Trends in Participation, Performance, and Accommodations Received by Special Education Students

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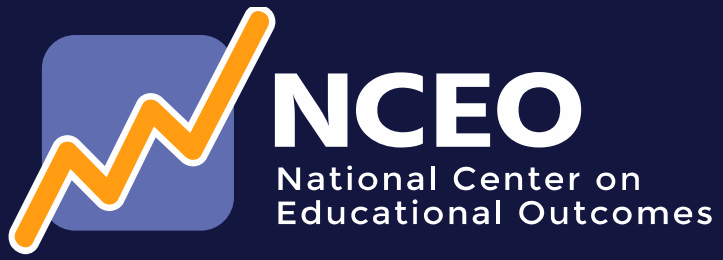
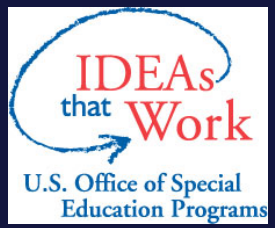




NCEO is supported through a cooperative agreement between the University of Minnesota, National Center on Educational Outcomes (NCEO) (#H326G160001) and the U.S. Department of Education, Office of Special Education and Rehabilitative Services (OSERS), Office of Special Education Programs. The materials do not necessarily reflect the position or policy of the U.S. Department of Education or Offices within it. **Project Officer:** David Egnor.

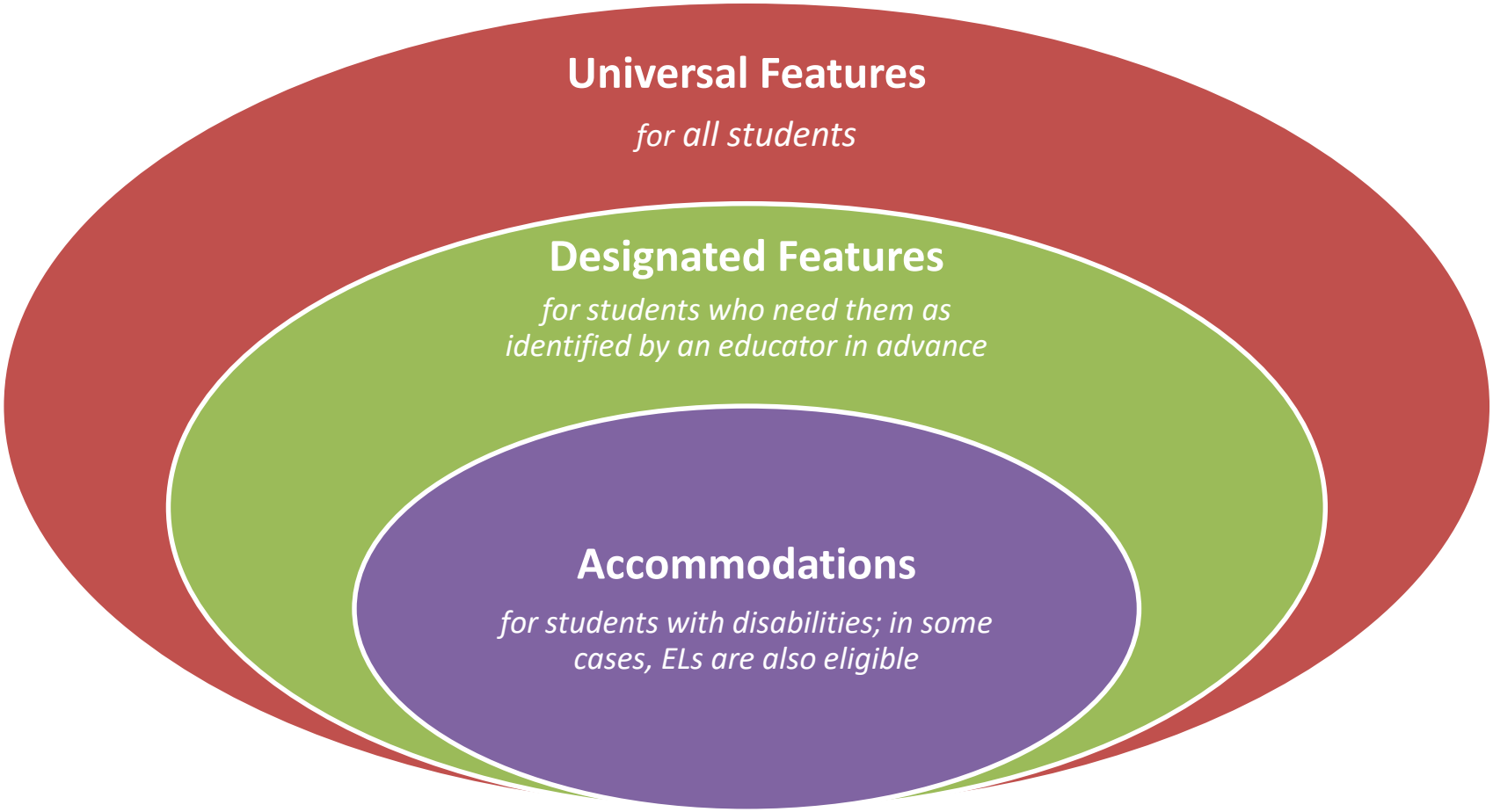
Background

- Tests available for students in SPED
  - Regular assessment
  - Alternate assessment based on **alternate** achievement standards (AA-AAS)
  - Alternate assessment based on **modified** achievement standards (AA-MAS)
  - Alternate assessment based on **grade-level** achievement standards (AA-GLAS)

Background

- Changes in assessments (0708-1617)
  - Paper pencil to Computer-Based Tests
  - AA-MAS faded away (no state reported since in 2014-15)
  - AA-GLAS (only 2 states reported in 2016-17)
  - Filed test data
  - Tiers of accessibility
- The Every Student Succeeds Act (ESSA) places a 1.0% cap on participation in the AA-AAS
- NCEO.info

Tiers of Accessibility



Research Questions

- How have the ***participation rates*** on regular assessments and AA-AAS changed over time?
- How have the ***proficiency rates*** on regular assessments and AA-AAS changed over time?
- Are the participation and proficiency rates ***similar on reading and math*** regular assessments and AA-AAS across grades?
- Has the percentage of ***accommodations use*** on regular assessments changed over time?
- Is the percentage of students receiving ***accommodations*** similar on regular reading and math assessments across grades?

Data

- Annual Performance report
  - States are required to report participation, performance, and accommodations for students with IEPs
  - 2007-08 to 2016-17
  - By content, grade level
  - Data selection
    - Regular & AA-AAS
    - AA-MAS
    - Field test data in 2013-14 & 2014-15

Criteria for Data Selection

- Step 1. reported ***field-test data*** in 2013-14 & 14-15
- Step 2. reported having an alternate assessment based on modified achievement standards (***AA-MAS***)
- Step 3. did not report assessment data or reported the ***participation of three or fewer students in one or more grades***
- Step 4. if state did not have all ***seven grade levels*** included in the dataset
- Step 5. did not report participation data ***for both reading and math assessments***

- n = 13 states

Sample size

Table 1. *Number of Special Education Students by Year and Content Area*

Year	Reading Enrolled	Math Enrolled	Reading Tested	Math Tested
2007-08	735,428	735,363	714,388	714,974
2008-09	734,855	737,901	719,259	723,288
2009-10	728,677	729,835	715,877	717,135
2010-11	731,308	732,264	714,868	717,104
2011-12	733,440	734,371	718,350	720,800
2012-13	738,710	739,832	723,127	724,896
2013-14	762,459	763,772	736,690	735,244
2014-15	778,543	769,362	690,907	676,623
2015-16	803,316	796,993	714,581	704,436
2016-17	831,912	825,878	731,962	724,219

Analysis

- Descriptive analyses
- MANOVA examined ***grade*** and ***year*** effects on
  - Participation
    - % (number of SWD tested/number of SWD ***enrolled***)
    - Similarity $\text{Participation Rate}_{\text{Similarity}} = \text{Participation Rate}_{\text{Reading}} - \text{Participation Rate}_{\text{Math}}$
  - Proficiency
    - % (number of SWD at or above proficiency/number of SWD ***tested***)
    - Similarity $\text{Proficiency Rate}_{\text{Similarity}} = \text{Proficiency Rate}_{\text{Reading}} - \text{Proficiency Rate}_{\text{Math}}$
  - Assigned Accommodations
    - %(number of SWD with accommodations/number of SWD ***tested***)
    - Similarity $\text{Accommodations}_{\text{Similarity}} = \text{Accommodaitons}_{\text{Reading}} - \text{Accommodations}_{\text{Math}}$

Results

- MANOVA
  - Grade
    - Wilks' $\Lambda = 8.13$, $p < .0001$
  - Year
    - Wilks' $\Lambda = 8.24$, $p < .0001$
  - Grade X Year n.s.
- Participation, Performance, and Accommodations
  - Content & similarity by regular and AA-AAS

Results—Participation (Regular Content Area)

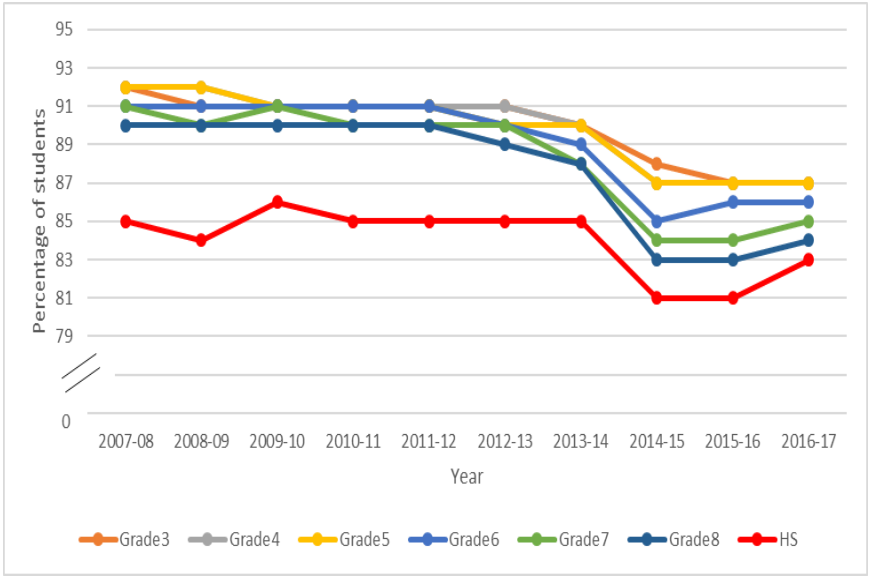


Figure 1. Percentage of students with IEPs participating in regular **math** assessments by grade level and year

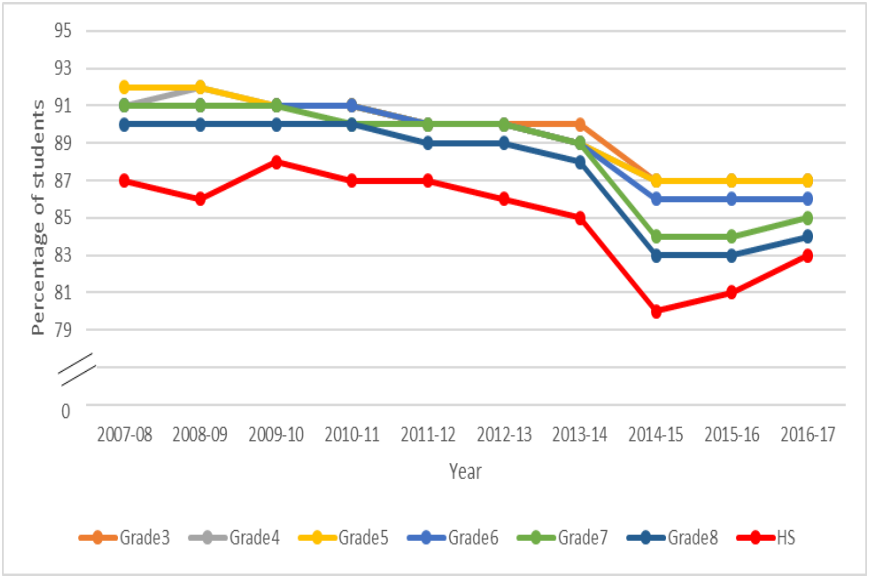


Figure 2. Percentage of students with IEPs participating in regular **reading** assessments by grade level and year

Grade s.s HS < G 3-8

Year s.s 1415 &1516 < 0708-1314

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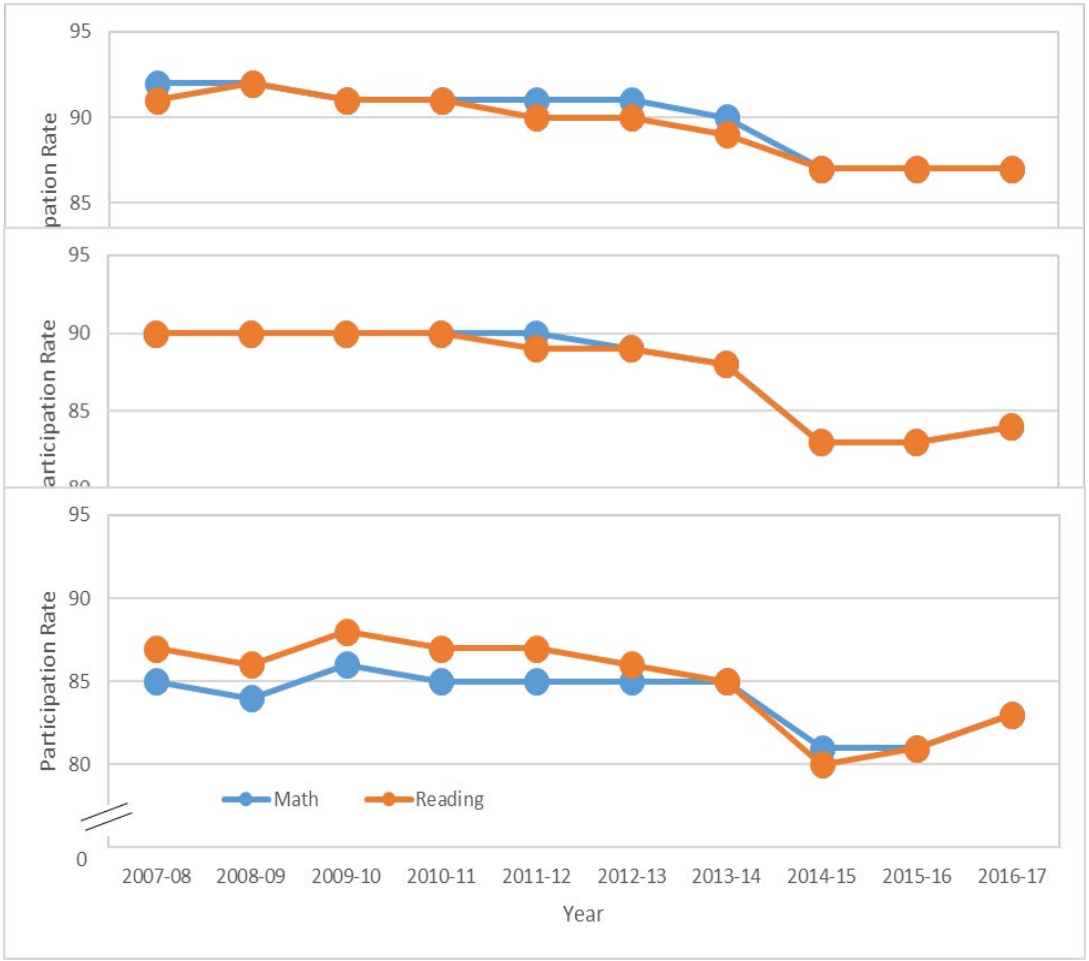
Results—Participation (Regular Similarity)

Figure 3. Participation rates on regular assessments for both reading and math at **grade 4**

Figure 4. Participation rates on regular assessments for both reading and math at **grade 8**

Figure 5. Participation rates on regular assessments for both reading and math at **high school**

Grade s.s HS > grades 3-8
Year n.s



Results—Participation (AA-AAS Content Area)

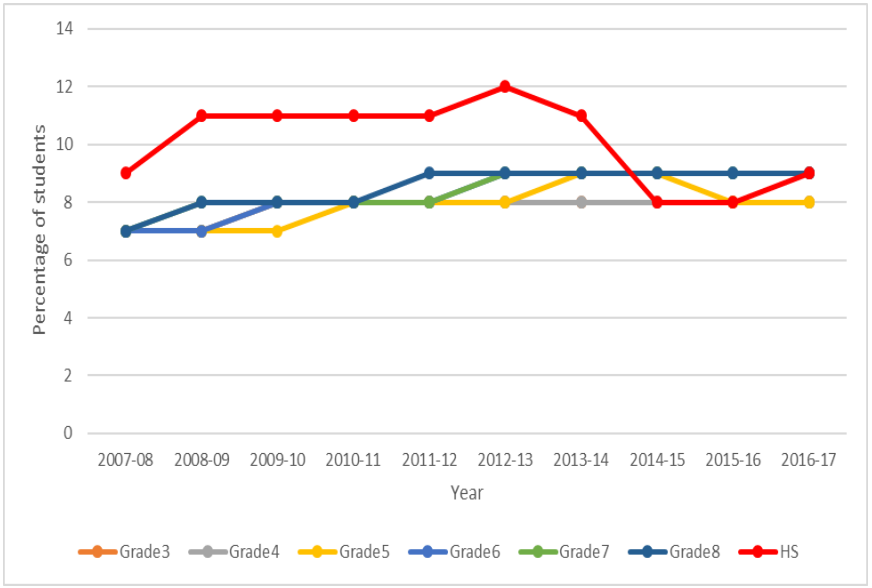


Figure 6. Percentage of students with IEPs participating in **math** AA-AAS by grade level and year

Grade s.s HS > grades 3-8
Year n.s.

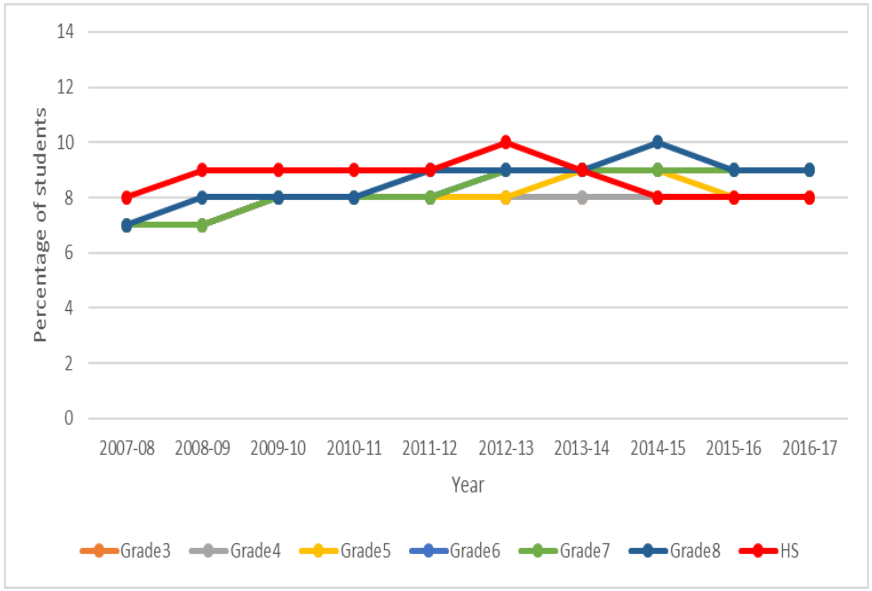


Figure 7. Percentage of students with IEPs participating in **reading** AA-AAS by grade level and year

Grade n.n
Year s.s 0708 < 1213-1516

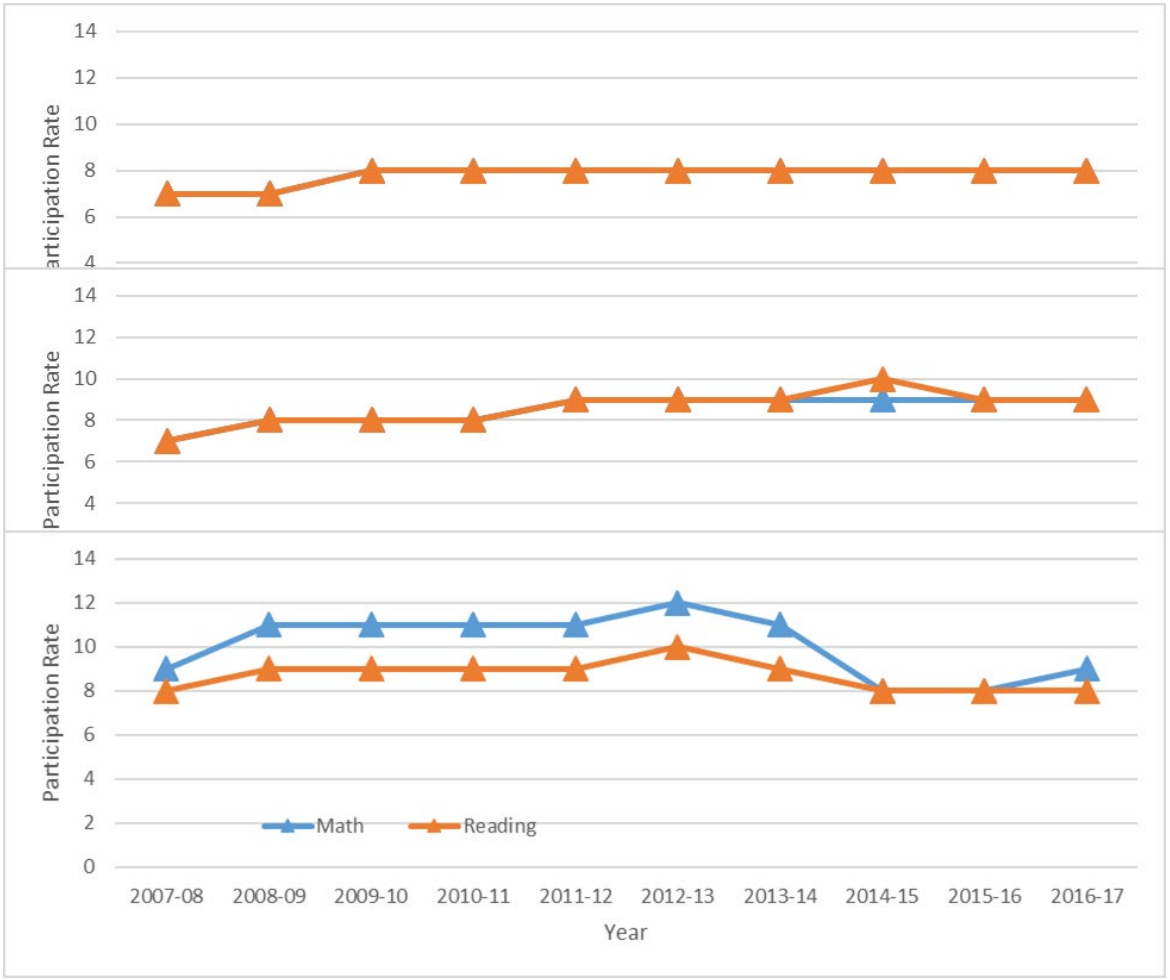
Results—Participation (AA-AAS Similarity)

Figure 8. Participation rates on AA-AAS for both reading and math at **grade 4**

Figure 9. Participation rates on AA-AAS for both reading and math at **grade 8**

Figure 10. Participation rates on AA-AAS for both reading and math at **high school**

Grade: HS< G3-G8



Results—Performance (Regular Content Area)

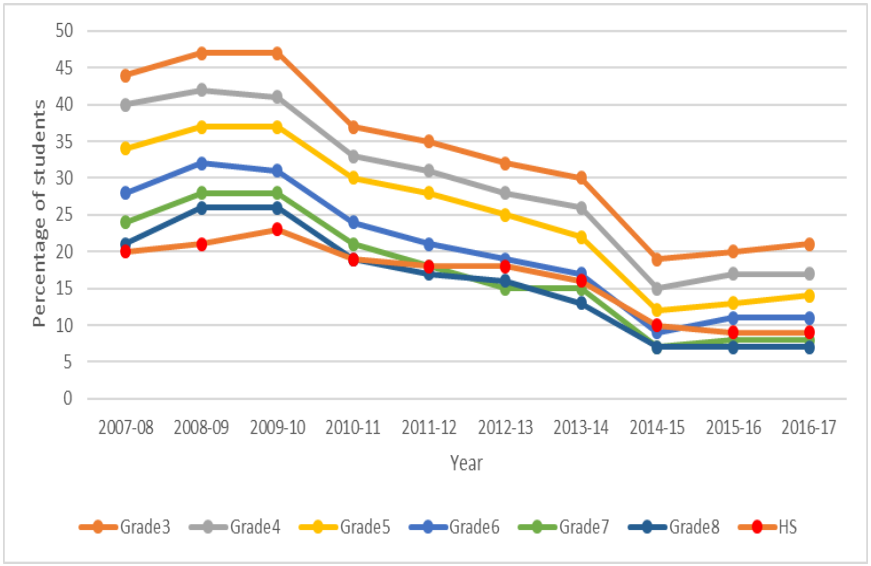


Figure 11. Percentage of students with IEPs scoring at or above the proficiency level on regular **math** assessments by grade level and year

Grade s.s: G 7-HS < G 3-5

Year s.s: 1415-1617 < 0708-1213

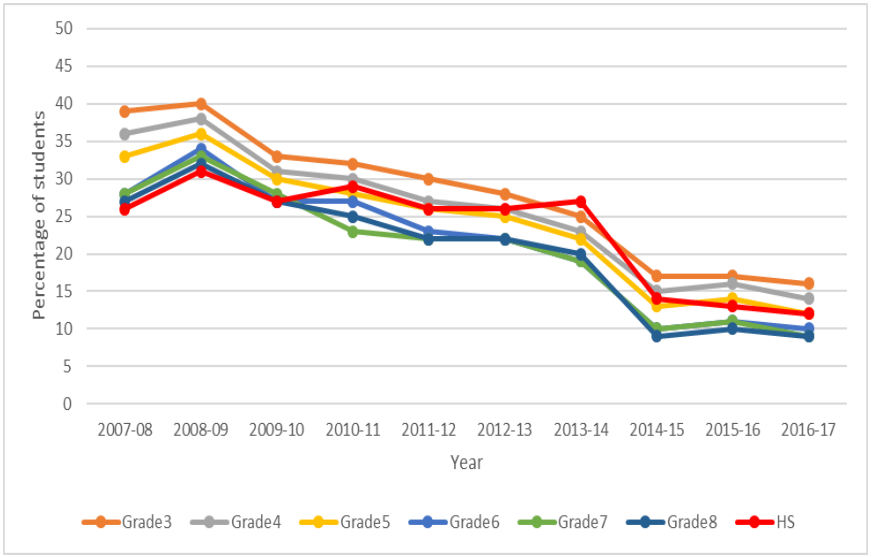


Figure 12. Percentage of students with IEPs scoring at or above the proficiency level on regular **reading** assessments by grade level and year

Grade s.s: G 7-8 < G 3

Year s.s: 1415-1617 < 0708-1314

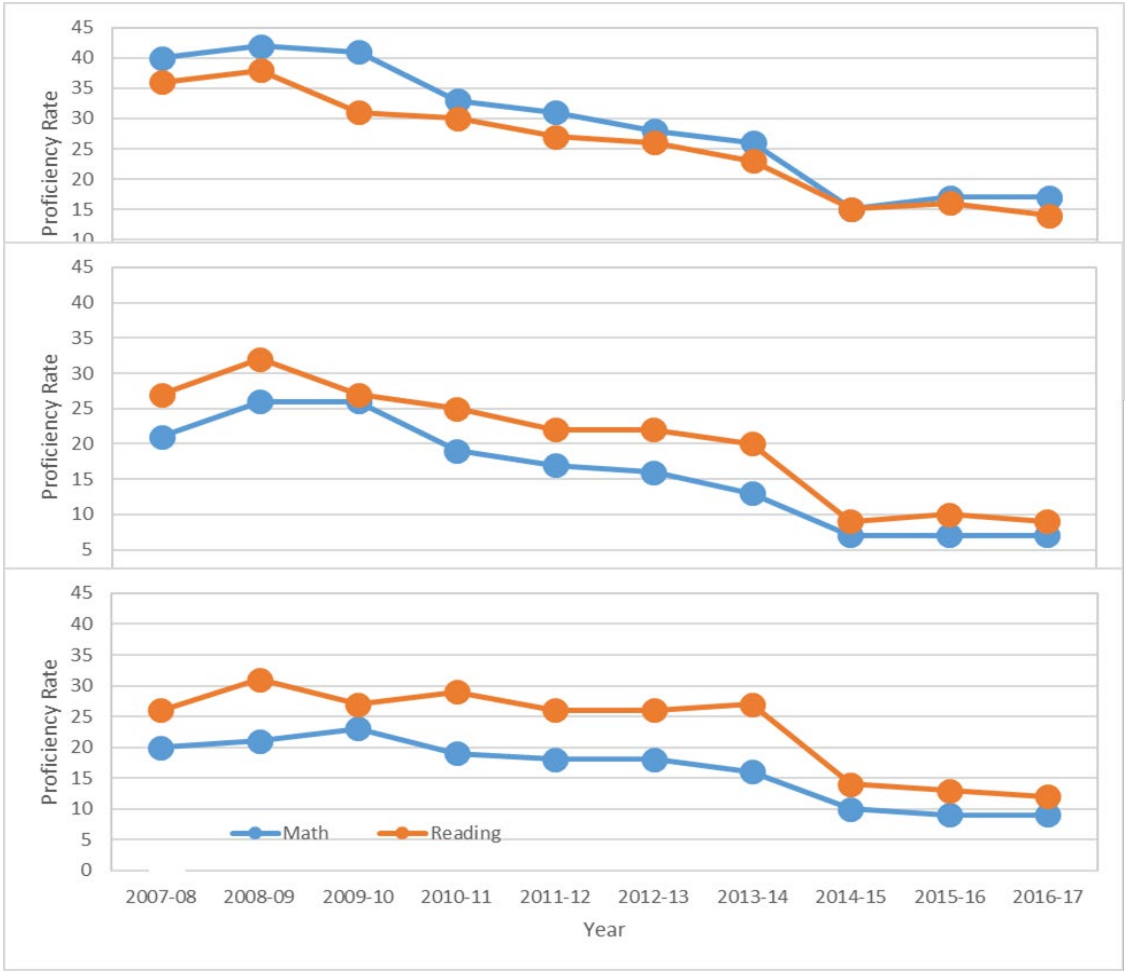
Results—Performance (Regular Similarity)

Figure 13. Proficiency rates on regular assessments for both reading and math at **grade 4**

Figure 14. Proficiency rates on regular assessments for both reading and math at **grade 8**

Figure 15. Proficiency rates on regular assessments for both reading and math at **high school**

Grade s.s : HS > G 3-6
Year: n.s.



Results—Performance (AA-AAS Content Area)

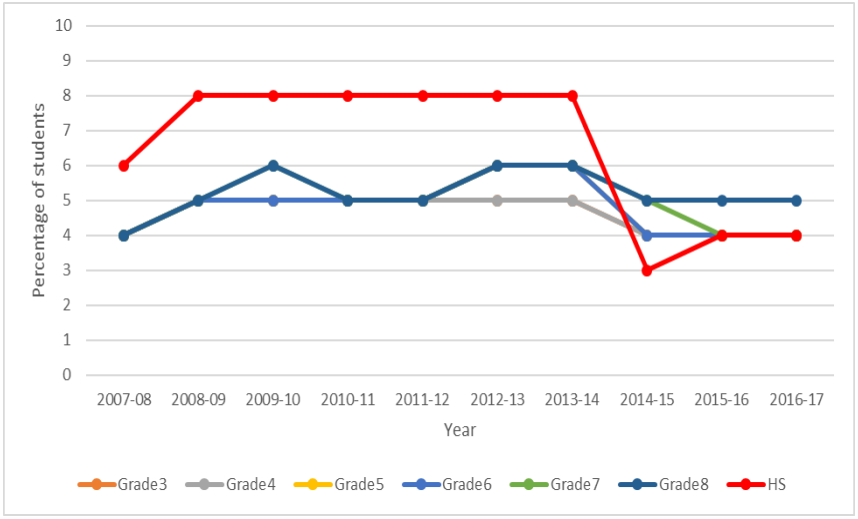


Figure 16. Percentage of students with IEPs scoring at or above the proficiency level on **math** AA-AAS by grade level and year

Grade n.s.

Year s.s (no significant pair differences found)

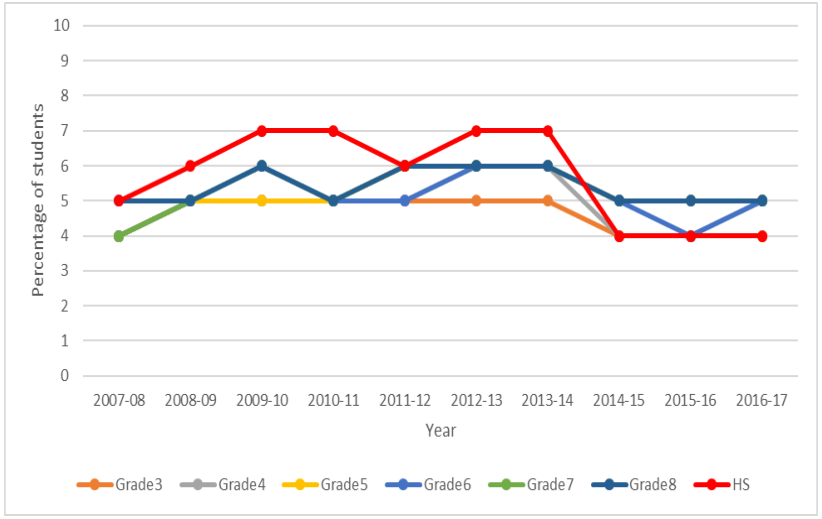


Figure 17. Percentage of students with IEPs scoring at or above the proficiency level on **reading** AA-AAS by grade level and year

Grade n.n

Year s.s (no significant pair differences found)

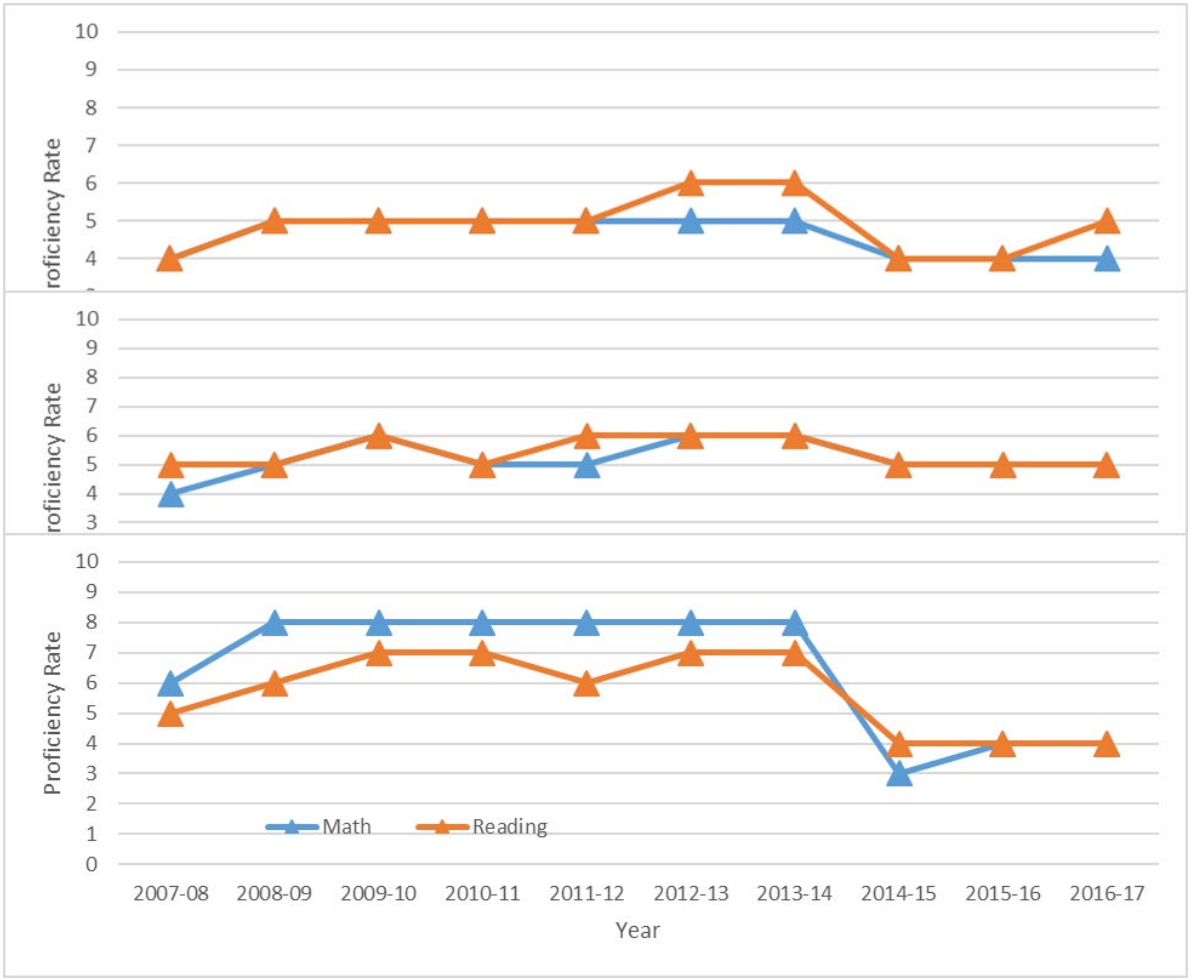
Results—Performance (AA-AAS Similarity)

Figure 18. Proficiency rates on AA-AAS for both reading and math at **grade 4**

Figure 19. Proficiency rates on AA-AAS for both reading and math at **grade 8**

Figure 20. Proficiency rates on AA-AAS for both reading and math at **high school**

n.s



Results—Accommodations (Content Area)

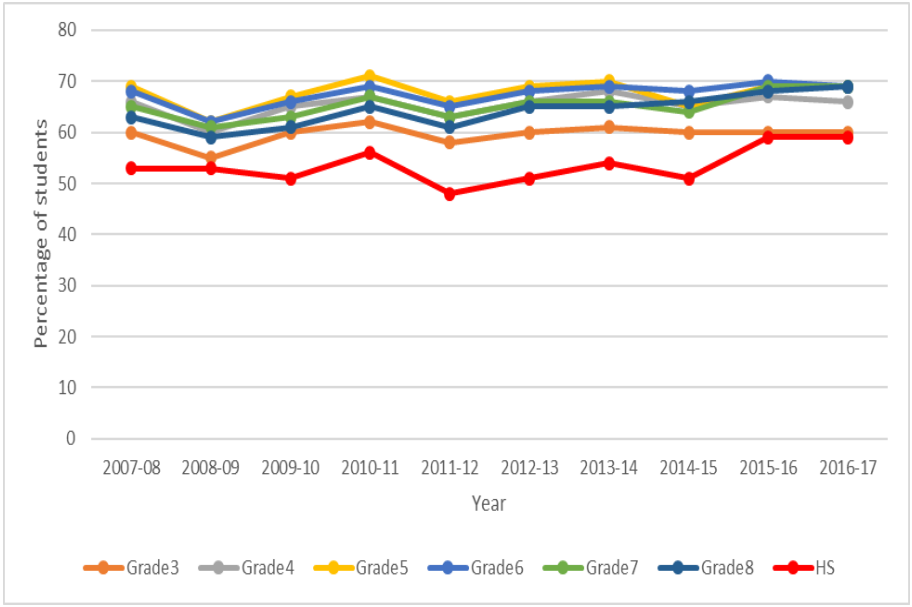


Figure 21. Percentage of students with IEPs assigned accommodations on **math** by grade level and year

Math: grade s.s HS< Grades 4-8

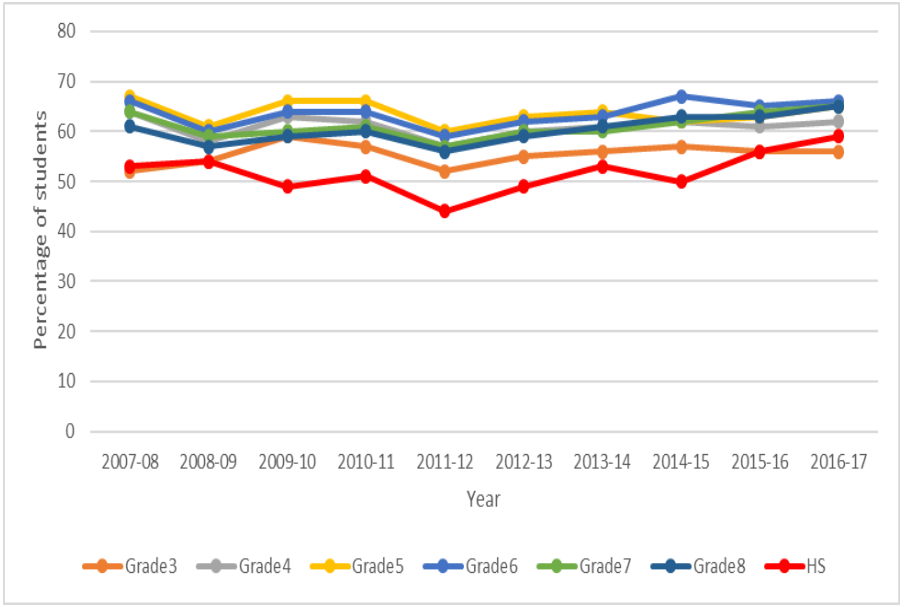


Figure 22. Percentage of students with IEPs assigned accommodations on **reading** by grade level and year

Reading: grade s.s HS< Grades 5-6

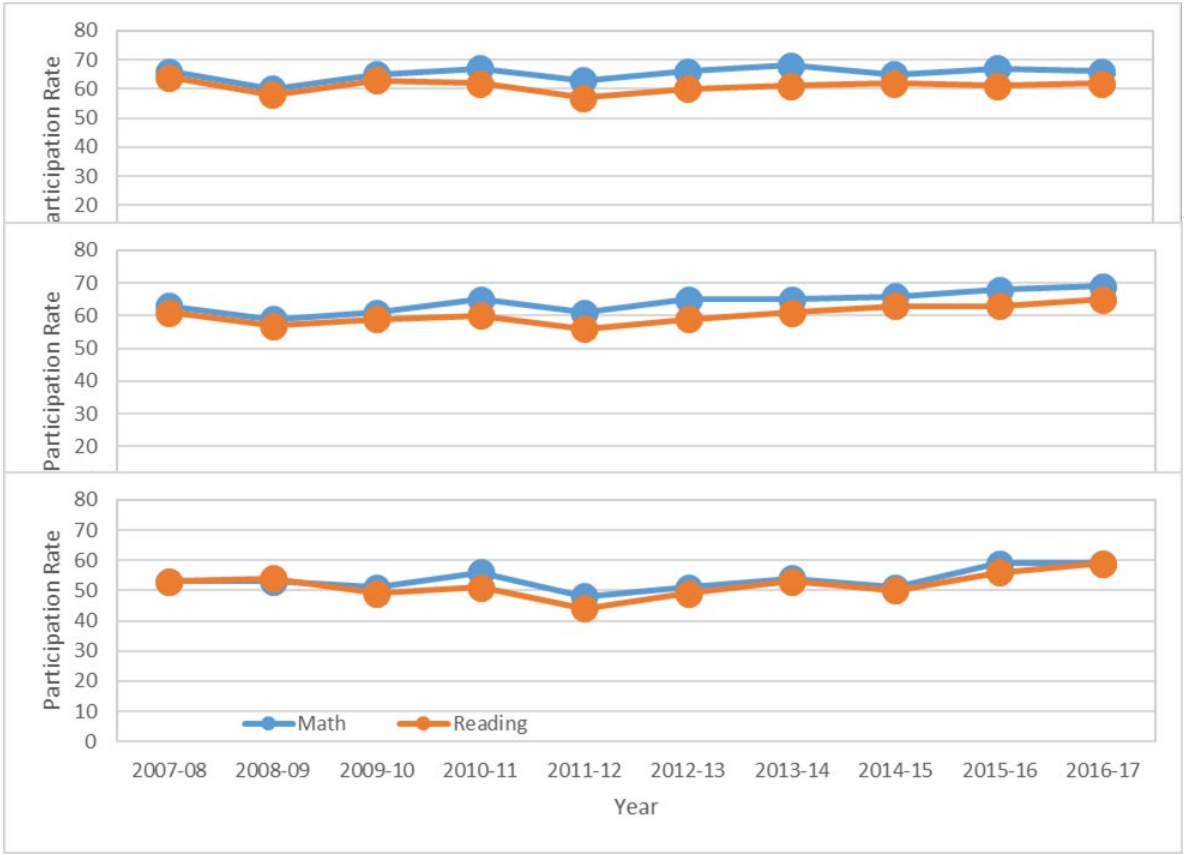
Results—Accommodations (Similarity)

Figure 23. Percentage of students with IEPs assigned accommodations for both reading and math at **grade 4**

Figure 24. Percentage of students with IEPs assigned accommodations for both reading and math at **grade 8**

Figure 25. Percentage of students with IEPs assigned accommodations for both reading and math **high school**

n.s



Conclusion—Participation

- Regular
  - Grade effect: HS lower the other grades
  - Year effect: Quite stable from 2007-08 to 2013-14
- AA-AAS
  - Grade effect: HS higher than other grades for Math, not for Reading
  - Year effect: n.s. for math; Quite stable from 2009-10 to 2011-12 for reading
- Similarity
  - Regular: HS was higher for reading than math, compared to other grades
  - AA-AAS: opposite

Conclusion—Performance

- Regular assessment
  - In earlier grades, higher proficiency rates for math than reading
  - As grade level increase, higher proficiency rates for reading than math
  - The proficiency rates are gradually dropping over time
- AA-AAS
  - Quite stable over time and across grade levels
  - Performance is similar between reading and math

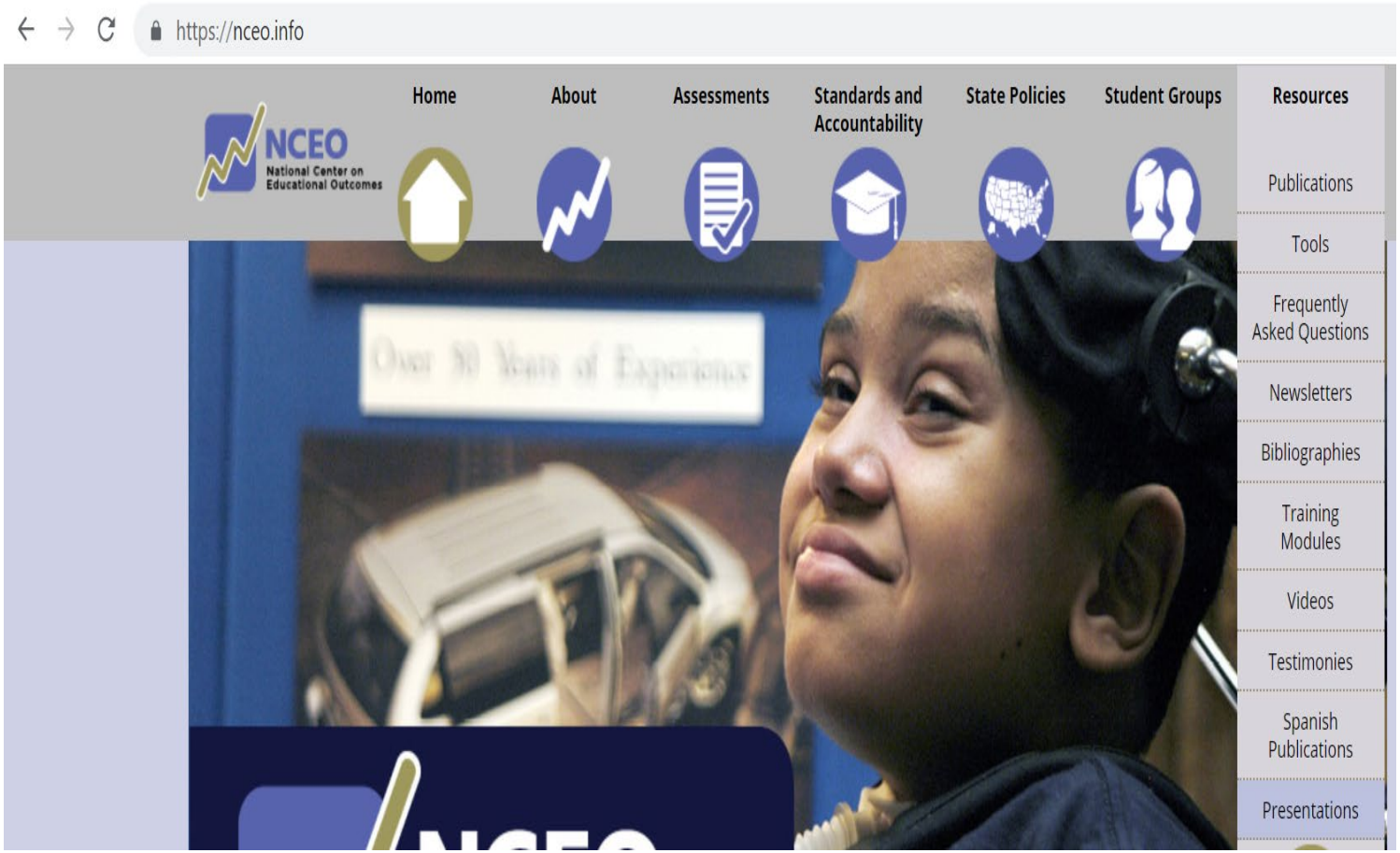
Conclusion—Accommodations

- Grade effect
  - M: HS < G4-8
  - R : HS < G5-6
- Year effect
  - Stable over time
- Similarity
  - No content difference

Limitation

- Only 13 states
- No student-level data, so cannot monitor the micro change on accommodations and student characteristics

NCEO website



APR Snapshot & Data analytic report

- **APR Snapshot (https://nceo.info/Resources/publications/APRsnapshot/brief16/index.html)**
  - 2015-2016 APR Snapshot #16:
  - State Assessment Participation and Performance of Students Receiving Special Education Services
  - 2015-2016 APR Snapshot #17:
  - Students in Special Education Receiving Assessment Accommodations
  - 2015-2016 APR Snapshot #18:
  - AA-AAS Participation and Performance
- **Data analytic report starting 2013-14 (https://tableau.ahc.umn.edu/t/ICI/views/DASnapshot10February20172_20version/Story1?:isGuestRedirectFromVizportal=y&:embed=y&:usingOldHashUrl=true)**
  - **State profile**