



# Class-Size Guideline Subcommittee Presentation and Recommendations

Presented to:

Boxborough School Committee

March 10, 2011

# Subcommittee Members

- Curtis Bates, Superintendent/Principal/Curriculum Dir
- Mary Brolin, Chair, Boxborough School Committee
- Christine Doucette, Parent Representative
- Patricia Harris, Teacher Representative
- Susan Kenyon, Parent Representative
- Kate McMillan, Teacher Representative
- Maria Neyland, Boxborough School Committee
- Tina Stevens, Clerk, Boxborough School Committee



# Our Purpose:

- Make recommendations regarding class size guidelines for Boxborough School District
- Update class size projections through the 2015/2016 school year

# Background

- Declining enrollment
- 5-year strategic plan
- Reductions in classes
- Tight budgets and economic downturn
- Varying concerns within Blanchard and Boxborough communities

# Process

- Review literature on optimal class sizes
- Conduct parent survey for input
- Conduct teacher/staff survey for input
- Gather data on policies/procedures in other MA school districts
- Review 2007 Lincoln report
- Review literature on strategies to work with various class sizes
- Update five-year enrollment projections

# Findings: Class Size Literature

- Smaller (<18) & medium (18-24) class sizes are better than larger (25+) class sizes
  - Tennessee/Wisconsin studies showed academic achievement higher for K & 1 for smaller vs larger classrooms
  - Effects larger for disadvantaged students
  - Ready & Lee (2006/2007) demonstrate medium sizes also beneficial; only exception is 1<sup>st</sup> grade literacy, where smaller classes prevailed



# Findings: Class Size Literature

- Quality of the teachers more important
- Small/Medium beneficial only if instruction in classroom & interaction with child/family changes
- Community must be willing to make trade offs
- Studies suggest that smaller classes are not cost effective

# Findings: Parent Survey

- Over 200 parents (out of 344 families) responded; all grades represented with greatest number in 2<sup>nd</sup> and 5<sup>th</sup> grades
- Highest satisfaction in K, 1<sup>st</sup>, 5<sup>th</sup>, 6<sup>th</sup> grades, corresponding to lowest class sizes
- Lowest satisfaction/highest concern in 2<sup>nd</sup>, 3<sup>rd</sup>, 4<sup>th</sup> grades, corresponding to highest class sizes



# Findings: Parent Survey

## Satisfaction by Grade

Grade	2010-2011 class sizes (as of 1/1/11)	Completely or Mostly Satisfied	Concerned or Dissatisfied
Kindergarten	3 classes of 17	87.5 %	12.5 %
First	3 classes of 18	88.3 %	11.7 %
Second	3 classes of 22-23	65.4 %	34.6 %
Third	3 classes of 22-23	61.0 %	39.0 %
Fourth	3 classes of 23-24	32.5 %	67.5 %
Fifth	4 classes of 20-21	84.9 %	15.1 %
Sixth	4 classes of 17-20	97.1 %	2.9 %

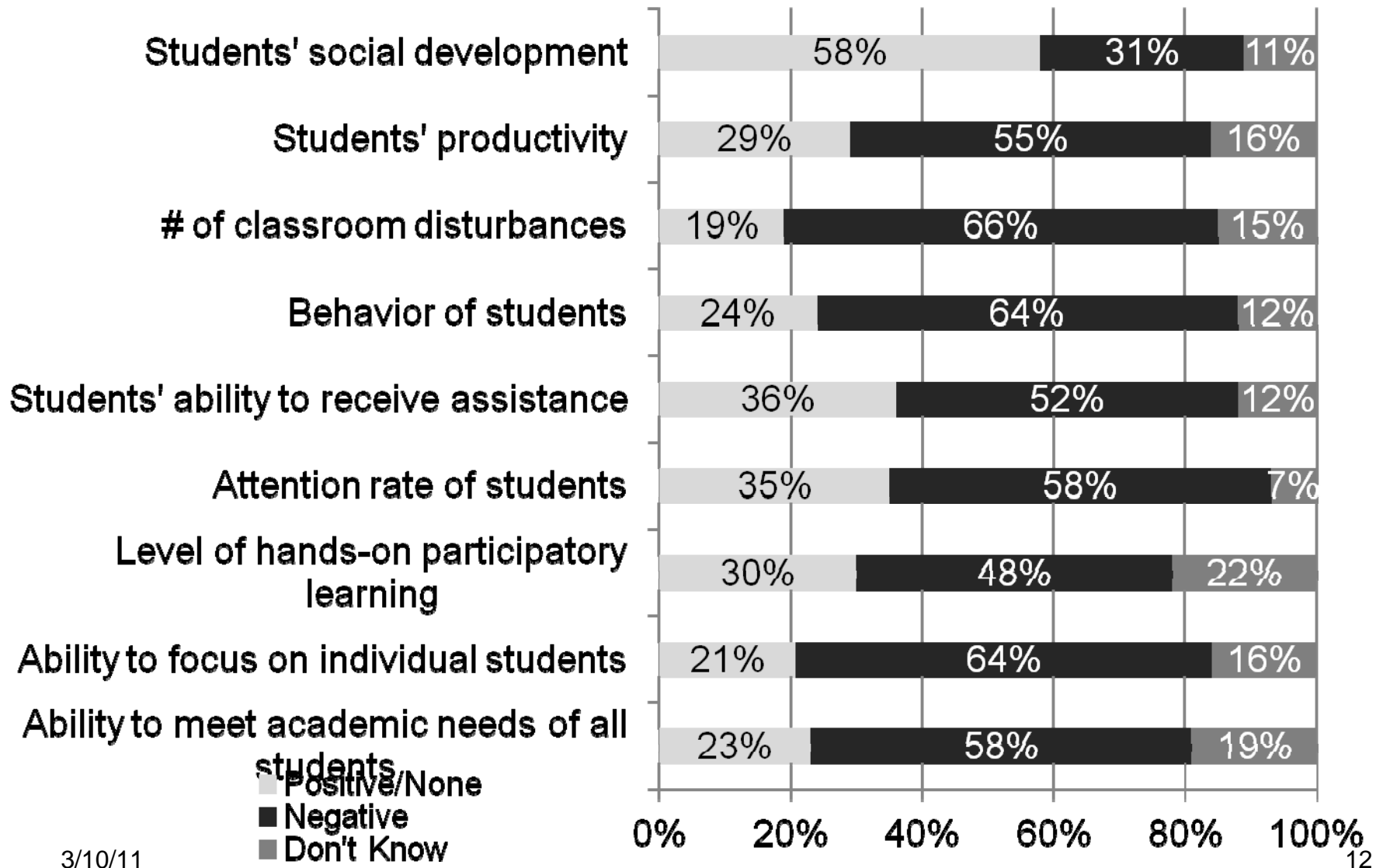
# Findings: Parent Survey

- Those who were satisfied with class size attributed their satisfaction to:
  - Adequate individualized attention
  - Teacher expertise
  - Right “mix” of kids, so numbers not a problem
  - “Reasonable numbers” (17-22) – would feel differently with increased numbers

# Findings: Parent Survey

- Those who were dissatisfied with class size included:
  - Inadequate individualized attention
  - Challenge for teachers to meet needs of *every* learner at *all* levels
  - Perceptions that less content was covered
  - Student behavior/classroom management a challenge

# Parents' Anticipated Impacts of Larger Classes



# Findings: Parent Survey

- 101 parents offered additional comments or suggestions to the School Committee. Multiple suggestions focused on the following:
  - Utilize parent volunteers, donated goods & services more effectively
  - Community, Board of Selectmen and School Committee should place highest priority on school quality – tax & allocate funds as needed
  - Increase number of qualified classroom aides
  - Explore structural/administrative options such as regionalization, unionization, alternative class groupings etc. as savings measures



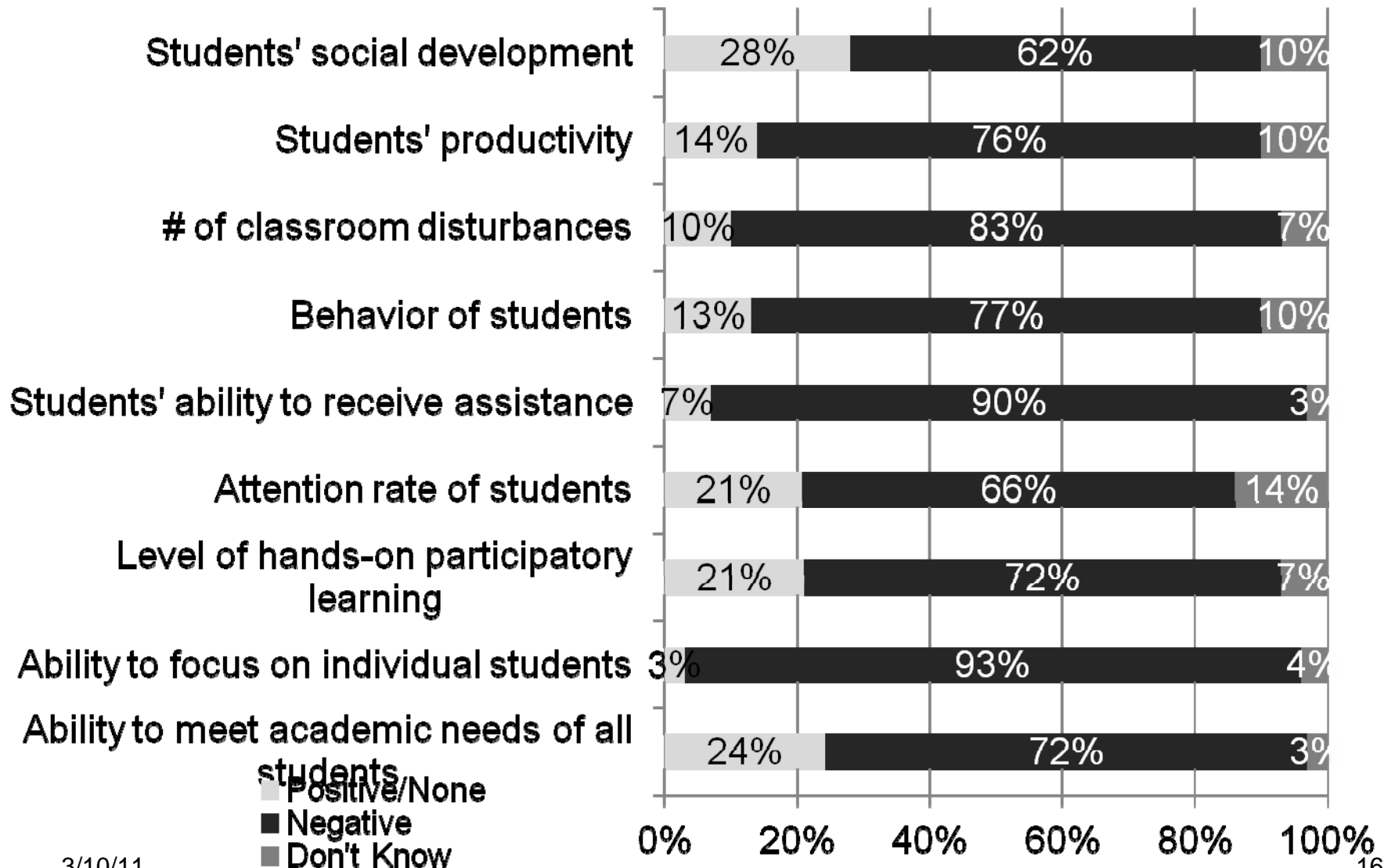
# Findings: Teacher Survey

- 29 teachers/staff responded, representing all grades and subject areas
- Teachers definitely expressed a concern about larger class sizes, particularly in the primary grades (K-3)
- Although concerned about academics, they stressed that class size matters more when there are more students with behavioral issues and diverse educational needs

# Findings: Teacher Survey

- Teachers who had experienced large classes in the past noted:
  - Less individual attention
  - Changes in classroom dynamics
  - Challenges dealing with behavioral issues and diverse educational needs
  - Difficulties consistently scheduling and managing volunteers
  - Benefits of classroom Aides

# Teachers' Anticipated Impacts of Larger Classes





# Findings: Teacher Survey

- Teachers anticipated that job satisfaction would remain fairly consistent despite small changes in class sizes
- Three out of four (77%) found Aides to be beneficial, especially for:
  - Individual/Small group instruction
  - Lower grades (K-2)

# Findings: Teacher Survey

- For larger classes, teachers recommended:
  - Having Aides available
  - Grouping students across teachers for math and maybe reading (Response to Intervention)
  - Peer-to-peer sharing on ways to work more efficiently
  - Using volunteers creatively
  - Differentiating instruction

# Findings: Teacher Survey

- Teachers identified the following essential skills students must learn at home and school:
  - Behavioral needs must be addressed as early as possible
  - Students should learn developmentally appropriate classroom behaviors and social skills
  - Students need to be prepared in foundations of reading, writing and math

# Findings: Other School Districts

- 46 districts on listserv responded to type of class size requirements\*
  - 36% have written guidelines
  - 17% set class limits in teachers' contracts
  - 15% have policies (e.g., smaller in lower grades)
  - 15% have no written guidelines
  - 17% did not indicate

\* Responses not necessarily representative, 46 responders may differ from total group

# Findings: Other School Districts

Grade	K	1 <sup>st</sup> -2 <sup>nd</sup>	3 <sup>rd</sup>	4 <sup>th</sup>	5 <sup>th</sup> -6 <sup>th</sup>
Boxborough	20	22	22	24	24
% Below	26%	37%	21%	35%	18%
% Same	28%	28%	20%	24%	28%
% Above	31%	20%	39%	21%	28%
% No Guidelines	15%	15%	20%	20%	24%
% NA	--	--	--	--	2%

# Findings: Lincoln 2007 Report

- Following a similar process, the Lincoln study committee recommended:
  - Reducing class sizes from 22 to 20 in 1<sup>st</sup> grade
  - Reducing class sizes from 24 to 22 in 3<sup>rd</sup> & 4<sup>th</sup> grades
- Additional cost estimated at \$100,000
- Lincoln reports that they struggle to not exceed these maximum guidelines

# Findings: Class Room Strategies

Strategies characterized as good practices regardless of class size

- Adapt physical space
  - Have less furniture and excess materials
  - Find creative storage solutions
- Encourage teacher/staff support
  - Hold positive views & use creative approaches
  - Use volunteers, student buddy system
  - Increase collaboration
  - Use professional development

# Findings: Class Room Strategies

- Change daily routine
  - Teachers circulate around classroom more
  - Use more group work, varied instruction
  - Use student “experts”
- Modify student evaluation/assessment
  - Involve students more/self-assessment (older)
  - Use more frequent, shorter assessments
  - Use peer evaluation of group work
  - Use alternative assessments (e.g., “ticket to leave”)



# Findings: Enrollment Projections

**FIVE YEAR ENROLLMENT PROJECTIONS  
BLANCHARD MEMORIAL SCHOOL  
(Rev. 2/11/11)**

Grade	2008-09 (as of 6/1/09)		2009-10 (as of 5/1/10)		2010-11 (as of 2/1/11)		2011-12		2012-13		2013-14		2014-15		2015-16	
	# of students	# of classes	# of students	# of classes	# of students	# of classes	# of students	# of classes	# of students	# of classes	# of students	# of classes	# of students	# of classes	# of students	# of classes
<b>K</b>	59 (2C)	3 @ 19-20	48 (1C) 64 57 (Cen)	3@16	50 (1C) 49 43 (Cen)	3@16-17	44 (1C) 51 42 (Cen)	3@14-15	X 54 31 (Cen)	3@17-18	X 40 (38 Cen)	2@20 or 3@13-14	X 38 29 (Cen)	2@19 or 3@12-13	X 41 35 (Cen)	2@20-21 or 3@13-14
<b>1</b>	63 (7C)	4 @ 15-16	67 (2C) 61	3@22-23	54 (1C) 55 47 (Cen)	3@18	50 (1C) 53 43 (Cen)	3@16-17	44 (1C) 54 42 (Cen)	3@14-15	X 58 (31 Cen)	3@19-20	X 43 38 (Cen)	2@20 or 3@14-15	X 41 29 (Cen)	2@20-21 or 3@13-14
<b>2</b>	73 (3C)	4 @ 18-19	64 (7C) 60	3@21-22	67 (2C) 68 45 (Cen)	3@22-23	54 (1C) 60 47 (Cen)	3@18	50 (1C) 57 43 (Cen)	3@16-17	44 (1C) 59 (42 Cen)	3@14-15	X 63 31 (Cen)	3@21	X 47 38 (Cen)	3@15-16
<b>3</b>	78 (7C)	4 @ 19-20	69 (3C) 73	4@17-18	67 (7C) 68 55 (Cen)	3@22-23	67 (2C) 67 45 (Cen)	3@22-23	54 (1C) 60 47 (Cen)	3@18	50 (1C) 57 43 (Cen)	3@16-17	44 (1C) 59 42 (Cen)	3@14-15	X 62 31 (Cen)	3@20-21
<b>4</b>	77 (5C)	4 @ 19-20	80 (7C) 69	4@20	70 (3C) 71 63 (Cen)	3@23-24	67 (7C) 70 55 (Cen)	3@22-23	67 (2C) 70 45 (Cen)	3@22-23	54 (1C) 61 (47 Cen)	3@18	50 (1C) 59 43 (Cen)	3@16-17	44 (1C) 61 42 (Cen)	3@14-15
<b>5</b>	78 (6C)	4 @ 19-20	78 (5C) 73	4@19-20	82 (7C) 80 65 (Cen)	4@20-21	70 (3C) 74 63 (Cen)	4@17-18 or 3@23-24	67 (7C) 73 55 (Cen)	3@22-23	67 (2C) 72 45 (Cen)	3@22-23	54 (1C) 64 47 (Cen)	3@18	50 (1C) 61 43 (Cen)	3@16-17
<b>6</b>	80 (2C)	4 @ 20	78 (6C) 74	4@19-20	76 (5C) 75 68 (Cen)	4@19	82 (7C) 80 65 (Cen)	4@20-21	70 (3C) 74 63 (Cen)	4@17-18 or 3@23-24	67 (7C) 73 55 (Cen)	3@22-23	67 (2C) 72 45 (Cen)	3@22-23	54 (1C) 64 47 (Cen)	3@18
<b>Total Classes</b>		27		25		23		22-23		21-22		20-21		19-21		19-21
<b>Total Students</b>	508		484		466		434 (est.)		406 (est.)		404 (est.)		382 (est.)		339 (est.)	

Note: Class Size Guidelines: K=20; 1-3=22; 4-6=24

**Blue Numbers** – based on Peter Ashton’s Enrollment Projections: December 2010 report

**Red Numbers** – based on Real Numbers: February 1, 2011 report

**Yellow Numbers** – based on Census: December 2010

**(C)** – Choice Students

Total Number of Students Does Not Include Integrated Preschool (20)

# Recommendations

- Change guidelines so that 1<sup>st</sup> and 4<sup>th</sup> grades regrouped
  - Recommended:  
K-1<sup>st</sup> – 20      2<sup>nd</sup>-4<sup>th</sup> – 22      5<sup>th</sup>-6<sup>th</sup> – 24
  - Current:  
K – 20      1<sup>st</sup>-3<sup>rd</sup> – 22      4<sup>th</sup>-6<sup>th</sup> – 24
- Consider staffing to best address behavioral needs of students

# Recommendations

- Continue to use classroom Aides strategically
- Support professional development on creative strategies for managing various class sizes
- Share parent education resources on classroom and home strategies working with children/students with behavioral concerns



# Recommendations

- Adopt the updated enrollment projections through school year 2015/2016 stated herein
- Continue to monitor trends and update the projections as needed



# Questions?