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# The MCAS Growth Model

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Presentation to the School Committee

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# What is growth?

- MCAS scores measure achievement relative to state standards (Is this student proficient in math?)
  - Growth measures changes in performance over time (How much did this student improve in math since the last test? Did the student improve more or less than her peers?)
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# Why measure growth?

- It measures performance for all students at all performance levels.
  - It provides evidence of improvement even among low-achieving students.
  - It gives high-achieving students and schools a goal beyond proficiency.
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# How can we use growth data?

- We can identify strengths and weaknesses in student performance.
  - We can target assistance.
  - We can conduct program evaluations.
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# What are student growth percentiles?

- Each student's growth is compared to other students who have a similar test history (academic peers).
  - The rate of change is expressed as a percentile.
  - If a student growth score is 65, it means she grew more than 65% of her academic peers.
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# Interpreting student growth

- Growth scores of 40-59 are typical.
  - Scores below 40 show low growth.
  - Scores above 60 show high growth.
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# Key concepts about growth

- Growth is different from achievement.
  - Students are compared only to academic peers, not to all other students.
  - All students can potentially grow from 1<sup>st</sup> to 99<sup>th</sup> percentile.
  - Growth is defined by subject, grade, and year.
  - Growth is measured by change in achievement.
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# Group-level growth data

- Growth scores are reported by district, school, grade, subgroup, and classroom.
  - The goal is both high achievement and high growth.
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# Medway's Growth Data: Grade 4

Grade/Subject	% Adv	% Prof	% NI	% Warn	CPI	SGP
Gr. 4 ELA	14	53	29	3	89.0	44
Gr. 4 Math	19	38	40	3	86.7	44

# Medway's Growth Data: Grade 5

Grade/Subject	% Adv	% Prof	% NI	% Warn	CPI	SGP
Gr. 5 ELA	20	57	19	4	91.6	54.5
Gr. 5 Math	18	34	34	14	78.3	37

# Medway's Growth Data: Grade 6

Grade/Subject	% Adv	% Prof	% NI	% Warn	CPI	SGP
Gr. 6 ELA	31	51	13	4	93.8	57
Gr. 6 Math	43	33	16	8	90.7	69

# Medway's Growth Data: Grade 7

Grade/Subject	% Adv	% Prof	% NI	% Warn	CPI	SGP
Gr. 7 ELA	11	69	19	1	93.5	45
Gr. 7 Math	17	39	36	8	80.8	57

# Medway's Growth Data: Grade 8

Grade/Subject	% Adv	% Prof	% NI	% Warn	CPI	SGP
Gr. 8 ELA	15	72	10	3	94.4	55
Gr. 8 Math	28	38	25	9	84.3	59

# Medway's Growth Data: Grade 10

Grade/Subject	% Adv	% Prof	% NI	% Warn	CPI	SGP
Gr. 10 ELA	48	49	2	0	99	69
Gr.10 Math	65	23	11	1	95.1	56

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# Conclusions/Next Steps

- In most areas, Medway students showed average to high-average growth.
  - Sub-group performance showed lower growth for students with disabilities.
  - Areas of concern include grade 4 ELA (44), Math (44), Grade 5 Math (37), and Grade 7 ELA (45).
  - Areas of strength include Grade 6 Math (69), Grade 8 Math (59), and Grade 10 ELA (69).
  - A team from the district is being trained in Data Warehouse to facilitate analysis of these scores.
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