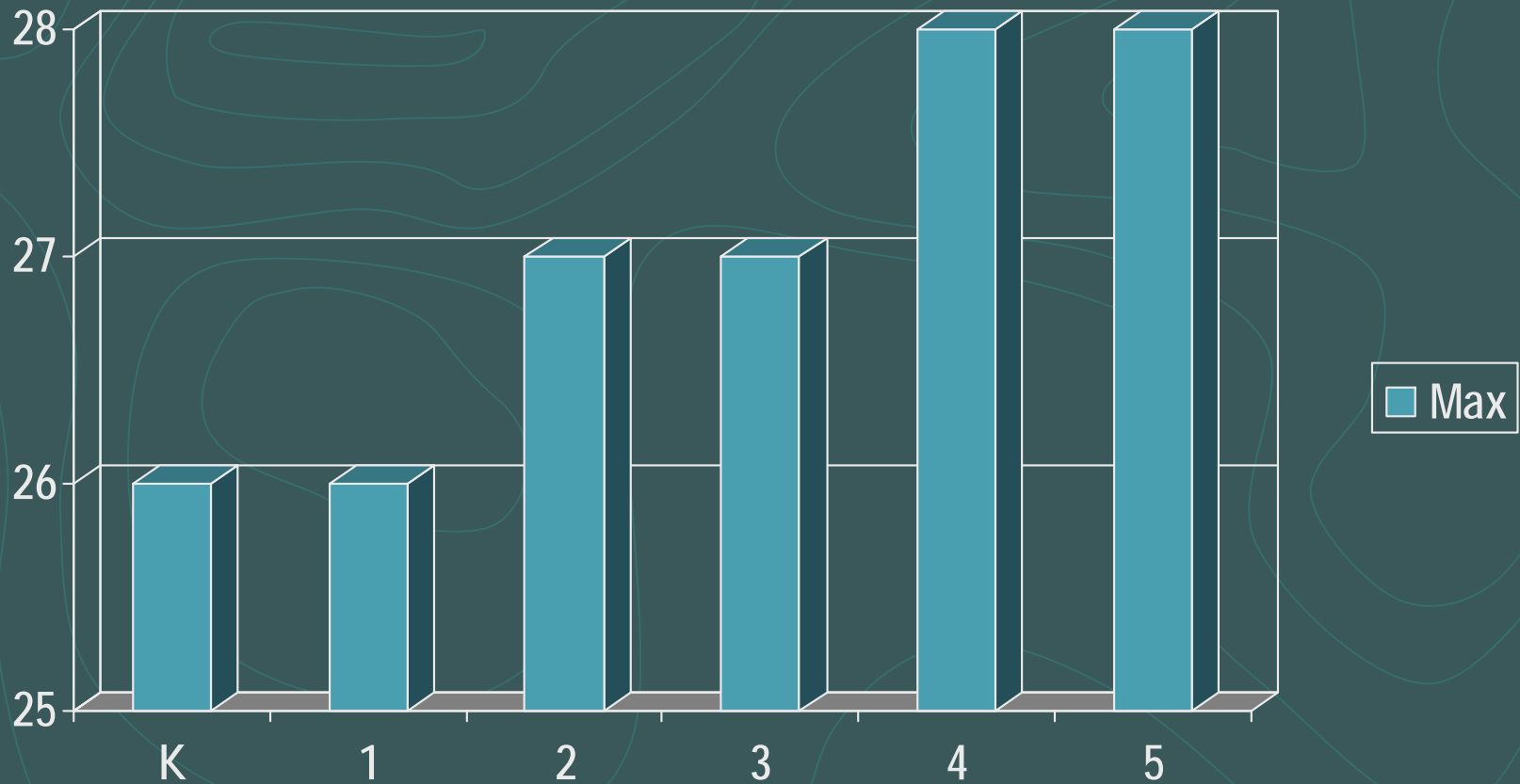




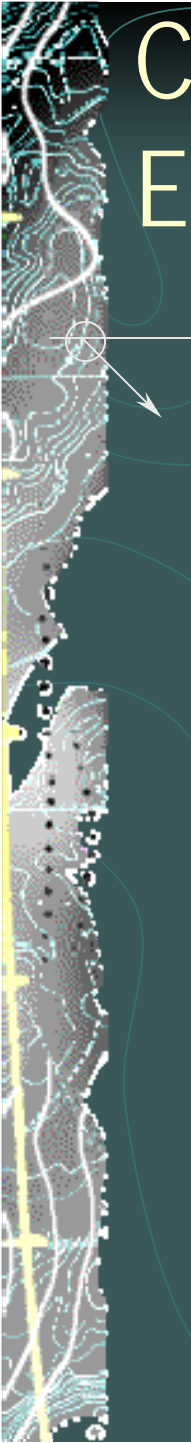
# Sizing Up Classes in Royal Oak Schools

Cheryl Goodgine,  
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June 11, 2009

# Maximum Elementary Class Size: Royal Oak

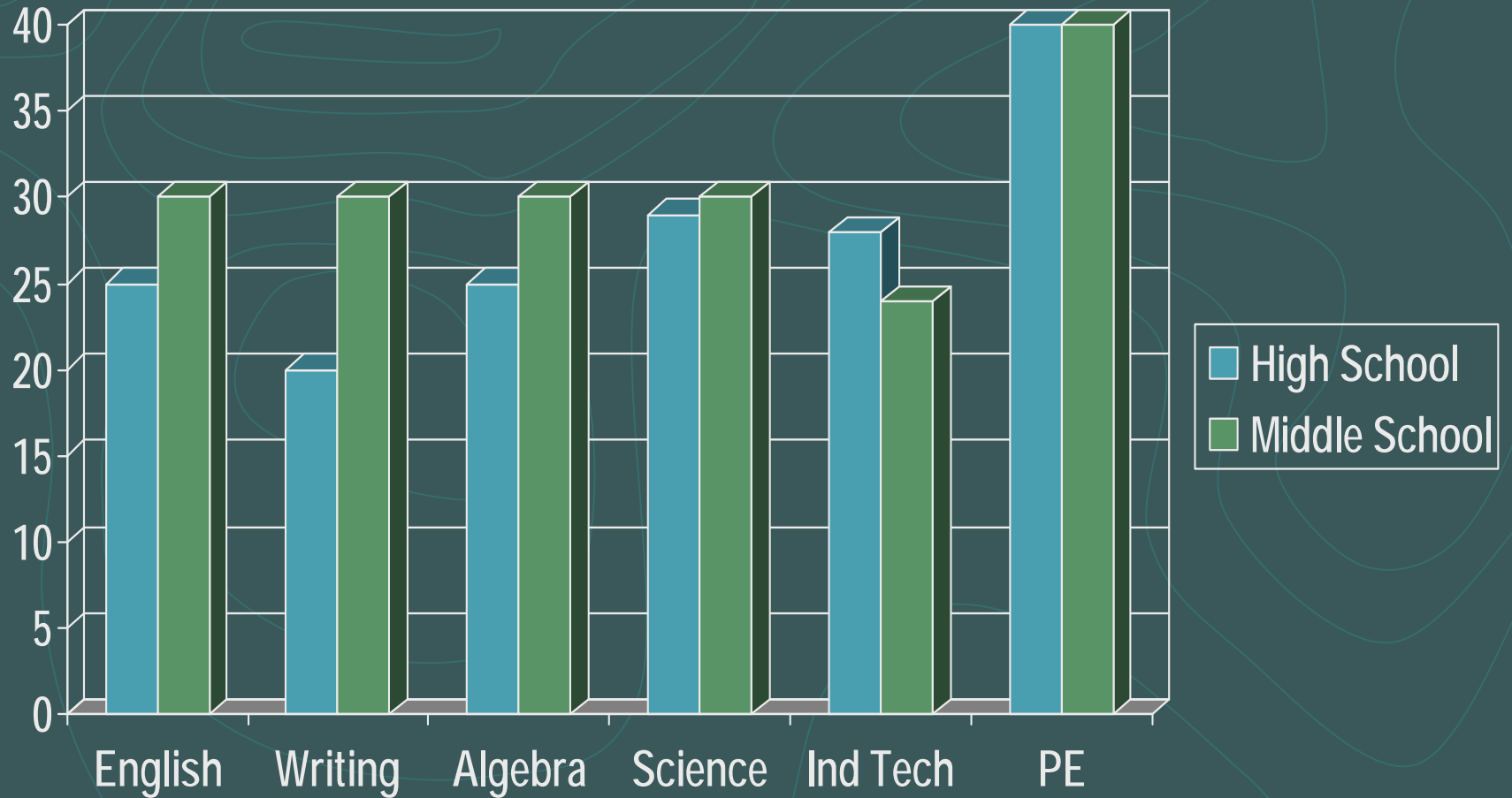


# Comparison of Maximum Elementary Class Size: Oakland County



	K	1	2	3	4	5
Royal Oak	26	26	27	27	28	28
Berkley	31	31	31	33	33	33
Birmingham	28	28	29	30	31	31
Bloomfield	26	26	28	28	29	29
Clawson	33	33	33	33	33	33
Rochester	27	30	30	30	34	34
Troy	27	28	28	29	29	29


# Maximum Secondary Class Size: Royal Oak



# Comparison of Maximum Secondary Class Size: Oakland County

	Middle School	Exceptions	High School	Exceptions
Royal Oak	30	PE 40 Life Mgmt. 24 Ind. Tech 24	30	PE 40 English 20-25 Ind. Tech 16-28
Berkley	34		34	
Birmingham	35	PE 47	35	PE 47
Bloomfield	30	PE 45	30	PE 45
Clawson	32	PE 45	33	PE 45
Rochester	34	PE 40	35	PE 40 English 28
Troy	30		30	

# Sizing Up the Research

- 
- Inconclusive evidence consistently linking smaller class size to improved student performance

EXCEPT for.....

- Primary-aged, economically disadvantaged students

# Sizing Up the Research

## Student Teacher Achievement Ratio (STAR) Project

- 4 year study of the effect of small class sizes on student performance
- Over 6,000 students in 79 schools

### Results showed :

- Improved performance only in early grades (K-3)
- Improvement from 50<sup>th</sup> to 60<sup>th</sup> percentile on standardized testing
- Improved performance only when class size was smaller than 17
- No evidence of performance change in class sizes between 17-35
- Performance persisted after returning to classes larger than 17
- Primary aged, economically disadvantaged students made twice the gains as peers
- No evidence of any significant gains with a poor teacher or sub-standard curriculum

# Sizing Up the Research

- Inspired by STAR, California enacted massive class size reduction effort (1996)
  - Legislated reduction from 28 to 20 students
  - No evidence of improved performance
- Penn State University, 1999 International Class Size Study
  - Effects of class size on achievement internationally
  - Students in Australia, Flemish Belgium, Japan and France did significantly better in LARGER classes
  - Class size had NO effect on students in Canada, Germany, Iceland, South Korea and Singapore

# Sizing Up the Research

- Impact of School, Teacher, and Leadership on Student Achievement, Robert Marzano, 2003
- The single greatest indicator of student success is Teacher Quality
- The effectiveness of the Teacher has more impact on learning, improved performance and classroom environment than any other single factor
- Effectiveness of Teacher
  - Hiring quality staff
  - Providing coherent, meaningful Professional Development
  - Communicating a focused vision of continuous improvement




# The Cost of Smaller Class Size

- Hiring additional teachers
- Adding additional classrooms
- Need for additional building capacity
- Sacrifice in other areas of school environment

# Estimated Cost of Decrease (1) in Class Size: 2008-09

	2008-09 Sections	Compensation Costs (estimate)	Sections, with Decrease of (1) in Class Size	Additional Cost
K	11.5	1,150,000.	12	50,000.
1	17	1,700,000.	17	---
2	13	1,300,000.	15	200,000.
3	14	1,400,000.	15	100,000.
4	15	1,500,000.	16	100,000.
5	12	1,200,000.	14	200,000.

# Estimated Cost of Decrease (2) in Class Size: 2008-09



	2008-09 Sections	Compensation Cost (estimate)	Sections, with Decrease of (2) in Class Size	Additional Cost
K	11.5	1,150,000.	12	50,000.
1	17	1,700,000.	18	100,000.
2	13	1,300,000.	16	300,000.
3	14	1,400,000.	15	100,000.
4	15	1,500,000.	16	100,000.
5	12	1,200,000.	15	300,000

# Estimated Additional Cost of Decrease in Class Size: 2008-09



	Decrease by 1	Decrease by 2
K	50,000.	50,000.
1	---	100,000.
2	200,000.	300,000.
3	100,000.	100,000.
4	100,000.	100,000.
5	200,000.	300,000
Total	(650,000.)	(950,000.)

# Estimated Savings in Increase (1) in Class Size: 2008-09

	2008-09 Sections	Compensation Cost (estimate)	Sections, with Increase of 1 in Class Size	Savings
K	11.5	1,150,000.	11.5	---
1	17	1,700,000.	16	100,000.
2	13	1,300,000.	13	---
3	14	1,400,000.	13	100,000
4	15	1,500,000.	14	100,000
5	12	1,200,000.	12	---

# Estimated Savings in Increase (2) in Class Size: 2008-09

	2008-09 Sections	Compensation Cost (estimate)	Sections, with Increase of 2 in Class Size	Savings
K	11.5	1,150,000.	10.5	100,000.
1	17	1,700,000.	15	200,000.
2	13	1,300,000.	13	---
3	14	1,400,000.	13	100,000
4	15	1,500,000.	14	100,000
5	12	1,200,000.	12	---


# Estimated Savings in Increase in Class Size: 2008-09

	Increase by 1	Increase by 2
K	---	100,000.
1	100,000.	200,000.
2	---	---
3	100,000	100,000
4	100,000	100,000
5	---	---
Total	+ 300,000.	+ 500,000.

# Additional Cost vs. Savings

	Decrease by 1	Decrease by 2	Increase by 1	Increase by 2
K	50,000.	50,000.	---	100,000.
1	---	100,000.	100,000.	200,000.
2	200,000.	300,000.	---	---
3	100,000.	100,000.	100,000	100,000
4	100,000.	100,000.	100,000	100,000
5	200,000.	300,000	---	---
Total	(650,000.)	(950,000.)	+ 300,000.	+ 500,000.

# Comparison of Maximum Elementary Class Size: Oakland County



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# Comparison of Maximum Secondary Class Size: Oakland County

	Middle School	Exceptions	High School	Exceptions
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Birmingham	35	PE 47	35	PE 47
Bloomfield	30	PE 45	30	PE 45
Clawson	32	PE 45	33	PE 45
Rochester	34	PE 40	35	PE 40 English 28
Troy	30		30	

# Sources

- "Does Class Size Reduction Come at the Expense of Teacher Quality?", Michigan State University  
<http://www.epc.msu.edu/publications/DISTR%20LEADERSHIP/DL%20Exec%20Sum%20Jun08.pdf>
- The Student Teacher Achievement (STAR) Study  
([http://www.futureofchildren.org/usr\\_doc/vol5no2ART8.pdf](http://www.futureofchildren.org/usr_doc/vol5no2ART8.pdf))
- "Class Size and Math Achievement in the US and Abroad", Penn State University  
(<http://www.jstor.org/pss/3594152> )