



Students who are Blind or Visually Impaired

Report to the Legislature

As Required by Minnesota Statutes, section 125A.63

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1. Legislative charge

Minnesota Statutes, section 125A.63 includes the following legislative charge:

125A.63 RESOURCES; DEAF OR HARD-OF-HEARING AND BLIND OR VISUALLY IMPAIRED.

Subd. 4. Advisory committees. (a) The commissioner shall establish advisory committees for the deaf and hard-of-hearing and for the blind and visually impaired. The advisory committees shall develop recommendations and submit an annual report to the commissioner on the form and in the manner prescribed by the commissioner.

(b) The advisory committees for the deaf and hard-of-hearing and for the blind and visually impaired shall meet periodically at least four times per year. The committees must each review, approve, and submit a biennial report to the commissioner, the education policy and finance committees of the legislature, and the Commission of Deaf, DeafBlind, and Hard-of-Hearing Minnesotans. The reports must, at least:

(1) identify and report the aggregate, data-based education outcomes for children with the primary disability classification of deaf and hard-of-hearing or of blind and visually impaired, consistent with the commissioner's child count reporting practices, the commissioner's state and local outcome data reporting system by district and region, and the school performance report cards under section 120B.36, subdivision 1; and

(2) describe the implementation of a data-based plan for improving the education outcomes of deaf and hard-of-hearing or blind and visually impaired children that is premised on evidence-based best practices, and provide a cost estimate for ongoing implementation of the plan.

1.1. 2017-18 BVI Advisory Members

- Martha Amundson: School Administrator, Director of Special Education Programs MPS (2019)
- Melissa Brateng: School Personnel, Assistant Director of Student Services in ISD 287 (2021)
- John Davis: School Administrator, Minnesota State Academy for the Blind (2023)
- Robin Durand: Parent and Brailist Representative, Minneapolis (2019)
- Bradley Johnson: Parent Representative (2020)
- Elise Lahmann-Sharbonda: Student Representative (2019)
- Sheila Koenig: Interagency Representative, State Services for the Blind Representative (2019)
- Barb Lhotka: Higher Education Representative, Low Incidence Project Metro ECSU (2018)
- Daniel Wenzel: Interagency Representative, National Federation of the Blind (2020)

2. Executive summary

This report includes summaries of student demographics, child count, enrollment counts, graduation rates, and assessment results for the 2015-16 and 2016-17 school years. The trend data reflects the achievements,

milestones, and areas of concern for students with the primary disability classification of blind or visually impaired (BVI) ¹ at the statewide and regional levels. Also included are the needs, recommendations, and statewide resources specific to BVI.

The data from this report do not accurately reflect the overall status and scope of services for students who are BVI served by teachers of the blind/visually impaired (TBVI) and certified orientation and mobility specialists (COMS). Students who are not primarily identified as BVI, which includes students with multiple impairments or low vision, are not identified in this data. MDE does not require or have systematic access to data for all services provided by TBVI. TBVI are legally required to provide services to this missing population that is not represented in this report.

The number of students who receive vision services is increasing, while the number of TBVI and COMS is decreasing.² An estimated one-third of TBVI and COMS are near retirement age. Further compounding the problem, Minnesota has no university program to instruct more TBVI or COMS to lessen the shortage. Additionally, general education teachers are not trained to provide specialized BVI instruction or the expanded core curriculum (ECC). The students may not have timely access to accessible educational materials (AEM) in formats such as braille, large print, or electronic format. Students also cannot receive specialized instruction in the areas of assistive technology, orientation and mobility (training students to travel independently) if there is no one to provide instruction. If teachers cannot be secured, then positive outcomes for students who are BVI will most likely suffer.

One part of the solution is to establish a university program in Minnesota to train and certify new TBVI and COMS. It is crucial that students who are BVI in Minnesota receive the education necessary to reach their postsecondary educational, personal, and employment goals. With a quality education, students will be empowered to become future leaders in the state.

More information on expanded core curriculums (ECC), collaborative statewide resources, and guidelines for determining workloads for TBVI and COMS can be found in Appendices A, B and C.

More information on BVI licensure and an Orientation and Mobility certification program can be found in the 2016 legislative report titled [Students who are Blind or Visually Impaired](#).³

¹ This report also uses “BVI Students” in the charts and figures to save space.

² United States Department of Education Office of Postsecondary Education Teacher Shortage Areas Nationwide Listing: [Teacher Shortage Areas](#).

³ Minnesota Department of Education: [2016 Reports](#).

3. Needs and recommendations

The BVI Advisory Committee has identified the following needs and recommendations for the 2017-18 and 2018-19 school years.

1. **Need: There is an emergency-level need for more TBVI to be trained and licensed.** The number of TBVI training programs across the country has declined and the number of candidates trained is far exceeded by national demand. The retirement rate of licensed TBVIs in Minnesota (31 percent retired and still delivering service or retiring with one to three years) exceeds the rate of replacement by newly licensed TBVI or those recruited from out of state (numbers are estimated and do not specifically reflect those reported for current staff in this report). Currently, districts are meeting student needs through independent contracting with a limited number of retired TBVI and individuals without formal training who are on variances or hired as community experts.

Recommendation: Fund and create a university program in Minnesota to train TBVI. Continue recruitment efforts for TBVI and COMS positions within districts and from out of state.

2. **Need: There is an emergency-level need for more COMS to be trained and certified.** The number of orientation and mobility (O&M) training programs across the country has declined and the number of candidates trained is far exceeded by national demand. The retirement rate of licensed O&M trainers in Minnesota (37 percent retired and still delivering service or retiring with one to three years) exceeds the rate of replacement by newly licensed O&M trainers or those recruited from out of state (numbers are estimated and do not specifically reflect those reported for current staff in this report). Currently, districts are meeting student needs through independent contracting with a very limited number of retired COMS.

Recommendation: Fund and create a university program in Minnesota to train COMS. Continue recruitment efforts for TBVI and COMS positions within districts and from out of state.

3. **Need: For student success, there is a need to provide accessible curricula for all students.** The current trend for school districts to use digital curricula and teacher-developed materials on digital learning systems creates accessibility issues for students who need alternative formats (e.g., braille). Materials developed for current curricula are not generally created in accordance with accessibility guidelines by publishers and teachers. The digital learning systems may not allow the student to enter the system nor navigate from section to section or page to page in braille or with a screen reader.

Recommendation: Train district curriculum committees in accessible curriculum basics and standards. Train general education staff to make learning materials accessible.

4. **Need: To allow for equal opportunity in test performance, appropriate and accessible testing formats must be made available.** The number of students participating in the statewide Minnesota Comprehensive Assessment (MCA) and the Minnesota Test of Academic Skills (MTAS) tests using testing formats accessible for students with vision impairments is a small number of the total number of students tested. The specificity of testing accommodations for each student with a vision impairment is highly variable and individualized. Discussion and consultation with national testing companies has resulted in some frustration

with consistency in formatting and availability of non-biased test items as appropriate for students who are BVI.

Recommendation: Include TBVI in assessment advisory panels.

4. Introduction

Students served in the categorical area of blind or visually impaired (BVI) are counted in two ways:

- **Unduplicated child count:** Records the students with a single primary categorical area in special education on December 1 of each calendar year. According to the Minnesota Department of Education (MDE) 2017 Unduplicated Child Count (ages 0–21), Minnesota had 503 students who were BVI.
- **The American Printing House (APH) Federal Quota Census:** Collected in January of each year, and records those students, regardless of other categorical identification, who are blind and receive services from a TBVI. The APH 2017 Federal Quota Census (preschool age to 21) indicates that Minnesota has 1,211 legally blind students.

TBVI and COMS serve students who are blind, deafblind, low vision, and students who are eligible for special education under a different category and have a specific visual need. The population of students with visual impairments is very diverse and not fully captured and reflected by the official counts listed throughout this report. These students:

- May be totally blind or have varying degrees of low vision;
- Range from birth to 21 years old;
- May have been born with a visual impairment or may have acquired a visual impairment at a later time in their life;
- May or may not be learners on the same academic level as their sighted peers;
- May have hearing impairments (i.e., deafblindness);
- May have any number of other disabilities (e.g., mild to severe intellectual disability, physical disability, other sensory loss, emotional or behavioral problems, autism, or specific learning disabilities);
- May have impaired vision originating in a part of the structure of the eye or due to neurological causes (e.g., cortical visual impairment);
- May have additional medical needs or considerations; or,
- May be students with a medical condition that will lead to vision loss or blindness.

The challenges to appropriately capturing the actual number of students receiving services under the category of BVI in Minnesota is illustrated through the following story.

Monica (pictured below) is a ninth-grade student with a primary disability of Developmental Cognitive Disability (DCD). Monica's educational journey has been consistently followed and supported by a TBVI to guide her and her educational teams in navigating the best and most appropriate supports and services. Monica has a vision diagnosis of Cortical Visual Impairment, which greatly impacts her educational and vision needs. Her TBVI has worked with Monica and her team identify the appropriate presentation and learning mode for educational

materials. This journey began with braille and has since evolved to large print with continual monitoring and review. Monica now utilizes a high contrast keyboard and modifications to her computer screen for appropriate access to content.

Monica does not currently appear on our child count for services under the category of BVI, but is a student who receives services from a TBVI. These services are legally required through the Individualized Education Program (IEP), but are not reflected in the official MDE child count.

Picture of Monica, with permission



4.1. Map of Minnesota's economic development regions

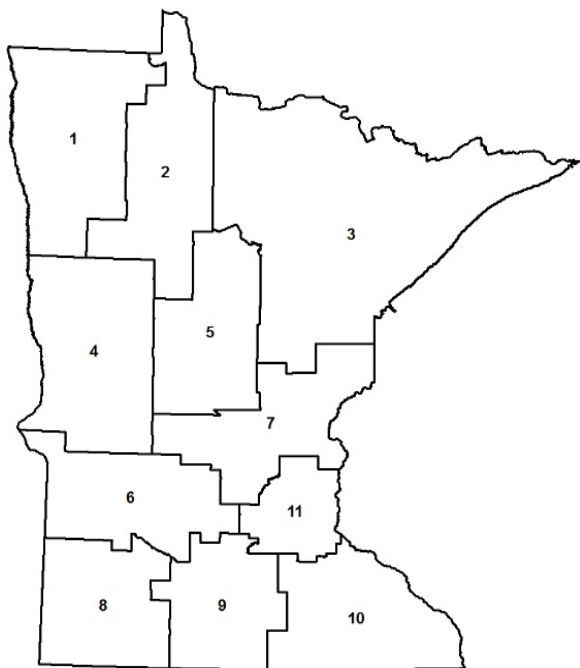


Table 1 shows the number of students whose primary eligibility category is visually impaired, the number of students on the 2017 APH Census, the estimated number of students TBVI serve, and the number of licensed TBVI and COMS in each region of Minnesota. Because they are not included in the Minnesota Comprehensive Assessment (MCA) or Minnesota Test of Academic Skills (MTAS) test results, students whose primary diagnosis is deafblind are not included in this data.

Table 1: BVI students, TBVI, and COMS by region

Region name	# of students on 2017 Unduplicated Child Count (ages 0 to 21)	# of students on 2017 APH Federal Quota Count	Estimated # of students on TBVI caseloads (blind, low vision, deafblind and multiple needs)	# of TBVI	Estimated # of students on each TBVI caseload	# of COMS
Regions 1 and 2	22	39	66	10	6.6	3
Region 3	16	42	48	5	9.6	1
Region 4	30	50	90	5	18	1
Regions 5 and 7	80	148	240	15	32.75	6
Regions 6 and 8	29	52	87	6	14.5	0
Region 9	23	32	69	3	23	0
Region 10	87	86	261	9/MSAB ⁴ 21	12.4	1/MSAB 2
Region 11	216	762	648	53	12.2	17
Statewide total	503	1211	1509	128	12.8	31

5. Demographics

The data presented, unless otherwise noted, are based on student data from the 2016-17 school year. The tables and figures include summaries of student enrollment, child count, age, gender, race/ethnicity, home languages, and graduation rates. The colors used were specifically chosen for readers with low-vision.

⁴ MSAB: Minnesota State Academy for the Blind located in Faribault, Minnesota.

Table 2: Student enrollment by region, 2016-17

Region Name	BVI K-12	All students		K-12 child	
		K-12 fall enrollment	Percent BVI	count special education	Percent BVI
Regions 1 and 2	16	27,905	0.06%	4,582	0.35%
Region 3	14	42,959	0.03%	7,061	0.20%
Region 4	24	33,838	0.07%	5,253	0.46%
Regions 5 and 7	61	128,584	0.05%	18,793	0.32%
Regions 6 and 8	21	42,563	0.05%	6,149	0.34%
Region 9	19	33,402	0.06%	4,901	0.39%
Region 10	71	76,068	0.09%	10,654	0.67%
Region 11	182	471,368	0.04%	61,652	0.30%
Statewide total	408	856,687	0.05%	119,045	0.34%

5.1. Child count

As Figure 1 illustrates, the number of students who were BVI enrolled in the school system (ages 0 to 21) has generally been increasing since the 2010-11 school year (a total increase of 74). To better show the increases, the vertical range in the chart is from 400 to 500 students. For comparison, Figure 2 shows the annual percentage change in the number of students who were BVI and all students enrolled in special education. The number of students who were BVI has changed more year to year compared to students who were enrolled in special education.

Figure 1: Statewide BVI counts, ages 0-21, 2007-08 to 2016-17

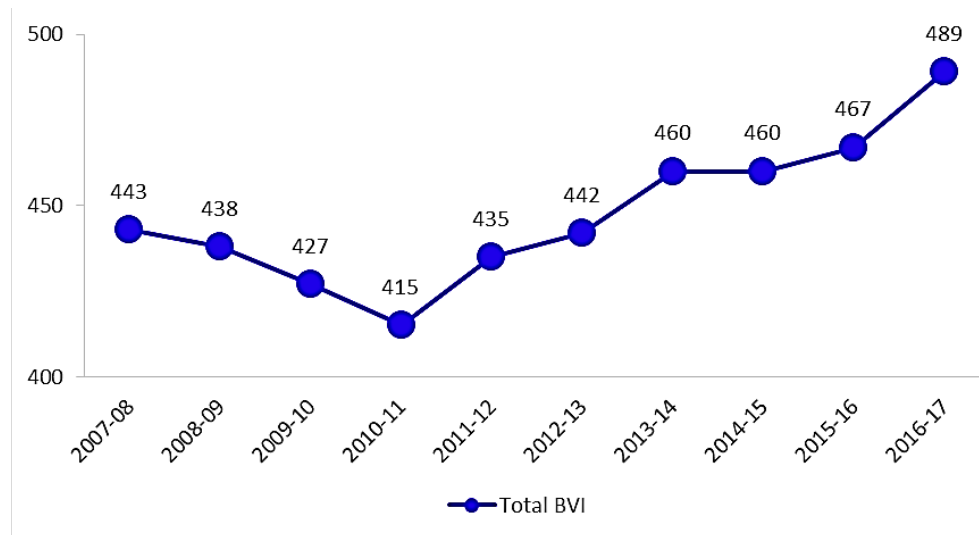
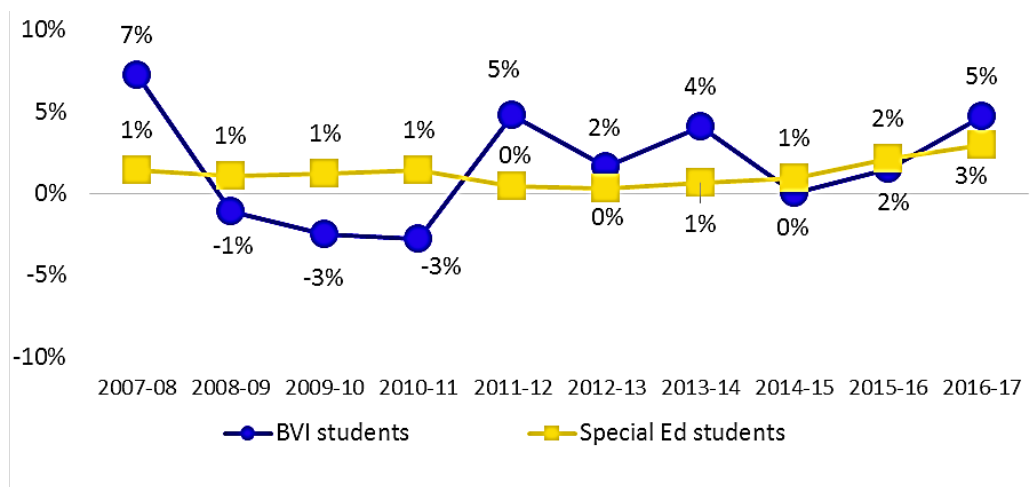


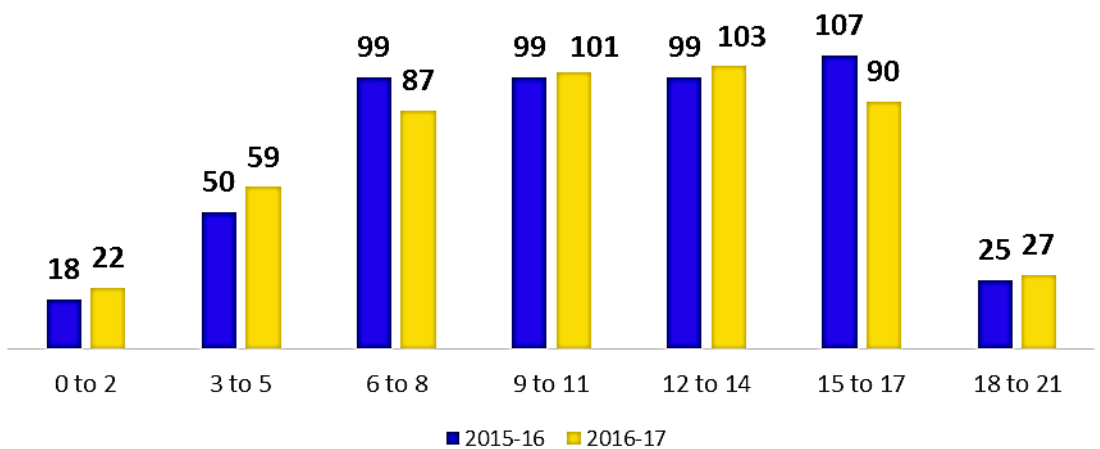
Figure 2: Annual change in special education and BVI student counts, ages 0-21, 2007-08 to 2016-17



5.2. Age distribution

Figure 3 illustrates the age distribution of students who were BVI. The largest concentration of students is school age (ages 6 - 17), which is expected given that is the largest concentration for any student population. There were slightly more students who were BVI in the “12 - 14” age bracket than in the others.

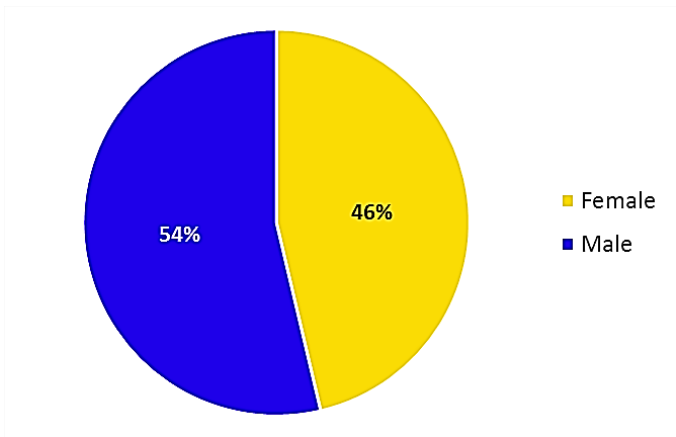
Figure 3: Age distribution by school year for BVI students, 2015-16 and 2016-17



5.3. Gender distribution

Figure 4 illustrates the gender distribution of students who were BVI. While there were slightly more males than females, the difference is small.

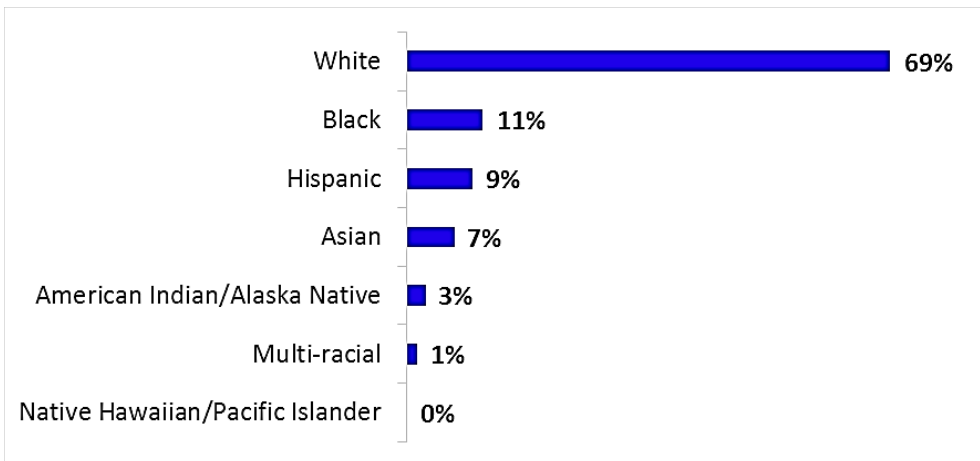
Figure 4: BVI students by gender, 2016-17 (n=408)



5.4. Racial/ethnic distribution

Figure 5 depicts the racial and ethnic distribution of students who were BVI. More than two-thirds of the students were white. Other major racial and ethnic groups represented were black (11 percent), Hispanic (9 percent), and Asian (7 percent). These figures are similar to the racial and ethnic distribution of all students.

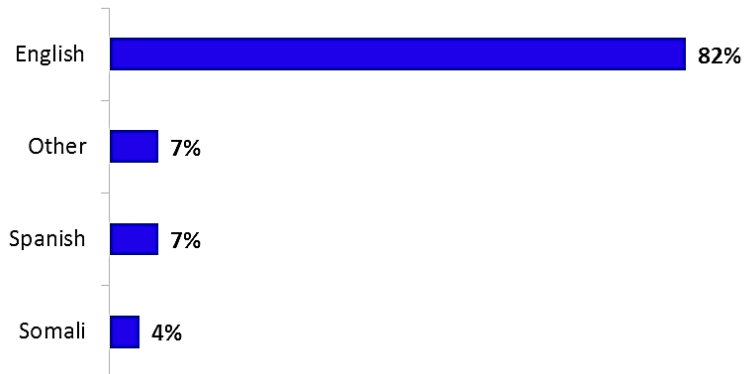
Figure 5: Race/ethnicity of BVI students, 2016-17 (n=489)



5.5. Home language

The primary home language for students whose primary disability was BVI (actual percentages may vary) is illustrated in Figure 6. Over 80 percent come from homes where English is the primary language spoken. The “Other” category contains primary language groups that were too small to report individually.⁵

Figure 6: Students who were BVI by primary language spoken at home, 2016-17 (n=489)



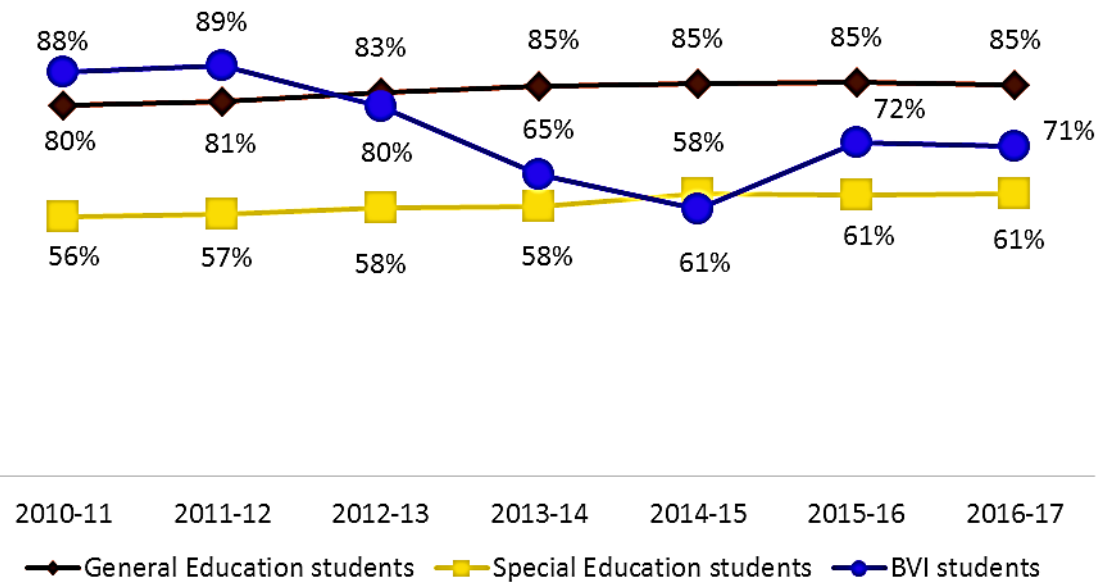
5.6. Graduation rates

Figure 7 shows the four-year graduation rate for students who were BVI relative to other students in special education and students in general education between the 2010-11 and 2016-17 school years. Students who are BVI often stay in the school system longer than four years to access ECC and transition programming so the four-year graduation rate is not a comprehensive count of students who are BVI graduating from high school. For example, in the 2016-17 school year, their four-year graduation rate was 71 percent while the five-year graduation rate was 77 percent.

Additionally, the number of students with BVI as their primary disability classification at any grade level is very low and tends to be exaggerated in percentages, which means that if one student who is BVI does not graduate the result is a more pronounced change in the rate compared to one student in special education who does not graduate.

⁵ Languages in the “Other” category (listed alphabetically): Arabic, Armenian, Cambodian, Chinese (Mandarin), English (Creolized), German, Hindi, Hmong, Korean, Kiswahili, Kurdish, Lao, Oroma, Romanian, Russian, Serbian, Tibetan, and Vietnamese.

Figure 7: Graduation state trends (four-year graduation rate)



5.7. Post-school outcomes

Outcomes could not be reported because not enough students who were BVI responded to the 2016 post-school outcomes survey (the most recent survey available).

6. Assessment data

6.1. Statewide data

6.1.1. Data sources

The Minnesota Department of Education (MDE) collected information from multiple data sources to produce and present the information. The charts and tables report achievements, milestones, and areas of concern for students identified as BVI from the following sources:

- Minnesota Automated Reporting Student System (MARSS)
- MDE Assessment Data
- Minnesota Post-School Outcome Survey

Throughout this report, results were only reported on population groups greater than 10 to protect individual privacy. Nearly all school districts and one region had fewer than 10 students who were BVI, so no results were reported for those areas.

6.1.2. Testing challenges

There are several testing challenges that students who are BVI encounter:

- **Accessibility:** Existing adaptive online tests are not accessible to students who are blind. Instead, they receive a hard copy test in braille.
- **Fatigue:** Students who are BVI often spend twice as much time testing as their peers.
- **Assessment validity with tactile graphics:** There have been issues with the tactile graphics provided in test materials, which put into question whether a student is being assessed for their math skills or their tactile graphics skills. The existing tests do not always provide good data regarding learned skills.
- **Test appropriateness:** Many students who are BVI may be given the Minnesota Test of Academic Skills (MTAS) in error—data indicates that the appropriateness of the test provided may not be correct.⁶

6.2. Statewide assessment trends

The following sections provide information on statewide trends for both the Minnesota Comprehensive Assessment (MCA) and MTAS tests.

6.2.1 Minnesota Comprehensive Assessment (MCA) trends

In MCA math testing, 45 percent of students who were BVI met or exceeded proficiency in the 2015-16 school year. That percentage decreased in the 2016-17 school year, but the difference was small (refer to Figure 8). The increase in students meeting or exceeding proficiency was a reversal from previous years. In reading, the percentages of student who were BVI meeting or exceeding proficiency for 2015-16 and 2016-17 (Figure 9) were larger than in the 2014-15 school year.

⁶ Ferrell, K. A., Bruce, S., & Luckner, J. L. (2014). *Evidence-based practices for students with sensory impairments* (Document No. IC-4).

Figure 8: BVI students statewide math trends, MCA testing

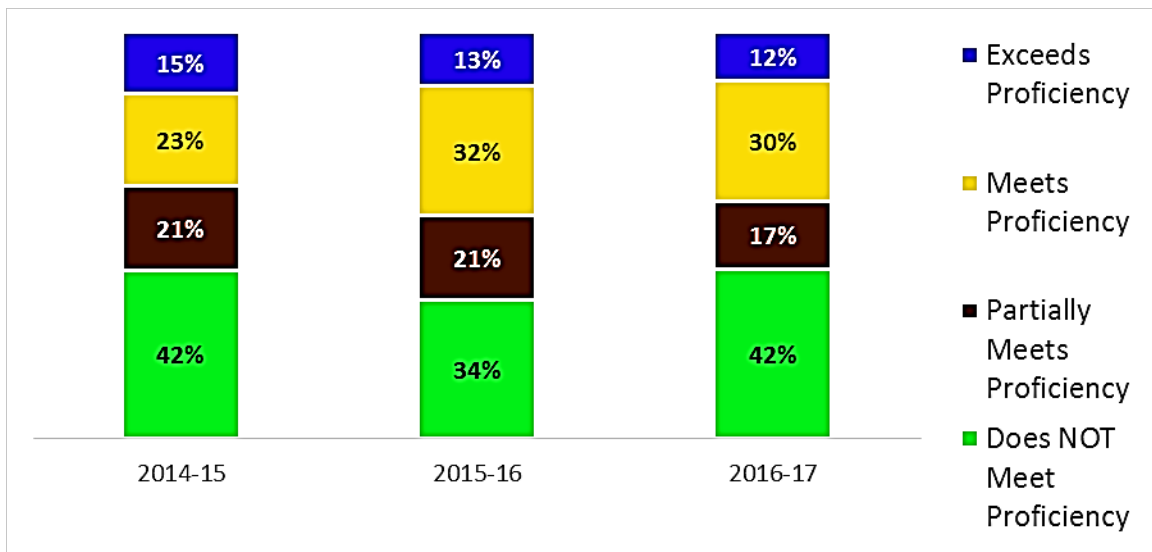


Figure 9: BVI students statewide reading trends, MCA testing

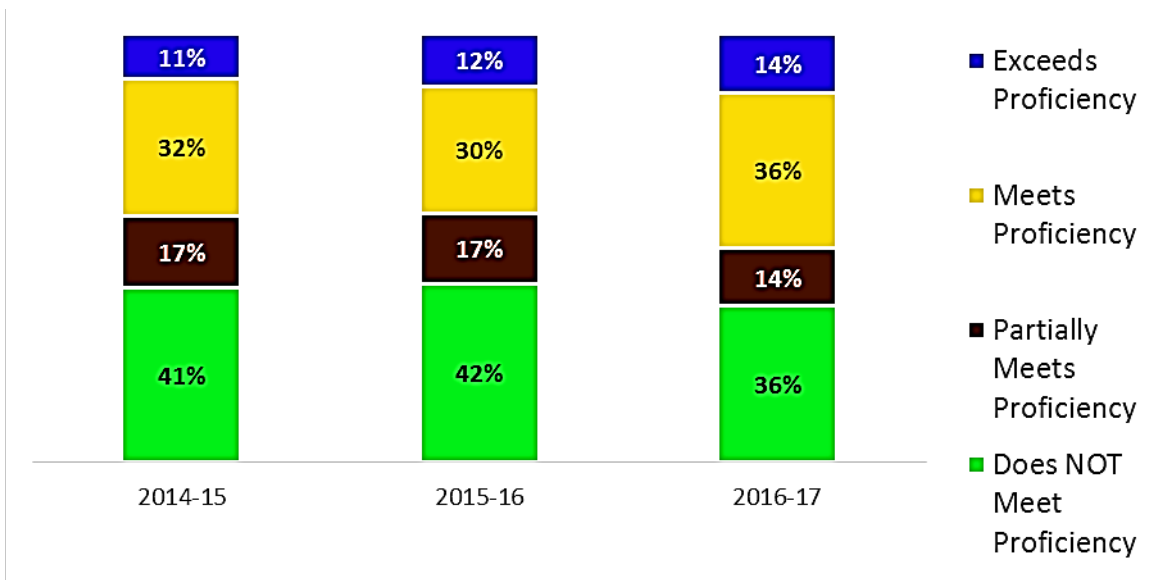


Figure 10, Figure 11, Figure 12, and Figure 13 show BVI student proficiency in MCA testing results by grade and school year for math and reading. Students were generally more proficient in reading than math in both school years.

Figure 10: BVI student statewide math proficiency by grade, MCA testing, 2015-16

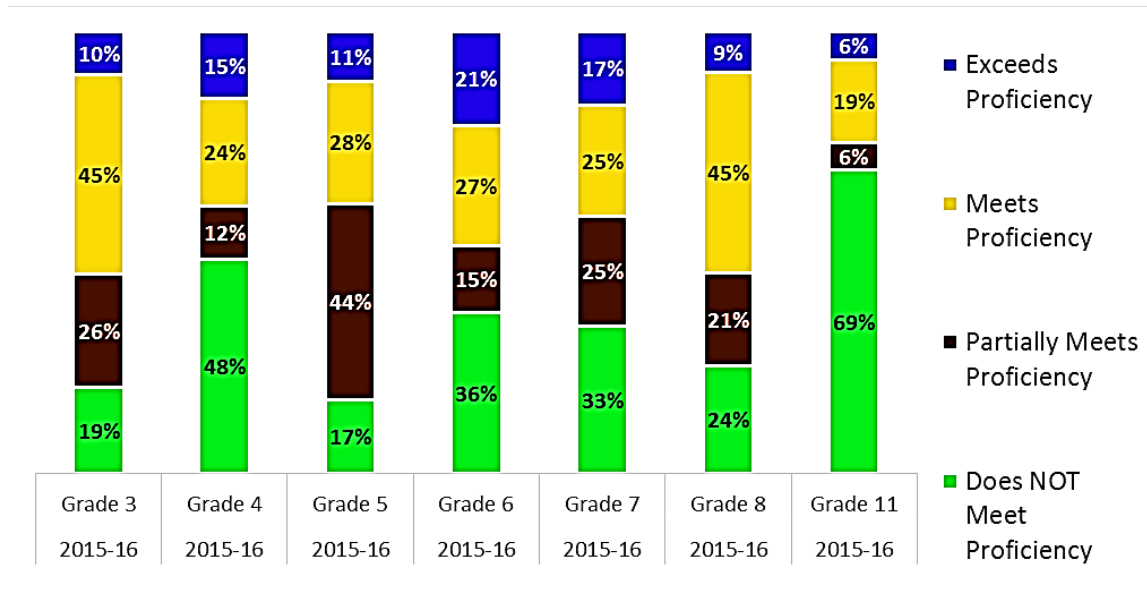


Figure 11: BVI students statewide math proficiency by grade, MCA testing, 2016-17

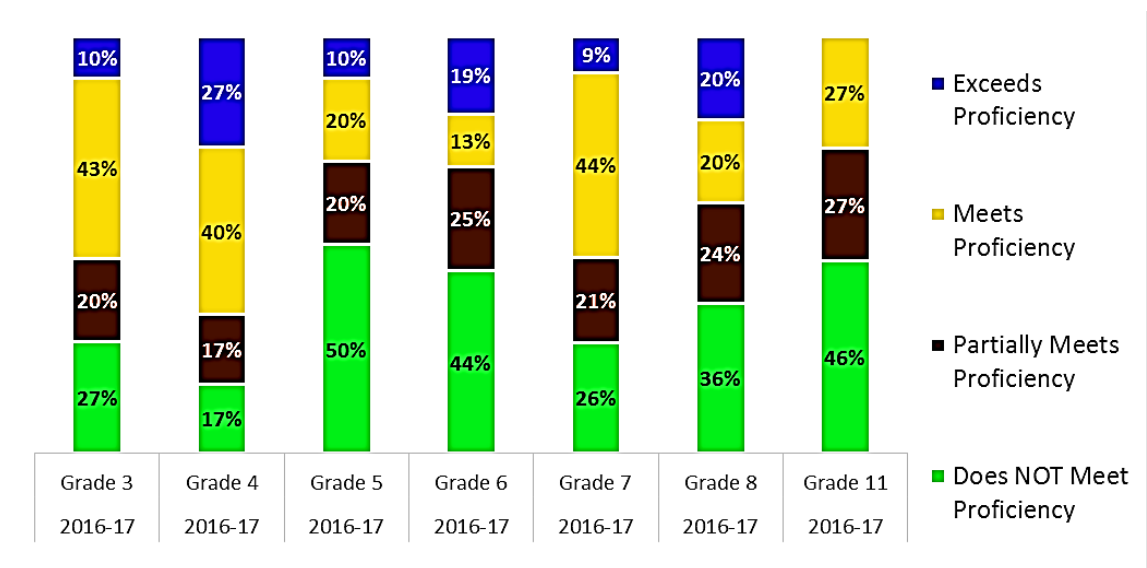


Figure 12: BVI students statewide reading proficiency by grade, MCA testing, 2015-16

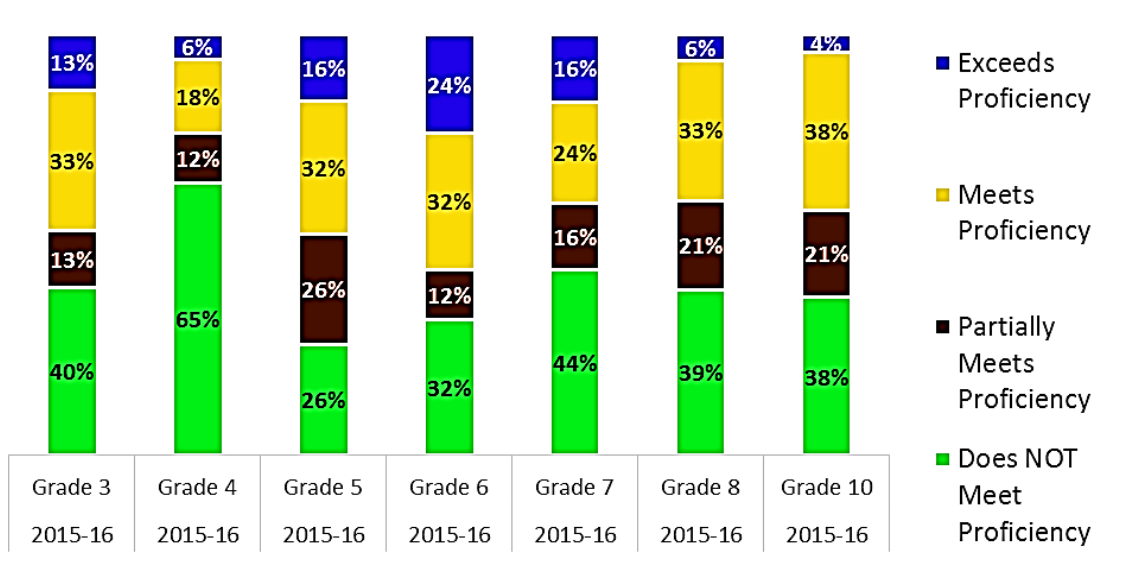


Figure 13: BVI students statewide reading proficiency by grade, MCA testing, 2016-17

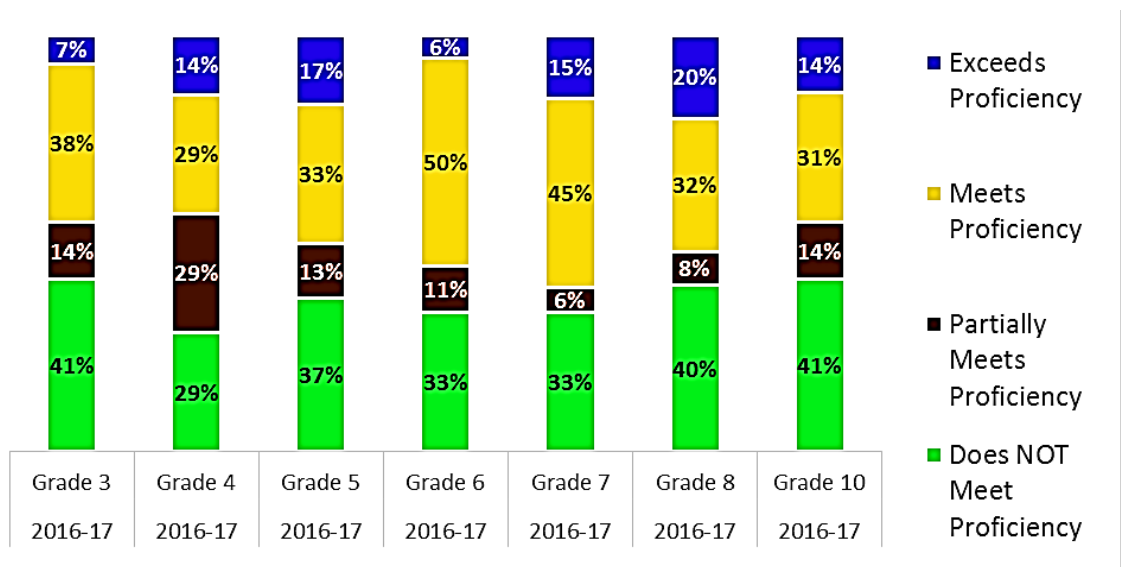


Figure 14 and Figure 15 display proficiency results for all students, students in special education, and students who were BVI that completed the MCA tests for math and reading, respectively. Students who were BVI and were assessed by MCA testing for math or reading generally scored higher than their peers in special education, but not as high as all students.

Figure 14: State math by student category, MCA testing

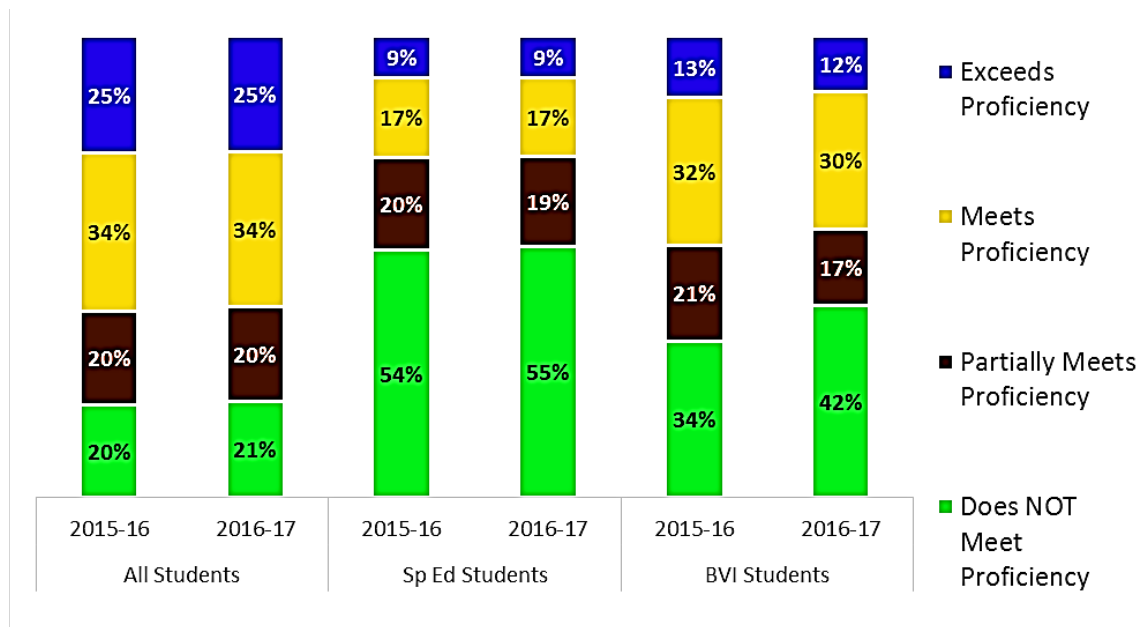
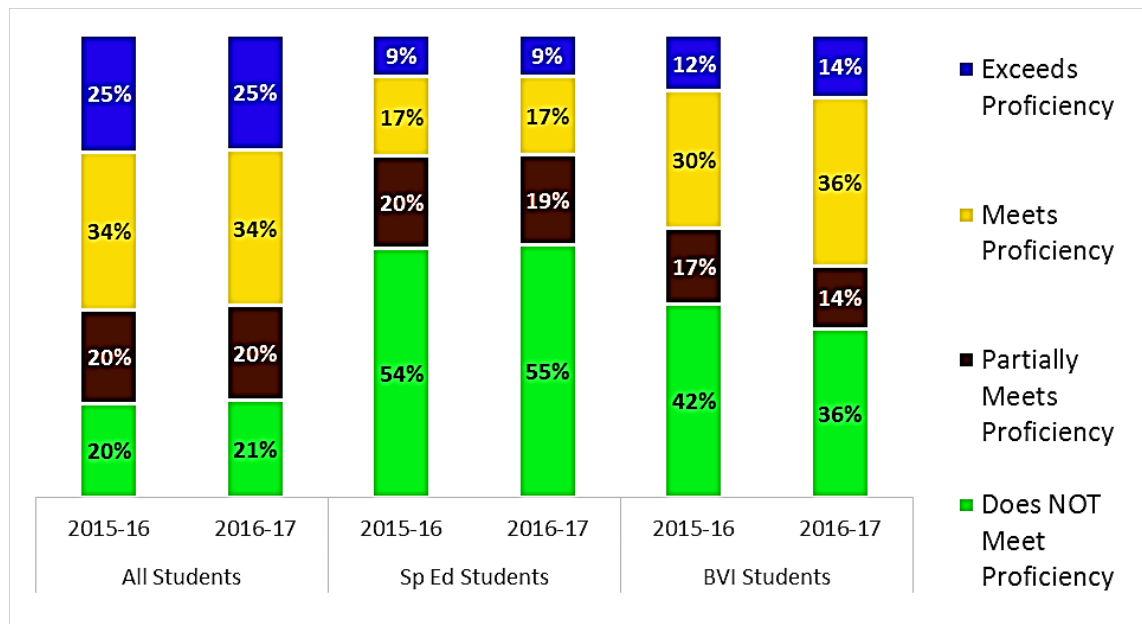


Figure 15: State reading by student category, MCA testing



6.2.2. Minnesota Test of Academic Skills (MTAS) trends

In MTAS math testing, less than half of BVI students met proficiency in the 2015-16 school year (and none exceeded proficiency), which was a decrease from the previous year. However, the percentages increased for the 2016-17 school year (refer to Figure 16). Figure 17 shows slight decrease for students who were BVI meeting or exceeding proficiency in the MTAS reading results between 2015-16 and 2016-17 (79 percent and 73 percent, respectively). However, both years were large increases from 2014-15 when 30 percent met or exceeded proficiency. Readers should use caution when interpreting the small numbers for MTAS tests, which is generally administered to 15 or fewer students who are BVI each year.

Figure 16: BVI students statewide math trends, MTAS testing

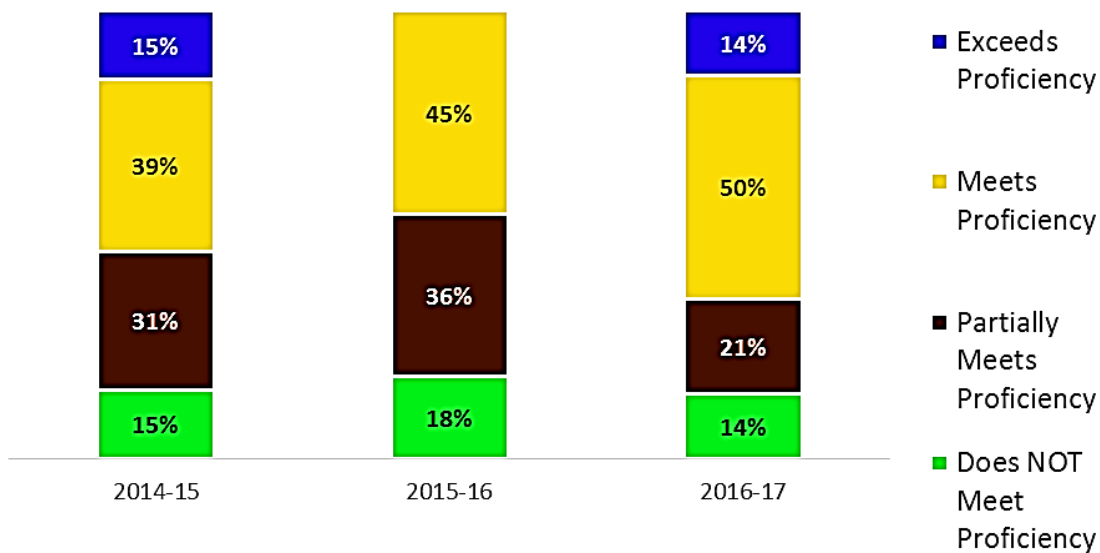
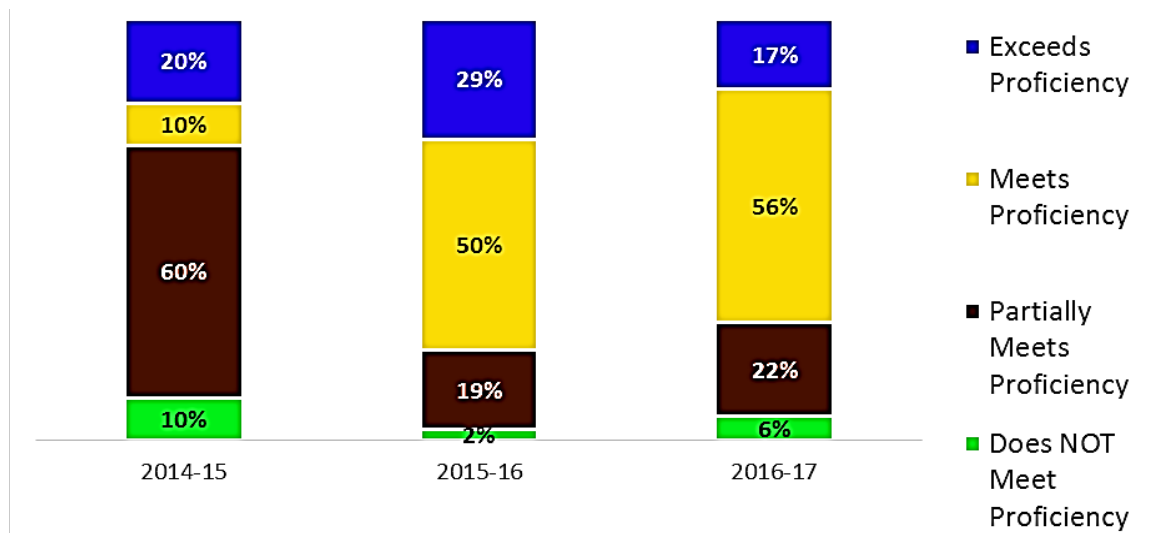


Figure 17: BVI students statewide reading trends, MTAS testing



MTAS testing results showed students who were BVI scored lower than other student groups (refer to Figure 18 and Figure 19). Those students were also less proficient in reading than in math. Note that for both the MTAS math and reading tests in the 2016-17 school year, results for students who were BVI could not be reported because there were fewer than 10.

Figure 18: State math by student category, MTAS testing

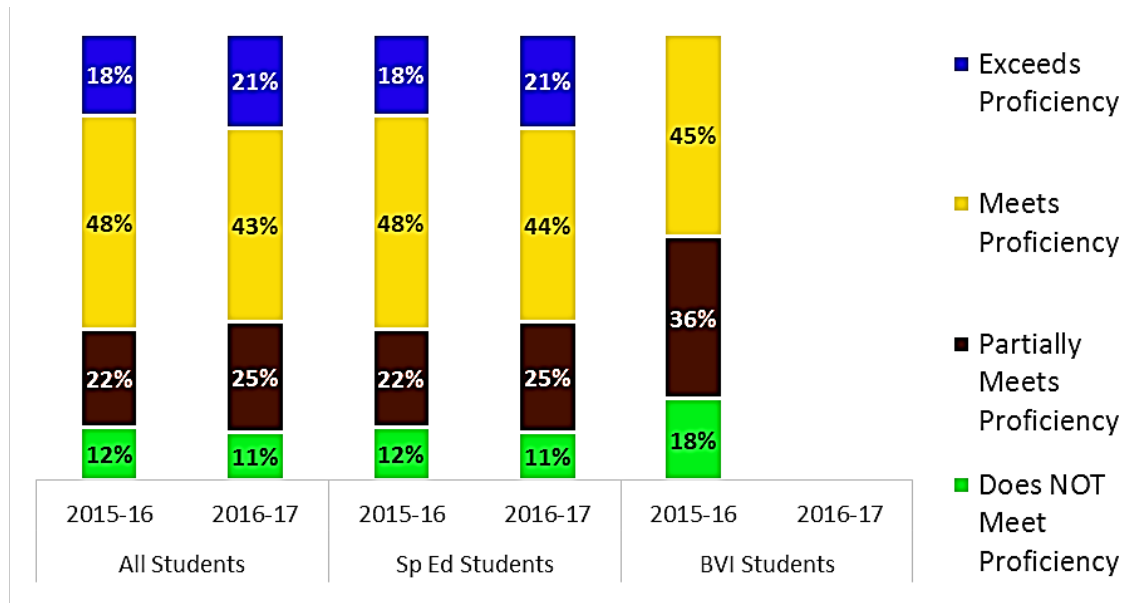
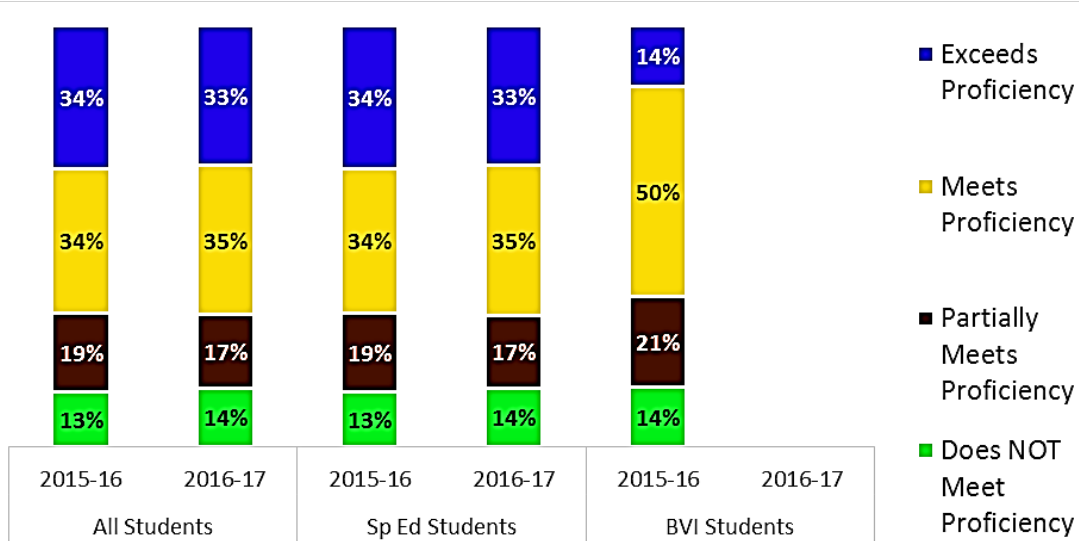


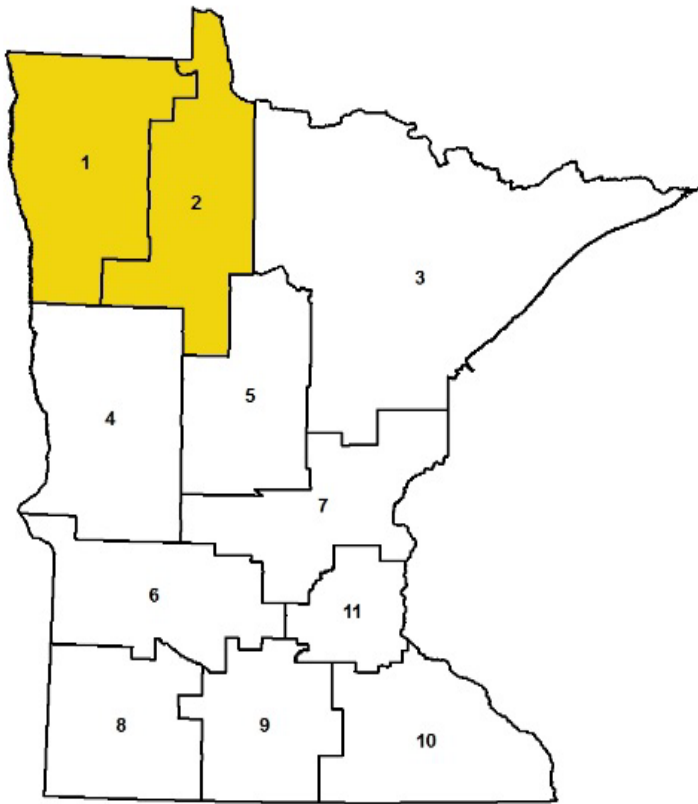
Figure 19: State reading by student category, MTAS testing



6.3. Regional data

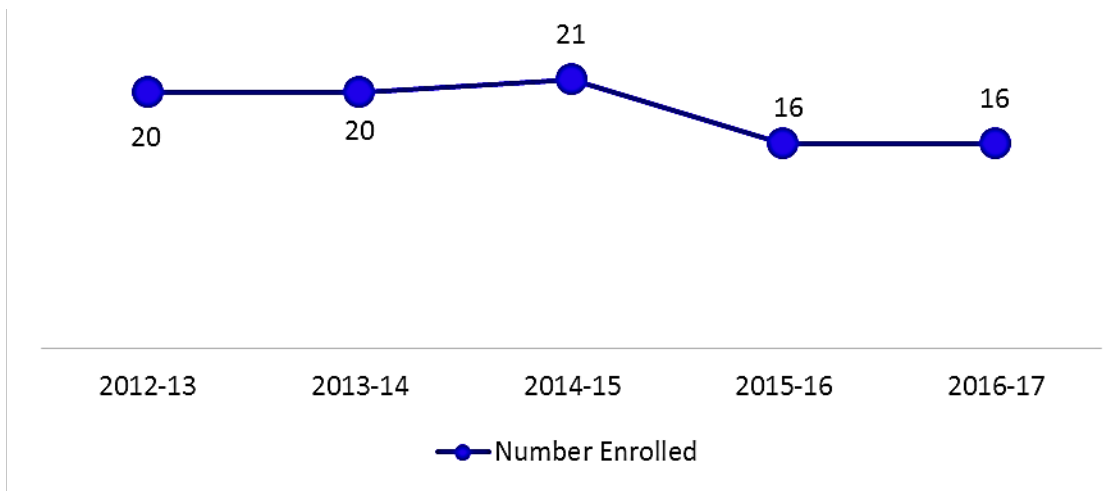
The following charts and tables illustrate information about students who were BVI by region. All information is based on MCA testing. Too few students who were BVI took the MTAS assessment in any one region to report results.

6.3.1. Regions 1 and 2



In Regions 1 and 2, the total number of students who were BVI enrolled has decreased slightly since the 2012-13 school year (refer to Figure 20). For gender, there were fewer than 10 female or 10 male students who were BVI enrolled in the 2016-17 school year so the data cannot be reported on their own.

Figure 20: Number of BVI students enrolled in Regions 1 and 2 by year, 2012-13 through 2016-17



The region results are similar to statewide testing because proportionally more students who were BVI demonstrated greater proficiency in math and reading compared to special education students as a whole. However, the scores showed that students who were BVI were less proficient when compared to all students. Figure 21 shows that the same proportion of students who were BVI as all students met proficiency in math in the 2015-16 school year (there were too few students who were BVI in 2016-17 to report). In reading, however, smaller proportions of students who were BVI met proficiency compared to all students in either school year (refer to Figure 22).

6.3.1.1. Regions 1 and 2 Minnesota Comprehensive Assessment (MCA) trends

Figure 21: Regions 1 and 2 math by student category, MCA testing

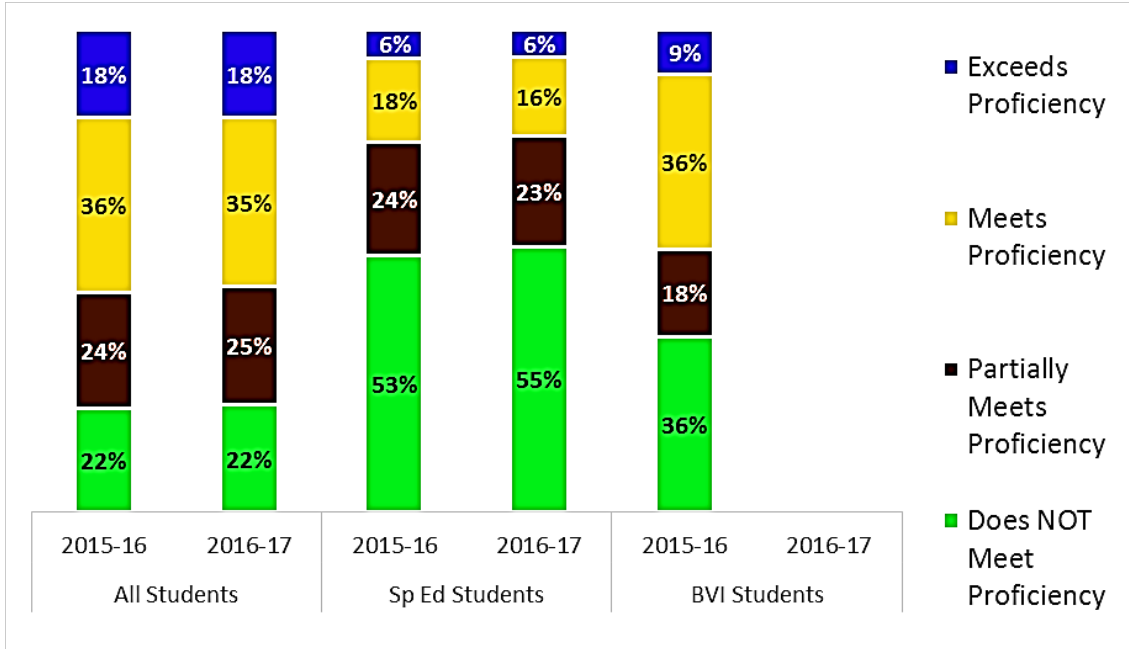
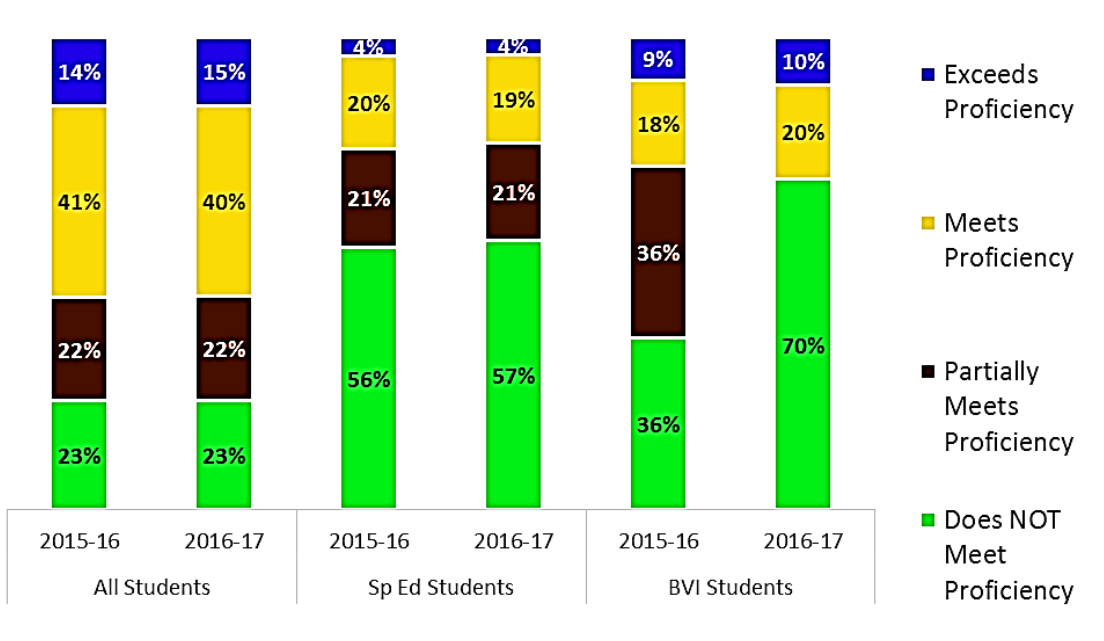
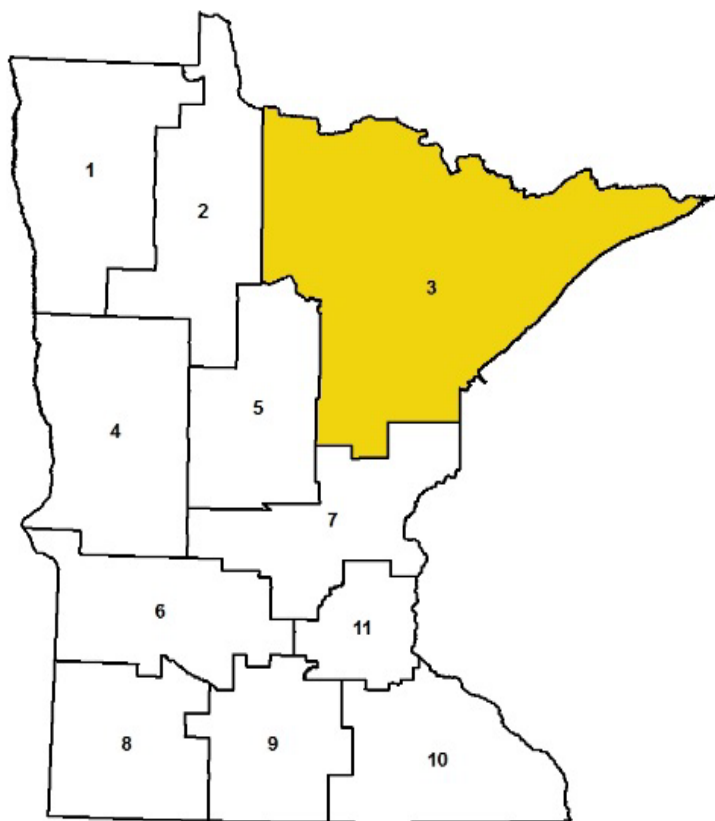


Figure 22: Regions 1 and 2 reading by student category, MCA testing



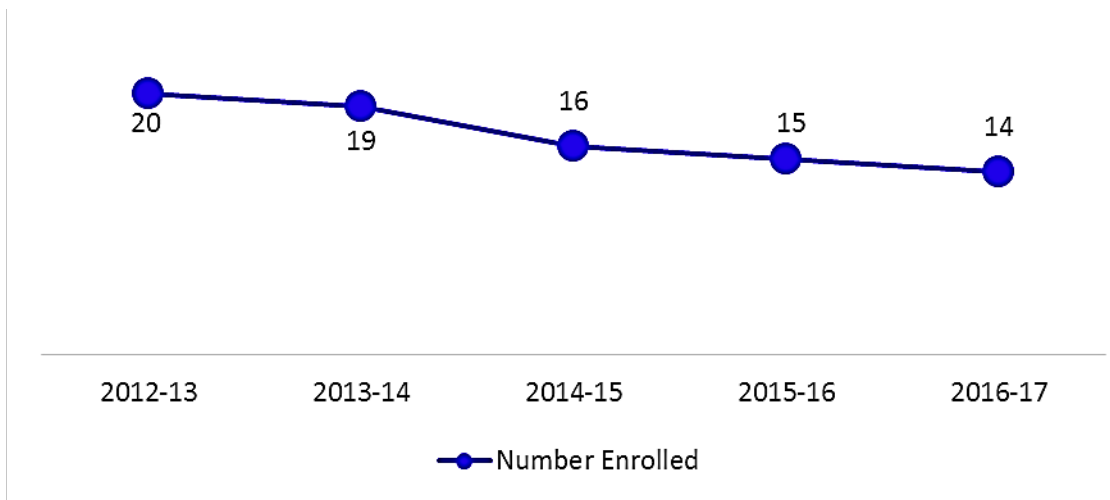
The math results for students who were BVI improved in the 2015-16 school year when compared to the 2014-15 school year. The proportion of students who were BVI that met or exceeded proficiency increased from 38 percent in the 2014-15 school year to 45 percent in the next year. In reading, however, fewer students who were BVI met or exceeded proficiency. The proportions were smaller in both the 2015-16 and 2016-17 school years compared to the results from the 2014-15 school year (36 percent).

6.3.2. Region 3



As Figure 23 shows, the total number of students who were BVI enrolled has been decreasing slowly since the 2012-13 school year. For gender, there were fewer than 10 female or 10 male students who were BVI enrolled in the 2016-17 school year so the data cannot be reported on their own.

Figure 23: Number of BVI students enrolled in Region 3 by year, 2012-13 through 2016-17

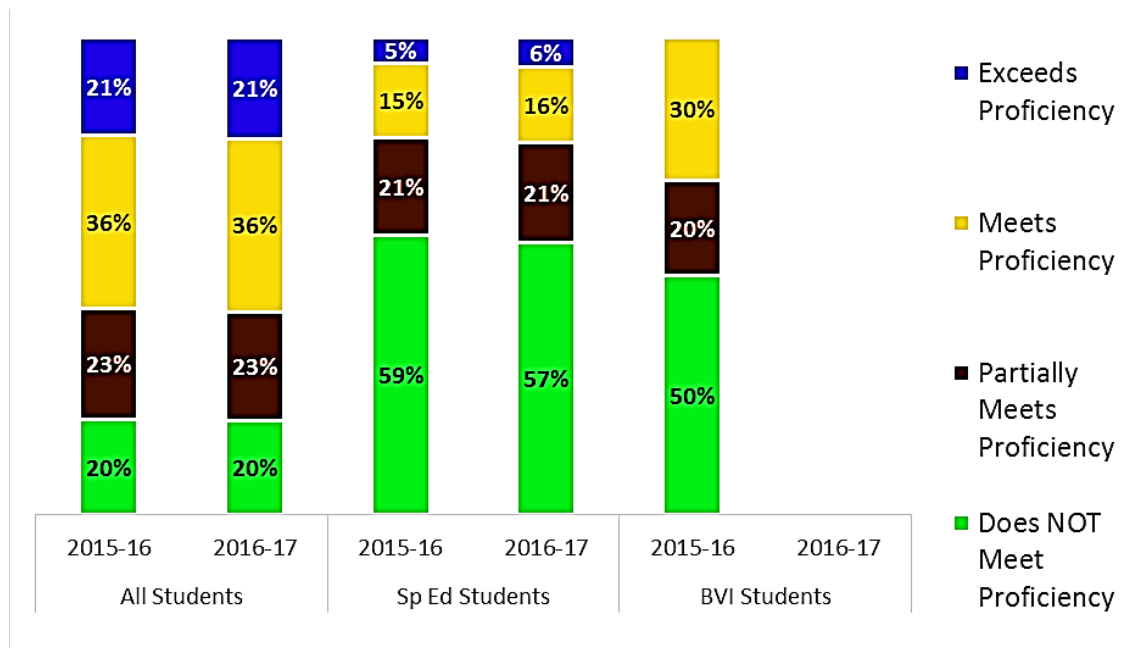


6.3.2.1. Region 3 Minnesota Comprehensive Assessment (MCA) trends

Figure 24 displays the MCA testing results for math by student category in Region 3. There were not enough students who were BVI tested to report results in the 2016-17 school year. For reading, there were also not enough students who were BVI tested, so no figure is displayed.

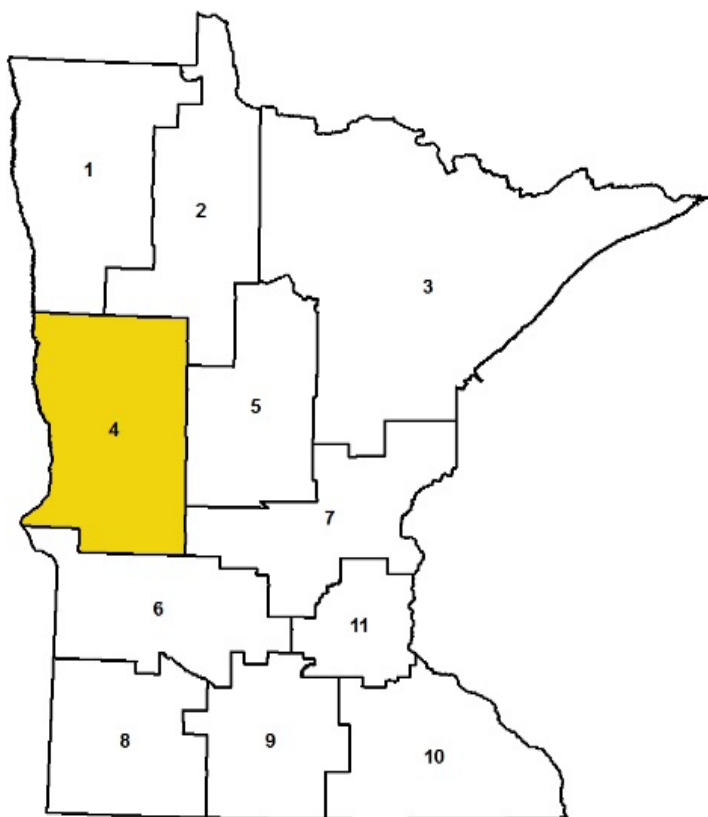
A larger proportion of students who were BVI in Region 3 met proficiency in math compared to all special education students, but were less proficient than the student body as a whole in the 2015-16 school year. No students who were BVI exceeded proficiency. Compared to statewide results for students who were BVI, students in Region 3 were less proficient in math.

Figure 24: Region 3 math by student category, MCA testing



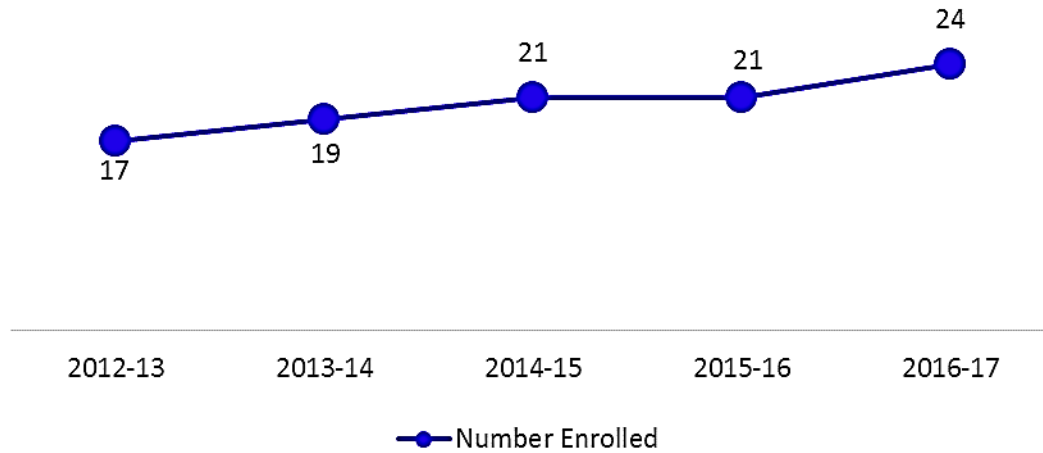
The math results for students who were BVI overall improved in the 2015-16 school year when compared to the 2014-15 school year. The proportion of students who were BVI that did not meet proficiency decreased from 73 percent to 50 percent, and the proportion that partially met or met proficiency increased from 18 percent to 50 percent. Because the numbers are so small in both school years, however, caution should be used in interpreting results and the comparisons.

6.3.3. Region 4



Enrollment of students who were BVI in Region 4 was higher in the 2016-17 than in recent years. For gender, there were fewer than 10 female or 10 male students who were BVI enrolled in the 2016-17 school year so the data cannot be reported on their own.

Figure 25: Number of BVI students enrolled in Region 4 by year, 2012-13 through 2016-17



In Region 4, students who were BVI showed about the same overall levels of proficiency in math compared to the special education students in the 2015-16 and 2016-17 school years. However, both student groups were less proficient when compared to all students in the region. More than half of special education students and students who were BVI did not meet proficiency in either school year. The trends for reading results were similar (refer to Figure 26 and Figure 27). Note that there were not enough students who were BVI tested in the 2016-17 school year to report results.

6.3.3.1. Region 3 Minnesota Comprehensive Assessment (MCA) trends

Figure 26: Region 4 math by student category, MCA testing

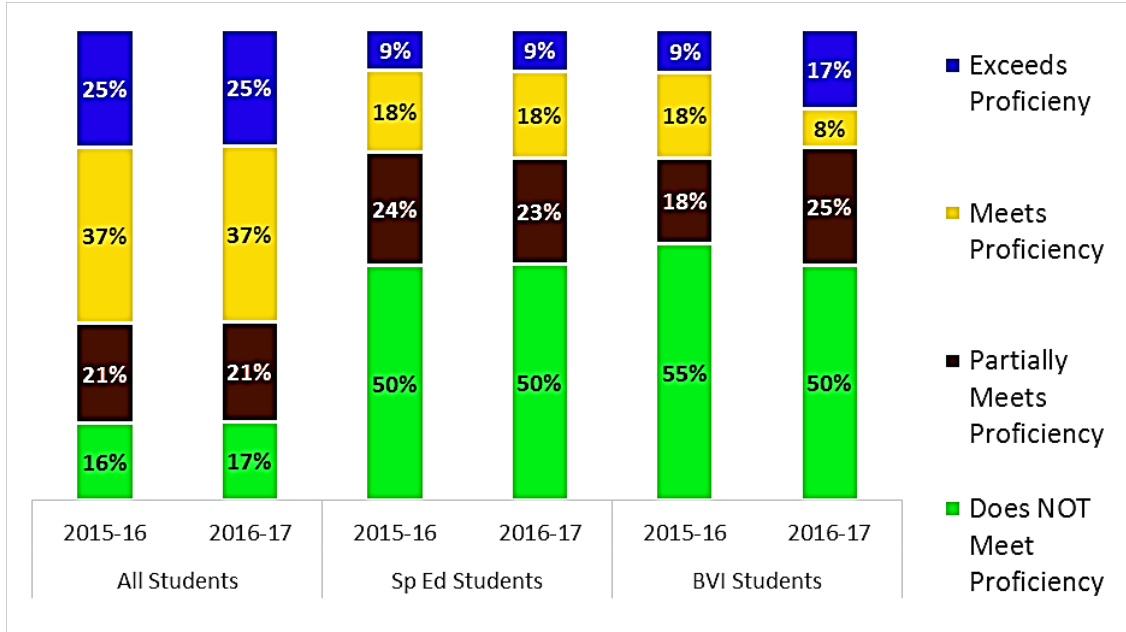
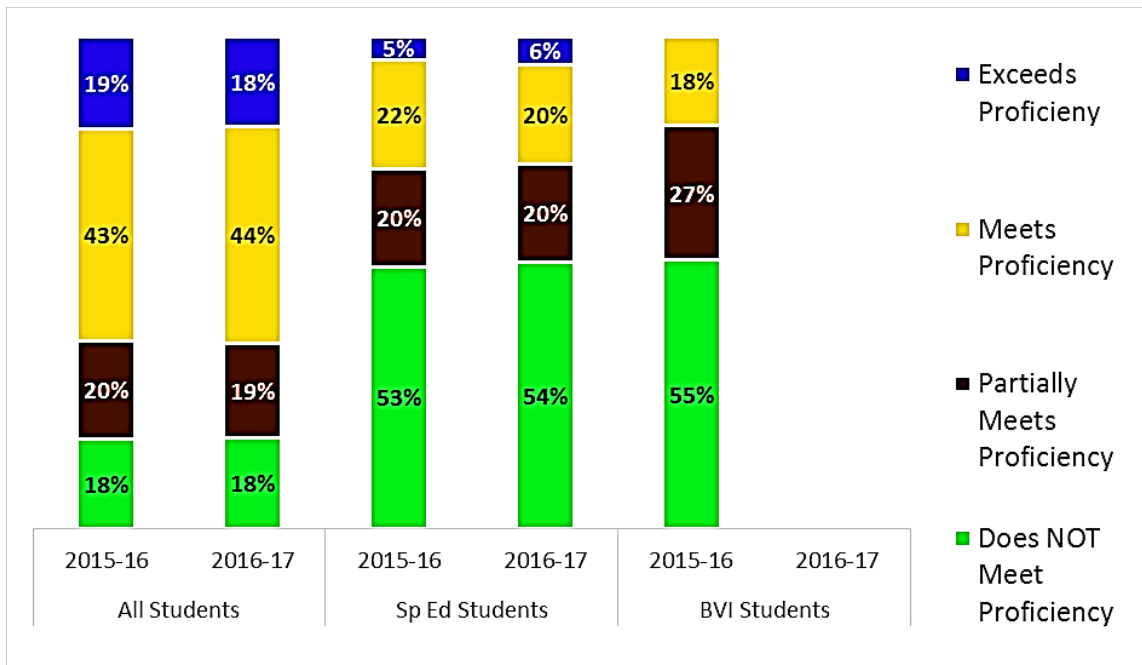


Figure 27: Region 4 reading by student category, MCA testing



6.3.4. Regions 5 and 7

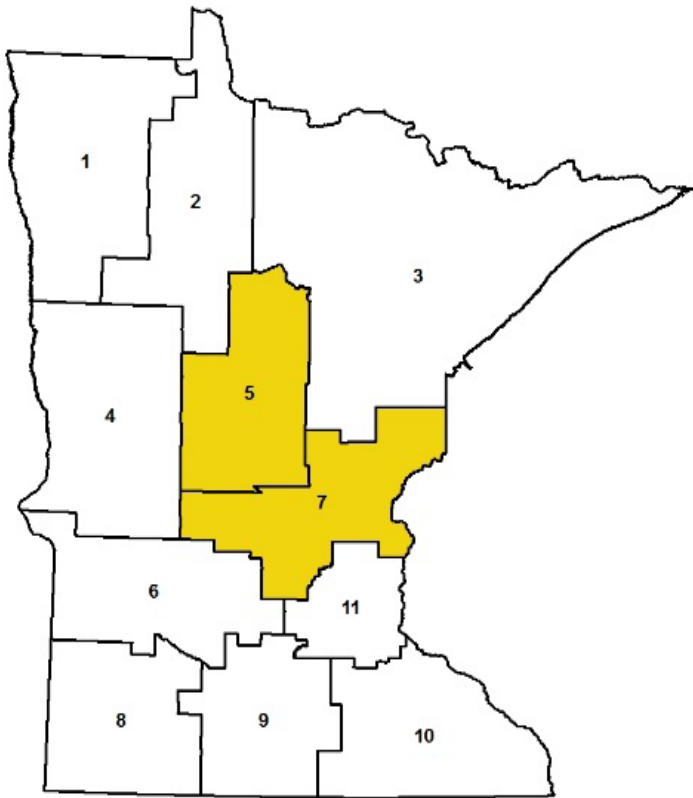
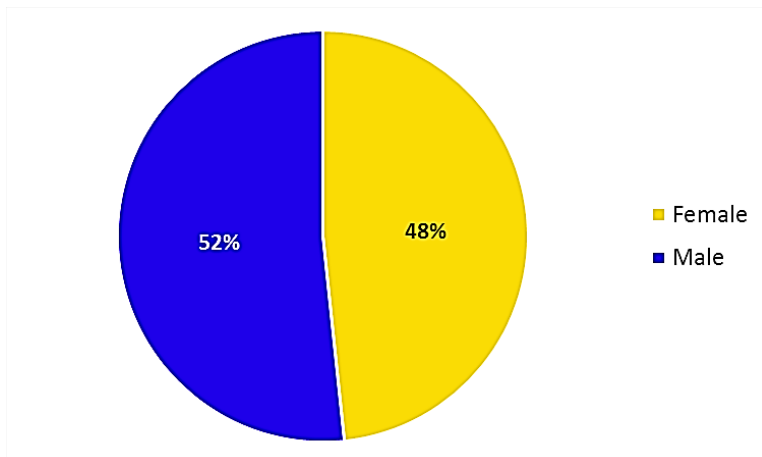
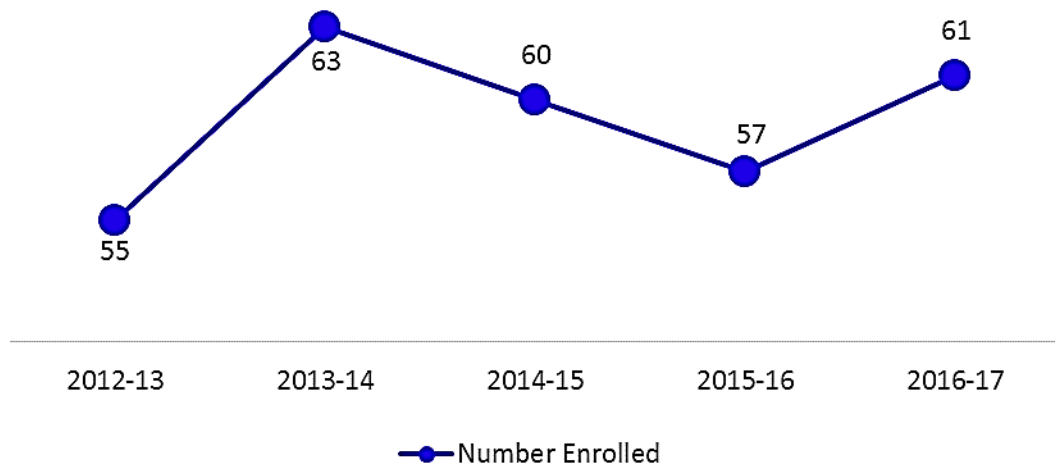


Figure 28: Regions 5 and 7 BVI student enrollment by gender, 2016-17 (n=60)



In Regions 5 and 7, there were nearly the same percentages of female and male students who were BVI (refer to Figure 28). Enrollment for students who were BVI has fluctuated over the five-year period. The largest enrollments were in the 2013-14 and 2016-17 school years (refer to Figure 29).

Figure 29: Number of BVI students enrolled in Regions 5 and 7 by year, 2012-13 through 2016-17



6.3.4.1. Regions 5 and 7 Minnesota Comprehensive Assessment (MCA) trends

For both MCA math and reading results, students who were BVI met or exceeded proficiency at higher rates than special education students in both school years. Similar to the statewide trends, both special education students and students who were BVI demonstrated lower levels of proficiency overall compared to all students in the regions except in the 2016-17 school year when the proportion of students who were BVI that met or exceeded proficiency was nearly equal to all students (refer to Figure 30 and Figure 31).

Figure 30: Regions 5 and 7 math by student category, MCA testing

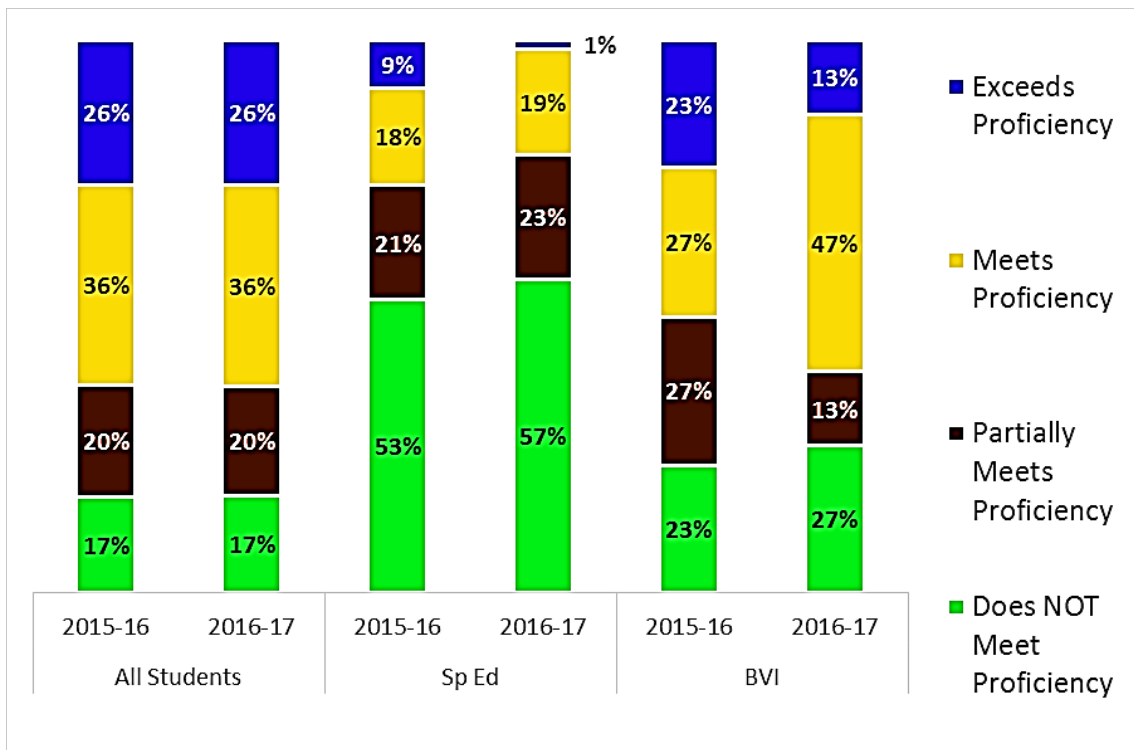
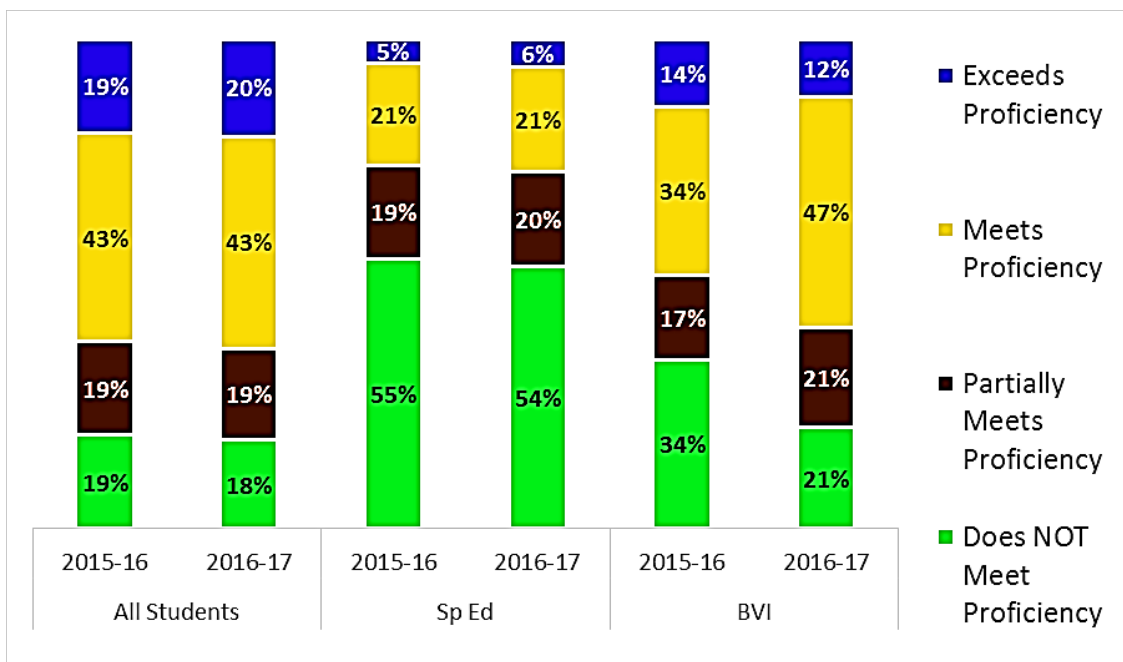
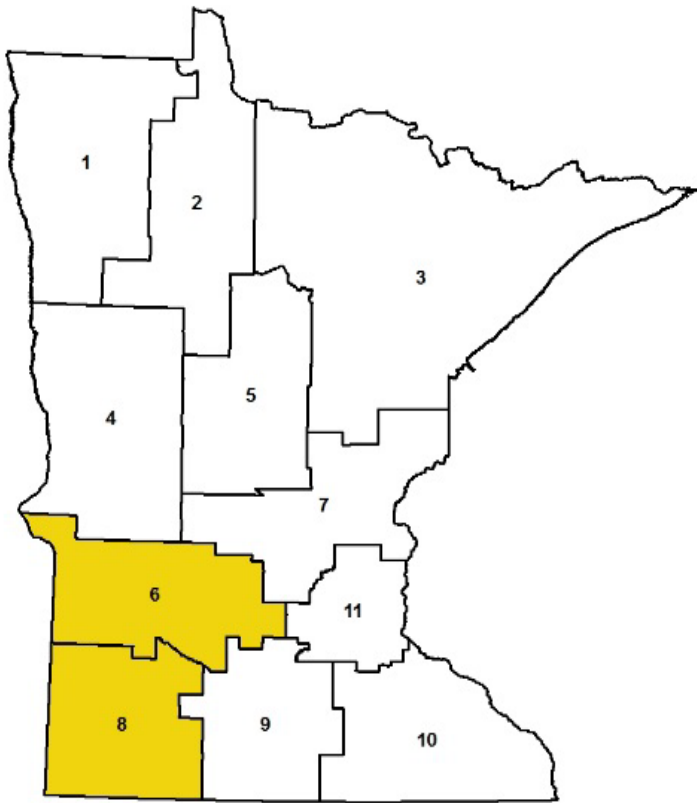


Figure 31: Regions 5 and 7 reading by student category, MCA testing

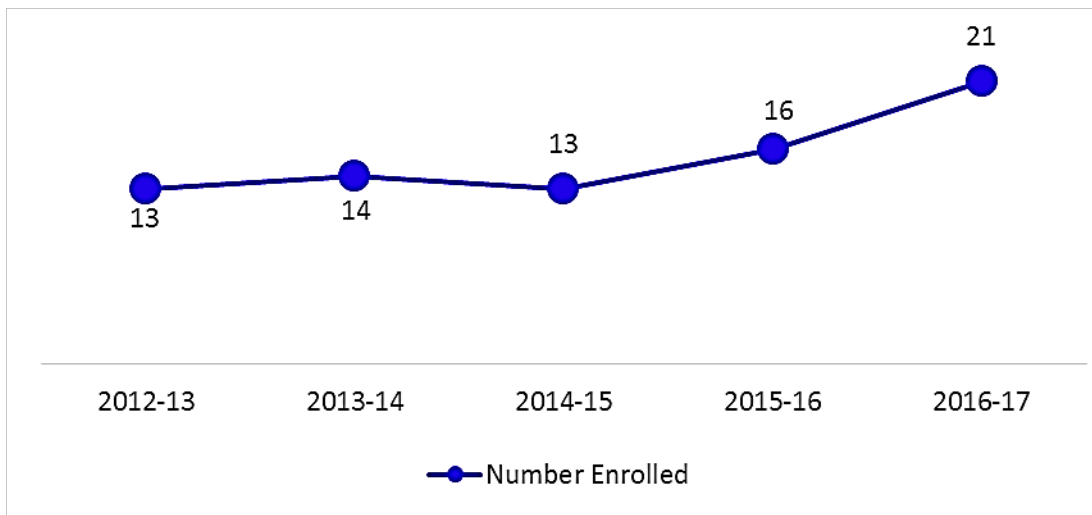


6.3.5. Regions 6 and 8



In Regions 6 and 8, enrollment for students who were BVI was relatively constant over the three-year period beginning in the 2012-13 school year, but then increased in both 2015-16 and 2016-17 (refer to Figure 32). For gender, there were fewer than 10 female or 10 male students who were BVI enrolled in the 2016-17 school year so the data cannot be reported on their own.

Figure 32: Number BVI students enrolled in Regions 6 and 8 by year, 2012-13 through 2016-17



6.3.5.1. Regions 6 and 8 Minnesota Comprehensive Assessment (MCA) trends

For both MCA math and reading results, students who were BVI met or exceeded proficiency at the same rates as special education students in the 2015-16 school year. However, the percent of students who were BVI that partially met proficiency was nearly double. Both special education students and students who were BVI were demonstrated less proficiency compared to all students in the region (refer to Figure 33 and Figure 34). Note that there were not enough students who were BVI tested in the 2016-17 school year to report results for math or reading.

Figure 33: Regions 6 and 8 math by student category, MCA testing

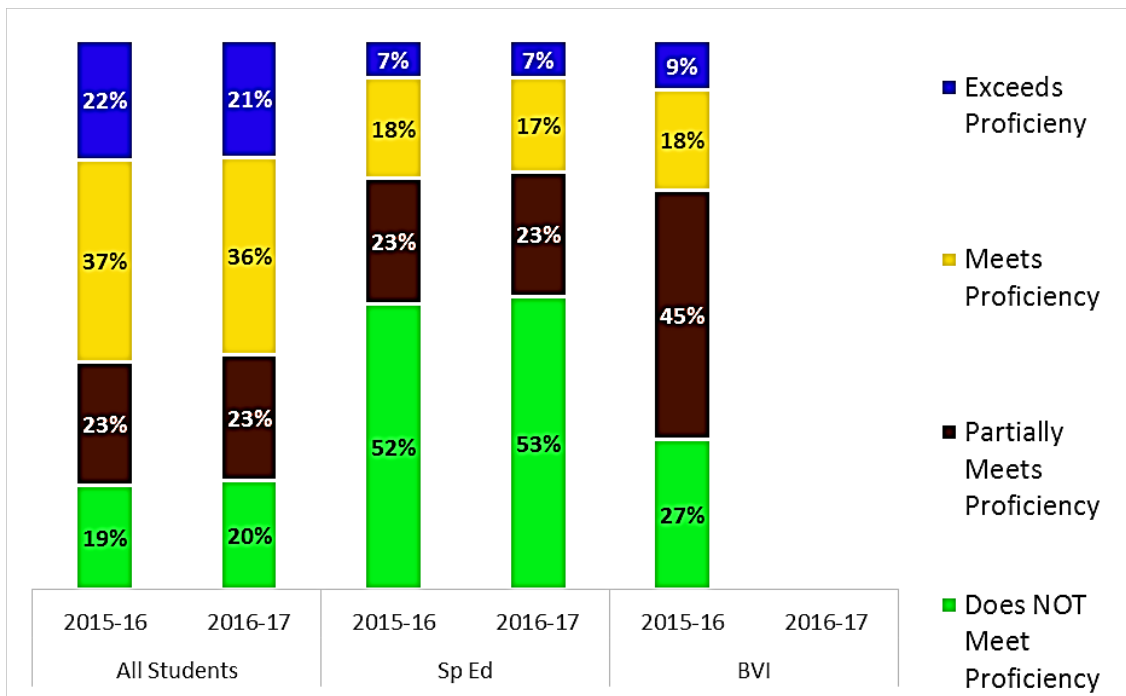
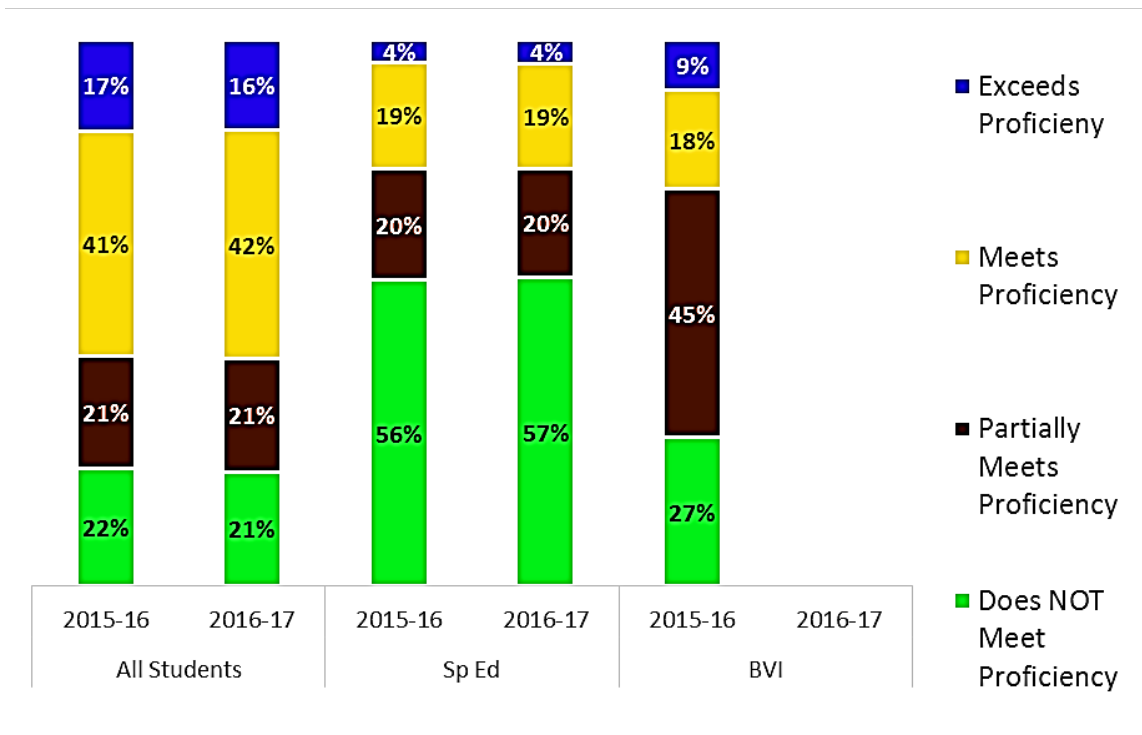
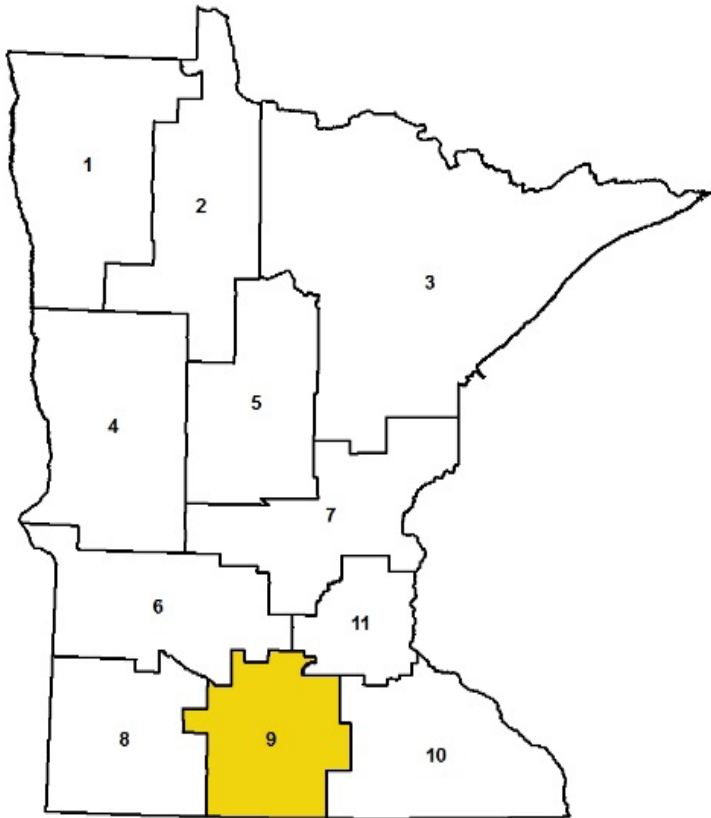


Figure 34: Regions 6 and 8 reading by student category, MCA testing

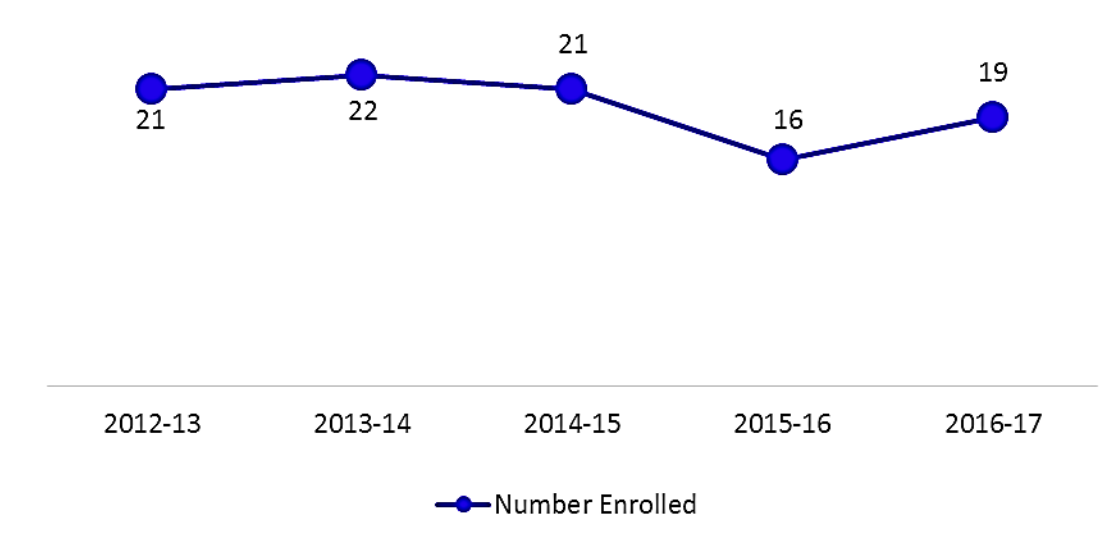


6.3.6. Region 9

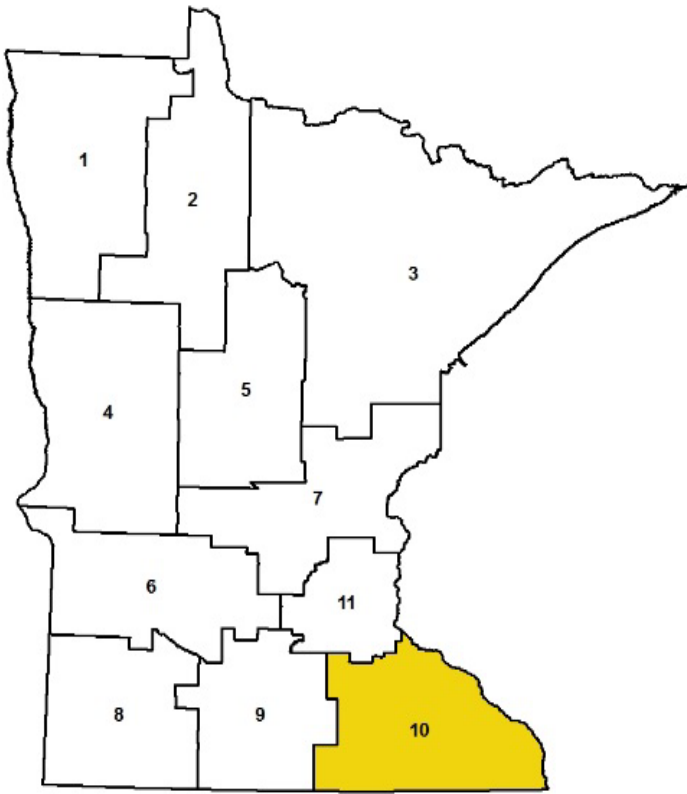


Overall enrollment for students who were BVI remained constant between the 2012-13 and 2016-17 school years. However, enrollment did decline slightly in 2015-16. For gender, there were fewer than 10 female or 10 male students who were BVI enrolled in the 2016-17 school year so the data cannot be reported on their own. There were also not enough students who were BVI tested in either the 2015-16 or 2016-17 school years to report MCA math or reading results.

Figure 35: Number of BVI students enrolled in Region 9 by year, 2012-13 through 2016-17



6.3.7. Region 10



The percentage of male students who were BVI was slightly larger than the number of female students in Region 10 (refer to Figure 36). As shown in Figure 37, the number of students enrolled who were BVI has steadily climbed from 50 in the 2012-13 school year to 71 in the 2016-17 school year.

Figure 36: Region 10 BVI student enrollment by gender, 2016-17 (n=71)

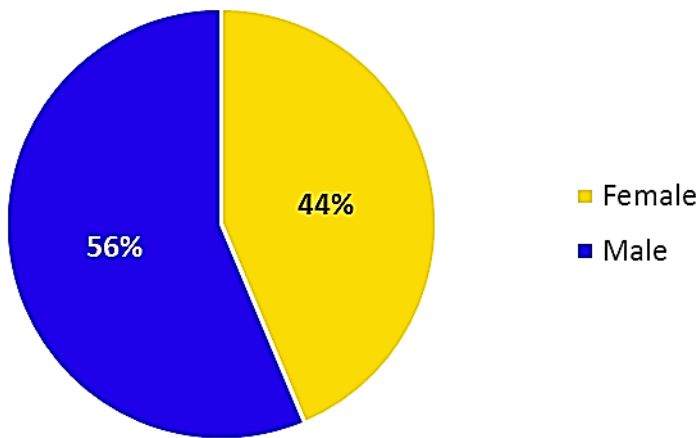
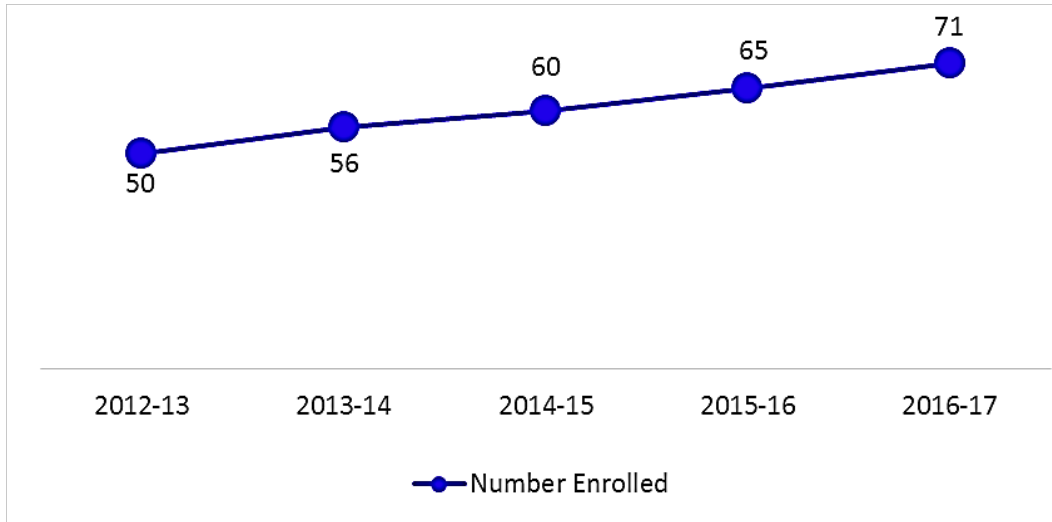


Figure 37: Number of BVI students enrolled in Region 10 by year, 2012-13 through 2016-17



6.3.7.1. Region 10 Minnesota Comprehensive Assessment (MCA) trends

Students who were BVI in Region 10 demonstrated a lower proficiency in math compared to all students, and a slightly higher proficiency compared to other students in special education. There was a similar trend for reading scores except that students who were BVI had about the same levels of proficiency compared to other special education students (refer to Figure 38 and Figure 39). There were also no scores from students who were BVI that exceeded proficiency in math or reading in the 2015-16 school year, but small percentages did in 2016-17.

In math, the proportion of students who were BVI that met or exceeded proficiency in math increased from 23 percent in the 2014-15 school year to 48 percent and 32 percent in 2015-16 and 2016-17, respectively. In reading, however, the proportion of students who were BVI that met or exceeded proficiency in both 2015-16 and 2016-17 decreased compared to the previous period when it was 30 percent.

Figure 38: Region 10 math by student category, MCA testing

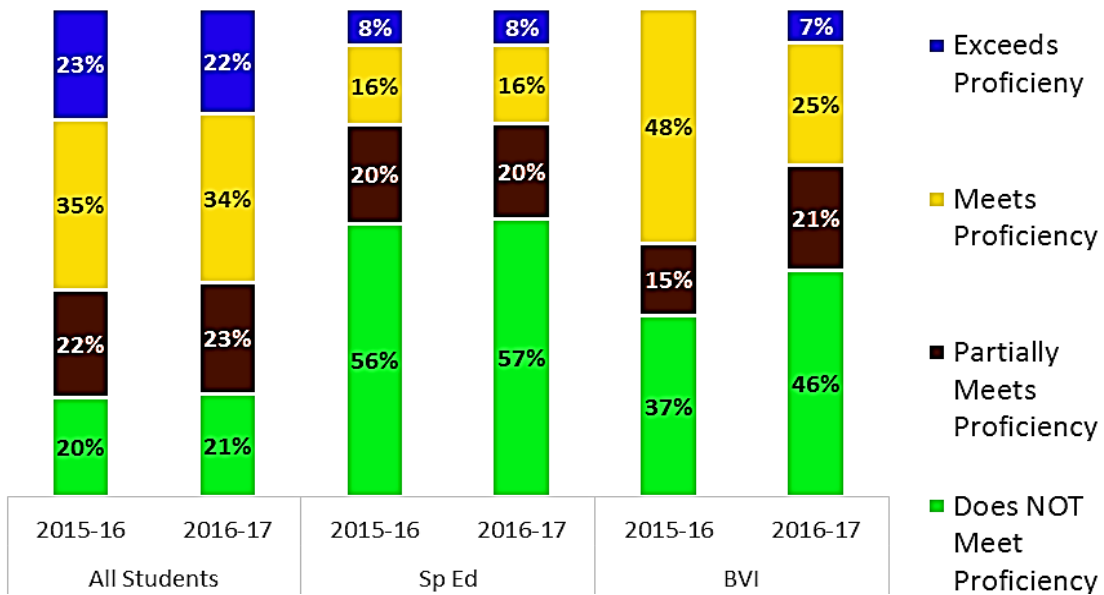
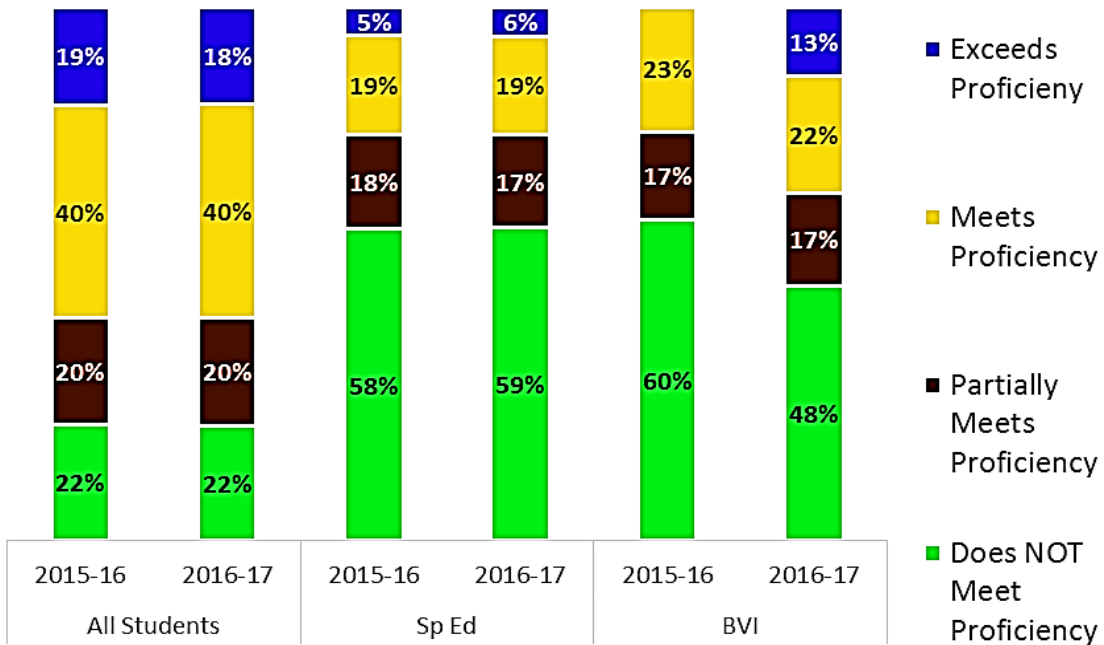
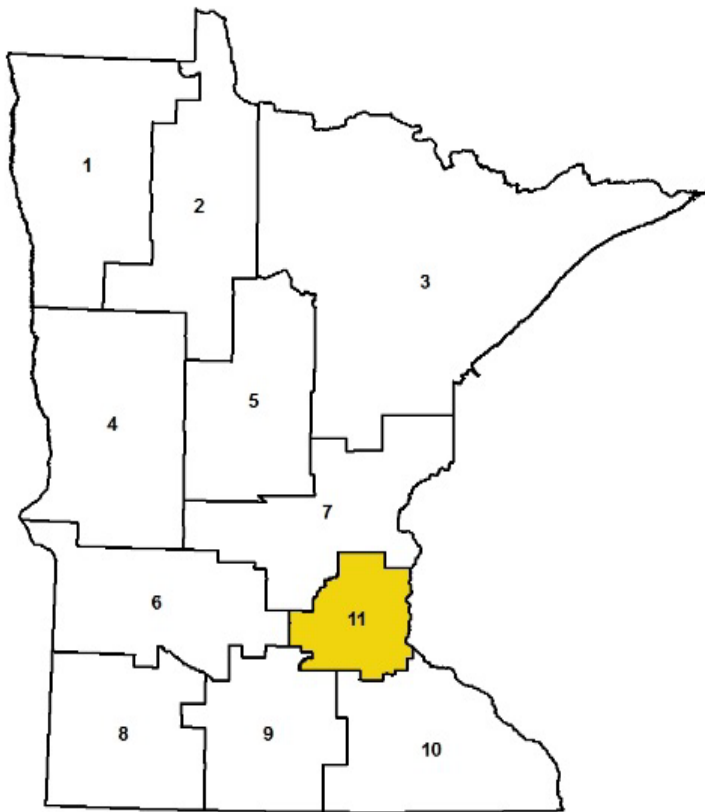


Figure 39: Region 10 reading by student category, MCA testing



6.3.8. Region 11



In Region 11, there were slightly more male students who were BVI (refer to Figure 40). Enrollment of students who were BVI increased steadily over a five-year period (refer to Figure 41).

Figure 40: Region 11 BVI student enrollment by gender, 2016-17 (n=182)

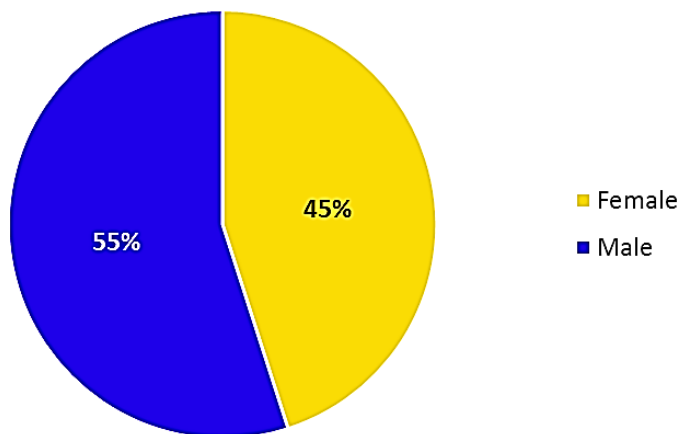
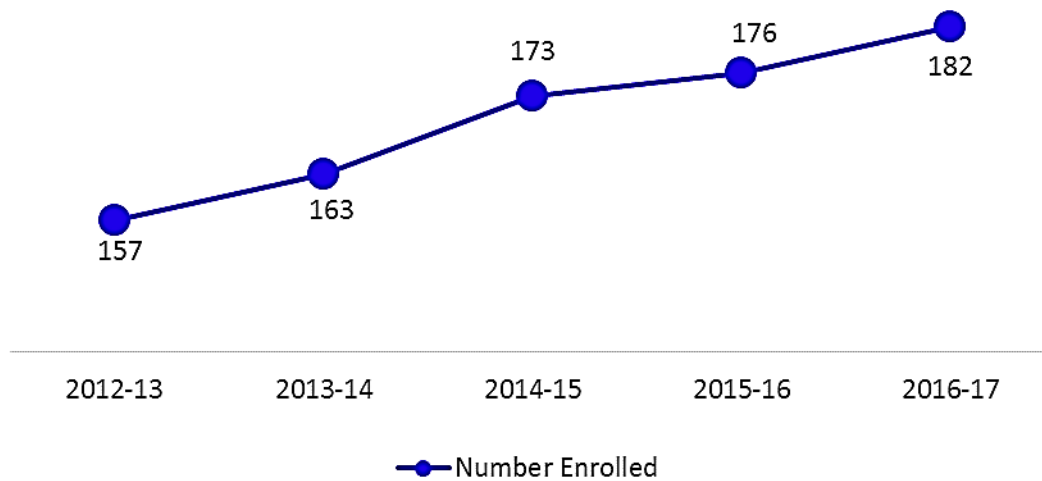


Figure 41: Number of BVI students enrolled in Region 11 by year, 2012-13 through 2016-17



6.3.8.1. Region 11 Minnesota Comprehensive Assessment (MCA) trends

Trends in Region 11 mirrored those statewide and in several regions. Students who were BVI demonstrated less proficiency compared to all students in the region in math and reading for both school years, but demonstrated greater proficiency than other special education students. However, the percentage of students who were BVI that met proficiency in both math and reading was nearly equal to all students in Region 11 (refer to Figure 42 and Figure 43).

Both math and reading results improved overall for students who were BVI compared to the 2014-15 school year. The proportion of students who were BVI that met or exceeded proficiency in math was 42 percent in 2014-15, but that increased to 49 percent and 50 percent in 2015-16 and 2016-17, respectively. In reading, 42 percent met or exceeded proficiency in the previous period while that proportion increased to 54 percent in both the 2015-16 and 2016-17 school years.

Figure 42: Region 11 math by student category, MCA testing

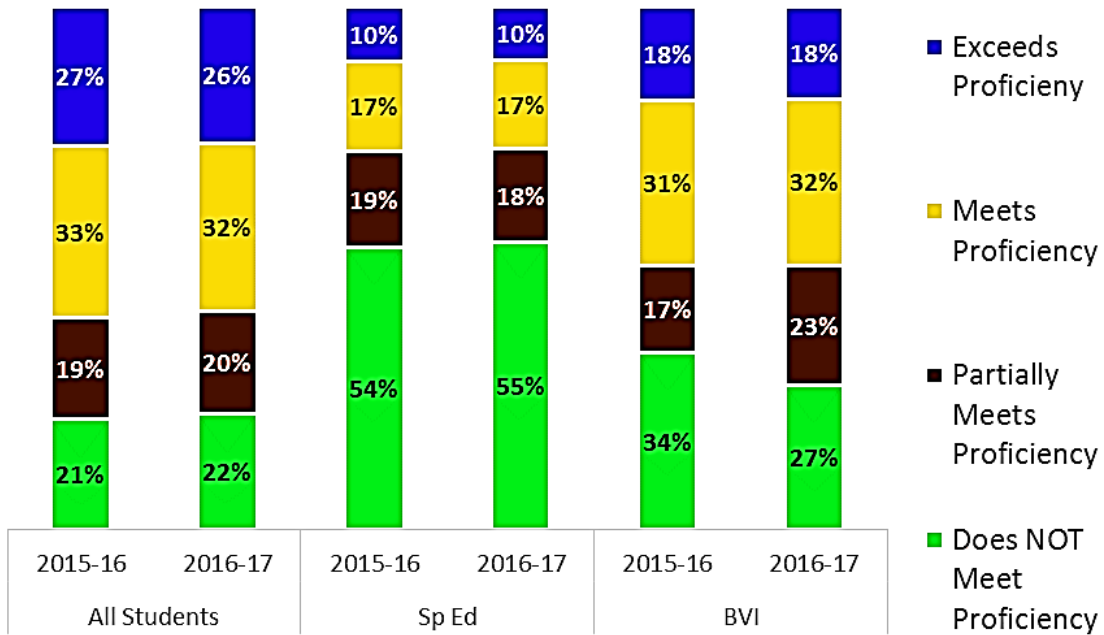
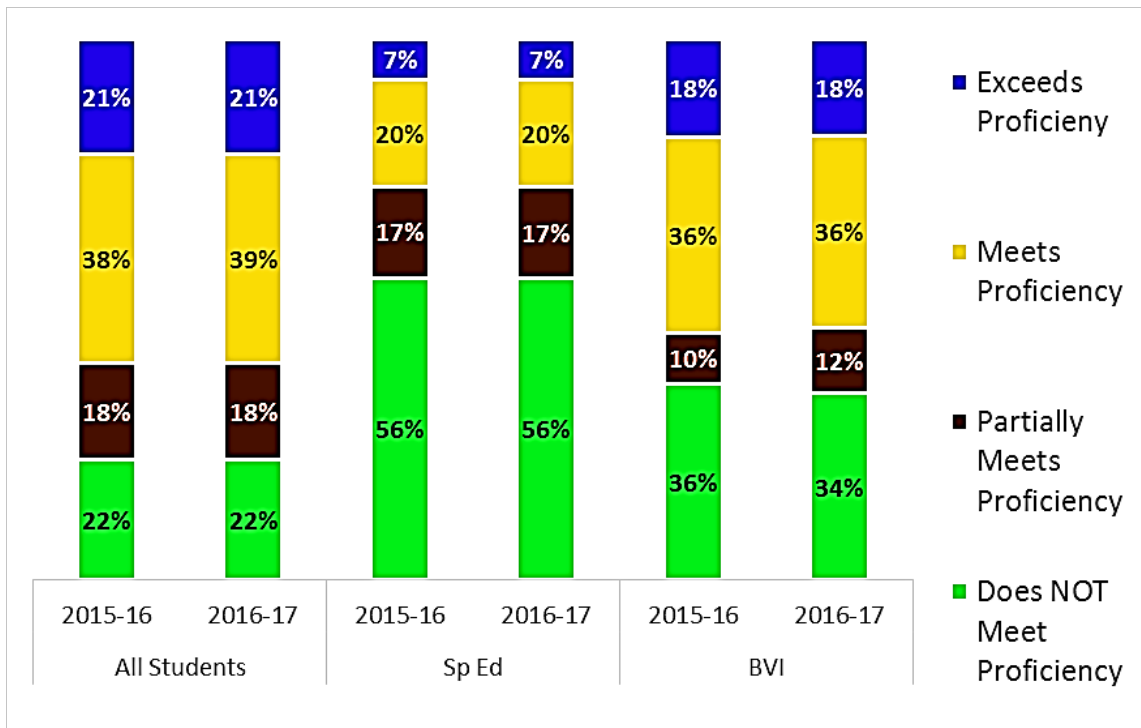


Figure 43: Region 11 reading by student category, MCA testing



7. Conclusion

Generally, students who were BVI and were assessed by MCA testing for math or reading scored higher than their peers in special education, but not at the same level as their peers in general education.

In order to maintain proficiency levels in reading and math and increase graduation rates, the BVI Advisory Committee believes the most effective way to increase outcomes for students who are BVI is to:

- Fund and create a university program in Minnesota to train TBVI.
- Fund and create a university program in Minnesota to train COMS.
- Continue recruitment efforts for TBVI and COMS positions within districts and from out of state.
- Train district curriculum committees in accessible curriculum basics and standards.
- Train general education staff to make learning materials accessible.
- Have MDE work with TBVI so TBVI are included in assessment advisory panels.

Thank you for taking the time to read and consider this report. Please feel free to contact Kristin Oien with questions.

8. Appendix A: Expanded Core Curriculum

The Expanded Core Curriculum (ECC) areas include educational needs that result from the visual impairment to enable the student “to be involved in and make progress in the general education curriculum”; and “other educational needs that result from the child's disability” as required by IDEA (34 CFR § 300.324). The presence of a visual impairment requires that teachers with specialized expertise thoroughly evaluate and systematically teach the skills listed below. Without specialized instruction, children with vision loss may not be aware of the activities of their peers or acquire other critical information about their surroundings (NASDSE, 1999, p. 70).

A. Compensatory Skills needed to access the general curriculum, including:

- Access to literacy and mathematics through braille (including UEB and Nemeth Codes) and/or print, handwriting skills, and auditory skills. Students have a variety of needs and utilize a combination of tools to access literacy and mathematics.
- Communication needs that will vary depending on degree of functional vision, effects of additional disabilities (including deafblindness), and the task to be done. Communication systems include unique low- to high-tech levels of access.
- Specialized tactile and hands-on instruction in concept development, sequential experiences, and abstract images and theories that may be significantly impacted when visual observation is limited.

A child with little or no vision may have fragmented understanding of the world without systematic tactile exploration and clear verbal explanations for concepts that are not visual or too large or delicate to touch. Fragmented concepts can impede social, academic, and vocational development (Ferrell, K. A., Bruce, S., & Luckner, J. L., 2014).

B. Orientation and Mobility (O&M): Safe and efficient travel through the environment is a critical component in the education of students with visual impairments. O&M evaluation and instruction should begin in infancy with basic spatial concepts, purposeful and exploratory movement, and progress through more independent age-appropriate motor and travel skills in increasingly complex environments. Vision provides the primary motivation for infants to begin to move their bodies: to raise their heads to see people, to reach toward objects, to move through the environment, and to begin to play. Significant delays and differences in meeting motor milestones can impact overall development. A child who is blind needs to know how classrooms or other environments are arranged in order to independently move with confidence. Systematic orientation to a space may be needed before the placement and function of furniture and objects are understood. As the student gets older, they need more advanced age-appropriate travel skills such as street crossings, bus travel, and community experiences. Students with multiple impairments benefit from O&M instruction that facilitates purposeful movement and increases independence to the greatest degree possible.

C. Social Interaction Skills: Visual impairments can socially isolate students, impede typical social interactions, or limit social skill development. Students with visual impairments may not be able to see facial expressions and subtle body language to participate in conversations and activities. They may not recognize the voice of a person who speaks to them or even realize that they are being addressed. An additional disability, such as autism, can amplify social challenges for a child with visual impairment. Social skills that sighted children can observe and imitate may need to be taught to a child with a visual impairment.

D. Career Education and Planning: Students with visual impairments need to be taught about the variety of work and career options that are available since they cannot casually observe people in different job roles. They need opportunities to explore their strengths and interests in a systematic, well-planned manner. This training may include the acquisition of specialized skills and equipment to compete in the job market. Students must be prepared for a wide range of vocational choices and the adaptations, including technological devices, which make them attainable. It is important to have opportunities to job shadow for concrete experience of different career choices and to learn about other persons with visual impairments who have successful vocational outcomes.

E. Assistive Technology, Including Optical Devices: Technology (including assistive technology devices and assistive technology services) permits students with visual impairments to access the general curriculum, increase literacy options, and enhance communication. There are a variety of high- and low-tech assistive technology tools designed specifically for students with visual impairments who require specialized instruction. These devices include, but are not limited to, electronic braille note takers, colored transparencies, tactile symbols, calendar systems, video magnifiers, screen reader software, screen enlarging software, and hand-held optical devices.

F. Independent Living Skills: Personal hygiene, dressing, food preparation, money management, housekeeping, and organization skills are critical skills for successful transition from school to independent living. Young children begin learning basic skills in independent living from visual observation and imitation. Most students with visual impairments, however, will need specific instruction and adaptations to standard equipment, such as modifications to read oven markings and to cook independently and safely. Depending on the level of vision, cognition, and other individual characteristics of a student, adaptations may range from minor highlighting to tactile clues for matching clothing. Students can learn to apply makeup and perform other grooming activities with magnifying lenses, specially marked containers, and highlighted dials on electric shavers. General education settings typically do not evaluate or teach these skills in a sequential and systematic basis. Family members may require assistance and guidance to implement the proper adaptations that will permit independent practice and mastery of new skills within the home.

G. Recreation and Leisure skills: Students who are blind or have visual impairments need to be exposed to and taught recreation and leisure activities that they can enjoy as children and throughout their lives. Recreation skills requiring physical activity enable students to learn about and practice a healthier lifestyle. They are often not aware of the options or the possible adaptations that would allow them to participate in these activities. Such skills include both individual and organized group activities for students at all ages and levels.

H. Self-Determination: Self-determination includes personal decision making, self-advocacy, problem solving, and assertiveness. These skills lead to competence, as opposed to learned helplessness, and are important components of positive self-esteem. Generally, people who are blind can overcome low societal expectations with specialized instruction in developing self-determination skills. Students can then meaningfully participate in their educational and transition planning and make positive adult lifestyle, job, and other life choices upon graduation. Students will be responsible for their own accessibility needs once they leave the public education system.

I. Sensory Efficiency (includes visual, tactual, and auditory skills): Students who are blind and students with low vision need systematic instruction to learn efficient use of their senses.

- Instruction in visual efficiency must be individually designed and may include using visual gaze to make choices, tracking car movements when crossing the street, responding to visual cues in the environment, and using optical devices such as magnifiers and telescopes.
- For students who are blind and functionally blind, an increased reliance upon tactual skills is essential to learning. These skills should be considered as part of the Individual Family Service Plan (IFSP)/Individualized Education Program (IEP) development. It takes more detailed “hands-on” interaction and repetition to understand a concept tactually, such as relative size, which may be readily captured with a glance.
- Systematic instruction in auditory skills is critical for successful mobility and learning. Students must learn to use their hearing effectively to respond appropriately to social cues, travel safely in schools and across streets, learn from recorded media, and use echolocation for orientation.

9. Appendix B: Collaborative statewide resources

The following table shows which collaborative agency supports and MDE initiatives align with ECC learning opportunities across Minnesota. This is not an exhaustive list of resources and supports available. There are other activities and groups that are specific to regions within Minnesota that are not highlighted in this report. For questions regarding what resources might be available in your area, contact [Kristin Oien](mailto:kristin.oien@state.mn.us) (kristin.oien@state.mn.us).

A brief description of each collaborative agency is included after the table. Readers are encouraged to follow the link to each agency's website for more information.

Table 3: MDE initiatives and collaborative agency supports

ECC Skills	Compensatory	O&M	Social Interaction	Career Education and Planning	AT and Optical Devices	Independent Living	Recreation and Leisure	Self-determination	Sensory efficiency
AEM Interagency Agreement	X	No data	No data	No data	No data	No data	No data	No data	No data
American Printing House for the Blind (APH)	X	X	X	X	X	X	X	X	X
BVI	X	X	X	X	X	X	X	X	X
Electronic List Communities of Practice	X	No data	No data	X	X	No data	No data	No data	No data
District 917 ECC	X	X	X	X	X	X	X	X	X
Low Vision Clinics	X	X	X	X	X	X	X	X	X
MN Mentoring Program	X	X	X	X	X	X	X	X	X
MN Resource Libraries	X	X	X	X	X	X	X	X	X
Parent Child Institute	X	X	X	X	X	X	X	X	X
Northern Plains Visions of Sport Camp	X	X	X	X	X	X	X	X	x
State Services for the Blind	X	X	X	X	X	X	X	X	X
Statewide Vision Professional Development	X	X	X	X	X	X	X	X	X
Summer Transition Program (STP)	X	X	X	X	X	X	X	X	X

Table 4: Collaborative non-profit agencies

ECC Skills	Compensatory	O&M	Social Interaction	Career Education & Planning	AT & Optical Devices	Independent Living	Recreation & Leisure	Self-determination	Sensory efficiency
American Council of the Blind (ACB) of MN	X	X	X	X	X	X	X	X	X
American Foundation for the Blind (AFB)	X	X	X	X	X	X	X	X	X
BLIND, Inc.	X	X	X	X	X	X	X	X	X
Camp Butterscotch	X	X	X	X	X	X	X	X	X
MN DeafBlind Project	X	X	X	X	X	X	X	X	X
DeafBlind Services of Minnesota	X	X	X	X	X	X	X	X	X
Lighthouse Center for Vision Loss	X	X	X	X	X	X	X	X	X
MN Division on Vision Impairments (MDVI)	X	X	X	X	X	X	X	X	X
MN National Association of Parents of Children with Visual Impairments (MNAPVI)	X	X	X	X	X	X	X	X	X
National Federation of the Blind (NFB) of MN	X	X	X	X	X	X	X	X	X
Vision Loss Resources (VLR)	X	X	X	X	X	X	X	X	X

Accessible Educational Material/State Services for the Blind Interagency Agreement: This interagency agreement between MDE and State Services for the Blind (SSB) supports individual school districts with the provision of Accessible Educational Material (AEM) in the form of braille and audio materials. School districts in Minnesota who agree to participate in the special education assurances are provided with certain braille and audio materials at no cost.

American Printing House for the Blind (APH): The American Printing House for the Blind (APH) is the world's largest nonprofit organization creating educational, workplace, and independent living products and services for people who are visually impaired. Founded in 1858 under the 1879 federal Act to Promote the Education of the Blind, APH is the official supplier of educational materials for visually impaired students in the U.S. who are working at less than college level. APH provides products, services, resources, and field services to students who are BVI.

BVI Electronic List: MDE sponsors an electronic list through the Statewide Low-Incidence Projects dedicated solely to the education of children and youth who are blind or visually impaired in Minnesota. This list is a public place where anyone interested in this field can post a question or an answer, share a BVI specific announcement, or stimulate discussion related to the education or service delivery of children and youth who are BVI.

Communities of Practice: MDE facilitates communities of practice (CoP) which include TBVI, COMS, and collaborative partners from other state, local, and non-profit agencies who provide services to students who are BVI. The CoPs change as needs fluctuate throughout the state. The current CoPs are American Printing House and Tactile Graphics Producers, Low Vision, Assistive Technology, and BVI Mentoring.

District 917 Extended School Year/ECC: Intermediate School District 917 Vision Program offers an extended school year (ESY) ECC program for students in grade 6-10. This is a day program that focuses on the nine areas of the ECC. Instruction is individualized to meet each student's specific needs.

Low Vision Clinics: A Low Vision Community of Practice Group comprised of TBVI, COMS, and Mayo/St. Cloud Clinic Optometrists have provided input to determine a process of providing low vision clinic services to students with the highest low vision needs around the state. Low Vision Clinics provided from 2005 to 2015 have served over 500 students from every region in Minnesota. They provide a unique and specific educational service to students who have low vision. Along with written reports and recommendations provided by the eye care specialists, low vision devices, and training is provided for the recipients, parents, and educators.

Minnesota Mentoring Program: The BVI Mentoring CoP collaborated to build a research-based mentoring program that supports teachers in BVI higher education programs, newly licensed TBVI, and experienced TBVI who may need specific topic assistance throughout their career. The Minnesota Mentoring Program (MMP) has grown to include professionals in other low incidence disability categories. For more information regarding the MMP, contact [Becca Jackson](mailto:Becca.Jackson@state.mn.us) (Rebecca.jackson@state.mn.us).

Minnesota Resource Libraries: Minnesota Resource Libraries is a statewide library providing information and resources to help families and educators meet the educational needs of Minnesota children and youth who have a hearing and or vision loss.

MSAB Family Transition Weekend (FTW) and Parent Child Institute (PCI): Family Transition Weekend (FTW) and Parent Child Institute (PCI) are interagency programs between MDE, MSAB and SSB. These programs alternate every other year and address family needs for middle and high school transition-age students who are BVI (FTW) and BVI specific needs for children who are age 5 and under (PCI).

Northern Plains Visions of Sport Camp: The Northern Plains Vision of Sport Camp (NPVSC) at Bemidji State University gives children and youth who are visually impaired, blind the opportunity to have fun in a safe environment with other children and youth who have similar abilities. The purpose of NPVSC is twofold: (1) to socialize children and youth into sport, so they can bridge the gap from where they are to a lifestyle that includes physical activity; and, (2) to train future developmental adapted physical educators, special educators, and teachers of individuals with visual impairments to work with children who have these disabilities.

State Services for the Blind (SSB): SSB is a Minnesota state agency under the Department of Employment and Economic Development (DEED). SSB provides tools and training for employment, living independently, and accessing print. They assist Minnesotans who are blind, deafblind, experiencing vision loss, or have difficulty accessing the printed word. SSB provides a variety of supports and programs for students who are BVI including: Transition Supports, Individualized Plan for Employment, Communication Center, Summer Opportunities Fair, Career Expo, Personal Budgeting, Assistive Technology Evaluations, BLIND Incorporated Transition Program, Duluth Lighthouse Transition Program, Helen Keller National Center Youth Programs and features in “The Spectacle” newsletter.

Statewide Vision Professional Development: The Minnesota Statewide Vision Community of Practice provides a forum to gather and share pertinent information and evidence-based practices TBVI and COMS in the field to build teacher capacity to increase student outcomes. Outcomes of the statewide CoP include professional sharing of information and knowledge specific to BVI and O&M, provision of in-service training and resources specific to teachers of children and youth with visual impairments, opportunities to increase awareness of new research, and data on teaching strategies and program trends for BVI.

Summer Transition Program (STP): STP provides experiences to address the specific transition needs of students who are Blind, Visually impaired or DeafBlind. STP complements each student’s core curriculum at their local school by providing individualized opportunities in the three transition areas identified in their IEP. These unique transition activities, as part of the ECC, give each student the opportunity to increase independence in their school home, community, and work environments.

10. Appendix C: Guidelines for determining workloads for TBVI and COMS

Note: This document was created from a variety of online sources, including the “APSEA Guidelines for Determining Caseload Size for Teachers of students with visual impairments,” “Connecticut Plan for Determining Caseload Size for Teachers of the Visually Impaired,” and “Michigan State Severity of Needs Rating Scale.”

Introduction

Children and young adults with visual impairments served by Minnesota’s TBVI and COMS are an extremely heterogeneous group. They vary in age (birth to 21 years), degree of vision loss, grade placement, cognitive ability, presence of additional disabilities, degree of independence and motivation, etc. TBVI and COMS must develop schedules to accommodate an array of responsibilities, such as: direct instruction of compensatory skills; adaptation of materials; assessment; programming; planning; consultation with parents; teachers, and medical personnel; creating, ordering and distributing adapted materials; teaching orientation and mobility skills; intersection analysis; and bus route planning (COMS only).

In addition, these professionals must travel from school to school. When assigning caseloads to itinerant teachers and mobility specialists, their supervisors must attend to all these considerations along with those associated with environmental factors (e.g., weather conditions, road conditions, distance between schools, school policies, and practices relevant to inclusion). The inclusion of these factors means the following suggested service levels function as guidelines in developing TBVI and/or COMS workloads.

Rating Scale: Based on a student’s IEP, a rating of 0 to 4 is assigned in each of the following areas: medical, reading medium, compensatory skill needs, environmental/instructional adjustments, O&M, and travel time. The total points offer a baseline in the amount of vision and mobility related service that the TBVI or COMS should provide.

Medical

0 Points:

- Visual acuity between 20/20 and 20/60 with full visual field
- No significant pathology

1 Point:

- Possible progressive disease, but one eye still within normal limits
- Mild nystagmus
- Bilateral strabismus, which cannot be corrected: pre/post eye surgery
- Other severe temporary eye treatments, such as patching; significant bilateral field loss

2 Points:

- Acuity 20/70 to 20/200 in best eye after correction
- A visual field of more than 20 degrees
- Cortical visual impairment

3 Points:

- Acuity 20/200 to object perception in best eye after correction
- A visual field of 20 degrees or less

4 Points:

- Object perception to total blindness
- A visual field of 10 degrees or less

Primary Reading Medium

0 Points:

- Regular print with no modifications
- Nonreader
- Uncontracted braille reader mastery level

1 Point: (one to five times per year)

- Regular print with occasional magnification (i.e., video magnifier, handheld magnification) in addition to correction

2 Points: (one to two times per month)

- Regular print with consistent use of magnification in addition to correction
- Contracted braille reader mastery level
- Audio or large print

3 Points: (1-2 times per week)

- Uncontracted braille reader instructional level

4 Points: (three or more times per week)

- Contracted braille reader instructional level

Compensatory Needs/Adaptive or Developmental Skills Instruction

0 Points:

- Needs no compensatory skills instruction

1 Point: (one to five times per year)

- Needs compensatory skills instruction in fine and gross motor areas, physical education/recreational activities, basic concepts, developmental/sensory awareness, augmentative communication devices, and/or functional life skills for supported living and work environment

2 Points: (one to two times per month)

- Needs compensatory skill consultation and/or instruction in use of remaining vision and low-vision aids, calculator usage, pre-vocational skills, adaptive equipment, and/or assistive technology
- Auditory computer user, mastery level

3 Points: (one to two times per week)

- Needs compensatory skill consultation and/or instruction in computer/keyboarding, map reading, geographical and science concepts, and/or career and vocational training
- Auditory computer user, instructional level

4 Points: (three or more times per week)

- Needs compensatory skill instruction in tactual development, abacus, slate and stylus, and/or independent daily living skills
- Auditory computer user, introductory level
- Electronic note taker instruction
- Tactile development: raised line drawing, abacus

Environmental/Instructional Adjustments

0 Points:

- Needs no adaptations of educational materials or presentations

1 Point: (one to five times per year)

- Needs some adapted written materials, special seating, some magnification, and/or adaptive lighting
- Consultation regarding best vision use with assistive technology and/or positioning

2 Points: (one to two times per month)

- Classroom teacher needs some consultation/support in materials modifications
- Needs some adaptation of maps/graphs, frequent magnification

3 Points: (one to two times per week)

- Needs minimal tactile modifications/enlargement, adaptation of maps/graphs, pictures, and braille production
- Tactile communication / calendar box system

4 Points: (three or more times per week)

- Needs all curricular materials in braille and/or tactile format

Orientation and Mobility (O&M)

0 Points:

- Needs no further O&M instruction

1 Point: (one to five times per year)

- Needs O&M monitoring/consultation
- Orientation to new environments
- On campus routes/mobility

2 Points: (one to two times per month)

- Needs O&M supportive instruction
- O&M concept instruction
- Wheelchair mobility

3 Points: (one to two times per week)

- Needs intensive O&M instruction
- Emerging O&M/white cane skills
- White cane for identification purposes, low vision safe street crossing skills
- Beginning bus travel, exploring taxi, paratransit use

4 Points: (three or more times per week)

- Needs comprehensive O&M instruction
- Non-visual traveler learning to become a safe and independent traveler
- Street crossings, bus routes, route planning, business travel

Travel Time

Travel points measure distance in miles (one-way) from TBVI/COMS office/portal to student instructional site (home, school, business, or neighborhood):

0 Points:

- Full-time resource room based at school
- Students within a 0-10 mile radius

1 Point:

- Students within a 10-20 mile radius

2 Points:

- Students within a 20-30 mile radius

3 Points:

- Students within a 30-40 mile radius

4 Points:

- Students within a 40 plus mile radius

Interpretations:

Once the rating scale has been applied to each student on the TBVI's and or COMS' caseload, the following applies:

- 2.5 points = 1 hour of teacher time per week
- Half-time teacher: no more than 45 total points
- Full-time teacher: no more than 90 total points

There should not be more than three academic braille students assigned to one itinerant TBVI.

Table 5: Workload rating worksheet template

Student	Medical	Primary Reading Medium	Compensatory Skill / Adaptive Instruction	Environmental Instructional Adjustments	O&M	Travel Time	Totals
Teacher Total:							

11. Bibliography

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