

IMPACT OF SCHOOL ENTRY ON CHILDREN SOCIALLY ACROSS THEIR PRIMARY
SCHOOL CAREERS

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CERTIFICATION OF PROJECT WORK

We, the undersigned, certify that this project entitled, IMPACT OF SCHOOL ENTRY ON CHILDREN SOCIALLY ACROSS THEIR PRIMARY SCHOOL CAREERS, by Anna Healy Student, Candidate for the Degree of Master of Science in Education, Curriculum and Instruction in Inclusive Classroom, is acceptable in form and content and demonstrates a satisfactory knowledge of the field covered by this project.

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Abstract

This study explores the age of school entry and the impact that it has on students' socially. This study answers the question how does age of school entry impact students' socially across their primary school career? This study was proposed by a local school principal. The school currently has a cutoff date that states that a student must be five years old as of December 1st. The principal wanted to research to see if there would be a benefit to students socially if the cutoff date was moved to September 1st. The de-identified historical student records of ninety-five fourth grade students from a local suburban school district were examined for this study. In reviewing the records, the students' date of birth, gender, absences, and report card comments were analyzed comparing data on students' who entered kindergarten at the age of four, five, and six years old. After analyzing the data the results showed that although there was some correlation between date of birth, gender, absences, and report card comments, there was not enough correlation to conclude that age of entry impacts students' socially. Further research suggestions include a larger sample size, analyzing the same students after they have completed kindergarten, fourth grade, and an upper grade level, and analyzing and comparing students' results to students' in other surrounding school districts to further investigate whether age of entry impacts students' socially.

Introduction

An issue that is becoming important in school systems is when a parent should enroll their student in school. During the past thirty years, a steadily increasing number of children have waited to enter kindergarten until their sixth birthday instead of the more traditional route of beginning at age five. In 1982 1.1% of children aged five were not enrolled in school, by 2002 6.9% of five year old children were not enrolled in school. In 2006 7.4% were not enrolled, by 2009 11.8% of five year olds were not enrolled (U.S Census Bureau 1982-2009). The increase shown above of non-enrolled students comes from the School District date cutoff for a child to enter Kindergarten at the age of five. “Exactly when children enroll in kindergarten varies around the world (NICHD Early Child Care Research 2007, p. 338).” This study was designed to contribute to answering the question how does the age of school entry affect children socially across their elementary school career?

Issues in New York

In New York State the age of entry for a child is determined by the Local Education Agency (LEA) within state parameters. If a student’s birthday when he/she will turn five occurs in the fall, the parents have a choice of enrolling the child in Kindergarten that year, which will make him/her one of the youngest student in the class or they may wait until the child is six the following year, which will make him/her one of the oldest students’ in the class. In contemplating this decision, parents often question if the student is academically and socially ready to enter school. This study examined how the age of school entry affects children socially during their elementary years. School districts in New York are inquiring whether their cutoff date of December 1st is adequate or if the date should be changed. By law schools have an option

of setting the date a child must turn five by on any date between September 1st and December 1st (NYSED law section 3205, Title IV, Article 65, Part I) “When parents are surveyed about their children’s school readiness and enrollment, one of the most frequent questions noted is whether their child is too young to enroll” (NICHD Early Child Care Research 2007, p. 338). However, admissions into Kindergarten are not just according to age, teachers also use a readiness assessment to see if the child is cognitively ready to begin formal education. Generally, schools will still enroll a child even if the child scored low on the kindergarten screening. Other questions arise as to whether the student is socially ready for the structure of a Kindergarten class. De Cos (1997) states “Age is not an absolute predictor of a child’s success; it is relative only to the child, and in relation to other children in his/her class” (p. 12).

The issue of age at school entry has been a part of the education system since the 1960’s when R.V Hall (1963) stated that parents were pressuring schools to lower the entrance age for Kindergarten admission in order to get their children’s formal education under way.

Thirty years ago, parents wanted their children to enter school. They pressured their State Legislators to lower the entrance age for admission to kindergarten. Today, many parents are delaying their children from enrolling in kindergarten for academic or athletic reasons. (De Cos 1997, p. 20)

Another reason why parents decide to “redshirt” (keeping their child back another year before starting Kindergarten) their child is because their child may not be developmentally ready, and as the parent they believe that time will help their child to mature naturally and develop on their own. In their study, *Better Late Than Early*, R.S Moore and D.N Moore (1989) state

Schools do not serve children or society effectively when they expect children to learn the basic skills before they are ready. Children who are successful and happy in a school situation experience satisfaction from, and are challenged by, learning. This excitement about learning is a natural result of being ready to learn. (p.88)

In light of this research it becomes clear that the age of entry should be examined for how it impacts children socially.

A local suburban principal was interested in finding more information on this because she was considering whether she should bring the proposal to the District Board of Education to move the current cutoff date of December 1st to September 1st. She wanted to see the effects on children throughout their education career if the student enters school at an earlier age compared to entering school at age five or six.

My Interest

As an educator, age entry into school interests me because I work closely with not only students entering Kindergarten but also students up to sixth grade. I find that the varying abilities of the students may be because of their age and when they entered school. I also believe that children's behavior may be a result of the age difference in the classroom and the maturity level of the students. I am interested to see if the current deadline of December 1st has a better impact on children socially compared to a September 1st deadline.

As an aunt, I am also interested in researching this topic because my sister and her family, in Maine, decided to redshirt my niece. My niece turned five years old on October 10th and the deadline in Maine for Kindergarten enrollment is October 15th. After researching the issue and talking with others my sister decided that she would hold my niece back and start her

in Kindergarten next school year. My sister based her decision on my niece's social skills. Academically my niece is ready for Kindergarten according to her preschool and Kindergarten readiness assessment that the school district gave to her, but my sister did not believe socially my niece was ready for the classroom. Since my niece's birthday is October 10th she would be one of the youngest children in the classroom and many questions were asked if it would be beneficial to send her to Kindergarten in hopes to that her social skills would flourish or if holding her back would be more beneficial. My sister and the family also contemplated the impact of either decision on my niece as she got older and progressed through the formal education system.

The proposed empirical study will investigate the question how does the age of school entry affect children socially across their primary school years? It is the intent of this study to shed light on this difficult decision for both families deciding their own child's future and school district administrators setting policies to promote the academic achievement and appropriate social development of their students.

Literature Review

Around the world children enter formal schooling at different ages. A majority of children in Europe begin at the age of six (Sharp 2002). In the United States each state decides when their cutoff date for the child is. Even in New York each Local Education Agency makes a decision of the cutoff date. This literature review will look at international school entry policies, United States school entry policies, New York's school entry policies, demographics, typical social development in children, and the effects of school entry.

International School Entry

In Europe, most children begin formal schooling at the age of six. According to NICHD Early Child Care (2007) New Zealand students begin school on their fifth birthday instead of a uniform date. Table 1 shows the school age of entrance of 33 countries:

Table 1
Compulsory age of starting school in European countries, 2002

Age	Country
Four	Northern Ireland
Five	England, Malta, Netherlands, Scotland, Wales
Six	Austria, Belgium, Cyprus, Czech Republic, France, Germany, Greece, Hungary, Iceland, Republic of Ireland, Italy, Liechtenstein, Lithuania, Luxembourg, Norway, Portugal, Slovakia, Slovenia, Spain
Seven	Bulgaria, Estonia, Denmark, Finland, Latvia, Poland, Romania, Sweden

(Sharp 2002, p. 1)

Table 1 shows that over half of the 33 European countries listed have six as the official school starting age. The latest school starting age is seven (in three Scandinavian countries and five Eastern European countries). Three UK countries (England, Wales and Scotland) as well as Malta and the Netherlands, start school at five. Northern Ireland, with a starting age of four, has the earliest compulsory school starting age in Europe. (Sharp 2002, p. 2)

However, even though the European countries have six years old as their official school age, most students attend preschool, or another type of schooling (Sharp 2002). Looking at other countries and the United States, even though the UK, Europe, and other countries start formal schooling at the age of six many of the students enroll in formal programs outside the home starting at the age of four.

In Asia the students' begin preschool between the ages of three and five, which would put them into enrolling in grade one at age six or seven (Anderson, K., & Heyneman, S. 2005 p. 373). According to DeYoung & Heyneman (2004) report that students' that entered preschool in 2000 were of the age of three-five, and students' that started first grade were of the age of six-seven (p. 163).

Moreover, in Australia according to Diezmann, Watters and Fox (2001) "Age of entry to school in Australia varies according to the relevant state or territory educational authority but ranges from the youngest children in a cohort entering school at 5.1 years in Queensland to 6.1 years in Tasmania" (p. 7).

In Europe, Asia, and Australia the age of entry ranges from four years old to seven years old. The United States also follows the average age of entry.

Age of school entrance policy in the United States

Age of school entrance has been a controversy since the 1800's. The same question of when should a child enter school, appears repeatedly throughout history. Hall (1963) states Cominsky reported that in 1839, eighty-six of 736 children in school were under four years old. For the past thirty years however, there has been a trend in the cutoff date between the states. According to the Education Commission of States (2011), in 1975 thirty states established a

cutoff date, of these nine states required students to have turned five by a certain date in September or earlier (30%). Elder & Lubotsky (2008) provide additional detail for this general assertion,

“In 1975, six states had cutoffs of September 14 or earlier, while 14 states had relatively late cutoffs between November 30 and January 1. An additional 15 states did not have any uniform state regulation and instead left such decisions up to individual school districts” (p. 4).

As stated above in 1982 1.1% of children aged five were not enrolled in school, by 2002 6.9% of five year-old children were not enrolled in school. By 1990 12 more states for a total of 42 states established a cutoff date, of those 28 states required that the student must turn five by a certain date in September or earlier (67%). In the past 15 years 12 more states established a certain cutoff date and of those states 37% more had a date of September or earlier (U.S. Census Bureau, 2009). Elder & Lubotsky (2008) state “By 2004, 29 states had cutoffs of September 14 or earlier, five states had cutoffs between November 30 and January 1, and only eight states had no uniform state law” (p. 4). In 2005, 45 states had established a cutoff date and 33 (77%) of those states required the student to be five in September or earlier. In 2006 7.4% of children were not enrolled. By 2009 11.8% of five year olds were not enrolled (data collection by U.S Census Bureau Current Population Survey 1982-2009). By 2010 one of the 45 states backed out of the cutoff date and 37 of those states required that a student must turn five by a certain date in September or earlier (82%).

According to Kristie Kauerz, Education Commission of the States (2005) the states that have the cutoff date of:

Table 2
Kindergarten Entrance Age (Child must be 5 on or before this date)

Cutoff Date	State
January 1	Connecticut and Vermont (Vermont Districts may choose any date between August 31 st and January 1 st)
July 1	Indiana
August 1	Missouri and Ohio have a cutoff date of August 1 st however, states can have up to September 30 th (Missouri) and October 1 st (Ohio)
August 15	Alaska
August 31	Delaware, Kansas, Washington
September 1	Alabama, Arizona, Florida, Georgia, Idaho, Illinois, Minnesota, Mississippi, New Mexico, North Dakota, Oklahoma, Oregon, Rhode Island, South Carolina, South Dakota, Texas, West Virginia, and Wisconsin
September 2	Utah
September 10	Montana
September 15	Arkansas, Iowa, and Wyoming
September 30	Louisiana, Nevada, Ohio (Districts can choose

	between September 30 th or August 1 st), Tennessee, and Virginia
October 1	Kentucky
October 15	Maine, and Nebraska
October 16	North Carolina
October 31	Maryland's cutoff date is September 1 st however in 2004 their cutoff date was October 31 st and every year in between they raised their cutoff date by a month
December 1	Michigan
December 2	California
December 31	District of Columbia and Hawaii (in 2007 Hawaii changed their entrance age for Kindergarten to August 1 st)
Local Decision	Colorado, Massachusetts, New Hampshire, New Jersey, New York, and Pennsylvania

(De Cos, P. L., & California State Library, S. u. 1997)

As is evident from the table there are a variety of school entrance cutoff dates in the United States, twenty two states have a cutoff date before school begins the first week of September, however only 11 states have the cutoff date between October and January. According to this data the most used date seems to be right before school begins.

New York policies

In New York State the compulsory age of school attendance is six. According to law § 3205: “the Board of Education of each school district may maintain kindergartens which shall be free to resident children between the ages of four and six years, provided, however, such board may fix a higher minimum age for admission to such kindergartens” (NYSED pt.1, art. XCVI, § 1712, 3205). According to the New York State Education Department law § 1712 “attendance of minors upon full time day instruction is mandated. In each school district of the state, each minor from six to sixteen years of age shall attend upon full time instruction” (NYSED pt.1, art. XCVI, § 1712, 3205). Even though New York State agencies may choose their cutoff date, law § 3205 states:

For purposes of this article, a minor who becomes six years of age on or before the first of December in any school year shall be required to attend upon full time instruction from the first day that the appropriate public schools are in session in September of such school year, and a minor who becomes six years of age after the first of December in any school year shall be required to attend upon full time instruction from the first day of session in the following September; and, except as otherwise provided in subdivision three of this section, shall be required to remain in attendance until the last day of session in the school year in which the minor becomes sixteen years of age. (NYSED pt.1, art. XCVI, § 1712, 3205)

In New York State the LEA can choose when their cutoff date is as long as it is between September 1st and December 1st as stated above. The question still lies whether moving the cutoff date to September 1st will benefit the students socially. Even though school cutoff dates for students are important other factors also affect school entrance age.

Demographics

Demographics are factors that may have a social impact on students. For this study gender and Social Economic Status will be researched.

Gender. One demographic that may affect the school entry age is gender. According to Zill, Loomis, West, & Westat (1997), “Boys were reported to have been held out of kindergarten more often than girls have. Boys were also more likely to have been retained in kindergarten” (p. V). Does this mean that boys mature socially slower than girls and would benefit from the cutoff date being moved to September 1st? A study was completed by Langer, Kalk, & Searls (1984), entitled “*Age of Admission and Trends in Achievement: A Comparison of Blacks and Caucasians*”. In this study Langer. et al researched the relationships among Caucasian students and African American students who entered first, fourth, eighth, and eleventh grade. “Relative age, class age, sex, parental education, home environment, and type of community were entered in stepwise multiple regression analyses” (p. 61). This study was researched based on a earlier study *Trends in achievement as a function of age of admission* by Kalk, Langer, & Searls (1981). In this study a sample size of 97,000 Caucasian students and 17,000 African American students were analyzed. The findings from Kalk et al (1981) study show

In both samples, the relative age and class age variables were statistically significant. For Caucasians, the weight for relative age of $-.015$ ($F = 30.9$, $p < 1.0$) demonstrated an academic advantage for older students. The black sample paralleled this result with a negative beta weight of $-.017$ ($F = 9.4$, $p < .01$) for relative age. (p.66)

Kalk et al (1981) explain their findings of the study

The primary explanation for the Caucasian findings seems to be found in the increased proportion of retained students as the relative age of the students becomes younger. The major problem group consisted of the youngest male students from states with December, January, and February cutoffs. (p. 73)

In the 1998 study entitled, *He has a summer birthday: The Kindergarten entrance age dilemma*, Crosser reviewed the intelligence levels of kindergarten students with different birthdates throughout the school year. The study found that boys with summer birth dates demonstrated an academic advantage over girls when the boys postponed their kindergarten entrance by one year. Also according to U.S. Department of Education Office of Educational Research and Improvement (NCES) (2002),

“Twice as many boys as girls [in kindergarten] (14 versus 7 percent) have difficulty articulating words clearly and communicating with others. Twice as many boys as girls (18 versus 9 percent) have difficulty paying attention for sustained periods. One-quarter more boys than girls (20 versus 16 percent) are a lot more active than their peers” (p. 15).

According to the NCES (1997) surveyed parents reported that children who had delayed kindergarten entrance one year were most likely to have been male (64%), white (73%), and born between July and December (70%). In the previous articles why boys have more developmental difficulties and why it affects school entry is not investigated. Gender will be a variable in this study because as stated above gender does factor into the social impact of school entry and parental decisions on this issue.

Socioeconomic Status. Another demographic that may affect the school entry age is socioeconomic status of the students and their families. “Socioeconomic variables, most often

family income, parent education, employment, or a combination thereof, are a reliable correlate of children's outcomes" (Janus & Duku 2007, p. 378). The study Early Childhood Longitudinal Study-Kindergarten Class of 1998–99 (ECLS-K) was conducted. The ECLS-K is sponsored by the U.S. Department of Education, National Center for Education Statistics. The ECLS-K was designed to assess the relationship between a child's academic and social development and a wide range of family, school, and community variables (NCES 2002). The study according to Janus & Duku (2007) concluded

Children with fewer risk factors (which included low maternal education, single-parent family status, utilization of social assistance, and home language other than English) were more likely to arrive at kindergarten with better cognitive and reading skills. They were also more likely to have better social skills and more developed approaches to learning by the spring of the kindergarten year than children with more risks. (p. 378)

Parents who come from a more affluent background tend to hold their children back whereas lower socioeconomic parents tend to send their child (Meisels, 1992). An explanation for this phenomenon is provided by Zill & West (1997)

... parents who are socioeconomically advantaged have more leeway to voluntarily postpone their children's kindergarten enrollment because they have more job flexibility and the financial resources to make alternative childcare or early education arrangements for their children. Parents who have less education and lower incomes may have little choice but to put their children into kindergarten at the earliest possible age, if only because of the low-cost childcare that full-day, publicly supported kindergarten provides. Thus, when an affluent family voluntarily delays the entry of their son or daughter into

kindergarten, it means that the educational and economic advantages that the child already enjoys are compounded by the child being older and more mature than his or her counterpart from a lower-socioeconomic status (SES) family. (p. 3-4)

Age of entry could make a difference for students who are of lower-socioeconomic status.

Socioeconomic status will be a variable in this study because as stated above SES may factor into the social impact of school entry.

Typical social development in the Primary level

For the purpose of this study I will investigate student social development at the age of four and at the age of five. This section will provide where the student should be developmentally. In a study by McCabe and Altamura (2011), *Empirically valid strategies to improve social and emotional competence of preschool children*, it was found that by four years of age, children begin to understand that people display different emotions and that identical scenarios may cause different emotional reactions in different people. Also, according to Kostelnik, Whiren, Soderman, & Gregory (2009) between the ages of three years old and five years old students become aware of other people's positive and negative emotions. They rely on others facial expressions, and their tone of voice. Spira and Fischel (2005) conducted a study that analyzed the relationship between behavior and learning with students. In the study the students who were among the sample had ADHD, however for the purpose of this study the information from the article will be from the developmental section. Spira and Fischel (2005) state "Preschool children learn how to focus their attention on teacher-directed activities, interact appropriately with peers and authority figures, and follow spoken and unspoken rules in the classroom" (p. 755).

According to Kagan, Moore, & Bredekamp, S. (1995) there are five dimensions that show that a student is ready for the school setting. The relevant dimensions that this study focused on were:

- Physical wellbeing and motor development (including health status, growth, physical abilities) (p. 3-4). According to NYSED New York Board of Regents the physical wellbeing and motor development domain includes the children's physical health and ability to engage in daily activities. This domain focuses on the physical development of the child, physical fitness, the health and wellbeing, and the health and safety (p. 12-14).
- Social and emotional development (children's ability to interact with others, their perceptions of themselves, and ability to understand and respond to the feelings of others) (p. 3-4). In the NYSED New York Board of Regents the domain focuses on the emotional competence and ability to form positive relationships that give meaning to children's experiences in the home, school, and larger community. This domain includes self-concept and self-awareness, self-regulation, relationship with others, accountability, and adaptability (p.15-16).

Also, the race to the top initiative that the United States has implemented common core standards for all participating states. New York is one of the participating states to implement these common core standards. Starting in the 2012/2013 school year participating states must have implemented the common core standards into their instruction. According to the common core standards students who will be entering kindergarten should have five domains benchmarks. For this study as stated above two of the domains will be focused on. For students in Pre-k, the students must master the following benchmarks in the two domains.

Physical and Motor Development

- Child uses senses to assist and guide learning.
- Child uses sensory information to plan and carry out movements.
- Child demonstrates coordination and control of large muscles.
- Child combines a sequence of large motor skills with and without the use of equipment.
- Child demonstrates eye-hand coordination and dexterity needed to manipulate objects.
- Child engages in a variety of physical fitness activities.
- Child demonstrates personal care and hygiene skills.
- Child demonstrates awareness and understanding of healthy habits.
- Child demonstrates awareness and understanding of safety rules.

Social and Emotional Development

- Children recognize themselves as unique individuals having their own abilities, characteristics, feelings and interests.
- Children regulate their responses to needs, feelings and events.
- Children demonstrate and continue to develop positive relationships with significant adults (primary caregivers, teachers and other familiar adults).
- Children develop positive relationships with their peers.
- Children demonstrate pro-social problem solving skills in social interactions.
- Children understand and follow routines and rules.
- Children adapt to change.

(New York State Education Department, Board of Regents, New York State pre-kindergarten foundation for the common core)

New York State and other states in the United States agreed to follow these benchmarks for students' who are entering kindergarten to have mastered these skills. These guidelines show that it does not just depend on whether the student is cognitively ready for school. This study will focus only on the social and emotional development. Social interactions with others in the classroom are crucial in the development of the student as stated above. Zill & West (2001) assert

According to parents, nearly one entering kindergartner in five (18 percent) is reported to be considerably more active than his or her peers (i.e., shows signs of hyperactivity). One in six (13 percent) is described as having difficulty paying attention for sustained periods, and 11 percent have difficulty articulating words or being able to communicate clearly with others. (p.7)

Zill & West (2001) continue that parents and teachers report students for the most part get along in a group setting and three-quarters of the students accept peer ideas and form and maintain friendships without much difficulty. Students also help and comfort others. Parents reported that 80-89% of children were described as easily playing with others, forming friendships, and helping others. Are the other 10% of students ones that started school at the age of four? Zill & West (2001) report that,

Most kindergartners do not lose their temper easily or get into arguments or fights with other children with any frequency. According to the teachers surveyed, most children (90 percent) exhibit these problem behaviors 'never' or 'sometimes'. Parents are more likely to report that their children get angry easily or frequently argue or fight with others. Even

according to parents, however, most children (between 67 and 85 percent) engage in such behavior no more than 'sometimes' or 'never'. (p. 8)

According to Ladd (1990) Children's social interaction throughout the school year with peers at the end of kindergarten showed that there was a positive adjustment to school and children had more friends in the classroom, were able to maintain friendships, and had established new friends. However, according to Marshall (1989) poor relationships with peers correlate with aggression, poor social skills, and lack of empathy. Also poor peer relationships in the early years related to later emotional and mental health problems. This study will investigate the impact of school age entry on the students' social wellbeing.

Effects on entry age

This study will research the effects on social development of entry age for students entering either as four year olds or at five or six. From the school's perspective, primary school teachers may prefer older students who have more maturity and preschool preparation. With rising concerns about school accountability and standardized testing as early as second grade, schools and school districts may see redshirting younger students as a low cost strategy to increase test scores (Crosser 1998). However, it is also noted that,

A conflicting perspective to this child development literature argues that it is beneficial for students to enter kindergarten at an early age. Students may gain cognitive skills just from being in a school environment, even if they are the youngest students in the class (Piaget 1970; Vygotsky 1978; Meisels 1992). Mayer & Knutson argue that the head start from early schooling can have lifelong benefits in terms of human capital accumulation (Lincove & Painter, 2006 p. 155 as cited in Mayer & Knutson 1999).

Lincove and Painter conducted a study in 2006 that looked at the long-term effects on students' who entered kindergarten at age six rather than four. The study focused on the question: Does the age that children start kindergarten matter? The study examined long-term educational and social outcomes. The study suggests that if a student starts school at age six they will be less likely to repeat a grade, however Lincove and Painter also state that "the matching results show that when students have similar probability of repeating a grade, the younger students perform as well as redshirted students. This indicates that the observed differences in outcomes for redshirted students are largely due to selection of students into the redshirted and non-redshirted groups" (p. 156). Lincove's study suggests that students may or may not gain from being redshirted or starting early.

According to the literature review there are many factors that go into when the cutoff date should be. The research shows that demographics, gender, SES, may play a part in when parents send their children to kindergarten. Research also suggests typical social development in children before the child begins school.

Methodology

The purpose for this study was to research the social impact on students who enter the formal school system at four, five, and six years old. The study was requested by a local principal to provide data for the district as it reviews its age of entry policy.

Participants

For this study the participants were from a local suburban school district. The students used for this study were all students in the fourth grade in the 2011/2012 school year. The school

principal provided age when the student entered kindergarten, gender, attendance records, and report card comments as de-identified retrospective data sets.

Setting

The school district was a suburban school located in Western New York. According to the New York State Education Department (NYSED) for the 2010-2011 school year the elementary school had approximately 545 students. In kindergarten there were approximately 110 students, 90 students in first grade, 110 students in second grade, 100 students in third grade, and 135 students in fourth grade. The 2010-2011 school year was the first year that the elementary school only housed students in grades kindergarten through fourth grade. The average class size was 20 students. One hundred forty three students (26%) students are eligible for free lunch, 40 (7%) students are eligible for reduced lunch. Eleven students (2%) have limited English proficiency. The racial/ethnic backgrounds in the school include two students who are black/African American, 33 (6%) students are Hispanic/ Latino, six (1%) are Asian or Native Hawaiian/ other Pacific Islander, 489 (90%) are Caucasian and 12 (2%) are multiracial. The annual attendance rate is 96%. According to the NYSED the attendance rate is calculated by *Annual Attendance Rate* is determined by dividing the school's total actual attendance by the total possible attendance for a school year. A school's actual attendance is the sum of the number of students in attendance on each day the school was open during the school year. Possible attendance is the sum of the number of enrolled students who should have been in attendance on each day the school was open during the school year. (p. 3)

Design

The specific objective was to investigate possible trends in social development of children who began kindergarten at the ages of four as compared to those who started at five or six. The school provided data of all students in fourth grade from the 2011/2012 school year. The data included age when the student entered kindergarten, gender, attendance records, and teacher comments on report cards. This data was then analyzed and compared between students who entered kindergarten at age four, and those who entered kindergarten at age five or age six.

Data Collection

The local school principal requested that the study be conducted in the school because the district was evaluating the age of entry cutoff date. The current date has been December 1st, however provided an evidence-based study the district may change the date to September 1st. This will be achieved by seeking an answer to the research question, “how does the age of school entry affect children socially throughout their school career?” The study sought to discover possible trends in social development between the age-of-entry groups (age four, five, or six), between gender, report card comments, and attendance reports collected.

Data Analysis

The data collected of participants’ report card comments, age when the student entered kindergarten, gender, and attendance records was analyzed and compared. The study compared the date of birth of the ninety-five students to see if the social impact of age of entry in kindergarten (age four, five, or six years) affected the students. The study also analyzed the data according to gender to see if there was any correlation between the impact of school entry in boys as compared to girls. The absences of the students was also analyzed to find any correlation between the mean, median, mode, and range. The last data that was analyzed was the report

comments. The comments were analyzed to find any correlation between the age of entry and the impact socially. The information that has been collected was used to further research this controversial topic in the field of education. The study has been conducted to discover possible trends in social development between the age-of-entry, the social development as the student progresses between grades, students' report card comments, and attendance records. The data has been compared to those students that entered school at the age of four and those that entered school at the age of five throughout the fourth grade.

Limitations

The study's findings may be limited because the sample size was small, and only the data from students in fourth grade was analyzed. Another limitation is that this study did not follow the same students into the upper grade levels (grades five-college level). The last limitation is that this study was conducted only for one school in one school district, results may vary in other schools and school districts.

Results

Overview of data

For this study there were one hundred nineteen original students in fourth grade during the 2011/2012 school year. The following criteria needed to be met for the participant's data to be included in the study. If all the criteria was not met the participant was eliminated from the analysis. The criteria included:

- Student remained in the school for the entire year
- Student received average grade for the school year
- Student took New York State ELA/ Math assessment

Out of one hundred nineteen students, ninety-five students were analyzed for this study. From these ninety-five students date of birth, gender, attendance records, and report card comments were compared and analyzed to answer the question how does the age of school entry affect children socially across their primary school years? The study compared the date of birth, the students' gender, the amount of absences, and the report card comments to see if the age of entry in kindergarten (age four, five, or six years) affected the students socially. The data was also compared to look at any correlation between age, gender, amount of absences, and report card comments.

Date of Birth

Of the ninety-five students, seven students were six years of age when entering kindergarten. The following table shows the number of students who had a birthday in three month increments.

Table 3
Students Birthdays who entered at age six

Birthday (Quarterly)	Number of Students
January-March	0
April-June	3
July-September	1
October-December	3

From this data the oldest student entered kindergarten between the age of six years, three months and six years, five months. All seven students were redshirted and entered kindergarten a year later than most of their peers and their first eligibility for kindergarten.

Seventy-four students were age five when entering kindergarten. The following table shows the number of students in each month who had a birthday.

Table 4
Students Birthdays who entered at age five

Birthday Month	Number of students
December	8
January	7
February	5
March	7
April	12
May	11
June	11
July	5
August	8

From this data most students were born between the months of April, and June. This puts the student entering kindergarten at age five years, five months old through five years, seven months.

Table 5
Students Birthdays who entered at age four

Birthday Month	Number of students
September	5
October	6
November	3

When school started in September there were fourteen students who were exactly five or younger, ranging between the age of four years, ten months and five years, zero months. When a student enters kindergarten their age is an important factor. However, gender can also impact the age of entry and students' social adaption to school.

Gender

As stated above more boys tend to be held out of kindergarten one year than girls. In this study there were fifty five males and forty females. The seven oldest students were males. Out of the eighty-eight students the breakdown of birthday months by gender was as follows:

Table 6
Students' Birthdays and gender

Birthday Months	Number of Males/Females
December	3/5
January	5/2
February	2/3
March	3/4
April	7/5
May	5/6
June	6/5
July	3/2
August	4/4

According to the data there is no correlation between the number of males and females who entered school at the age of five. One correlation is that all seven oldest students (those who were held back a year) were all males. This trend has been observed from the research literature above stating that more boys tend to be redshirted due to immaturity. However, males were also overrepresented in the youngest group of students. Of the fourteen students who entered at four years, ten months through five years old there were ten males and four females. Again there were more males that entered at the age of four than females. Although gender plays a role on the social impact of entry age, absences are also an important indicator of student performance.

Absences

The days that a student is absent may be an indicator on their social skills. The highest number of absences was thirty two days out of one hundred eighty days. The student with thirty two days was a female, her report card comments were negative feedback from the teacher that included “Assignments often incomplete, not working to potential, needs to pay closer attention during class, needs to demonstrate more consistent effort, and needs to seek extra help.” The least amount of days absent was zero. The mean of the student absences was seven and a half days. The mode was four days absent. The median was six days. The standard deviation is 6.28. The following table shows frequency of absences:

Table 7

Number of days absent to gender

Number of days absent (three day increments)	Number of students	Male/Female
0-3	26	17/9
4-6	23	10/13

7-10	23	13/10
11-13	10	6/4
14-16	7	6/1
17-20	2	1/1
21-23	0	
24-26	1	1 Male
27-30	1	1 Male
31-33	2	2 Females

Twenty-six of the ninety-five students were absent between zero and three days (27%). Eighty-two (86%) students missed thirteen days or less. Out of these eighty-two students forty six students were male, thirty-six students were female. The highest absences (31-33 days) were female students. Seventeen males out of twenty-six (65%) missed three days or less. Out of the seven oldest males, the following table provides the oldest seven students' numbers of days absent:

Table 8

Number of days absent to Number of students who were six years old

Number of days absent	Number of students
17	1
12	1
10	1
9	1
5	1

4	1
0	1

From this data there appears to be no correlation between the number of student days absent and the students being the oldest students in their class since the number of days absent are consistent with the average or within one standard deviation of the mean. The absences of the fourteen youngest students in the class are shown in the table below:

Table 9

Number of days absent to Number of students who were four years old

Number of days absent	Number of students
31	1
25	1
17	1
16	1
15	1
10	1
9	2
8	3
6	1
2	1
1	1

Out of the fourteen students there were five students who were absent 13-31 days (35%), nine students were absent ten or less days (64%). It appears that the younger students are absent more than the older students and more than the students who entered at age five. However,

absences are just one indirect indicator of social adjustment to schooling. Students' who attend regularly can be presumed to be more comfortable in school and more eager to be there than students' with above average number of absences. The next section will investigate the report card comments for the students.

Report Card Comments

Report card comments from the teacher may give indications of the students' social adjustment to school. The participating school district uses a report card system that has over one hundred seventy-five comment choices. Teachers are allowed to choose the best three comments for each subject. The teachers are only to choose from the comment choices, teachers are not allowed to write their own comments. From the data collected from the ninety-five students there were thirty-two students who did not have any comments on their report cards.

Negative Comments

Out of the remaining sixty-three students eleven students received negative comments that included

- Not working to potential (3)
- Needs to pay closer attention during class (3)
- Needs to develop better study skills (4)
- Needs to demonstrate more consistent effort (6)
- Needs a lot of support and guidance (1)
- Working below grade level (1)
- Assignments often incomplete (1)

From these eleven students, two students were six years-old when entering kindergarten and four students were the four years-old when entering kindergarten. Also, out of the eleven students with negative comments eight students were male, and three students were female. Out of these eleven students they were absent the following days

Table 10

Students' who received negative comments compared to number of days absent, and age of entry

Number of days absent	Number of students	Age of entry (years)
32	1	5
15	1	4
11	1	5
10	3	6, 5, 4
6	1	4
3	1	5
1	2	5, 4
0	1	6

From this data it is evident that the student with the most days absent also received negative report card comments; however there is also a student who did not miss any days of school but still received negative report card comments. This student's report card states that the curriculum has been modified and the student is working below grade level, which may mean that this student is an English Language Learner, or is a special education student. The other five students who received negative comments were five years old when entering kindergarten, these students are lower achieving students but the data shows no significant correlation between age

of entry to kindergarten, absences, and report card comments five years later when the students are in fourth grade.

Positive Comments

Out of the ninety-five students fifty-one students received mostly positive report card comments. The comments included:

- Enthusiastic classroom participant (4)
- Does outstanding work (11)
- Does careful and accurate work (16)
- Good attitude and effort (15)
- Is a pleasure to work with (14)
- Is courteous and cooperative (12)
- Shows improvement (10)
- Is a positive influence on peers (5)
- Consistent effort and performance (2)
- Respectful and responsible (2)
- Has developed good study skills (1)

The fifty-one students who received positive report card comments were mostly five years-old when entering kindergarten. Out of the fifty-one students, twenty-six students' were male, and twenty-five students' were female.

Mixed Comments

Out of these fifty-one students, sixteen students had mixed positive and negative comments. Some comments do not correspond with the students' absences, for example one

student has not been absent during the school year but one comment says absent too frequently. There are also five students who have a modified curriculum; this is a result of being an English Language Learner or a student with special needs. Of these five students, one student was six when entering kindergarten, three were five years-old, and one was four years-old.

As stated above it appears to be no significant correlation between negative report card comments, age of entry, and absences. There is also a correlation between negative comments and male students', eight out of the eleven students' that had negative report card comments were males. Of these eight students one was six when entering kindergarten, five were five years-old, and two were four years-old.

Discussion

Implications of Results

There is some correlation between negative report card comments, age of entry, and absences. From this study, the younger students received negative report card comments, and also were absent more frequently than their peers. There were also seven students' who entered kindergarten at age six; these students were all male which supports the literature review above. The literature review states that there is a trend that more boys than girls are held out of school for one year due to maturity, and/ or academic readiness. "Twice as many boys as girls (18 versus 9 percent) have difficulty paying attention for sustained periods. One-quarter more boys than girls (20 versus 16 percent) are a lot more active than their peers" (NCES p. 15).

In this study, the seven oldest males were academically average from their subject averages and test scores, where literature reports that older students tend to be academically and socially higher than their peers.

There were fourteen students who entered kindergarten at age four. These fourteen students had more negative report card comments, and more absences than the other students. However, there is not enough correlation between the social impacts of early entry and if the cutoff date were to be moved from December to September. If further research were to be done there may be more of a correlation to support the decision.

Problems with methodology

In this study the sample size was small. This study only collected data from one grade level; there were ninety-five students in fourth grade in the 2011-2012 school year who met the criteria for inclusion in this study. The results may have been clearer if there was a larger sample size. The results may have also been clearer if there were more students who entered kindergarten at the age of four years.

Another limitation of this study was that these students were not analyzed by comparing age of entry, gender, absences, and report card comments when the students' entered kindergarten, and in the future when the students' are in the upper grade levels. There may have been more of a trend if students were analyzed when they completed kindergarten, in fourth grade, and then again in the upper grade levels.

This study also could have included a survey/interview with the younger students to further investigate in a qualitative manner the social impact of entering kindergarten at age four. Lastly, this study only analyzed one, homogeneous school district; results may have varied if more than one school district were analyzed or if the district chosen was more ethnically diverse.

The results may have also varied if the school district was an urban lower economic status school. The school used for this study was a middle class suburban school.

Suggestions for future research

For future research, one suggestion would be to investigate the impact on students' social skills when in kindergarten, fourth grade, and an upper grade level. This would show a trend in data between the three grades and how the students' social skills were impacted when entering kindergarten at age four compared to their peers who entered at age five.

Another suggestion for future research would be to examine other school districts around the surrounding area to compare the age of entry and the impact on students' socially. This may show the impact according to socioeconomic status. Zill & West (1997) state "Parents who have less education and lower incomes may have little choice but to put their children into kindergarten at the earliest possible age, if only because of the low-cost childcare that full-day, publicly supported kindergarten provides" (p. 3).

This study also did not analyze ethnicities/race, so another suggestion for future research may be to analyze data based on ethnicities of the students. By furthering this study and the research a trend may occur that answers the question how does age of entry affect students socially?

Implications for practice

This study was proposed by a local school principal. The principal wanted to see how the age of school entry impacts the students socially. The district's current cutoff date is December 1st, and the principal wanted to know if changing the cutoff date to September 1st would positively impact the students' academic and social development. This study looked at students' social development and examined indirect indicators of student absenteeism and teacher report comments.

According to this study there is no indication that the students who enter formal schooling at age four have greater absences or more negative teacher report card comments compared to the students who are five by the September 1st deadline that the school is contemplating. Some younger students' received negative report card comments, and were absent more than the other students', however students' who were six years old when entering kindergarten also had negative report card comments, and were absent multiple days. According to this study, one correlation that became apparent is that more males were receiving negative comments on their report cards, and more males were older when entering kindergarten. Further research is suggested to find a trend to answer the question how does age of school entry affect students' socially? After further research has been made, it may be more apparent as to whether changing the cutoff date of December 1st to September 1st would be advantageous to the students' social development.

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