

**Department of Student Services
Newton Public Schools**

MEMO

TO: David Fleishman, Superintendent of Schools
School Committee for Newton Public Schools

FROM: Judy Levin-Charns
Assistant Superintendent for Student Services
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DATE: January 2013

RE: Trends in Disabilities in Special Education

Trends in Disabilities in Special Education

The School Committee requested an update of the December 2011 report on trends in disabilities in special education in the Newton Public Schools (hereafter NPS). The December 2011 report included trends in disabilities in special education in NPS, district and state disability data and data from out-of-district placements from 2007 to 2011. Data analysis indicated an increasing number of students in four disability categories: autism, communication, health, and neurological. The disability category specific learning disability decreased over time, declining in each of the five years. Implications for planning were presented. These data and analyses are updated in this report through October 2012.

In the period since the 2011 report, NPS implemented the following actions to ensure that students with a wide range of needs are successful in making effective progress in the least restrictive environment.

- Added seven co-taught classrooms in September 2012, for a total of 21 co-taught classrooms, across 12 elementary schools. Co-taught classrooms provide services to a neighborhood cohort of students with a variety of learning and social needs at an identified grade level. This model allows for increased flexibility in grouping and scheduling, making it possible for students with special needs to receive instruction from a highly qualified teacher. Program effectiveness is measured by student achievement on grade level benchmarks and progress towards IEP goals, input from teachers and parents, and overall program evaluation by building principals and elementary special education administrators;
- Developed the SPARK program at Brown Middle School, a comprehensive program for students with autism spectrum disorder to provide in-district programming;
- Developed the BOOST program at Bigelow Middle School, a comprehensive program for students with social-emotional-behavioral needs to provide in-district programming;
- Increased mental health support at all the elementary schools;
- Provided direct support, by the assistive technology specialist, to students with a range of disabilities, and consultation and professional development to teams to aid students in accessing the curriculum. NPS is in process of hiring an additional .4 FTE assistive technology specialist to meet the increasing needs of students and staff;
- Expanded the role of the job coach to include community outreach;
- Provided on-going professional development to general and special educators to support their understanding of working with students with complex needs and to ensure that all students have

full access to the general educational curriculum. For example, regular and special educators and preschool teachers participated in workshops related to the new Massachusetts Frameworks in ELA. Special educators at the elementary level were trained in educating students with intellectual disabilities, specialized instruction in reading, behavior management and assistive technology. General and special educators were trained in co-teaching, restraint and seclusion protocols, behavior management, collaboration, and special education laws and regulations. Middle school special educators attended workshops on math content and pedagogy, assistive technology, assessment, restraint procedures, and special education regulations. Special educators at the high school level were trained in cognitive assessments and executive functioning, and transition planning. Professional development was also provided to teaching assistants and behavior therapists. For example, training was provided to support specialized instruction in math, oral language, reading, social pragmatics, assistive technology, crisis prevention, and executive function.

Section I - Disability Data October 2008 – October 2012

Table 1 below presents the total number of students in each category of disability as reported to the Department of Elementary and Secondary Education (DESE) in October of each year. See Appendix A for the disability definitions per the DESE website. The table below provides the count of students in each disability category and the percent change in numbers from each prior year and overall 2008 to 2012. Note that in 2012 the number of students with disabilities has declined in a single year reversal of a multi-year trend.

Table 1: Count of Students in NPS by Disability Category

Primary Disability	2008	% Change from 2008	2009	% Change from 2009	2010	% Change from 2010	2011	% Change from 2011	2012	% Change over 4 year
Autism	185	10%	204	13%	230	13%	259	8%	280	51%
Communication	262	2%	268	-3%	261	14%	297	2%	292	11%
Developmental Delay	222	5%	234	9%	254	5%	266	1%	269	21%
Emotional	161	11%	179	12%	200	4%	207	0%	207	29%
Health	236	8%	256	10%	281	9%	306	2%	312	32%
Intellectual	45	-9%	41	9%	45	16%	52	-13%	45	0
Multiple Disabilities	32	-16%	27	4%	28	-4%	27	-15%	23	-28%
Neurological	113	14%	129	20%	155	30%	201	27%	256	127%
Physical	13	-15%	11	36%	15	-36%	11	-9%	10	-37%
Sensory/Deaf-Blind	2	0%	2	-50%	1	0%	1	0%	1	-50%
Sensory/Hearing	15	-7%	14	-14%	12	42%	17	12%	19	27%
Sensory/Vision	6	33%	8	0%	8	13%	9	11%	10	67%
Specific Learning Disabilities	995	-3%	963	-5%	917	-9%	833	-12%	731	-27%
None Specified	2									
TOTAL:	2,289	2%	2,336	2%	2,407	3%	2,486	3%	2,455	-1%

A student may demonstrate more than one disability; however, it is the Team's responsibility to determine the primary area of disability. The Team can indicate a secondary and/or tertiary disability that are all taken into consideration when developing the student's Individual Educational Program (IEP). The primary disability is the disability that is reported to the state. It is important to understand that

within each disability category there is a wide range of severity of need from low, moderate, to high level of need. Each student's program is individualized to meet his or her level of need and to provide a free and appropriate education (FAPE) in the least restrictive environment (LRE).

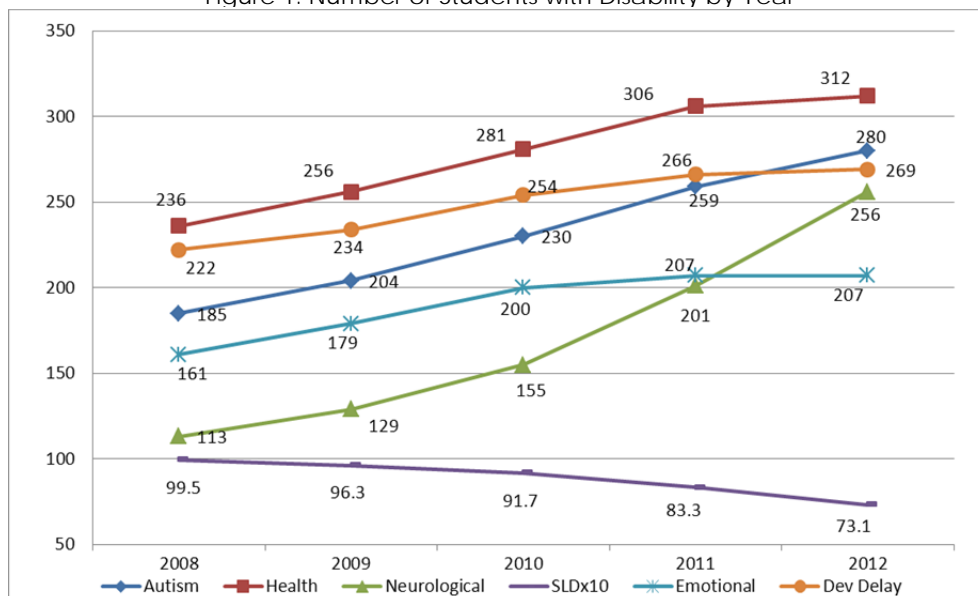
The greatest changes over the five years 2008 to 2012 were in neurological disabilities (127%) and autism (51%). Substantial changes also were seen in health (32%), emotional disabilities (29%), and developmental delay (21%). In addition communication increased 11%. Sensory/hearing and sensory/vision also have increased substantially, 27% and 67%, respectively but for a small number of students. Specific learning disabilities decreased 27%.

The greatest percent increases in the previous report (December 2011) were in neurological disorders (128%), autism (61%), health (33%) and emotional (22%). Specific learning disabilities decreased 17%.

Changes over the five years 2008-2012 compared to changes over the five years 2007-2011 are as follows: neurological 127% vs 128%, autism 51% vs 61%, health 32% vs 33%, emotional 29% vs 22%, developmental delay 21% vs 17%, communication 11% vs 17%. Specific learning disabilities decreased 27% vs 17%. Thus, the changes over the two time periods are similar for neurological and for health. Developmental delay and emotional disability each increased more during the 2008-2012 time period than during the 2007-2011 time period. A smaller change over time is seen in autism and communication. Specific learning disability continues to decrease; the decrease is greater in 2008-2012 (27%) compared to 2007-2011 (17%).

Figure 1 shows the number of students with selected disabilities for years 2008-2012 (for purposes of display the graphed number of students with specific learning disability (SLD) is the actual number divided by 10). The number of students demonstrating health, developmental delay, autism, and neurological disabilities continued to increase every year. After increasing from 2008 to 2011, there was no change in number of students with emotional disabilities from 2011 to 2012. Students with neurological disabilities have increased most rapidly from 2008 to 2012. There are students in all five of these disability categories who may require multiple and intensive services to make effective progress. Additionally, an aide may be needed in order to provide these services and support access to the general education curriculum and environment. The number of students diagnosed with specific learning disability decreased over the same time period (2008-2012). This may be a function of a number of factors such as early intervention for reading and math support, improved clarity in classification of disabilities as well as a shift in federal and state eligibility determination implemented in 2008.

Figure 1: Number of Students with Disability by Year



Note: There was a reduction of 100 students with specific learning disability between 2011 and 2012.

Comparison to State Data

Table 2 compares disability data from NPS to Massachusetts state data provided by the DESE for years 2008-2011. The comparison to state data shows that NPS' change in percent of students in each category continues generally to parallel state trends from year to year. Of all students having disabilities, the percentages of NPS students with autism spectrum disorders, health, and neurological disabilities are larger than the state percent, and both the NPS and state percents continue to increase. The difference between NPS and state percents for neurological disabilities has increased over the three years. The percent of students with communication disabilities is substantially lower than the state percent. The decline in the percentage of students with specific learning disabilities (SLD) is also apparent both in NPS and at the state level. NPS continues to identify students with SLD at a higher rate than the state but the difference between NPS and the state is less in 2011 than in any of the other prior years. The decline in number of students with SLD in NPS and in Massachusetts is consistent with the national trend; as is the increase in number of students with autism spectrum disabilities (Scull and Winkler, 2011). States vary in their definitions for the disability categories, complicating comparisons to national data.

Table 2: Comparison of NPS Data to State Data:
Percentage of Students by Disability Category for Students Identified with a Disability

Primary Disability*		2008	2009	2010	2011
Autism	Newton	8.1%	8.7%	9.8%	10.4%
	State	5.3%	5.9%	7.3%	8.1%
Communication	Newton	11.4%	11.5%	10.8%	11.9%
	State	16.7%	17.3%	17.7%	18.0%
Developmental Delay	Newton	9.7%	10.0%	10.6%	10.7%
	State	10.0%	10.1%	10.7%	10.7%
Emotional	Newton	7.0%	7.7%	8.3%	8.3%
	State	8.4%	8.4%	8.5%	8.5%
Health	Newton	10.3%	11.0%	11.7%	12.3%
	State	6.4%	6.9%	8.5%	9.0%
Intellectual	Newton	2.0%	1.8%	1.9%	2.0%
	State	6.8%	6.6%	6.3%	6.2%
Multiple Disabilities	Newton	1.4%	1.2%	1.2%	1.1%
	State	3.0%	2.9%	2.9%	2.9%
Neurological	Newton	4.9%	5.5%	6.4%	8.1%
	State	3.7%	3.9%	4.5%	4.9%
Physical	Newton	0.6%	0.5%	0.6%	0.4%
	State	0.9%	1.0%	0.9%	0.9%
Sensory/Deaf/Blind	Newton	<.1%	<.1%	<.1%	<.1%
	State	0.1%	0.1%	0.1%	0.1%
Sensory/Hearing	Newton	0.7%	0.6%	0.3%	0.7%
	State	0.8%	0.7%	0.7%	0.7%
Sensory/Vision	Newton	0.3%	0.3%	0.3%	0.4%
	State	0.3%	0.3%	0.4%	4.0%
Specific Learning Disabilities	Newton	43.5%	41.2%	38.1%	33.5%
	State	37.6%	35.8%	31.5%	29.3%
Total		100%	100%	100%	100%

*Data from the DESE website *www.doe.mass.edu

Section II - Out-of-District Placements

Table 3 presents the total number of students placed by NPS in out-of-district settings. The data are from February 2008-2012 and October 2012, and include students who eventually return to in-district programming or exit special education due to reaching the maximum age of 22.

School Level*	2008	2009	2010	2011	Feb 2012	Oct 2012
Early Childhood	0	0	1	1	1	0
Elementary	11	11	15	16	19	21
Middle	29	25	35	37	32	31
High School	85	91	79	90	100	104
TOTAL	125	127	130	144	152	156
# of students returning to in-district during year	3	7	13	8	13	5
Cost Share	16	21	28	35	27	27
*Data from February 2008-2012 and October 2012 as reported monthly to the NPS School Committee.						

The total number of students in out-of-district placements increased by 27 over a four-year period when comparing the February 2008 to the February 2012 counts. The number of students in out-of-district placements increased by four students in October 2012, bringing the number to 156 students. This number represents 6% of the total number of students receiving special education services (2455 students, October 2012 Student Information Management System [DESE SIMS]) and 1.2% of the total number of students enrolled in NPS (12,519, October 2012 SIMS).

At the elementary level the numbers have increased from 11 students in February 2008 to 21 in October 2012. At the middle school level the number of students has fluctuated from 29 in 2008 to 37 in 2011, but decreased to 31 in October 2012. At the high school level the number of students went from 85 in 2008 to 79 in 2010, and to 104 in October 2012. At the elementary level 11 of the 21 students are coded with a disability of autism and three students are listed with an emotional disability. At the middle school level nine of the 31 students are coded with a disability of autism and nine are coded an emotional disability. At the high school level, of the 104 students 26 are coded with an emotional disability and 22 with a disability of autism.

This year, the data reflect that the additional programming at the middle school level of SPARK, which support students on the autism spectrum and BOOST, which supports students with social-emotional disabilities, has contributed to the lower referrals of students for out-of-district placements. In addition, the number of cost share agreements increased from 16 in 2008 to 35 in 2011 and decreased to 27 in 2012. It is anticipated that the number of agreements in the 2012-2013 school year will be similar to the 2011-2012 school year.

Figure 2: Percent of Students by Disability Category Placed Out-of-District by NPS and Percent of Students by Disability Category of All NPS Students with Disabilities

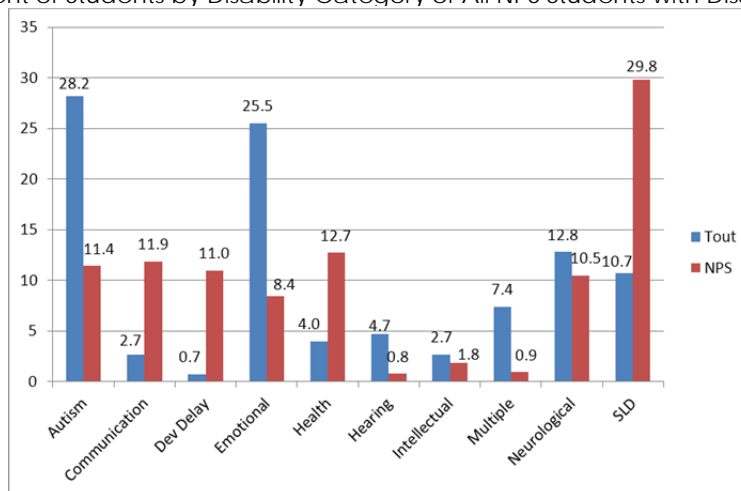


Figure 2 shows the percentages of students by disability category placed out-of-district by NPS in October 2012. These percentages are based first on the total number of students placed out-of-district by NPS (156; T-OUT [tuitioned out]) and secondly on the total number of students in special education in NPS (2455; NPS). Within the group of students who are placed out-of-district, the greatest percentage is students who have been identified with autism or an emotional disability. Students with autism represent 28.2% of the total out-of-district placements. These students represent 11.4% of the total number students in special education. Similarly, students with an emotional disability represent 25.5% of the out-of-district placements and represent 8.4% of the total number of students in special education. These are students whose needs are so complex and unique that the specialized supports provided in a particular out-of-district placement makes it the least restrictive and most appropriate environment for making effective progress. As evidence of the unique needs of some students and the level of specialization required, we continue to place students in over 50 out-of-district programs. An out-of-district placement is proposed after all available in-district services have been utilized or considered. This is an on-going process by the Team to determine a student's effective progress in the least restrictive environment and in the context of FAPE. Agreements are the result of the dispute resolution process where the parties may not agree about what is FAPE for a particular student. The increasing number of students placed out-of-district parallels the increasing number of students with these two disabilities in NPS and the state.

Section III - Implications for Planning

The Department of Student Services monitors trends in disability categories and develops programming to respond to changing needs within NPS. We anticipate that these categories will impact all aspects of planning going forward.

- Communication and Specific Learning Disabilities - Although the trend data indicate a slight decrease over the last year in the number of students with communication impairments, NPS continues to add highly qualified speech/language pathologists as needed, as well as to develop further the team of speech/language pathologists who provide services to students needing augmentative communication devices. There is also a significant increase in students diagnosed with autism spectrum disorders who require services and consultation of high intensity and frequency.

Although there is a decrease in the number of students identified as having a specific learning disability, this continues to remain the largest disability category in the district. At all school levels NPS is maintaining programs that provide interventions and supports for students with specific learning disabilities. These include: tiered instruction as an early intervention response at all levels, the REACH program at the elementary level, the learning disability programs at the middle school level, academic support (Newton North), the Learning Program (Newton South), and academic support provided through special educators in learning centers and/or regular classroom settings throughout the district.

- Autism - The continued increase in the number of students with autism spectrum disorders over the past four years continues to have implications for programming. Students with autism spectrum disabilities present significant needs in communicating, social/behavioral interacting, and learning. The development and implementation of Applied Behavior Analysis (ABA) programming throughout all school levels has been in response to the growing number of students in need of these services. ABA services include a combination of supported inclusion, discrete trial training, small group instruction, and incidental teaching strategies. Board Certified Behavior Analysts (BCBAs) provide services to students and consultation to IEP Teams and parents. Most students with autism spectrum disorders are supported in the neighborhood inclusion program, in social pragmatics groups, and through other types of services and supports that are determined and provided based on individual student needs such as occupational therapy, speech/language therapy, and adaptive physical education. This year NPS developed the SPARK program at Brown Middle School, a comprehensive program for students on the autism spectrum. NPS will need to continue implementing a comprehensive autism support program at all levels.

- Emotional - The continued increase in the number of students with emotional disabilities has implications for staffing and programming. Students with emotional disabilities at all levels require the support of mental health professionals such as school psychologists, social workers, and guidance counselors. In addition, as is true in most high schools, middle to late adolescence is generally a time where emotional and behavior disorders become most manifest. This year NPS developed the BOOST program at Bigelow Middle School, a comprehensive program to address the needs of students with social-emotional-behavioral disabilities. In addition, this year NPS was able to increase mental health services at the elementary level, providing full time support throughout the week.
- Health and Neurological - The continued increase in number of students with health and neurological disabilities also has implications for programming. Students with health and neurological disabilities may require the support of many staff members including assistants, nurses, occupational and/or physical therapists, speech/language pathologists, psychologists, and behavior specialists. It is anticipated that the number of students in these categories of disability will continue to increase, as advancements in medical technologies and interventions are continually improving the overall health and well being of children with these disabilities. In addition, students who become eligible for special education services due to deficits in their executive functioning are typically categorized as having a neurological disability.

In summary, NPS provides individualized services and supports to ensure that students are able to access school and make effective progress in both academic and social-emotional domains. To this end, across all areas of disability, NPS will need to ensure that students with a broad range of needs are successful in making effective progress in the least restrictive environment. Action items will be presented as part of the student services budget initiatives.

Disability shall mean one or more of the following impairments:

(a) *Autism* - A developmental disability significantly affecting verbal and nonverbal communication and social interaction. The term shall have the meaning given it in federal law at 34 CFR §300.8(c)(1).

(b) *Developmental Delay* - The learning capacity of a young child (3-9 years old) is significantly limited, impaired, or delayed and is exhibited by difficulties in one or more of the following areas: receptive and/or expressive language; cognitive abilities; physical functioning; social, emotional, or adaptive functioning; and/or self-help skills.

(c) *Intellectual Impairment* - The permanent capacity for performing cognitive tasks, functions, or problem solving is significantly limited or impaired and is exhibited by more than one of the following: a slower rate of learning; disorganized patterns of learning; difficulty with adaptive behavior; and/or difficulty understanding abstract concepts. Such term shall include students with mental retardation.

(d) *Sensory Impairment* - The term shall include the following:

Hearing Impairment or Deaf - The capacity to hear, with amplification, is limited, impaired, or absent and results in one or more of the following: reduced performance in hearing acuity tasks; difficulty with oral communication; and/or difficulty in understanding auditorally-presented information in the education environment. The term includes students who are deaf and students who are hard-of-hearing.

Vision Impairment or Blind - The capacity to see, after correction, is limited, impaired, or absent and results in one or more of the following: reduced performance in visual acuity tasks; difficulty with written communication; and/or difficulty with understanding information presented visually in the education environment. The term includes students who are blind and students with limited vision.

Deafblind - Concomitant hearing and visual impairments, the combination of which causes severe communication and other developmental and educational needs.

(e) *Neurological Impairment* - The capacity of the nervous system is limited or impaired with difficulties exhibited in one or more of the following areas: the use of memory, the control and use of cognitive functioning, sensory and motor skills, speech, language, organizational skills, information processing, affect, social skills, or basic life functions. The term includes students who have received a traumatic brain injury.

(f) *Emotional Impairment* - As defined under federal law at 34 CFR §300.8(c)(4), the student exhibits one or more of the following characteristics over a long period of time and to a marked degree that adversely affects educational performance: an inability to learn that cannot be explained by intellectual, sensory, or health factors; an inability to build or maintain satisfactory interpersonal relationships with peers and teachers; inappropriate types of behavior or feelings under normal circumstances; a general pervasive mood of unhappiness or depression; or a tendency to develop physical symptoms or fears associated with personal or school problems. The determination of disability shall not be made solely because the student's behavior violates the school's discipline code, because the student is involved with a state court or social service agency, or because the student is socially maladjusted, unless the Team determines that the student has a serious emotional disturbance.

(g) *Communication Impairment* - The capacity to use expressive and/or receptive language is significantly limited, impaired, or delayed and is exhibited by difficulties in one or more of the following areas: speech, such as articulation and/or voice; conveying, understanding, or using spoken, written, or symbolic language. The term may include a student with impaired articulation, stuttering, language impairment, or voice impairment if such impairment adversely affects the student's educational performance.

(h) *Physical Impairment* - The physical capacity to move, coordinate actions, or perform physical activities is significantly limited, impaired, or delayed and is exhibited by difficulties in one or more of the following areas: physical and motor tasks; independent movement; performing basic life functions. The term shall include severe orthopedic impairments or impairments caused by congenital anomaly, cerebral palsy, amputations, and fractures, if such impairment adversely affects a student's educational performance.

(i) *Health Impairment* - A chronic or acute health problem such that the physiological capacity to function is significantly limited or impaired and results in one or more of the following: limited strength, vitality, or alertness including a heightened alertness to environmental stimuli resulting in limited alertness with respect to the educational environment. The term shall include health impairments due to asthma, attention deficit disorder or attention deficit with hyperactivity disorder, diabetes, epilepsy, a heart condition, hemophilia, lead poisoning, leukemia, nephritis, rheumatic fever, and sickle cell anemia, if such health impairment adversely affects a student's educational performance.

(j) *Specific Learning Disability* - The term means a disorder in one or more of the basic psychological processes involved in understanding or in using language, spoken or written, that may manifest itself in an imperfect ability to listen, think speak, read, write, spell, or to do mathematical calculations. Use of the term shall meet all federal requirements given in federal law at 34 CFR §§300.8(c)(10) and 300.309.