



# School and District Performance Index Computational Guide



## File preparation

Information from the following Connecticut Mastery Test (CMT), Connecticut Academic Performance Test (CAPT), Modified Assessment System (MAS) and Skills Checklist (SKCK) files is needed to calculate performance indexes for any single year (Y).

- Year Y CMT and CAPT data files
  - These files contain current demographic data and student achievement data
- Year (Y-1) and (Y-2) CMT and CAPT files
  - These files allow for the identification of the students who will be classified in the English language learner (ELL) and the students with disabilities (SWD) flexibility groups
  - As part of the No Child Left Behind Act (NCLB), students who do not belong to the ELL or SWD group in Year Y but who are in the same district during Year (Y-1) or Year (Y-2) and had been members of the ELL or SWD group in either Year (Y-1) or Year (Y-2) are reacquired for those subgroups in Year Y as members of the ELL flexibility group or the SWD flexibility group.
- Year Y MAS and SKCK Files for CMT and CAPT (4 files total)
- Indexes are calculated separately for CAPT and CMT. Indexes for the CMT are calculated across all tested grades in the district or school.

### Scale transformation:

Achievement levels in each subject are transformed from the 1 - 5 scale on the standard tests to the 0 - 100 Subject Individual Performance Index (Subject IPI) scale using the following conversion chart:

Achievement Level (CMT / CAPT)	Subject IPI
Goal (4) and Advanced (5)	100
Proficient (3)	67
Basic (2)	33
Below Basic (1)	0

Achievement levels in each tested subject on the MAS and SKCK are transformed from the 1 - 3 scale to the 0 - 100 scale using the following conversion chart:

Achievement Level		Subject IPI
MAS	SKCK	
Goal (3)	Independent (3)	100
Proficient (2)	Proficient (2)	50
Basic (1)	Basic (1)	0

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## Demographic classifications

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There are five accountability demographic subgroup classifications: 1) students with disabilities (SWD), 2) English language learners (ELL), 3) Black students, 4) Hispanic students and 5) students who are eligible for free or reduced price lunch. Of these, SWD and ELL groups continue to have the NCLB flexibility provision with respect to exited students who have been in the district for one or two years. For example, if a student had exited from the ELL group two years prior and is still a student in the same district, then that student's achievement and participation on a test is included among the current ELL students.

In addition to these five subgroups, there is a consideration for members of an amalgam of subgroups that comprise the 'High Needs' group. A student is a member of the High Needs group if that student is a member of any of the following subgroups: students with disabilities, English language learners or students who are eligible for free or reduced price lunch.

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## Group size

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The minimum number of students needed to calculate an index is 20. Index scores will not be calculated for groups and subgroups comprised of fewer than 20 students.

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## The '3% rule' for MAS and SKCK

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This rule was a federal requirement under NCLB which was carried over to be a requirement of approved waiver accountability systems. Whereas this rule was applied to the percentage of students using the MAS and SKCK who could achieve at the 'proficient' level under NCLB, it now applies to the percentage of students who can achieve at the 'goal' level on the MAS and SKCK.

The initial limit is that no more than 3% of students can score at the 'goal' level on the MAS and SKCK combined. The two compensatory limits are 2% for the MAS and 1% for the SKCK. When an overage occurs, the number of tests in excess of 3% on the MAS and SKCK are changed from a Subject IPI of 100 to a Subject IPI of 0 in ascending order of SASID.

The '3% rule' applies to Mathematics and Reading. There is no MAS for Writing or Science. The 1% rule for SKCK is applied for Writing (Communication subtest) and Science on the SKCK.

Each MAS and SKCK test taker is counted toward participation. The achievement scores for each valid SKCK test are counted toward a School Performance Index (SPI), a District Performance Index (DPI) and the Connecticut Performance Index (CPI). The achievement scores for each valid Mathematics and Reading MAS test are counted toward the SPI, DPI and CPI. If a student who participated on MAS took the standard Writing or the standard Science test, they are counted for participation, but because there is not opportunity to take a modified writing or modified science test, the scores on these standard versions of these tests are not counted in the achievement calculation.

### Who is initially included?

- SPI: Students who have been in the school since October 1
- DPI: Students who have been in the district since October 1
  - Includes the since-Oct 1 outplaced students
  - Includes the since-Oct 1 Program students

### Absent

- Students who are absent from a test are ...
  - Not included in the achievement calculation
  - Included in the participation calculation as non-participants (in the denominator, but not the numerator)

### SWD flexibility

Enrollment in Special Education (has an IEP) is an indicator that is collected as part of the testing file. Students currently enrolled as Special Education students and students who had been enrolled as Special Education as indicated on the testing files from either of the two previous years in the same district are included as members of the 'students with disabilities' subgroup.

### ELL flexibility

Enrollment as an ELL is an indicator that is collected as part of the testing file. Students currently enrolled as ELL students and students who had been enrolled as ELL students as indicated on the testing files from either of the two previous years in the same district are included as members of the ELL subgroup.

### ELL exempt

- ELL exempt students who take the Mathematics test are ...
  - Not included in the achievement calculation in Mathematics
  - Included as part of the participation calculation in Mathematics as participants
  - This exemption is applied to the Reading, Writing, and Science tests

### Medically exempt

- Students who are medically exempt for a subject test are ...
  - Not included in an achievement calculation
  - Not included in the participation calculation

### **Left blank**

- 'Left blank' is a designation given by a proctor (i.e., marked on the physical test form) who administers a subject test to a student.
- 'Left blank' subject tests are ...
  - Included in the achievement calculation as 'below basic'
  - Included as participants

### **Void**

- Tests are voided when something unexpected happens. There are very few of these (< 5 a year)
- Students who have a subject test that is voided are ...
  - Not included in the achievement calculation
  - Included in the participation calculation

### **Non-scorable**

- 'Non-scorable' is a designation given by the scoring center professionals about a subject test.
- A valid inference about an achievement level in that subject cannot be made
- 'Non-scorable' subject tests are ...
  - Not included in the achievement calculation
  - Included as participants

### **Moved out of state**

- This is indicated by subject test.
- Students who leave the state are ...
  - Not included in an achievement calculation
  - Not included in the participation calculation

### **Repeaters**

- Students who repeat grades 3 - 8 or 10 are...
  - included the achievement calculation
  - Included in the participation calculation

### **Re-testers**

- Grade 11 or 12 CAPT re-testers are ...
  - Not included in the achievement calculation
  - Not included in the participation calculation

## **Withdrawn from school**

- Grade 10 students who were indicated as ‘withdrawn’ for the administration of a subject test are ...
  - Not included in the achievement calculation
  - Not included in the participation calculation

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## **Index calculations**

A Student Individual Performance Index (Student IPI) is calculated by averaging all of a given student’s valid and non-excluded Subject IPIs. Note that a student’s IPI may be the average of one, two, three or four tests, depending upon which tests are valid and not excluded.

A School Performance Index (SPI) is calculated by averaging all of a given school’s valid and non-excluded Student IPIs.

A District Performance Index (DPI) is calculated by averaging all of a given district’s valid and non-excluded Student IPIs. Note that students who are enrolled in ‘Programs’ or are outplaced are included in a given district’s DPI.

Subject-level indexes may also be calculated for schools. A Subject School Performance Index (Subject SPI) is calculated by averaging all valid and non-excluded Student IPIs for a given subject, for a given school (e.g., Mathematics SPI or Reading SPI).

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## **Participation calculation**

- Subject participation (of participation-included students) is the ratio of non-absent to total.
- SPI and DPI participation rates (of participation-included students) are the ratio of the number of students with at least one valid test score to total.
- SPI and DPI participation rates are higher than subject participation rates.

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## **Target calculation**

The State’s ultimate target for schools is 88 SPI points on the 0-100 index scale. This target was established because at this value the majority of students will have performed at the ‘goal’ level (i.e., IPI of 100).

To determine school-level targets, the CSDE first calculated school-level baselines. Baselines are the mean of 2009-2010, 2010-2011, and 2011-2012 SPIs. In instances where schools did not have three years of data, the CSDE used as much as was available.

Schools with baselines greater than or equal to 88 must maintain an SPI greater than or equal to 88. Schools with baselines less than 88 must progress 1/12th the distance from their baselines to 88 each

year or alternatively stated, they must progress half the distance from their baselines to 88 in six years (2018). For example, if School B's baseline is 76, its distance to 88 is 12 SPI points; therefore, School B's target for 2012-2013 is 77 or a rate of 1 additional SPI point per year.

If a school's baseline is less than 52, its annual target rate exceeds 3 SPI points. Using historical data, the CSDE determined that rates above 3 SPI points per year were very difficult to achieve; consequently, the CSDE caps target rates at 3. For example, if School C's baseline is 40, its distance to 88 is 48 SPI points. If the target rate cap did not exist, School C's target for 2012-2013 would be 44. Because of the cap, School C's target is actually 43.