However, with such severe competition for educational resources, school districts often struggle to effectively manage the educational needs of the students. Under the Individuals with Disabilities Education Act (IDEA), schools that fail to appropriately educate disabled children can be made to pay for private school tuition; however, only wealthy parents can afford to first send their children to an expensive private school and sue for reimbursement later. Learning disabilities are disproportionately diagnosed among those living in poverty (2.6 %) versus those living above poverty (1.5 %); (National Center for Learning Disabilities, 2014), so public educational resources need to be allocated accordingly—based on socioeconomic status.

While the relationship between self-efficacy and advocating is clear—in that people who feel they are able to accomplish a task are more likely to try and do so—the reasons why one parent might report more self-efficacy than another is not well established. Current data indicate that wealthy parents devour educational resources at disproportionate rates, which might suggest that parents with high socioeconomic status have more "power" to advocate for their learning disabled children. But they also face significant social and emotional stress (Luthar, 2003). Even so, it is likely that poverty itself is disempowering; wealthy parents with high socioeconomic status and high levels of stress might still experience higher level of self-efficacy than parents

with low socio-economic status and high levels of stress.

Historically, narratives of success have served as part of the foundation of American culture. Over the years, the quality and length of education has become a potent measure by which to determine success. During a speech on college affordability, President Obama stated, "Now, there aren't many things that are more important to that idea of economic mobility—the idea that you can make it if you try – than a good education. All the students here know that" (The White House, Office of the Press Secretary, 2013, para. 26). Obama offered his remarks in the spirit of inclusion; however, it is indisputable that affluent families have significantly more resources to acquire quality educations. Although educational success has long been viewed as a pathway to greater economic advantage, little evidence for such social mobility currently exists. Indeed, as greater numbers of diverse students have entered public schools, the fight for finite resources has intensified.

Studies, such as those conducted by Duncan and Murnane (2011), have suggested that the growing achievement gap may be due, in part, to increasing parental investment in children's cognitive development but *not* to parental achievement, as the relationship between parental achievement and child achievement appears to have remained relatively stable over the last five years. As part of the fight for educational advantage, a shift in the way people think about disabilities has occurred. Once thought of as stigmatizing, disability diagnoses are now considered advantageous in the fight for educational resources.

Statement of Concern

Previous research has provided a base of information on the relationship between socioeconomic status and child behavior. For instance, it has been widely accepted that poor children are at high risk for stress, as well as for social, emotional, and behavioral problems.

Over the past few years, children of affluent parents have received increased attention as a population that is also at risk for these difficulties (Luthar, 2003). While many studies have focused on the stress of raising a special needs child, little research has focused on the differential effect socioeconomic status has on self-efficacy for these parents.

By looking at the role that socioeconomic status plays in the relationship between parental stress and self-efficacy, this study aimed to provide a better understanding of whether the ability to advocate for educational resources is influenced by stress and/or socioeconomic status. It is hypothesized wealthy parents with high socioeconomic status and high levels of stress likely experience higher level of self-efficacy than parents with low socio-economic status and high levels of stress. This study sought to clarify the role socioeconomic status plays in the relationship between parental stress and self-efficacy and aims to provide a better understanding of whether the ability to advocate for educational resources is influenced by stress and/or socioeconomic status for parents of children diagnosed with a learning disability.

Rationale and significance. In a country with ongoing economic disparities, including an increasingly struggling middle class and growing numbers of impoverished children, limited public education resources are being stressed to the breaking point. According to the National Center for Learning Disabilities (2014), "learning disabilities" is the largest category of students receiving special education services, and is also one of the fastest growing categories of special education. Between 1976 and 2000, the learning disability category increased by more than 300% (National Center for Learning Disabilities, 2014). It is no surprise that affluence allowed for greater educational opportunity, including access to expensive private schools. However, it *is* surprising that educational assistance in public schools, such as Individualized Education Programs (IEPs) and 504 plans, for those with learning disabilities, could have so many

additional benefits: boost grades, improve students' chances of getting into top colleges, and help students receive more time and other accommodations on college entrance exams (Rado, 2012). It might mark a new chapter in affluent American life that parents have sought diagnoses for their children; at some point in recent history, a child having a disability turned from a stigma to an advantage.

Indeed, economic advantage alone is no longer a guarantee of success. Numerous recent studies have addressed the emotional difficulties uniquely faced by affluent children under pressure to excel in school (e.g., Koplewicz, Gurian, & Williams, 2009; Luthar, 2003; Luthar & Latendresse, 2005; Luthar & Sexton, 2005). Editorials and the popular press have similarly highlighted an intensifying competition for advantage and educational resources (e.g., Johnson, 2012; Phillips, 2012; Rado, 2012), describing in detail the competitive struggles among families vying for highly selective schools and universities (e.g., Freedman, 2013; Levine, 2007; Teitell, 2013). Affluent children are showing significant signs of emotional duress at all levels of education.

However, the experiences of their parents have been notably absent from the conversation surrounding the rising stress and competition for educational advantages. Indeed, there is, to date, no published literature that focuses on how parents experience stress and self efficacy as they fight for resources to help their children to succeed at extraordinarily high levels. More specifically, there is no literature which focuses on the role socioeconomic status plays in the relationship between parental stress and self-efficacy. This study aimed to provide a better understanding of whether the ability to advocate for educational resources is influenced by stress and/or socioeconomic status, particularly for parents with children diagnosed with a learning disability.

Conceptual Framework

A conceptual framework is the structure of concepts, assumptions, beliefs and theories that support and inform research. A conceptual framework is also an important part of research design (Miles & Huberman, 1994; Robson, 2011). According to Miles and Huberman, a conceptual framework, "explains, either graphically or in narrative form, the main things to be studied-the key factors, concepts, or variables-and the presumed relationships among them" (p. 18).

In order to "frame" the research questions, the Transactional Model of Stress and Coping will be used (Lazarus & Cohen, 1977). The Transactional Model of Stress and Coping is a framework used to evaluate how individuals cope with stressful events. When faced with a stressful situation, a person evaluates the situation in two ways: (a) evaluating the significance of the stressor and (b) assessing if the stressor can be controlled or managed (Glanz et al., 2002). Coping efforts develop out of a person's secondary appraisal; if a person believes they are overwhelmed, they are more susceptible to the negative effects of stress. Stress does not affect all people equally, but it *can* lead to illness or other negative experiences.

Lazarus and Cohen's (1977) Transactional Model of Stress and Coping fits well with the focus of this project as it is a model which specifically takes into consideration the impact stress has on coping. The model also acknowledges that access to different resources will impact the coping outcome differently. More specifically, the Perceived Stress Scale, which was used in this study to measure parental stress is based upon Lazarus's original transactional model of stress. This original model argues that the experience of a stressor is influenced by evaluations on the part of the person as to how well he or she can manage a stressor given available coping resources (Cohen, Kamarck, & Mermelstein, 1983).

Research Question

The primary research question of this study is as follows: *What is the role that socioeconomic status plays in the relationship between parental stress and self-efficacy for Generation X parents of children with learning disabilities?*

A related sub-question of this study is: *How does socioeconomic status have a differential effect on self-efficacy in stressed parents of children with learning disabilities?*

Literature Review

The following literature review focuses on the changing psychology and culture surrounding the diagnosis and treatment of learning disabilities in the US. It specifically explores the current allocation of financial and educational resources. In addition, it focuses on the demographics of Generation X parents, social pressure, and the relevance of parental stress and efficacy in raising a child with a learning disability.

Learning Disabilities

Learning disabilities have been defined as neurologically based processing problems in the brain. These problems affect a person's ability to receive, store, process, retrieve or communicate information, and impact certain skills, such as reading, writing, planning, paying attention, remembering information, and executive functioning more generally. While the specific nature of these brain-based disorders is still not well understood, considerable progress has been made in mapping some of the characteristic difficulties of learning disorders to specific brain regions and structures (National Center for Learning Disabilities, 2014). In addition to progress in the area of brain mapping, there is now an increased understanding of the relationship between genetics and learning disabilities, as documentation of the same or related disorders have occurred with considerable frequency within members of the same families (National

Center for Learning Disabilities, 2014).

According to the National Center for Learning Disabilities (2014), learning disabilities are not caused by visual, hearing or motor disabilities, intellectual disabilities, emotional disturbances, cultural factors, economic disadvantages, or inadequate instruction. However, there is a higher reported incidence of learning disabilities among people living in poverty, perhaps because of the increased risk of exposure to poor nutrition, ingested and environmental toxins, and other risk factors during early and critical stages of development. For example, learning disabilities may be the result of damage to the developing brain before or during birth, including maternal illness, injury or malnutrition, drug or alcohol use during pregnancy, low birth weight, oxygen deprivation, and premature or prolonged labor. Other possible postnatal causes of learning disabilities might include traumatic injuries, severe nutritional deprivation, or exposure to poisonous substances, (e.g., lead; National Center for Learning Disabilities, 2014).

Special Education in the United States. Before the Education for All Handicapped Children Act (EAHCA) became law in 1975, U.S. public schools accommodated only one out of every five children with disabilities (U.S. Office of Special Education Programs, n. d.). In 1990, the EAHCA was replaced by the Individuals with Disabilities Education Act (IDEA), to place more emphasis on the individual rather than the condition the individual faced (i.e., the handicap). The basis of IDEA was that all children between the ages of 3 and 21 were entitled to an individualized, free, and appropriate public school education, including those deemed as having a "disability that adversely affects academic performance as being in need of special education and related services" (National Center for Education Statistics, 2015a, para. 1). This act became a law in 2004. IDEA ensured states and public agencies provided early intervention, special education, and related services to more than 6.7 million children and youth with

disabilities in public schools across the nation (National Center for Education Statistics, 2015a). Many students with disabilities have made significant gains in public schools, because of IDEA. According to Hallahan and Kauffman (1982), labeling students with specific disabilities led to the development of specialized teaching methods, assessment approaches, and behavioral interventions that were useful for all teachers.

Prevalence of learning disabilities. Houtrow, Larson, Olson, Newacheck, and Halfon (2014) examined the prevalence of childhood disabilities and found that nearly 6 million children were considered disabled in 2010-2011. This number represented a 15.6% increase from 2001 2002. In addition, there was nearly a 20% increase in disabilities classified as neurodevelopmental, or attributable to mental health problems. A similar study, which used the National Longitudinal Survey of Youth, reported that the prevalence of learning and behavior problems more than doubled from 1988 to 2006 (Van Cleave, Gortmaker, & Perrin, 2010).

The increased rate of childhood disabilities was disproportionately driven by the 21% increase of children diagnosed with neurodevelopmental conditions. Houtrow et al. (2014) suggested four possible explanations for the increased rates of disabilities related to neurodevelopmental or mental health conditions: (a) changes in diagnostic criteria; (b) overall increases in rates of certain diagnoses, such as autism; (c) an increased awareness of such conditions; and (d) the need for a specific diagnosis to receive services. For a variety of reasons, disability diagnoses have increased at a dramatic rate, placing intense demands on the educational system to provide services that, by law, they have to offer.

Changes in Diagnosis/ the Diagnostic and Statistical Manual 5

The newest version of the Diagnostic and Statistical Manual (DSM-5), the standard by which psychological and learning disorders are determined, may be partially responsible for the

dramatic increase in children identified with learning disabilities. One significant change from earlier versions eliminates the requirement for a significant discrepancy between IQ and Achievement to diagnose a learning disability (Tannock, 2014). The DSM-5 criteria underscore a new understanding: learning disabilities are not connected to children's cognitive abilities or their academic achievement levels, but rather, to neurodevelopmental disorders that, "impede the ability to learn or use specific academic skills" (Tannock, 2014, para. 1). Those crafting the DSM-5 believed the changes would enable practitioners to focus more clearly on intervention services. The elimination of the discrepancy criterion supports the importance of intervention possibly at the cost of diagnostic consistency— potentially leading to misdiagnosis and over diagnosis in the future (Tannock, 2014).

Parents with economic resources may be discovering unintended benefits from these diagnostic changes. With more emphasis being placed on the examiner's interpretation of clinical material and less on objective test data, individuals with the financial ability to seek out or "shop around" for private testing services have more incentive to do so. Given that the criteria for making a diagnosis is not as stringent as it once was, acquiring a learning disability diagnosis may not be as difficult. The increase in learning disability diagnosis among the more affluent coincides with the advent of these new standards. Indeed, researchers such as Abrams (2005) have noticed a recent trend of "buying" diagnoses to gain untimed or extended time for standardized testing for children in wealthier families.

Access to diagnosis for educational advantage is a trend that has been described widely in the popular press, For example, in a recent New York Times article, titled *Paying for a Disability Diagnosis to Gain time on College Boards*, Dr. Jeanne Dietrich, a psychologists in White Plains, New York noted that she had five requests for testing because parents reported having a child

that, “bombed the SAT and wanted a quick diagnosis because the application deadline was nearing for the next round of tests” (Gross, 2002, para 6). Drs. Luck and Mattis, also psychologists in White Plains, New York, noted similar experiences of “seeing many parents and college-bound teenagers who want only one thing: a diagnosis that will entitle the youngster to additional time to take the Scholastic Achievement Tests” (Gross, 2002, para 3). These researchers conclude that the evident trend is related to the recent decision by the College Board to remove the “flag” for students who take the tests under various special conditions. In other words, colleges do not know which of their applicants had untimed tests. Clearly, many parents are asking for evaluations legitimately, but “more and more are also asking because, why not ask? It's part of our culture that every point matters, so they're looking for any kind of edge” (Gross, 2002, para 4). There are many psychological, social, and cultural reasons to be concerned that diagnoses can be bought. And the trend of diagnosis shopping is particularly alarming when one considers the increasing number of children diagnosed with learning disabilities competing also for the finite amount of money allocated for special education resources.

DSM-5 changes have not only impacted psychological testing and diagnosis, but have also affected the delivery of services to children. For example, the changes made to the criteria for diagnosing autism and related disorders could significantly impact what and how services are delivered. Individuals once diagnosed with higher functioning Asperger’s disorder might no longer meet the stricter Autism Spectrum Disorder criteria of the DSM-5. As a result, these individuals might not qualify for services any longer. Conversely, some critics have argued that changes in the DSM-5 could plausibly increase the number of children that meet the criteria for diagnosis. For example, diagnoses of ADHD in older children are likely to increase with the changes made to the DSM-5. Greater numbers of children diagnosed with ADHD will then add

to the burden placed on overwhelmed special education services in schools.

Changing Academic Standards

Historically, the United States government has maintained only minimal academic standards for students. Despite multiple modifications in standards at the government and community levels, as growing numbers of diverse students go through school, access to resources is increasingly inequitable for poor and minority children. Efforts have been made to address this. For example, in 2015, under President Obama, the Every Student Succeeds Act (ESSA) was signed into law. The ESSA was a reauthorization of the Elementary and Secondary Education Act (ESEA), which Present Johnson had signed into law in 1965. The ESEA originally focused on civil rights and offered federal grants to districts with low-income students. The ESEA was an example of the federal government's expanding role in funding public education (U.S. Department of Education, 2015). The ESSA was a replacement for the unpopular No Child Left Behind Act (NCLB). This act was originally created to hold schools and states more accountable for ensuring the education of poor and minority children, but many states felt that the standards were too strict and that the government was taking too much control. While the role the federal government has played in academics has changed over the years, one constant has remained clear–throughout history, poor and minority children have received fewer resources, less funding, and less attention.

As a result of the federal government's minimal and uneven involvement, academic benchmarks are primarily determined by the state or by smaller governing bodies, such as local communities and school districts. Therefore, the academic standards of schools have tended to reflect the socioeconomic statuses of the communities in which they are located. In other words, the wealthier the community is, the higher the expectations and academic standards are, and the

more resources allocated. Since the 1960s, many steps have been taken to develop unified academic standards, though there has been much controversy regarding the success of such programs: economics continue to override simple social policy fixes. In general, children in poorer communities attend poorer schools. While larger communities have continued working to develop cohesive academic standards, the truth is that, "the closeness of the connection between home influences and school results suggests that education reform alone cannot eliminate the wide achievement gaps dividing low-income and minority students from their more affluent White and Asian peers" (Barton & Coley, 2007, p. 2).

Over the past several decades, the federal government has made some additional efforts to address inequitable educational standards. For example, in 1989, Present George H.W. Bush set six education goals for the year 2000, with "Goals 2000," (Rothstein, 1999). In 1994, under Present Clinton, the U.S. Congress adopted these goals and added two more. The original goals were as follows:

> By 2000, all children would start school ready to learn; 90% would graduate from high school; all would demonstrate competency over challenging subject matter in English, math, science, foreign languages, civics, economics, the arts, history, and geography; the United States would be first in the world in math and science; all adults would be literate; no schools would have drugs, violence, firearms or alcohol; teachers would have needed skills; and all schools would get parents involved. (New York State Achieves, 2006., p. 1)

The focus of "Goals 2000" was to help support the "state development of standards and assessments and school district implementation of standards-based reform" (New York State Archives, 2006, p. 65). *Goals 2000* strategically required very little regulation, as it supported

the individual reform efforts many states already had underway. In addition, any state that adhered to any basic standard-based reform and had a planning process could receive funding under this program. However, as is the downside of any program regulated by smaller governing bodies, *Goals 2000* relied on state by state requirements; consequently, the program's impact greatly varied from state to state, district to district, and even school to school. Since most of the funding from *Goals 2000* was allocated at the district level, there was not much money available at the state level to help under-resourced districts. Even high-poverty districts that were aware of federal programs that could help them were not experienced enough in standards-based reform to apply for funding (New York State Archives, 2006). Thus federal initiatives have had relatively little impact in closing the gap between impoverished and wealthier school districts.

Resources and Demographics

According to 2012 research conducted by the Organization for Economic Cooperation and Development (OECD), out of 34 industrialized countries, the United States spends the most money per student per year, at approximately $16,000. However, this money has not been evenly distributed. The United States also offers more educational resources to schools serving affluent students than those serving poor students. For example, among the 34 OECD nations, disadvantaged schools only have lower teacher/student ratios than those serving more privileged students in the United States, Israel, and Turkey. In addition, wealthy school districts spent thousands of dollars more per student than poor school districts did, on average. For example, Bronxville Union Free School District in New York, the second richest district in the country, spent an average of $27,980 per student, per year, according to the U.S. Census Bureau's American Community Survey from 2006-2010. In contrast, Queensbury Union Free School District, also in New York, spent an average of $12,264 per student, per year. More money for

the rich means more services for the rich, which inevitably means less money and fewer services for the poor.

In the United States, resources and funding for learning disabilities is broken down into a number of categories including Section 504 of the Rehabilitation Act of 1973 (Section 504) and rights under IDEA such as an Individualized Educational Program (IEP) and education in the Least Restrictive Environment (LRE) (National Center for Learning Disabilities, 2014). Section 504 was created to prevent discrimination against people with disabilities in federally funded programs and activities, such as public schools. While section 504 does not directly fund programs, it does permit the government to terminate funding given to programs that discriminate against people with disabilities. Some schools use Section 504 to support students who have learning disabilities but only require minor accommodations or modifications (National Center for Learning Disabilities, 2014). In addition, children with disabilities who do not require more comprehensive special education support also are frequently served under this law. Interestingly, all students eligible for special education services under IDEA are also eligible under Section 504, while the reverse is not true.

Under the Individuals with Disabilities Education Act (IDEA), federal special education funds are distributed through state grant programs. Most of the annual funding comes from Part B of IDEA. In the 2014-2015 school year, the total IDEA funding was $12.50 billion and $11.47 billion was dedicated to Part B Section state grants. When IDEA was put in place, it was estimated that children with disabilities cost approximately twice as much to educate as other children (New America, 2015). In support of this estimate, a study by the Center for Special Education Finance (2004) found that in the 1999-2000 school year, schools spent 1.9 times more in total expenses and 2.08 times more in current operating expenditures on students with

disabilities. Notably, even with this finding, the rise of spending on special education was mostly the result of an increase in the number of students identified as "disabled," and less the result of a disproportionate increase in the cost of special education services (EdCentral.org, n.d.).

Affluence and Learning Disability Diagnosis

The association between poverty and higher rates of learning disabilities has been long established. Notably, over the past 10 years there have also been remarkable increases in numbers of children from more affluent families who have been diagnosed with a neurodevelopmental or mental health disability (Houtrow et al., 2014). Although the absolute rates of children with disabilities is still higher among poorer children, Houtrow and colleagues found that children who lived in richer homes (≥400% above the federal poverty level) had a 28.4% relative increase of disability diagnoses, as compared to those who lived in poverty, who experienced a 10.7% increase. The 10-year study shed light on the first disproportionate rise in neurodevelopmental or mental health disabilities occurring among socially and economically advantaged families since 1957, when the National Health Interview Survey (NHIS) began tracking childhood disabilities (Houtrow et al., 2014).

The reasons for this increase in LD diagnosis among more affluent children appear to stem from a confluence of factors. One such factor may be extreme competition for admission to prestigious colleges. For example, an *ABC News* article, titled “Does loophole give rich kids more time on SAT?” suggested that high school students from affluent districts might sometimes obtain questionable diagnoses to earn extended time on standardized tests, including the SATs (Tapper, Morris, & Setrakian, 2006). According to the College Board, approximately 2% of students in an average school should be diagnosed with learning disabilities, but, in some elite schools, up to 46% of students have received special accommodations to take standardized tests,

including the SATs (Tapper et al., 2006). Similarly, Abrams (2005) conducted a study on students in an elite school in Washington, DC and found that the number of students receiving accommodations was more than three times the national average. In addition, he found that, on average, the students who received accommodations obtained scores on standardized tests that would have unquestionably qualified them for entry into prestigious universities. Generally, students with learning disabilities who receive appropriate accommodations are expected to then perform as well as most other students. The high level of superior scores in Abrams' study may actually suggest over performance—and a likely misuse of the system.

Clearly then, as Abrams (2005) suggests, while untimed testing has evident benefits for learning disabled students, it also offers notable advantages to non-learning disabled students. Abrams reported the following compelling data: learning-disabled students who received extended time on the SATs scored an average combined score of 975 on the math and verbal sections. Standard test takers in 2005 scored an average of 1,029 on these combined sections. Affluent students in Washington, DC who took untimed SATs in 2005 scored an average combined score of 1,105. This score was well above the national average in 2005—and even further above the 2005 Washington, DC average of standard test takers, who scored a combined average of 957. These data not only supported the argument that having unlimited time on tests had a greater benefit for non-disabled students, but also offer evidence for the growing concern that children from affluent families might well be "buying" the diagnosis of learning disabilities to gain untimed access to college entrance examinations.

It is not possible to ascertain the extent or implications of this particular test-taking loophole. In an attempt to protect learning-disabled students from unfair prejudice, the College Board stopped flagging scores of students who took the SATs with extended time, in 2003. As a

result, colleges could no longer determine if tests were taken under standard or non-standard conditions. While removing the flags did protect students from unwanted bias, Abrams (2005) pointed out that it also might have made it easier for students who did not need extended time to ask for it, regardless. This new zeitgeist of diagnostic advantage has unexplored effects on the involved children, their parent, schools and universities, and the way resources are allocated in the US.

Access to Resources in the United States—Allocation of Special Education Services

In 1975, the U.S. Congress passed IDEA. This act was intended to create equality in a once broken educational system. The IDEA guaranteed all children the right to a free, appropriate public education, including children with disabilities. While the IDEA was created with equality in mind, there has been a significant variation in the extent that these guarantees have been upheld since its inception. For example, according to several researchers (e.g., Codrington & Fairchild, 2012; Fierros & Controy, 2002), children with disabilities in low income and minority communities have been consistently denied appropriate educational services, either by misdiagnosis or by a complete denial of any educational difficulties. Similarly, Rado (2012) states, “Only about 1 % of public school students statewide had 504 plans in 2009-10, but wealthy school districts in North Cook and Lake counties had nearly four to five times that figure” (para. 11).

Demographics and the “Gen X Effect”

According to the National Center for Learning Disabilities, between 1976 and 2000, “learning disabilities” was the fastest growing category of special education, growing more than 300% (2014), leading to the highest percentage of children diagnosed with learning disabilities in history. A study published in the June 2011 issue of *Pediatrics*, noted that the rate of

developmental disability was on the rise by about 17 % between 1997 and 2008—the span of time coinciding with the rapid rise in "Generation X" becoming parents of school-age children. While the exact boundaries and life-experiences that define a generation aren't precise, Generation X has been viewed as those born in the 20-year span between 1960-1980 or, more narrowly, in the 12-year span between 1965-1977 (Martin & Tulgan, 2002; Zemke, Raines, & Filipczak, 2000).

Cohort effects. Cohort theory has been used in social science to describe ways individuals in a cohort relate to each other. More specifically, generational cohort theory explains differences in cohort relationships across generations (D'Amato & Herzfelt, 2008; Edmunds & Turner, 2005). According to this theory, important historical events and social changes in society could affect the values, attitudes, beliefs, and tendencies of members. Historical events might include traumatic experiences, such as wars, wealth booms and busts, or experiences that symbolize an ideology (Sessa, Kabacoff, Deal, & Brown, 2007). Events that take place during earlier development period rather than in later years are especially consequential. Therefore, individuals who are born during a particular time, and are in the same cohort, often have shared specific inclinations and cognitive styles. According to Howe and Strauss (2000), three attributes that more clearly identified a generation include: (a) perceived membership, (b) common beliefs and behaviors, and (c) common location in history. The generations that have been most often discussed in popular literature are the Baby Boomers, those born between the mid-1940s and the mid-1960s, Generation X (Gen Xers), those born between 1960 and 1980, and Millennials, those born between 1980-2000. The current study focused on Generation X parents, those individuals who are now be between ages of 36-56 who have an adolescent between ages 10 and 17. Even though Generation X is a relatively small

demographic cohort, Generation X parents appear to wield significant economic clout that may be integral to this remarkable increase in diagnosed learning disabilities in their children.

Parenting and Wealth

In the popular press, Gen Xers have often been described as the "overlooked generation" (Taylor & Gao, 2014). Gen Xers are a relatively small generation in size, with approximately 65 million people squeezed between two much larger generations—Baby Boomers (approximately 77 million people) and Millennials (approximately 83 million people). As compared to Baby Boomers and Millennials, Gen Xers are less often discussed. In a Pew Research survey, about 6 in 10 Baby Boomers and Millennials said they thought their generation was unique, as compared to half of Gen Xers who said the same (Taylor & Gao, 2014). Similar research conducted by the Pew Research Center suggested that Gen Xers might be a less distinct generation for many reasons, often finding themselves right in the middle on many polls, including scales measuring demographics, attitudes on political and social issues, and use of technology (Taylor & Gao, 2014).

While Gen Xers have often been thought of as forgotten middle children, they do stand out significantly on one important measure—spending power. According to a Shullman Research Center (2014) study, Generation X's spending power is significantly disproportionate to their numbers. The Shullman Research Center notes that Generation X is the smallest of the three middle generations (Boomers, Gen X, and Millennials), but Gen Xers have more spending power than any other generation, with 29% of estimated net worth dollars and 31% of total income dollars. Though Gen Xers who make more than $250,000 annually only made up 6 million of 60 million people, research showed that most Gen Xers still have higher average incomes than their Baby Boomer or Millennial counter parts. In addition to noting the spending power of Gen Xers,

the Shullman Research Center reported on how such resources were being allocated. Notably, a major value of Gen Xers educating their children; 50% of Gen Xers said providing for their children's college costs was a major goal, as compared to only 20% of adults overall.

Generation X as parents. In the early 1990s, Gen Xers began to have school-aged children. Around 2005, Gen Xers made up the majority of middle school parents, and, by 2008, most had children in high school. The term "helicopter parents" was coined to describe Baby Boomers, the parents of Millennials. This name, however inaccurate it might be, came from a popular press idea about Boomers' tendencies to hover over their children in all areas of their development. In comparison, Howe (2010) describes Gen Xers as "stealth fighter parents" as follows:

> Stealth fighter parents do not hover. They choose when and where they will attack. If the issue seems below their threshold of importance, they save their energy and let it go entirely. But if it crosses their threshold and shows up on the radar, they will strike rapidly, in force and often with no warning. (para. 4)

Thomas (2009) similarly describes the Gen X parenting style as "ferociously advocating for their children, responding with hostility to anyone they perceive as getting in the child's way" (para. 9). Many researchers have described Gen Xers as the least nurtured generation in American history, citing the statistic that 40% of them were raised as latchkey kids. According to Dr. Michel Brody (as cited in Thomas, 2009), the Gen X parenting style developed out of the need for them to "heal the wounds from their own childhoods through their children" (para. 12).

Howe (2010) described Boomers as parents who deeply cared about the moral and civic goals of education, as compared to Gen Xers, who tended to be more interested in how schools created opportunities for their children. Another interesting and important difference in the

parenting styles of Boomers and Gen Xers is their use of technology. Gen Xers were first introduced to technology in the 1990s. As parents, Gen Xers were comfortable with using technology, and combined with their individualistic mindsets, were self-taught experts on the needs of their children. Howe described Boomers as a generation who simply assumed the reward of school; by contrast, Gen Xers were more skeptical of anything they could not see. As school age children, Gen Xers faced failing educational systems in the midst of 1960 reforms, and, as parents, Gen Xers wanted proof that their children would not face the same problems. With this goal in mind, Gen Xers have been described as parents who are willing to do whatever it takes to help their children succeed. While Howe discusses the results of extensive social research on generational trends, such conclusions are presented as broad generalizations. While interesting and salient to the study of parenting, such descriptions are not necessarily representative of Gen X parents across the cultural, ethnic and socioeconomic spectrum.

Parental involvement

Across the socio-economic spectrum, the role of parental involvement has been well documented. Involving parents in schools has proven to be a powerful way to bridge the gap between home and school, and to eventually improve student achievement. According to numerous studies (e.g., Hara & Burke, 1998; Hill & Craft, 2003; Marcon, 1999), parental involvement in a child's education has consistently been found to be positively associated with a child's academic performance. The positive correlation between parental involvement and child academic success has not only been noted by researchers, but also by lawmakers and politicians. At a press conference held in 2009, President Obama promoted accountability from both students and parents, stating, "no government policy will make any difference unless we also hold ourselves more accountable as parents" (The White House, Office of the Press Secretary, 2009,

para. 44). In addition, the Obama administration planned to double allocations for parental involvement programs to $270 million, and encouraged states to use another $145 million to provide grants to promising parent-involvement initiatives (Barton & Coley, 2007). Though parental involvement has been shown to have a positive correlation with child academic performance, aggressive advocating among more outspoken parents may lead to unevenly dispersed limited resources.

Parenting, affluence, and social pressure. In the last few years, headlines such as "Mom Arrested For Hacking School Computers to Change Kids' Grades" have seemed to be increasingly prevalent in mainstream media (Lupkin, 2012). This story was about Catherine Venusto, a Pennsylvania mother who faced six felony charges for allegedly hacking into her children's school computer to change her daughter's grades. She was accused of changing her daughter's "F" to an "M," for "medical exception," in 2008, and of changing her son's "98" to a "99," in 2009 (Lupkin, 2012, para. 3). It was discovered that Venusto hacked into the school district computer system over 100 times (Lupkin, 2012).

Although this was a single anecdote, it might have resonated with the new stealth-fighter zeitgeist. While the Pennsylvania school district released an official statement, pledging to do everything they could to prevent similar incidents from ever happening again, the underlying causes of the action are worthy of greater exploration. Some researchers have suggested that one underlying cause could have been the cultural shift toward greater competition for what affluent parents perceived as limited resources (e.g., Ivy league education and smaller Advanced Placement classes). "Good" was simply not good enough anymore. According to Madeline Levine, a psychologist and author of *Teach Your Children Well* (2012*)* and *The Price of Privilege* (2006), parents did not want to hear that their children were average (as cited in

Shepard, 2005). Although probability theory has stated that, in a normal distribution, over 80% of what is being measured falls in the middle, parents like Venusto, especially those offering their offspring so many other advantages, may not want to believe that they have average children.

The Culture of Grade Inflation

Another related element in the Gen X parenting analysis is the culture of grade inflation. For example, according to Harvey C. Mansfield, a government professor at Harvard College, "A little bird has told me that the most frequently given grade at Harvard College right now is an A-" (Moraski, 2007, para. 4). Data released by Benedict H. Gross, the dean of Harvard University, found that 48.8% of grades awarded in 2005-2006 were A's or A-'s. In contrast, only a third of grades were As or A-s in the 1985-1986 academic year which suggests, at very least a sharp increase in grade inflation over the last 20 years (Moraski, 2007). In a faculty meeting, Mansfield (as cited in Clarida & Fandos, 2013), argued that the school's steep inflation represented "a failure on the part of this faculty and its leadership to maintain our academic standards" (para. 3). While Mansfield represented a growing number of academic faculty members who have acknowledged how problematic grade inflation has become at that elite institution—and others like it—little research has been conducted to address the problem and discover why it is happening.

There is however, some speculation about the source of grade inflation. For example, Arthur Levine, a former president of Columbia University, Teachers College (as cited in Shepard, 2005), attributed the trend of grade inflation to the Vietnam War, in which "men who got low grades could get drafted" (p. 3). Levine (as cited in Shepard, 2005) argued that the second piece of the inflation puzzle was "the spread of graduate schools where only A's and B's

were passing grades" (p. 3). These ideals may have been passed down to undergraduates, perhaps setting a new standard.

In this analysis, too, affluent Gen X parents who paid for their children to attend college wanted good returns on their investments, and their expectations might have also played a significant hidden role in grade inflation. For example, Levine (as cited in Shepard, 2005) also believed that parents expected nothing less than perfect grades, in exchange for tens of thousands of dollars in tuition each year. Parents and students want to know that they were "getting their money's worth-" college has become a consumer product, rather than just a privilege (Shepard, 2005, p. 3). The consumer reality for parents who pay steep tuition for their children to attend private school, or live in areas with costly property taxes is that they seem to expect an exceptional product for the price they are paying to fund their children's education (Shepard, 2005).

Access to exclusive schools, then, seems to not only be something to strive towards but something one can purchase, like any other consumer good, for those with enough money. According to Stossel (2004), the increasingly selective nature of elite higher education also seemed to represent "a moment of truth—a judgment day of sorts when the talented, the impressive, and the worthy, are sorted from the merely average; and hopeful youngsters learn whether they are destined for greatness or for unremarkable, middling lives" (para. 1). Stossel also states, "As nearly every ambitious high school student knows, failure to gain admission to the Ivy League or to one of the nation's other top schools translates into second-class status for life" (para. 1). Although ample data have suggested that success and happiness have little to do with the colleges people attend, Stossel described this as the new zeitgeist among affluent American Gen X parents (Bain, 2012).

The Pressure of Affluence

Despite their significant access to resources, children raised by affluent Gen Xers appear to be more vulnerable than previous generations of children. Several researchers (e.g., Levine 2006; Luthar, 2013; Luthar & D'Avanzo, 1999) have suggested that children of affluent parents suffer higher than expected rates of depression, anxiety, substance abuse, and other problems generally attributable to intense academic expectations. As a component of fierce competition, their parents may feel isolated and stressed as well. Indeed, despite the increased rates of significant emotional distress, affluent parents may demonstrate a lack of understanding regarding their child's need for treatment—perhaps as a result of sharing the dominant belief that wealthier children constitute a low risk population.

The pressure experienced by affluent Gen X parents might be partly attributable to their increasingly distinct subculture, disconnected from the norms and realities faced by other generations and economic groups. For example, while there is immense competition among affluent high school students for elite college admissions, Blum (2009) points out "only three % of colleges accept less than one third of their applicants" (p. 96). In other words, most colleges accepted most students who apply. Blum's study supports the idea that *underachieving* among the privileged classes is now interpreted by parents as failure to achieve at a superior level, regardless of a child's actual aptitude. According to Luthar (2013), affluent children suffer as the result of "high-octane achievement," or the pressure to not just succeed, but also excel in multiple areas, such as school, extracurricular activities, and in their social lives (para. 8). Luthar further explained that affluent children experience even more pressure knowing such high goals were close within their reach and comparably expected of their peers. For example, students who could afford the best SAT tutoring felt the most pressure to study and get perfect scores.

Advantage, expectations, and anxiety. A small but growing body of research on affluence and stress provides a rationale for the stress and anxiety faced by the children of wealthy parents (Levine, 2006; Luthar, 2013; Luthar & D'Avanzo, 1999). Though parents were generously implicated in these studies, significantly less research has directly focused on the impact of affluence on parents' own levels of stress and experiences of efficacy providing the best opportunities for their children. And though few would question parents' motivations for wanting the best for their children, stories such as those described by Golden's (2006) raise questions about the desperate entitlement of parents feeling compelled to buy college admissions for their children. Golden argues that top universities are also complicit, doing everything in their power to admit children of affluence and privilege.

Buying Ivy admissions is not new though. According to an article in the *Economist*, former president George Bush and former secretary of state John Kerry were both "C" students who would have had little chances of getting into Yale if they had not come from Yale families (2006). However, with more high school seniors applying to college, the disproportion is also increasing. In fact, it is widely known that elite colleges like Yale and Amherst admit a much higher percentage of legacy applicants—known for their financial commitment to the institution—than applicants overall (Golden, 2006).

Parental stress about college—beginning even in with toddlers in preschool— may be a powerful motivator for parents to advocate for their children. With an increase in competition for fewer spots in urban private schools, often starting before kindergarten, the rising cost of higher education, and fierce competition for scholarships, many authors and educators have suggested that affluent parents feel pressured to help their children in any way possible. Researchers (e.g., Palmer, 2005; Rojstaczer, 2002) suggest that some parents describe increased competition as the

reason they pushed better-than-average grades; other parents may believe that average simply was not good enough in their families. Charity Preston, an elementary school teacher in Sandusky, Ohio said she had seen this occur most often with parents of gifted children. She said, "Many parents expect their child to get an A, period" (Lloyd, 2016, para. 11). She also added that it was "a matter of social competition among parents" (Lloyd, 2016, para. 11). There are many reasons why parental expectations of their children's success do not match the reality of the bell curve; however, it is likely that the effort it takes to realize these expectations is stressful for affluent Gen X parents as well as for their children,

Stress and Success in America

In such a volatile economic, social, and political time in the United States, social inequality has seemed to spread, while the opportunity for upward social mobility has appeared to slow down. Adding to the gap between the haves and have-nots, the returns on higher education have increased—the median earnings of Americans with bachelor's degrees or higher were about double those of high-school dropouts, in 2000 ("Poison Ivy," 2006). According to the National Center for Education Statistics (2015b), in 2011, adults in the United States with higher educational attainment also had significantly higher employment rates than adults with lower educational attainment. The clear division of wealth along educational lines has added another layer of pressure to succeed in school.

Insecurity/Superiority

In addition to competition *between* classes caused by economic wealth, Max Weber (1968), a sociologist and political economist and profound influencer of social theory and social research, believed that power and prestige cause competition *within* classes, particularly the upper class. Competition within classes is particularly important to understand when considering

the advantages, expectations, and anxiety of affluent Generation X parents. Weber first noted that elite status groups remained connected to each other based on personal ties (such as socioeconomic status) and a sense of honor. This collectivist theory was reinforced by shared conventions specific to a group's collective traits, tastes, and interests (Dimaggio, 1982). According to this tradition, status cultures are seen as resources that aid in success, and are passed down from parents to children. This theory is particularly interesting when used to consider how the relationship between parental self-efficacy and parental stress is influenced by socioeconomic status, and the competitive drive that attends privilege. While all Generation X parents likely feel some level of stress and challenge to their sense of self-efficacy attending to their learning disabled children, the relationship between stress and self-efficacy is likely different depending on socioeconomic status.

Parental Anxiety and Efficacy

Parental stress and efficacy in Gen-Xers raising learning disabled children are best understood in the context of three psychological perspectives: (a) stress and investment, (b) cohort effects, and (c) the parent-child relationship.

Stress and investment. Psychologists and evolutionary biologists, such as Trivers (1974), have most often used parental investment theory to explain differences in parental behavior towards high-risk children. Trivers' concept of parental investment theory has two main ideas. First, parental investment includes all actions that contribute to the reproductive success of the offspring, and, second, investment in one child compromises the ability of the parent to invest in other children. In other words, focusing on one child takes time and energy away from other children. Although this theory has almost exclusively been applied to discussions of the abuse and neglect of "high risk" (low-phenotypic-quality) children, Trivers' parental investment

theory could also help explain parental anxiety related to learning disabled children. When considering parental investment theory in a more general context, high-risk should be more loosely understood as any child who might be at risk for not succeeding.

According to parental investment theory, the parental dilemma is foremost whether or not to "invest" in high-risk children. For evolutionary psychologists, the term *invest* is simply defined as "to keep alive." As applied to parental anxiety, the term *invest* has a more literal definition. According to Mann (1992), the decision to invest in high-risk children is a costly one, but yields high return on investment. Though Gen Xers have been considered to be the "least parented" generation-half of Gen Xers grew up in divorced households, the majority were raised in daycare, and 40% were latchkey children—they evidently believe that investing in their children is a worthwhile expenditure (Thomas, 2010). In one study supporting this thesis, Thomas found that Gen X parents were overly protective and involved advocates of their children, because their own parents were either uninvolved or absent in their childhoods. In addition, Gen X parents witnessed tremendous social change and instability. They saw their parents processing the Vietnam War and the downfall of President Nixon in Watergate. As teenagers, they experienced the collapse of Wall Street in the 1980s, recessions in the 1990s, and the fall of the housing and technology markets in recent years.

Interestingly, many researchers (e.g., Halstead, 1999; Thielfoldt & Scheef, 2004) have also described Gen Xers as an individualist generation, as compared to the older Boomers. As previously noted, Gen Xers may be considered a more individualistic generation because of their mistrust of authority and experiences as latchkey kids (Taylor & Gao, 2014). These experiences are associated with traits of independence, resilience, and adaptability (Taylor & Gao, 2014). These traits also likely factored into Gen Xers' decisions to individualistically *invest* in their

children at all costs. As parents, Gen Xers expect immediate and ongoing feedback, and are also comfortable giving feedback. For instance, a Baby Boomer might complain about his or her dissatisfaction with his or her child's teacher, but would perhaps be less likely to act on his or her dissatisfaction, figuring it was a part of the school experience. An affluent Gen Xer parent would not waste any time getting involved, and would explain to the teacher exactly what he or she believed was the problem (Thielfoldt & Scheef, 2004).

A foundational assumption of parental investment theory is that offspring production is constrained by resources. Another fundamental prediction of parental investment theory is that parents will experience a trade-off between fewer "high quality" offspring and more "low quality" offspring (Lack, 1947). Evolutionary theory offers additional support for the idea that parents will preferentially invest in their own offspring, as opposed to the offspring of others, and that parents will receive the greatest inclusive fitness benefits if they direct their investment toward their own children. In the case of Gen Xer parents who already have individualistic tendencies, it helps to explain how Gen X parents might experience the greatest benefits if they solely invest in their own offspring.

In the current study, parental investment is fundamentally constrained by competition for external resources. Parents must engage in purposeful advocacy to acquire and maintain remedial services and supports for their relatively disadvantaged children. Therefore, the concept of individualistic investment is particularly salient for supporting children with learning disabilities; those "at-risk" for not succeeding academically.

The parent-child relationship. The desire of parents to invest intensively in their offspring begins in a child's infancy—if not en utero. Parental investment in infancy is profoundly emotional, requiring of mothers as Winnicott (1960) suggests, a "primary maternal

preoccupation." Winnicott's theory examines an infant's move towards independence from the mother. For some more affluent Gen X families, it appears that those *stealth fighter pilot moms* are more reluctant to separate; some of these parents seem to be stuck in the earlier merger phase.

According to Winnicott (1960), a child or infant cannot be understood without the context of the parent. Winnicott described the period of infancy as the period of ego development during which integration was the main feature. Though the general tendency of an infant is towards growth and development, an infant could not reach independence without the appropriate maternal care. Winnicott described satisfactory parental care as: (a) holding; (b) mother and infant partially relating; and (c) infant independently relating (1960). In the holding stage, an infant experiences absolute dependence, as the infant is merged as one with the mother. In the second stage, the infant experiences relative dependence, during which the infant could become aware of needs and relate to the mother as an external entity. In the third stage, the infant moves towards independence, during which the infant develops an intellectual understanding of his or her own needs (Winnicott, 1960).

In Winnicott's (1960) frame, the end of merging results in a change. As soon as the mother and child separate, the mother's attitude changes, as she no longer has to magically understand the needs of her child. The mother seems to know that the child has the capacity to send signals about his or her needs. If a mother knows too well what a child needs, there would be no need for parent child separation or for a relationship to develop. As a result, the child would never be able to gain control of expressing his or her own needs and would never need to, as the mother would consistently be able to predict the needs of the child, as if they were still merged and the child were still an infant (Winnicott, 1960). In a society of *stealth fighter*

parents, particularly those raising more vulnerable children contending with learning challenges, the process toward greater independence appears to be slowed. More of these children may remain merged with their parents (Howe, 2010). The needs of the child and of the mother can seem indistinguishable.

The aim of my study was to explore the role that socioeconomic status plays in the relationship between parental stress and self-efficacy in Generation X parents who have children with learning disabilities. In this inquiry, I intended to shed some light on the important issue of stress in parents of learning disabled children, and more specifically, the way socioeconomic status influences the strength and direction of the relationship between parental stress and self efficacy.

Methodology

The following methodology section includes methodological rationale, participant selection and recruitment, inclusion criteria, participant demographics, measures, procedures, data analysis strategies that were used, and ethical considerations.

Quantitative Rationale

The goal of the current study was to better understand the relationships among parental stress, self-efficacy, and the socioeconomic status *specifically* of Generation X parents who have children with learning disabilities. The specific subset of parents was selected for the purpose of studying a group assumed to have a higher than average level of stress. It was hypothesized that the relationship between parental stress and parental self-efficacy is impacted by socioeconomic status. Based on a review of the literature, I predicted a positive liner relationship between stress and self-efficacy for parents with high socioeconomic status and a negative liner relationship between stress and self-efficacy for parents with low socioeconomic status.

This study used quantitative methods to test the hypothesis. Quantitative research seeks to understand the direction of the relationships between variables and can establish the strength of cause-and-effect relationships. Furthermore, since one goal of the study was to understand the experiences of a generation, quantitative data based on a random sample could be generalized to a wider population. In this study, socioeconomic status was the moderator variable between parental anxiety and parenting self-efficacy.

Participants

The identified study population was Gen Xers born between 1960 and 1980. I was interested in gathering a random and diverse sampling of Gen Xers from across the United States. Therefore, participants were recruited via social media, by word of mouth, and through a large academic listserve. Once identified as interested, participants were screened for their inclusion in the study. Inclusion criteria were listed as follows: Participants had to be the parent of children under the age of 17 who had an IEP or 504 accommodations for a learning disability, or who were actively seeking such accommodations. Children with diagnoses of Autism or primarily emotional disabilities were excluded from the study as their needs were more complex and parental stress for this population was already well documented.

Recruitment

Data were collected between the months of October and November in 2016. During recruitment, flyers were posted in public spaces such as libraries, coffee shops and bus stops. Recruitment letters were sent to private and group therapy practices and to school administrators in Connecticut, Maryland, Massachusetts, New York, New Jersey, and Pennsylvania. In addition, information was posted across a number of social media websites, particularly in parent and learning disability support groups and on relevant academic and educational listservs. In total,

157 individuals completed the online survey. Out of the 157 participants who completed the survey, 68 were excluded from analysis. Sixty-seven of these individuals were excluded because they had had a child with Autism Spectrum Disorder and one participant was excluded for not completing demographic data needed to determine socioeconomic status. The response percentage of individuals who qualified for the study was 56%, for a total of 88 participants included in the data analysis. When using a 95% confidence interval, the margin of error calculated with the sample size of 88 is +/- 10.4% ("Research tools, n.d.").

Measures

Three scales were used to conduct this study: (a) Hollingshead's Four Factor Index of Social Status (1975), the Parenting Sense of Competence scale (PSOC; 1978), and The Perceived Stress Scale-10 (PSS-10; 1983), as well as a number of demographic questions were used to conduct the study. The demographic questions (Appendix B) were reviewed to describe the sample and to ensure that each subject met inclusion criteria. The Hollingshead's Four Factor Index of Social Status (Appendix A) was scored to determine socioeconomic status and the scores on the Perceived Stress Scale (Appendix C) and the Parenting Sense of Competence Scale (Appendix D) were determined to measure, in turn, stress and self-efficacy.

Social status. The Hollingshead (1975) Four Factor Index of Social Status is a survey that was designed to measure social statuses of individuals based on four domains–marital status, employment status, educational attainment, and occupational prestige (see Appendix A). Though little data is available regarding the inter-rater reliability of socioeconomic status measures in general, some data are available describing the relationships between the Hollingshead Four Factor Index and other established measures of socioeconomic status. Gottfried (1985) compared the Hollingshead Four Factor Index of Social Status with the Revised Duncan Socioeconomic

Index (Stevens & Featherman, 1981) and the Siegel Prestige Scale (Siegel, 1971) and found that the Hollingshead correlated .87 with the Duncan index and .73 with the Siegel scale. Additionally, Hollingshead found a significant correlation between his measure and an early measure of social status based on the National Opinion Research Center (NOR; Cirino et al., 2002). The scoring of the Hollingshead Four Factor Index is as follows: education is rated on a 7-point scale that lists highest grade completed (i.e., 7=graduate/professional or 1= less than 7th grade). Occupation is rated on a 9-point scale (i.e., 9=higher executive or 4=smaller business owners; see Appendix G for the full occupation list).

Parental sense of competence. Gibaud-Wallston and Wandersman (1978) developed the Parenting Sense of Competence scale (PSOC; Appendix D), to assess the beliefs, values and perceived skills of parents. It is made up of two subscales: Parental Self-Efficacy and Parental Satisfaction. The parental satisfaction section looks at anxiety, motivation and frustration, and the Efficacy section looks at competence, capability levels, and problem-solving abilities in the parental role. The self-efficacy subscale consists of eight items and the satisfaction subscale consists of seven. Both subscales utilize a 6-point Likert scale, ranging from Strongly Disagree ("6") to Strongly Agree ("1"). Items include, for example, "The problems of taking care of a child are easy to solve once you know how your actions affect your child, an understanding I have acquired;" "Even though being a parent could be rewarding, I am frustrated now while my child is at his/her present age." Of note, nine items (#'s 2, 3, 4, 5, 8, 9, 12, 14, and 16) are reverse coded, meaning that a high score on these items is *not* indicative of having a sense of competency. The range of possible scores is 17-102. Johnston and Mash (1989) provided construct validation of the PSOC, with a sample of more than 500 subjects, as well as sufficient internal consistency reliability for the Parental Self-Efficacy subscale (Cronbach's alpha = .76).

Parental stress. The Perceived Stress Scale-10 (PSS-10) measures parental stress (Cohen et al., 1983). The PSS-10 is a 10-item instrument used to assess the degree to which individuals assess situations in his or her life as uncontrollable, overloading, unpredictable, and generally stressful. It was designed for use on community samples, with individuals who at least had junior high school educations. Each item asks about thoughts and feelings during the last month, which helps determine levels of stress. Questions include, for example:

> "In the last month how often have you been upset because of something that happened unexpectedly?" "In the last month, how often have you felt that you were unable to control the important things in your life?" "In the last month, how often have you felt nervous and 'stressed'?" The PSS-10 consists of 10 items and utilizes a 4-point Likert scale, ranging from "Never" (0) to "Very Often" (4). The positively stated items (4, 5, 7, and 8) are reverse scored (0=4, 1=3, 2=2, 3=1, and 4=0), and the remaining items are straight scored. The scores are then added together to determine a total stress score. The highest possible stress score on this measure is 40 and the lowest possible stress score is zero. For this scale, higher total scores indicated higher levels of stress. The PSS-10 has shown relative item invariance to gender, race, and education, making it applicable to a wide range of subjects (Cole, 1999). Cohen and Williamson (1988) reported high internal consistency alphas, ranging from .75 to .86 for the PSS-10, as well as a test-retest reliability of .85 (see Appendix C for instrument questions).

Procedures

In order to address the above stated research question, this study used the Hollingshead Four Factor Index of Social Status (see Appendix A), Demographic Questions (see Appendix B), Perceived Stress Scale (see Appendix C) and Parent Sense of Competency Scale (see Appendix

D). The questions from the three scales were transferred into online questionnaire form which allowed individuals to make a response selection with the click of a button. A recruitment letter (see Appendix E) was distributed on social media, on a large academic listserv, in public spaces, and in the waiting areas of 12 of urban and rural health centers. The letter directed interested participants to the study's website where they were given the opportunity to read over the informed consent (see Appendix F) and click "submit" if they agreed to participate. From there, participants were given specific directions to fill out demographic information and the three questionnaires. The link to the study materials was active for approximately one month during which data from 157 participants across socioeconomic status was collected for analysis. Of these initial responses, 88 complete protocols met criteria for participation and were included in the data analysis.

Sampling and selection. Participants for the proposed study were 36-56 years of age (the current Gen X age range) and were parents of children under the age of 17 who had IEPs or 504 accommodations, or who were actively seeking such accommodations. In order to determine the number of participants needed for the proposed study, an a priori power analysis was conducted. The output from the analysis suggested that for a medium effect size (Cohen $f^2 = 0.15$) of a liner regression, using an alpha of 0.05 and a power of 0.80, the desired sample size was 55 participants. In order to address the possibility that data could be skewed towards the upper class with the use of surveys online only, I consulted a study on technology use by income groups conducted the Pew Research Center. According to research conducted by the Pew Research Center, in December 2012, 73% of adults who made under $30k annually had Internet access (Madden, 2013). Similarly, 90% of individuals who made $30k-$50k, 95% who made $50k -$75k and 99% who made over $75k had internet access (Madden, 2013). Additionally,

while some differences remain in internet usage by socioeconomic status, class related gaps have closed dramatically in the last 15 years and the most pronounced growth has been in lower income households and those with lower levels of education (Perrin & Duggan, 2015). For example, for households who made less than $30k annually, use of the Internet had risen 40% between 2000 and 2015 (Perrin & Duggan, 2015). The Pew research studies indicated that the majority of adults, regardless of socioeconomic status had access to the Internet and that access continued to increase yearly. This high level of access suggested that using social media for data collection would likely not skew results based on socioeconomic status and privilege.

Ethical recruiting procedures. Participants were recruited via social media, word of mouth and through a large academic listserve. Via these outlets, a survey link within a recruitment letter was shared, inviting individuals to participate in my study. Participants were given the option to ignore the post or to follow the link to the survey. In the recruitment letter, the source of the referral was shared, but emphasis was placed on the voluntary nature of participation. Participants were notified that if interested, they could provide their contact information in a separate email to be entered into a raffle to win a $50 Amazon gift card as a token of appreciation for participation. Potential participants were also provided with the contact information of the primary investigator should they have any further questions (see Appendix F).

Informed consent. The informed consent page of the survey (see Appendix F) explained that by clicking "submit" at the bottom of the page, participants were providing their informed consent. The informed consent went to Antioch University New England Institutional Review Board (IRB) and was approved. The IRB included (a) research purposes; (b) procedures (demographic information, questions on stress, questions on parental self-efficacy); (c) potential benefits; (d) possible risks; (e) a statement on confidentiality; (f) voluntary participation; (g)

procedures for withdrawing from the study at any time; and (h) the contact information for the investigator in case the participants had any further questions.

An important feature of online research is the anonymity it affords. According to Joinson (2003), this type of research is similar to the "strangers on a train" phenomenon (as cited in Rodham & Gavin, 2006, p. 95), wherein individuals are more comfortable disclosing personal details to a stranger. Joinson (2003) goes on to state that the "cost of divulging information via the Internet (i.e., to a stranger) is significantly reduced" (as cited in Rodham & Gavin, 2006, p. 95). In addition, the Internet may give individuals an opportunity to express themselves at their convenience, and share more freely.

Data collection. Data collection occurred through the use of an online data collection website, surveymonkey.com. Participants were directed to the first page that included informed consent, contact information, and a description of the study (see Appendix F). After obtaining written consent, participants were asked to move to the next page of the online survey and begin the study. Data included demographic data, socioeconomic scores and scores from the Perceived Stress Scale and Parenting Sense of Competence Scale.

Data safeguards. In order to safeguard the data collected during the study, questionnaires were accessed through the website surveymonkey.com which required a password for log in. Since consent was given once each participant clicked "submit," no further identifying information was required. Once study data were exported into an excel spreadsheet, protocols were saved on a password protected computer. In addition, each participant was assigned a unique ID number to further insure anonymity. In the event that an individual was interested in the gift card raffle or was interested in the results of the study, they were prompted to contact the investigator separately, via email. A list of individuals interested in the raffle drawing was

collected on a password protected word document and destroyed after the raffle had been drawn. The information collected for the study was used solely for the purposes stated.

Data analysis. To answer the proposed research question— to what extent does socioeconomic status moderate the relationship between parental stress and parental self efficacy?—the following data analysis was used. Analysis of the data begin with quantifying socioeconomic information, using the Hollingshead (1975) Four Factor Index of Social Status. By consulting Baron and Kenny's (1986) article on moderator-mediator variable distinction in social psychological research, I determined that socioeconomic status was to be used as the moderator variable. Baron and Kenny state, "in general terms, a moderator is a qualitative (e.g., sex, race, class) or quantitative (e.g., level of reward) variable that affects the direction and/or strength of the relation between an independent or predictor variable and a dependent or criterion variable" (p. 1174). Baron and Kenny go on to explain how a given variable may "function as a mediator to the extent that it accounts for the relation between the predictor and the criterion. Mediators explain how external physical events take on internal psychological significance. Whereas moderator variables specify when certain effects will hold, mediators speak to how or why such effects occur" (p. 1176). In adherence to this moderator-mediator distinction, socioeconomic status was used to measure the direction and strength of the relationship between parental stress and parental self-efficacy.

In the present study, parental stress was the predictor variable (independent), parental-self efficacy was the outcome variable (dependent), and socioeconomic status was the moderator variable. Data from the Perceived Stress Scale and the Parenting Sense of Competence Scale was organized using surveymonkey.com and exported into an excel spreadsheet. Using SPSS Statistics computer software for statistical analysis, I tested the following basic assumptions

before running a linear regression:

1. Variables are normally distributed
2. There is an assumption of a liner relationship between the independent and dependent variables
3. Variables are measures without error and
4. There is assumption of homoscedasticity

Once the assumptions were checked and met, a moderational regression was run to determine if socioeconomic status moderated the relationship between parental stress and parental self-efficacy. The data were analyzed using the output of the moderational regression analysis.

Results

This chapter presents findings from surveys completed by 88 Generation X parents who have a child under age 17 with a learning disability. Participants were asked a series of questions used to determine socioeconomic status (see Appendix A) and demographic questions such as age, race, and marital status to gather other descriptive statistics (see Appendix B). In addition, parents were asked specific questions about stress (see Appendix C) and parenting efficacy (see Appendix D). Analyses of the socioeconomic status, stress and parenting measures were used to address the following research questions: (a) What is the role that socioeconomic status plays in the relationship between parental stress and self-efficacy for parents of children with learning disabilities? and (b) How does socioeconomic status have a differential effect on self-efficacy in stressed parents of children with learning disabilities? Based on these research questions, the following hypotheses were proposed:

Hypothesis 1: Parents with higher levels of SES and higher levels of stress will have higher levels of self-efficacy.

Hypothesis 2: Parents with lower levels of SES and higher levels of stress will have lower levels of self-efficacy.

Descriptive Statistics

General demographic data were collected and are as follows: of the total number of individuals included in the sample, most respondents (91%) were mothers and significantly fewer (9%) were fathers [Table 1]. In terms of marital status, most (91%) were married or in a domestic partnership while only 8% reported that they were divorced or legally separated, 1% reported that they were single, and none reported that they were widowed [Table 2]. Participants were also asked about their approximate total family income. Of the total sample, the majority of participants (37%) reported earning over $125,0007. In contrast, 27% reported earning between $86,000 and $125,000, 19% reported earning between $61,000 and $80,000, 10% reported earning between $41,000 and $60,000, and 7% reported earning up to $40,000 [Table 3]. When asked an open ended question about race, 90% of participants identified as White or Caucasian, 7% identified as Other or chose not to answer, 1% identified as Hispanic, 1% identified as Native American, and 1% identified as French Canadian [Table 4].

In regards to child disability diagnoses, 35% of parents reported having a child with Dyslexia/Dyscalcula and or Dysgraphia,18% reported having a child with Attention Deficit Hyperactivity Disorder and Dyslexia/Dysgraphia and/or Dyscalcula, 17% with an unspecified learning disorder; 11% with Attention Deficit Hyperactivity Disorder, 7% with Attention Deficit Hyperactivity Disorder and another disability, 4% with an Auditory Processing Disorder, 4% with Other Health Impairment and with each of the following diagnoses, 1% of parents reported having a child with Executive Functioning Disorder, Speech Apraxia, Speech and Language Disorder or Expressive Receptive Language Disorder [Figure 1].

Table 1

Gender (n=88)

Gender	Number	%
Female	80	90.90
Male	8	10

Table 2

Marital Status (n=88)

Marital Status	Number	%
Single	1	1.14
Married/Domestic Partnership	80	90.90
Divorced/Legally Separated	7	7.95
Widowed	0	0

Table 3

Total Approximate Family Income (n=88)

Income Range	Number	%
Up to $40,000	6	6.81
$40,000-$60,000	9	10.23
$60,0000-$85,000	17	19.32
$85,000-$125,000	24	27.27
Over $125,0000	32	36.36

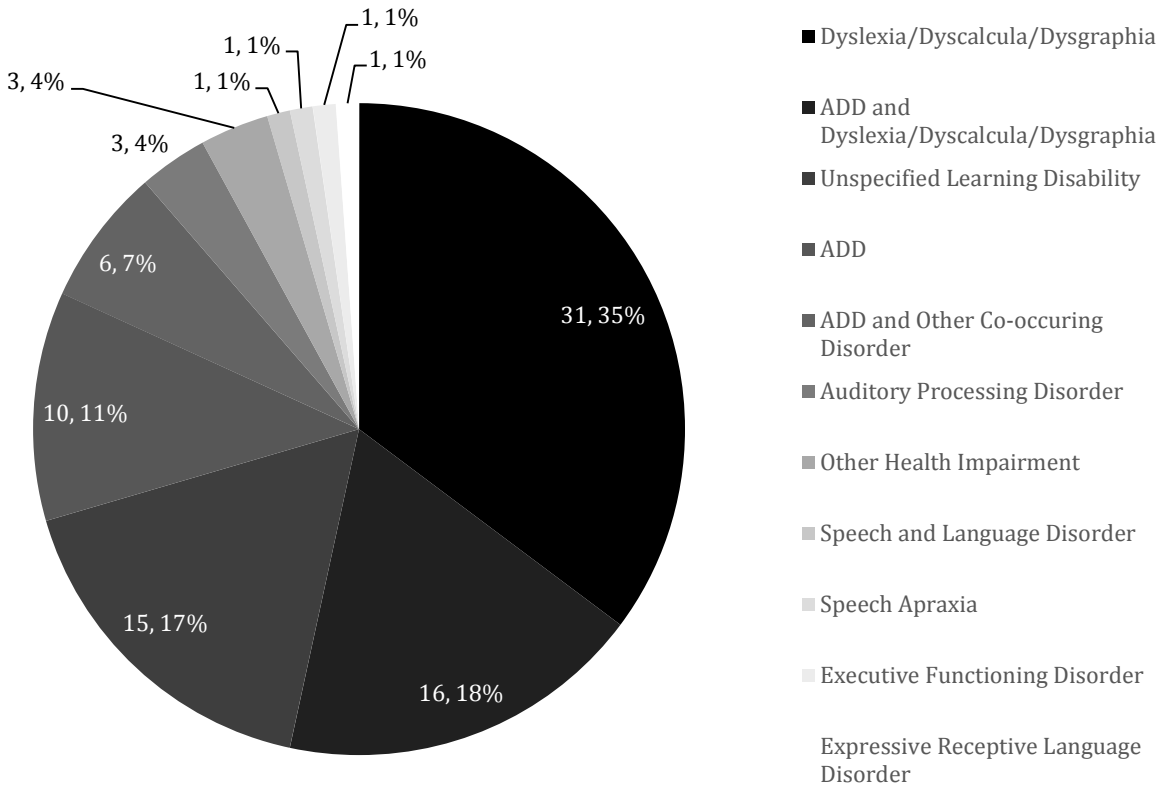
Table 4

Race and Ethnicity (n=88)

Race/Ethnicity	Number	%
White/ Caucasian	79	89.77
Hispanic	1	1.14
Native American	1	1.14
French Canadian	1	1.14
Other/ No Answer	6	7.95

Figure 1

Disability Demographics (n=88)



Hollingshead's Four Factor Analysis of Social Status (1975) was used to determine each participant's quantitative social status score. In order to calculate this score, participants were asked about their level of occupation [Tables 5 and 7] and education [Tables 6 and 8] (for a list of occupations see Appendix G). Answers to these questions were then converted into numeric scores using a Likert scale. If participants were married or in a domestic partnership, they were also asked this information about their spouse or partner.

In order to calculate the total status score for each participant, the scale value for occupation was multiplied by a weight of five (5) and the scale value for education was multiplied by a weight of three (3). Determination of total status scores were as follows:

1. **If the subject was single**, the status score was based on the education and occupation of the individual.
2. **If the subject was married**, the status score was determined by summing the education and occupation scores of the two spouses/partners and dividing them by two.
3. **If the subject was divorced but working**, the score was determined by the subject's education and occupation
4. **If the subject was divorced (or widowed) and receiving support payments (or estate payments)**, the status score was determined by the education and occupation on the supporting spouse.
5. **If the subject was retired**, the status score was determined by the education and occupation of the person before he or she retired.

Once the total status score was determined for each participant, the information was exported into an excel spreadsheet and organized, in order, from highest status score to lowest status score. These scores ranged from 19.5 to 61, with the lower number representing a lower socioeconomic status. The mean Hollingshead score was 43.9 and the median score was 46.2 [Table 9].

Table 5

Occupation of Sample (n=88)

Occupation Score	Hollingshead Weighted Score	Frequency	%
0	0	18	20
1	5	1	1
2	10	1	1
3	15	7	8
4	20	5	6
5	25	8	9
6	30	17	19
7	35	22	25
8	40	5	6
9	45	4	5

Table 6

Education of Sample (n=88)

Highest Grade Achieved	Hollingshead Score (weighted)	Frequency	%
Less than seventh grade	1 (3)	0	0
Junior high school (9th grade)	2 (6)	0	0
Partial high school (10th or 11th grade)	3 (9)	0	0
High school graduate	4 (12)	5	6
Partial college or specialized training	5 (15)	18	20
College graduate	6 (18)	31	35
Graduate degree	7 (21)	34	39

Table 7

Occupation of Spouse (n=80)

Occupation Score	Hollingshead Weighted Score	Frequency	%
0	0	2	3
1	5	1	1
2	10	0	0
3	15	10	12
4	20	12	15
5	25	3	4
6	30	19	24
7	35	18	22
8	40	4	5
9	45	11	14

Table 8

Education of Spouse (n=80)

Highest Grade Achieved	Hollingshead Score (weighted)	Frequency	%
Less than seventh grade	1 (3)	0	0
Junior high school (9th grade)	2 (6)	1	2
Partial high school (10th or 11th grade)	3 (9)	0	0
High school graduate	4 (12)	12	15
Partial college or specialized training	5 (15)	18	22
College graduate	6 (18)	26	32
Graduate degree	7 (21)	23	29

Table 9

Total Descriptive Statistics of Hollingshead Four Factor Index (n=88)

Descriptive	*Hollingshead Four Factor Index*
Mean	43.9
Median	46.2
Standard Deviation	10.36
Range	19.5-61

Perceived stress scale. The 10 PSS items were scored on a 5 point Likert-scale ranging from 0 (never) to 4 (very often). Four items (4,5,7 and 8) were reverse coded. On the PSS, possible scores range from a minimum score of 0 to a maximum score of 40. Higher scores indicate a higher level of stress. Of the 88 parents who participated in the study, the range of scores was between 1 and 34 and the mean PSS score was 20.05 (SD= 5.99) [Table 10].

Parent sense of competence scale. The 17 PSOCS items were scored on a 6 point Likert-scale ranging from 1 (strongly agree) to 6 (strongly disagree). Nine items, 2, 3, 4, 5, 8, 9, 12 and 14 were reverse coded. The scores on this scale can range from 17 to 102 with the higher scores indicating a higher parenting sense of competency. Of the 88 parents who participated, the range of PSOCS scores were between 44 and 87 and the mean score was 67.29 (SD=10.67) [Table 10].

Table 10

Means and Standard Deviations of PSS and PSOC (n=88)

Descriptive	Perceived Stress Scale (PSS)	Parent Sense of Competence Scale (PSOCS)
Mean	20.05	67.29
Std. Deviation	5.99	10.67
Range	33.00	43.00

Interscale correlations between stress, socioeconomic status, and self-efficacy. Before a moderated multiple regression was conducted to determine the interaction effect of stress, socioeconomic status and self-efficacy, a number of basic correlations were conducted.

First, a Pearson correlation was run to determine the relationship between stress and self efficacy. For this correlation, the significance level was set at 0.01. The correlation indicated a significant, negative correlation between stress (PSS) and self-efficacy (PSOCS) ($r = -.543$, $p < .000$). This significant negative correlation indicated that the more stress a parent had, the less self-efficacy they reported [Figure 2]. Second, a Pearson correlation was run to determine the relationship between socioeconomic status (Hollingshead Four Factor Index) and self-efficacy (PSOCS). It was determined that there was no significant correlation at either a significance threshold 0.01 or 0.05, ($r = .070$, $p=258$), suggesting that socioeconomic status alone has no impact on parental self-efficacy [Figure 3].

Third, a Pearson correlation was conducted to determine the relationship between stress (PSS) and socioeconomic status (Hollingshead Four Factor Index). This relationship was determined to be significantly negatively correlated at the 0.05 level ($r = -.217$, $p=.021$). This negative correlation indicated that as respondents' socioeconomic status increased, their level of stress decreased.

Table 11

Pearson Correlations Among the Hollingshead Four Factor Index of Social Status, Perceived Stress Scale and Parent Sense of Competence Scale

	SES	PSS	PSOCS
SES	1.0	-.217*	.070
PSS		1.0	-.543**
PSOCS			1.0

Note. N=88. SES= Hollingshead Four Factor Index of Social Status; PSS= Perceived Stress Scale; PSOCS= Parent Sense of Competence Scale.
*correlation is significant at p<.05. **correlation is significant at p<.01

Moderated multiple regression analysis. After looking at the Pearson correlation matrix of the three measures to detect directionality and magnitude of correlations, one moderated multiple regression analysis was used to test if in fact socioeconomic status moderated the relationship between parental stress and parental self-efficacy. Of note, for the purpose of this study examining independent variables of different scales, B coefficients (or raw regression coefficients) were used. These coefficients were used instead of Beta coefficients, as there is no need to analyze the relative contribution of the independent variable. The following B coefficients represent the independent contributions of each independent variable to the prediction of the dependent variable. The multiple regression analysis showed that stress was a significant predictor of self-efficacy: Stress b= *-.9908, t(82)= -6.26, p=.001*. Socioeconomic status was not a predictor of self-efficacy: socioeconomic Status *b= -.0523, t(82)=-.5775, p=.565. T*he interaction between socioeconomic status and stress was not significant: interaction *b= .0010, t(82)= .0697, p=.9446.* The model summary was also consulted to determine if the overall model was significant. At the 0.001 level, the regression analysis showed that stress,

socioeconomic status and their interaction did not have any overall significant effect on self-efficacy, F (3, 82) =17.27 p=.001, $R^{2=}$ .29.

In regards to the conditional effect of stress on self-efficacy, the effect did not change at low, medium, or high levels of the moderator (socioeconomic status). Specifically, at low levels of socioeconomic status, the effect was -1.0007. At medium levels of socioeconomic status, the effect was -.9908 and at high levels of socioeconomic status, the effect was -.9809 [Table 12].

Figure 2

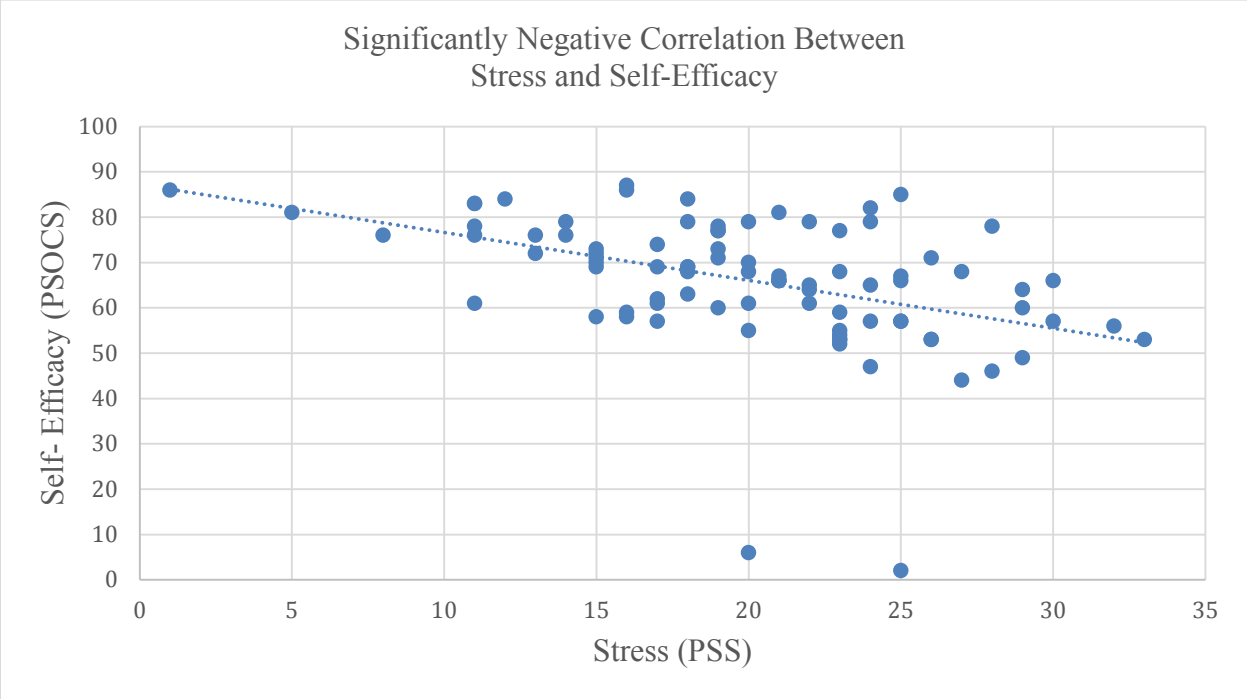

Significantly Negative Correlation Between
Stress and Self-Efficacy
Self- Efficacy (PSOCS)
100
90
80
70
60
50
40
30
20
10
0
0
5
10
15
20
25
30
35
Stress (PSS)

Figure 3

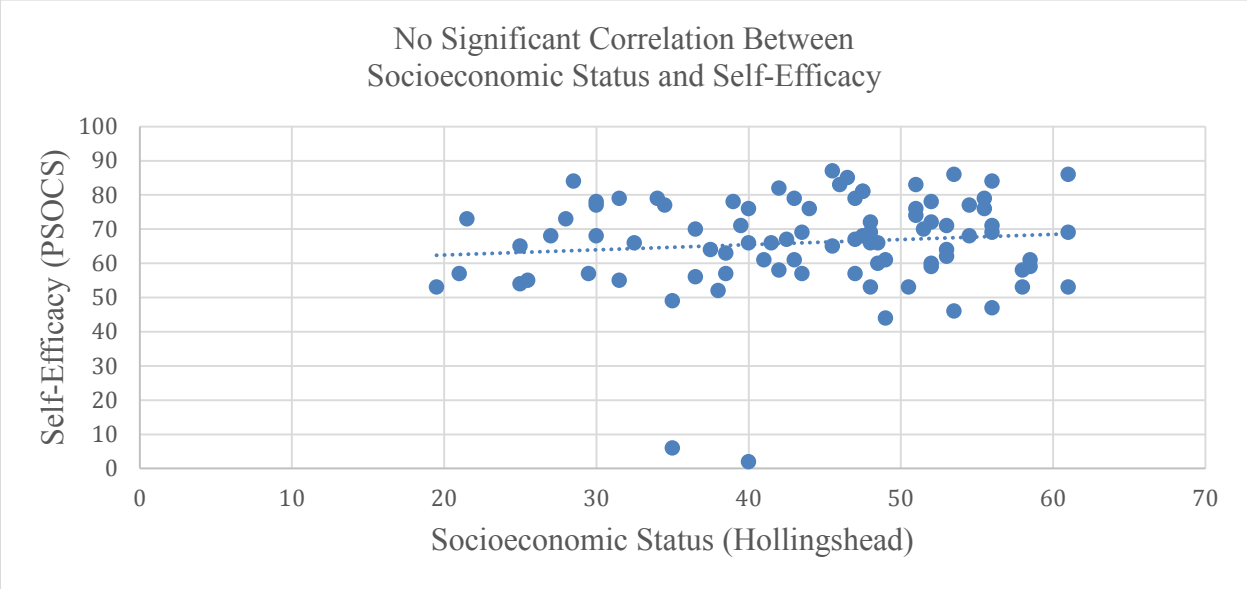

No Significant Correlation Between
Socioeconomic Status and Self-Efficacy
Self-Efficacy (PSOCS)
100
90
80
70
60
50
40
30
20
10
0
0
10
20
30
40
50
60
70
Socioeconomic Status (Hollingshead)

Table 12

Conditional Effects of Stress on Self-Efficacy

	SES	Effect	se	t	p	LLCI	ULCI
Low stress	-10.3674	-1.0007	.2575	-3.8869	.0002*	-1.5127	-.4887
Average stress	.0000	-.9908	.1582	-6.2613	.0000*	-1.3055	-.6761
High stress	10.3674	-.9809	.1554	-6.3117	.0000*	-1.2900	-.6719

* Significant at the .01 level

Summary. Results of the above analyses indicate that stress had a negative correlation with both socioeconomic status and self-efficacy. Thus, as socioeconomic status increases, stress decreases. Similarly, as stress increases, parental self-efficacy decreases. There was no significant correlation between socioeconomic status and parental self-efficacy. In addition, socioeconomic status does not moderate the relationship between stress and self-efficacy: stress is significantly correlated with self-efficacy at all levels of socioeconomic status.

Discussion

The purpose of this study was to determine the relationships among socioeconomic status, stress, and self-efficacy for Generation X parents who have a child with a learning disability. The primary goal of the study was to shed light on the impact socioeconomic status and stress can have on parents' belief in their ability to succeed in advocating for their children. A feeling of self-efficacy can significantly impact all elements of parenting, but may be particularly important for the advocacy that is often needed to get sufficient services and supports for children with learning challenges. In this section, I discuss a number of possible factors which influenced the results of this study including: parental wealth, Generation X cohort effect, and parental education. In addition, a number of limitations of the study were noted

including: the assignment of an occupation score, homogeneity of the sample in regards to race and socioeconomic status, and specificity of the scales used. Results of this exploration highlight four noteworthy outcomes:

1. There is a significant negative correlation between stress and self-efficacy
2. There is a significant negative correlation between socioeconomic status and stress.
3. There is no correlation between socioeconomic status and self-efficacy.
4. Socioeconomic status does not moderate the relationship between stress and self-efficacy.

Findings

Self-efficacy is described as the self-evaluation of one's ability to successfully execute actions necessary to reach desired outcomes (Bandura 1986). If considering self-efficacy through the lens of the Transactional Model of Stress and Coping (Lazarus & Cohen, 1977), one might expect self-efficacy to be a mode by which individuals cope with stressful events successfully. Results of the present study suggest that there is in fact, a significant relationship between stress and self-efficacy; however, this relationship is negatively correlated. In other words, the more stressed the individual is, the less able they are to believe in their ability to manage and reach desired outcomes. In terms of this study, the present results indicate that the more stressed Generation X parents are, the less likely they feel they can successfully execute actions necessary to help their children with learning disabilities.

Based on an extensive review of current literature, it appears that a number of studies and popular press focus on the significant stress Generation X parents are facing due to increased educational demands placed on children. Additionally, authors such as Clarida & Fandos (2013) have discussed the significant educational benefits conferred on children with involved parents.

In particular, there is a strong positive association between parental engagement and academic performance (Hara & Burke, 1998). However, past research has not considered the erosive influence of stress on a parent's ability to become involved in child educational advocacy. Results of the present study suggest that it is important both educationally and clinically, to understand better obstacles that exist for parents to become active and involved in their children's education. Indeed, these data indicate that the more stressed Generation X parents are, the less self-efficacy they feel they have.

It is quite possible that more affluent parents are highly stressed, albeit for reasons that may be different than for their less privileged peers. For example, the work of several researchers (e.g., Levine, 2016; Luthar, 2013) has suggested that affluent parents suffer from more stress and anxiety than previously believed; we know much more about the stressors attendant to poverty. Even so, I might have found a two-tailed correlation between stress and socioeconomic status. That is to say, stress could have been higher for Generation X parents on the extreme ends of the socioeconomic scale. In contrast, results from the current study indicated a negative correlation between stress and socioeconomic status in Generation X parents. These results suggest that the higher socioeconomic status Generation X parents have, the less stress they have.

I did not explore wealth alone as a variable; I took into account socioeconomic status, which is made up of occupation and level of education. Unlike previous studies that noted a positive correlation between income and stress, results of the current study using a broader indictor of SES. I found that parents with higher levels of education and associated white collar occupations, have less stress.

It is well known that educational status is a major predictor of health outcomes. According to Thoits (2010), individuals with lower levels of education are at a greater risk of

exposure to stress and may be less likely to have buffers that reduce stress such as social support and high self-esteem. I suggest that similarly, educational status of Generation X parents is likely a predictor of parental stress as well. Based on the findings of the current study, it is argued that perhaps level of education has a greater impact on stress than money alone. Individuals with education benefit not only from the resources that schooling brings them and their families, but also from health related characteristics. Researchers Ross and Mirowsky (2008), used survey data from Illinois to address the question of whether community socioeconomic status impacts health more than individual socioeconomic status alone. They found that while individual SES explained most of the variation (about 60%), neighborhood SES had a significant impact as well. Clinically, it is vital to understand the impact that stress and socioeconomic status has on parents and their families. People with low socioeconomic status tend to live in communities that also have characteristics such as crime, unemployment, less funded schools and fewer resources in general. As a result, poor people may have more stress for both individual and community reasons.

Interestingly, while the present study notes a relationship between stress and self-efficacy, and socioeconomic status and stress, there seems to be no correlation between self-efficacy and socioeconomic status. Considering Max Weber's (1968) collectivist theory may help to understand the present findings. Weber suggested that competition for power and prestige is particularly strong *within* classes. Perhaps it is not stronger self-efficacy that drives more affluent Gen Xers to fight so hard for their children but rather intense competition within the social class.

A second possible explanation for a lack of relationship between socioeconomic status and self-efficacy of Gen X parents is related to cohort effect. Researcher Thomas (2010) found

that Generation X parents were overly involved in the lives of their children because their own parents were either uninvolved or absent from their childhoods. Perhaps the motivation to advocate for their children did not come from a higher level of self-efficacy, but rather from an internal pressure or stress to be more involved in the lives and education of their children than their Baby Boomer parents were. Lower SES increases stress, but importantly, it does not appear to be particularly associated with a parent's sense of self-efficacy.

Lastly, findings from the current study did not note any specific moderation of socioeconomic status in the relationship between stress and self-efficacy. These results are in contrast to my expectations based on the current literature and particularly interesting in light of the other findings of this study. While it has been determined that the more stress Generation X parents face, the less self-efficacy they have and the higher the socioeconomic status they have the less stress they have, there is no clear link between socio economic status and self-efficacy. It is hypothesized that education may be the buffer that Generation X parents have which increase their coping and decrease their stress. Perhaps, it is also education that moderates stress and self efficacy. The Hollingshead measure I used may not be sufficiently sensitive to tease out the elements of influence that comprise a definition of SES. Additional studies would need to be completed to address these unanswered questions.

Strengths and Limitations

Strengths. The current study involved the investigation of the relationship between stress and self–efficacy in Generation X parents. The measures used in this study have been shown to be valid and reliable tools. Though unpublished, the Hollingshead Four Factor Index of Social Status has amassed approximately 5,000 citations in the Web of Science database since 1994 (Adams, 2011). The Perceived Stress Scale is one of the most popular tools for measuring stress

and has been shown to be a valid and reliable measure. The Parent Sense of Competence Scale was developed and tested by Gibaud-Wallston (1977) and is one of the most frequently used measures to assess parent's assessment of their parenting ability (Cooklin et al., 2012; Dunn et al. 2012). Since its creation, the PSOCS has correlated highly with other measures of parental attitudes such as the Maternal Attitude Scale (Cohler et al., 1970) and the Personal Feelings Scale (Wessman and Ricks, 1966).

Additionally, the original proposed study suggested that an N=55 would allow for a valid and reliable sample size; however, with significant outreach, the total sample size for the current research study was N=88. The margin of error calculated with the sample size of 88 and a response rate of 56% was +/- 10.4%. This was a significant decrease in margin of error from the originally proposed +/-13.1%, based on the same 56% response rate and 95% confidence interval.

I believe that conducting this research was useful in helping to fill in some of the gaps in current generational and educational research. Additionally, it confirmed many of my expected findings. However, I was surprised to learn that socioeconomic status did not moderate the relationship between stress and self-efficacy. While there are many areas of inquiry that could strengthen future comparable studies—including a more diverse sample—I would be interested in exploring answers to some of the questions that the findings of this study raised. For example, if decreasing stress can help increase self-efficacy, what else can help parents believe in their ability more? If parents feel more self-efficacious, it is also seems likely that they will cope with stress more effectively. Similarly, I was also very interested to learn that while higher levels of socioeconomic status are negatively correlated with stress, there is no relationship between socioeconomic status and self-efficacy. I believe replicating this study but using income as a

moderator instead of socioeconomic status would be useful to help answer the question of whether or not money or education is a stronger moderator between stress and self-efficacy.

Limitations. Though the Hollingshead Four Factor Index of Social status is considered by many to be the most widely used measure of social status, the measure categorizes occupations based on the United States Census from the 1970s. As a result, many current occupations such those in the Information Technology field are not categorized and must be approximated. In addition, as Adams (2011) points out, many occupations in Hollingshead's categorization have shifted. For example, Hollingshead categorized a stock/bond salesman in the same category as primary school teacher; today, the income and social regard of these two occupations has altered significantly.

Since socioeconomic status is determined in part, by occupation, there is no way to adjust for this limitation while still using the Hollingshead Four Factor Index. For the purposes of this study, any occupation that was not noted in the Hollingshead job list was highlighted, a best-fit determination was made, and each individual with that particular occupation was coded with the same number. For example, a number of participants noted their occupation as "police officer" or "law enforcement." The Hollingshead job list did not include this occupation and so "military" was determined to be the best fit and each individual was given a score of 4. These scores were then double checked to assure consistency. Though measures were taken to ensure consistent scoring, determinations needed to be made which may have influenced the Hollingshead scores in ways he would not have originally intended. As a result, it is possible, for example, that the range of SES scores could have been larger or smaller based on the numeric value given to each occupation not noted on the original Hollingshead list.

Recruiting participants for this study was particularly challenging. Even with aggressive

recruitment both on social media and in person, I captured a relatively small sample size. Despite best efforts to advertise the study in predominantly black and Hispanic neighborhoods, of those who participated in the study, a very large majority identified as Caucasian or White. This significantly limited the race/ethnic diversity of the study. Although the goal of this study was to identify differences based on socioeconomic status and not race, the predominantly homogeneous race sample (89.77% Caucasian or White) must be noted as a limitation of this study.

It is also important to consider the skew of the sample toward higher SES. While scores from the Hollingshead Four Factor index ranged from a low score of 19.5 to a high score of 61, the mean socioeconomic score was 43.9 and the mode score was 48. These numbers suggest that while on the surface the range of scores gave a good picture of socioeconomic status, the trend was generally towards individuals with higher socioeconomic status. As a result, the results of this study likely underrepresented Generation X parents with lower socioeconomic status.

Although a review of the relevant literature supported the hypothesis that socioeconomic status might play an important role, the results of this research also indicated that socioeconomic status actually has no mediating effect on the relationship between stress and self-efficacy. For that reason, I looked to determine if any other patterns emerged associated with higher levels of stress (i.e., Do parents who had children diagnosed with a specific learning disability have more stress than others? or Do mothers have more parental stress than fathers?). Unfortunately, I did not note any patterns and so an area for future research might be better understanding *why* stress and self-efficacy are correlated for Gen X parents of children with learning disabilities.

Another noteworthy limitation of the study has to do with the specific population studied. Although the individuals who participated in the study were Generation X parents with a child

who has a learning disability, not enough information is available to determine whether or not the stress these parents reported is in greatest part the result of having a child with a learning disability. Of note, when analyzing the data, I sorted responses by stress level to determine if parents of children with one specific type of disability appeared to be more stressed than another but noted no clear pattern. For future studies, finding a way to more specifically understand the cause of parental stress, and its association with the extent of a child's disability, would be important. Perhaps adding a qualitative piece to this exploration would allow parents to discuss their own experiences with stress and self-efficacy as it particularly relates to their child's learning and behavioral challenges.

Moreover, the scale used to determine self-efficacy focused more broadly on the stress inherent in being a parent. It did not explore the specific challenges of parenting a child with a learning disability. Therefore, it should be noted that the negative correlation between stress and self-efficacy doesn't precisely describe the stress related to having a child with a learning disability but rather addresses parental stress in general.

Directions for Future Research

Is parenting more stressful for Gen X parents than for the generations that preceded them? The current research opens this question to greater inquiry. According to demographers, some of the most noteworthy characteristics of Gen Xers have to do with their parenting style. Characteristics such as helicopter parenting are closely associated with their efforts at corrective experiences from their own lonely childhoods. While it is important for future research to better understand the specific etiology of Gen X parenting stress, clinicians should be aware of the high baseline level of stress of Gen Xers across the socioeconomic spectrum. It is inevitable that parental stress also has an effect on the emotional well-being children.

For future studies, more aggressive recruitment should be conducted in minority communities. For example, attempting to make connections in the special education sector of New York City public schools know as District 75 may lead to capturing the voice of minority participants. Similarly, cultural differences may have played an outsized role in determining the sample of the current study. Although existing literature suggests that individuals across the SES spectrum have access to the internet, allowing them to complete an internet based study, it is possible that an online survey such as this may present both racial and cultural obstacles for diverse participants (i.e., word choice). Additionally, since the Hollingshead Four Factor Index relies heavily on level of education to determine socioeconomic status, I may have overlooked the salience of the relationship between education and willingness to participate in research. It's possible, for example, that other strategies, including face-to-face interviews or paper surveys might have yielded a more diverse sample. Future research might consider what *type* of research most participants would have been willing to complete to better diversify the sample.

Concluding Remarks

The topic of stress and self-efficacy in parents has implications for generations to come. Until we have more equitable distribution of special education resources, therapists and child advocates alike should work to support underserved and under-educated Generation X parents to gain knowledge about the special education system. For example, resources such as those offered by state run Parent Training Information Center (PTI) or Community Parent Resource Centers (CPRC) should be readily available and consistently utilized. These services exist in every state, are numerous, and are often free; yet, they are rarely discussed and as a result parents of children with disabilities consistently struggle to fight for services. These centers provide information via phone, email or website as well as conduct workshops, conferences and seminars for parents.

They even provide information to teachers and other professionals who work with children with disabilities (PTIs and CPRCs; Resources for Parents, 2011).

While schools offer varying levels of navigational help to parents, stress poses additional challenges for parents who may not feel competent to speak out for a child in the special educational system. Further, while the stressors of affluence merit exploration, more privileged children continue to have unfair access to educational resources; the greater need is to improve advocacy services for historically underserved and over stressed populations such as minority groups and the very poor; further argument for the continued funding of programs such PTI and CPRC.

Additionally, for educators who interact with parents, it is important to recognize signs of stress and understand that parents who are particularly stressed may require additional support. For mental health practitioners working with parents, teaching stress management techniques will not only help decrease levels of parental stress but based on the results of this study, will likely help increase self-efficacy. While it is vital for those in power to advocate for the rights of children and families, what I have found to be the most salient part of this research is understanding the strong connection between stress and advocacy. Although it is well documented that the involvement of parents in their child's education is a vital piece of childhood success, it is not often in the forefront of parent teacher or parent clinician interactions. Parental advocacy is only successful with strong parent self-efficacy. Strong and successful parental advocacy is so important to childhood success that we must include discussions of self-efficacy and parental voice in all conversations about childhood academia.

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Appendix A: Hollingshead Four Factor Index

1. What is your gender? _____

2. What is your marital status (choose one)

   Single; Married/Domestic Partnership; Divorced or Legally Separated; Widowed

3. What is your job type? _____

4. What is the highest grade you've completed?

   A. Less than seventh grade B. Junior high school (9th grade) C. Partial High school (10th or 11th grade) D. High school graduate E. Partial college (at least one year) or specialized training F. College graduate G. Graduate Degree (Masters, etc.)

If you are married or in a domestic partnership, please complete the following questions about your spouse/partner:

1. What is your spouse/partner's job type: _____

2. What is the highest grade your spouse/partner completed?

   A. Less than seventh grade B. Junior high school (9th grade) C. Partial High school (10th or 11th grade) D. High school graduate E. Partial college (at least one year) or specialized training F. College graduate G. Graduate Degree (Masters, etc.)

Hollingshead, A. B. (1975). Four factor index of social status. Department of Sociology, Yale University: New Haven, CT. Retrieved from http://psy6023.alliant.wikispaces.net /file/view/hollingshead+ses.pdf

Appendix B: Demographic Questions

Please answer the following questions about you:

1. Your age: _____ years

2. Your race: _____

3. Your Ethnicity: _____

4: What is your total family income per year?

A. Up to $40,000 B. $40,000- $60,000 C. $60,000-$85,000 D. $85,000-$125,000 E. Over $125,000

Please answer the following questions about your child:

1. What is the age of your child diagnosed with (or for which you are actively seeking) a learning disability (must be between 10 and 17 years of age): ____years

2. What is the gender of this child? _____

3. Who first noticed your child was struggling in school? _____

4. Does your child currently have a diagnosis or are you currently seeking out a learning disability diagnosis for your child? Yes No

5. If your child has already been diagnosed, what is your child's disability diagnosis?
_____

6. At what age was your child formally diagnosed with this disability? _____

7. Who diagnosed your child with this disability (pediatrician, psychologist, school, etc.)?
_____

8. In your opinion, what is the overall rating you would give to describe the severity of the disability of your child? (please circle one number)

1 2 3 4 5 6 7 8 9 10

---Mild----------Moderate----------Severe---

Would you like to be contacted about the results of this study when it is completed?
_____YES _____NO (If yes, make sure to give your name and phone number at the top of the first page)

Appendix C: Perceived Stress Scale (PSS)

The questions in this scale ask you about your feelings and thoughts **during the last month**. In each case you will be asked to indicate your answer by circling *how often* you felt or thought a certain way.

0=Never 1=Almost Never 2=Sometimes 3=Fairly Often 4=Very Often

1. In the last month, how often have you been upset because of something that happened unexpectedly? **0 1 2 3 4**

2. In the last month, how often have you felt that you were unable to control the important things in your life? **0 1 2 3 4**

3. In the last month, how often have you felt nervous and "stressed"? **0 1 2 3 4**

4. In the last month, how often have you felt confident about your ability to handle your personal problems? **0 1 2 3 4**

5. In the last month, how often have you felt that things were going your way? **0 1 2 3 4**

6. In the last month, how often have you found that you could not cope with all the things that you had to do? **0 1 2 3 4**

7. In the last month, how often have you been able to control the irritations in your life? **0 1 2 3 4**

8. In the last month, how often have you felt that you were on top of things? **0 1 2 3 4**

9. In the last month, how often have you been angered because of things that were outside of your control? **0 1 2 3 4**

10. In the last month, how often have you felt difficulties were piling up so high that you could not overcome them? **0 1 2 3 4**

Cohen, S., Kamarck, T., & Mermelstein, R. (1983). A global measure of perceived stress. *Journal of Health and Social Behavior*, *24*, 386-396. Cohen, S., & Williamson, G. Perceived stress in a probability sample of the United States. In Spacapan, S., & Oskamp, S. (Eds.). (1988). *The social psychology of health,* 31-67. Newbury Park, CA: Sage.

Appendix D: Parenting Sense of Competence Scale

Please rate the extent to which you agree or disagree with each of the following statements:

Strongly Agree	Agree	Slightly Agree	Slightly Disagree	Strongly Disagree	Disagree
1	2	3	4	5	6

___1. The problems of taking care of a child are easy to solve once you know how your actions affect your child, an understanding I have acquired.

___2. Even though being a parent could be rewarding, I am frustrated now while my child is at his/her present age.

___3. I go to bed the same way I wake up in the morning, feeling I have not accomplished a whole lot.

___4. I do not know why it is, but sometimes when I'm supposed to be in control, I feel more like the one being manipulated.

___5. My mother was better prepared to be a good mother than I am.

___6. I would make a fine model for a new mother to follow in order to learn what she would need to know in order to be a good parent.

___7. Being a parent is manageable, and any problems are easily solved.

___8. A difficult problem in being a parent is not knowing whether you're doing a good job or a bad one.

___9. Sometimes I feel like I'm not getting anything done.

___10. I meet my own personal expectations for expertise in caring for my child.

___11. If anyone can find the answer to what is troubling my child, I am the one.

___12. My talents and interests are in other areas, not in being a parent.

___13. Considering how long I've been a parent, I feel thoroughly familiar with this role.

___14. If being a parent of a child were only more interesting, I would be motivated to do a better job as a parent.

___15. I honestly believe I have all the skills necessary to be a good parent to my child.

___16. Being a parent makes me tense and anxious.

___17. Being a good parent is a reward in itself.

Gibaud-Wallston, J. & Wandersman, L.P., (1978, August). Development and utility of the parenting sense of competency scale. Paper presented at the meeting of the American Psychological Association, Toronto

Appendix E: Recruitment Letter

To Whom It May Concern:

I am currently recruiting participants to participate in a research project examining the experiences of Generation X parents who have children with learning disabilities or are in the process of finding out if their children have a learning disability. Antioch University New England's Human Research Committee has approved this research.

In order to participate you must have been born between 1960 and 1980 and have a child between the ages of 10-17, who either has a learning disability diagnosis or is in the process of being diagnosed. In addition, you must have access to a computer with Internet and be able to complete an Internet survey for approximately 20 minutes.

Your participation in this research is entirely voluntary and your personal information will be kept completely confidential. Although I will ask some personal background questions, your name and identifying information is not required.

If you are interested, you will be able to enter into a raffle to win a $50 Amazon gift card as a token of appreciation for your participation in this study. Should you be interested in the raffle, you can provide your email address at the end, which will be kept separate from your survey and will remain confidential.

If you are interested in participating and/or would like to learn more about this study, please visit the following link https://www.surveymonkey.com/r/parentstressstudy or contact Katherine Behar at parentstressstudy@gmail.com

Sincerely,

Katherine Behar, M.S.

Appendix F: Informed Consent

Project Title: Parent Stress Study

Purpose:
You are being asked to participate in a research study on stress and sense of ability among Generation X parents. This research will be looking at how stress and sense of ability is connected having a child diagnosed with a learning disability.

To participate, you must have a child living in your home who has been diagnosed with a learning disability (or for which you are seeking out a learning disability) and be between the age of 10 and 17 years of age. In addition, you yourself must be born between 1960 and 1980. This study is being conducted through Antioch University.

Study Procedures:
You will be asked to complete the following survey. By clicking "Next" below, you will be giving your informed consent. If you agree to take part in this research study, you will be asked to complete some information about yourself. There will also be two sets of questions, which look at issues that often have to do with parenting. Some of the questionnaires may have subject matter of a sensitive nature. Please remember your answers will not be shared with anyone except the Principal Investigator. Your participation will be kept confidential. Your participation should take no more than 20 minutes of your time. You will then be able to provide your contact information for entry in a raffle for a $50 Amazon gift card. You do not have to provide your name or email address on any of the study materials so that you will remain entirely anonymous. If you do provide your email address for the raffle, it will be kept separate from your survey and will remain confidential. If you are interested in being entered into the raffle, please email me at parentstressstudy@gmail.com with the subject line "parent stress study raffle".

Benefits and Risks:
Participation in this study will provide you with a chance to think about your stress and ability as the parent of a child with a learning disability. In addition, you may provide understanding for researchers and therapists about parenting children with learning disabilities.

Though every research study carries some risk, the risk involved in this study is considered to be minimal. You may experience slight emotional discomfort or distress by answering questions of a personal nature and thinking about your stress. Should you require any mental health treatment after the completion of this study, a list of local mental health professionals can be found on www.psychologytoday.com or by calling 1-800-662-HELP.

Confidentiality:
By using survey methods, I have ensured that you can answer the questions completely anonymously. Even if you choose to provide an email address for the raffle or follow-up, it will be kept separately from your responses and I do not require your name. Your email address will not be shared with anyone for any reason, should you choose to provide it. It will remain safely locked and protected, and will be destroyed after the raffle is held.

Voluntary Participation/Withdrawal:
Taking part in this study is voluntary. You have the right to withdraw from participation in this study at any time for any reason.

Questions:
If you have any questions about this study, you may contact me at the below email or phone number. In addition, you may contact my research advisor at her above contact information as well. If you have any questions about the research process or your rights as a participant, you may contact Dr. Kevin P. Lyness, Chair of the Antioch University New England Human Research Committee, (603)283-2149, or Dr. Melinda Treadwill, ANE Vice President for Academic Affairs (603) 283-2444.

Would you like to be contacted about the results of this study or do you have any questions about what you just completed? Please email me at parentstressstudy@gmail.com with the subject line "parent stress study questions"

Would you like to be entered into the $50 Target gift card raffle? Please email me at parentstressstudy@gmail.com with the subject line "parent stress study raffle"

Principal Investigator (PI):
Katherine Behar, M.S.
parentstressstudy@gmail.com

(xxx) xxx-xxxx

Advisor:
Martha Straus, Ph.D.
mstraus@antioch.edu
(603) 283-2187

Thank you for your participation,

Katherine Behar

Appendix G: Hollingshead Occupation List

Score 9: Higher Executives, Proprietors of Large Businesses, and Major Professionals	Score 8: Administrators, Lesser Professionals, Proprietors of Medium- Sized Businesses
Actuaries	Accountants
Aeronautical engineers	Administrators, college
Architects	Administrators, elementary/secondary school
Astronautical engineers	Administrators, public administration, n.e.c.
Astronomers	Archivists
Atmospheric scientists	Assessors, local public administration
Bank officers	Authors
Biologic scientists	Chiropractors
Chemical engineers	Clergymen
Chemists	Computer specialists, n.e.c.
Civil engineers	Computer systems analysts
Dentists	Controllers, local public administration
Economist	Curators
Electrical/electronic engineer	Editors
Engineers, not elsewhere classified (n.e.c)	Farm management advisors
Financial managers	Industrial engineers
Geologists	Labor relations workers
Health administrators	Librarians
Judges	Musicians/composers
Lawyers	Nurses, registered
Life scientists, n.e.c.	Officials, public administration, n.e.c.
Marine scientists	Personnel workers
Materials engineers	Pharmacists
Mathematicians	Pilots, airplane
Mechanical engineers	Podiatrists
Metallurgical engineers	Sales engineers
Mining engineers	Statisticians
Optometrists	Teachers, secondary school
Petroleum engineers	Treasurers, local public administration, n.e.c.
Physical scientists, n.e.c.	
Physicians	
Physicists	
Political scientists	
Psychologists	
Social scientists, n.e.c.	
Sociologists	
Space scientists	
Teachers, college/university, including coaches	
Urban and regional planners	
Veterinarians	

Appendix G: Continued

Score 7-Smaller Business Owners, Farm Owners, Managers, Minor Professionals	Score 6-Technicians, Semiprofessionals, Small Business Owners
Actors	Administrators, except farm--allocated
Agricultural scientists	Advertising agents/salesmen
Announcers, radio/television	Air traffic controllers
Appraisers, real estate	Athletes/kindred workers
Artists	Buyers, farm products
Buyers, wholesale/retail trade	Computer/peripheral equipment operators
Computer programmers	Conservationists
Credit persons	Dental hygienists
Designers	Dental laboratory technicians
Entertainers, n.e.c.	Department heads, retail trade
Funeral directors	Dietitians
Health practitioners, n.e.c.	Draftsmen
Insurance adjusters, examiners, investigators	Embalmers
Insurance agents, brokers, underwriters	Flight engineers
Managers, administration, n.e.c.	Foremen, n.e.c.
Managers, residential building	Foresters
Managers, office, n.e.c.	Home management advisors
Officers, lodges, societies, unions	Inspectors, construction, public administration
Officers/pilots, pursers, shipping	Inspectors, except construction, public administration
Operations/systems researchers/analysts	Managers, except farm
Painters	Opticians, lens grinders/polishers
Postmasters, mail supervisors	Payroll/timekeeping clerks
Public relations persons	Photographers
Publicity writers	Professional, technical, kindred workers--allocated
Purchasing agents, buyers, n.e.c.	Religious workers, n.e.c.
Real estate brokers/agents	Research workers, not special-ed.
Reporters	Sales managers, retail trade
Sales managers, except retail trade	Sales representatives, wholesale trade
Sales representatives, manufacturing industries	Secretaries, legal
Sculptors	Secretaries, medical
Social workers	Secretaries, n.e.c.
Stock/bond salesmen	Sheriffs/bailiffs
Surveyors	Shippers, farm products
Teachers, except college/university/secondary school	Stenographers
Teachers, except college/university, n.e.c.	Teacher aides, except school monitors
Vocational/educational counsellors	Technicians
Writers, n.e.c.	Therapists
	Tool programmers, numerical control

Appendix G: Continued

Score 5-Clerical and Sales Workers, Small Farm and Business Owners
Auctioneers
Bank tellers
Billing clerks
Bookkeepers
Bookkeeping/billing machine operators
Calculating machine operators
Cashiers
Clerical assistants, social welfare
Clerical workers, miscellaneous
Clerical/kindred workers---
Clerical supervisors, n.e.c.
Clerks, statistical
Collectors, bill-account
Dental assistants
Estimators, n.e.c.
Health trainees
Investigators, n.e.c.
Key punch operators
Library assistants/attendants
Recreation workers
Tabulating machine operators
Telegraph operators
Telephone operators
Therapy assistants
Typists

Score 4-Smaller Business Owners, Skilled Manual Workers, Craftsmen, and Tenant Farmers
Airline cabin attendants
Automobile accessories installers
Bakers
Blacksmiths
Boilermakers
Bookbinders
Brakemen, railroad
Brickmasons/stonemasons
Brickmason/stonemason apprentices
Cabinetmakers
Carpenters
Carpenter apprentices
Carpet installers
Cement/concrete nishers
Checkers/examiners/inspectors, manufacturing
Clerks, shipping/receiving
Compositors/typesetters
Conductors, railroad
Constables
Counter clerks, except food
Decorators/window dressers
Demonstrators
Detectives
Dispatchers/starters, vehicles
Drillers, earth
Dry wall installers/lathers
Duplicating machine operators, n.e.c.
Electricians
Electrician apprentices
Electric power linemen/cablemen
Electrotypers
Engineers, locomotive
Engineers, stationary
Engravers, except photoengravers
Enumerators
Expediters
Firemen, re protection
Firemen, locomotive
Floor layers
Foremen, farm
Forgemen/hammermen
Furriers
Glaziers
Heat treaters/annealers/temperers
Heaters, metal
Housekeepers, except private household
Inspectors, n.e.c.
Inspectors/scalers/graders, log and lumber
Interviewers
Jewelers/watchmakers
Job and diesetters, metal
Lithographers
Loom fixers
Machinists
Machinist apprentices
Mail carriers, post office
Mail handlers, except post office
Managers, bar/restaurant/cafeteria
Marshals, -law--enforcement
Mechanics
Meter readers
Millers, grain/ our/feed
Millwrights
Molders, metal
Molder apprentices
Office machine operators, n.e.c.
Patternmakers/model makers
Photoengravers
Plasterers
Plasterer apprentices
Plumbers/pipefitters
Plumber/pipefitter apprentices Power station operators
Postal clerks
Practical nurses
Piano/organ tuners/repairmen
Pressmen, plate printers, printing trade Pressmen apprentices
Projectionists, motion picture
Printing trade apprentices, except pressmen
Proof readers
Radio operators
Receptionists
Repairmen
Rollers, metal
Sheet metal workers
Sheet metal worker apprentices
Stereotypers
Stock clerks/storekeepers
Stone cutters/carvers
Structural metal workers
Superintendents, building
Switchmen, railroad
Tailors
Telephone linemen/splicers
Telephone installers/repairmen
Ticket/station/express agents
Tile setters
Tool and diemakers
Tool and diemaker apprentices
Weighers
Welders/ flame cutters

Appendix G: Continued

Score 3 Machine Operators and Semiskilled Workers
Animal caretakers
Asbestos/insulation workers
Assemblers
Barbers
Blasters/powdermen
Boardinghouse/lodginghouse keepers
Boatmen/canalmen
Bottling operatives
Bulldozer operators
Bus drivers
Canning operatives
Carding, lapping, combing operatives
Chauffeurs
Child care workers, except private household
Conductors/motormen, urban rail transit
Cranemen/derrickmen/hoistmen
Cutting operatives
Deliverymen
Dressmakers/seamstresses, except factory
Drill press operatives
Dyers
Excavating/grading/road machine operators except bulldozer
Farm services laborers, self-employed
File clerks
Filers/polishers/sanders/buffers
Fishermen/oystermen
Forklift /tow motor operatives
Furnace men/smelters/pourers
Furniture/wood finishers
Graders/sorters/manufacturing
Grinding machine operatives
Guards/watchmen Hairdressers/cosmetologists
Health aides, except nursing Housekeepers, private household
Knitters/loopers/toppers
Lathe/milling machine operatives
Machine operatives, miscellaneous specified
Machine Operatives, n.e.c.
Meat cutters/butchers, except manufacturing
Meat cutters, butchers, manufacturing
Metal platers
Midwives (lay)
Milliners
Mine operatives
Mixing operatives
Motormen, mine/factory/logging camp, etc.
Nursing aides/attendants
Oilers/greasers, except auto
Operatives, miscellaneous
Operatives, not specified
Operatives, except transport ---allocated
Orderlies
Painters, construction/maintenance
Painter apprentices
Painters, manufactured articles
Paperhangers
Photographic process workers
Precision machine operatives, n.e.c.
Pressers/ironers, clothing
Punch/stamping press operatives
Riveters/fasteners
Roofers/slaters
Routemen
Sailors/deckhands
Sawyers
Service workers, except private household
Sewers/stitchers
Shoemaking machine operatives
Shoe repairmen
Sign painters/letterers
Spinners/twisters/winders
Solders
Stationary firemen
Surveying, chainmen/rodmen/axmen
Taxicab drivers
Textile operatives, n.e.c.
Transport equipment operatives---allocated
Truck drivers
Upholsterers
Weavers
Welfare service aides
Enlisted members of the armed services (other than noncommissioned officers)

Score 2 Unskilled Workers
Bartenders
Busboys
Carpenter's helpers
Child care workers, private household
Construction laborers, except carpenters' helpers
Cooks, private household
Cooks, except private household
Crossing guards/bridge tenders
Elevator operators
Food service, n.e.c., except private household
Freight/materials handlers
Garage workers/gas station attendants
Garbage collectors
Gardeners/groundskeepers, except farm
Hucksters/peddlers
Laborers, except farm---allocated
Laborers, miscellaneous
Laborers, not specified
Laundry/dry cleaning operatives, n.e.c.
Lumbermen/craftsmen/woodchoppers
Meat wrappers, retail trade
Messengers
Office boys
Packers/wrappers, n.e.c
Parking attendants
School monitors
Waiters
Warehousemen, n.e.c

Score 1 Farm Laborers/Menial Service Workers
Occupational Title
Attendants, personal service, n.e.c.
Attendants, recreation/amusement
Baggage porters/bellhops
Bootblacks
Chambermaids, maids, except private household
Cleaners/charwomen
Dishwashers
Farm laborers, wage workers
Farm laborers/farm foremen/kindred workers---allocated
Janitors/sextons
Laundresses, private household
Maids/servants, private household
Newsboys
Personal service apprentices
Private household workers---allocated
Produce graders/sorters, except factory/farm
Stock handlers
Teamsters
Vehicle washers/equipment cleaners
Ushers, recreation/amusement

Appendix H: Parenting Sense of Competency Scale Permission

Hello,

I am requesting permission to use the parenting sense of competency scale by Charlotte Johnston and Eric Marsh for my dissertation. While I saw that Taylor& Francis offers the reuse of this scale for a dissertation, my dissertation will appear in the following places, so I wanted to make sure that would also be ok.

a. Proquest Dissertations and Theses Database (Proquest is a Print on Demand Publisher)
http://www.proquest.com/products-services/pqdt.html

b. Ohiolink Electronic Theses and Disssertations Center (Ohiolink ETD Center is an open access archive) https://etd.ohiolink.edu/

c. AURA: Antioch University Repository and Archive (AURA is an open access archive) http://aura.antioch.edu/

D. Print

I plan to use the scale in the exact form that I am attaching with this email

Thanks in advance,

Katherine Behar

Dear Ms. Behar,
I am sending our gratis permission for the use of our article figure in your dissertation.
It is acceptable use for printing and posting to open access archives.
Thank you.

Mary Ann Muller – Permissions Coordinator, US Journals Division

Appendix I: Parenting Sense of Competence Scale Permission

Hi Dr. Johnston,

My name is Katherine Behar and I am a doctoral student at Antioch University. I am writing to request permission to reuse the Parenting Sense of Competence Scale in my dissertation. My dissertation will appear in the following places:

a. Proquest Dissertations and Theses Database (Proquest is a Print on Demand Publisher)
http://www.proquest.com/products-services/pqdt.html

b. Ohiolink Electronic Theses and Disssertations Center (Ohiolink ETD Center is an open access archive) https://etd.ohiolink.edu/

c. AURA: Antioch University Repository and Archive (AURA is an open access archive) http://aura.antioch.edu/

D. Print

Attached please find a copy of the re-typed index, exactly as a plan to include it in my study.

Please let me know if there are any changes necessary to the re-typed index or anything else that I should do to gain permission to use this measure.

Thanks in advance,

Katherine Behar

Dear Katherine,

Thank you for your interest in the Parenting Sense of Competence Scale. Our version of the scale is in the public domain, so you are free to copy and use it. The attached materials include two articles describing our work with the scale, a mother and father version of the measure along with scoring instructions, and a list of references to articles that have employed the measure.

The original scale was developed by Gibaud-Wallston and Wandersman and presented at an APA conference in 1978. To the best of my knowledge, these authors have not continued work with the scale.

Best of luck with your research. I'd appreciate if you could send me a copy of your results when they are available.

Thank you,
Charlotte Johnston, Ph.D.

Appendix J: Permission to Reprint Hollingshead's Four Factor Index of Social Status Permission

Hi Dr. Smith,

My name is Katherine Behar and I am a doctoral student at Antioch University. I am writing to request permission to reuse Hollingshead's Four Factor Index of Social Status in my dissertation. My dissertation will appear in the following places:

a. Proquest Dissertations and Theses Database (Proquest is a Print on Demand Publisher)
http://www.proquest.com/products-services/pqdt.html

b. Ohiolink Electronic Theses and Disssertations Center (Ohiolink ETD Center is an open access archive) https://etd.ohiolink.edu/

c. AURA: Antioch University Repository and Archive (AURA is an open access archive) http://aura.antioch.edu/

D. Print

Attached please find a copy of the re-typed index, exactly as a plan to include it in my study.

Please let me know if there are any changes necessary to the re-typed index or anything else that I should do to gain permission to use this measure.

Thanks in advance,

Katherine Behar

Hello Katherine,

Yes this is OK. We get quite a few requests to use this index. Our policy is to make it available free to any valid researcher. You can also adapt as you see fit. Good luck with your research and thank you for asking for permission.

Philip Smith (Chair, Yale Sociology)