

iAm Laptop Final Report

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Presented to the K-12 Committee
March 25, 2010

Goals of the Evaluation

- ❑ Determine factors and conditions under which participants in iAm Laptop program meet and exceed the programs goals:
 - Enhance educational opportunities
 - Increase SC workforce competitiveness
 - Engage 9th grade students to take ownership and responsibility for their future
- ❑ Participants in the evaluation are students, teachers, parents, schools and school districts.

The Schools

Role	School Name	District
Participant 1	Bethune-Bowman Middle High	Orangeburg 5
<i>Match 1</i>	Green Sea Floyds High	Horry
Participant 2	C A Johnson High	Richland 1
<i>Match 2</i>	Baptist Hill High	Charleston
Participant 3	Creek Bridge High	Marion 7
<i>Match 3</i>	<i>McCormick High</i>	<i>McCormick</i>
Participant 4	Lakewood High	Sumter 2
<i>Match 4</i>	<i>Loris High</i>	<i>Horry</i>
Participant 5	Midland Valley High	Aiken
<i>Match 5</i>	<i>Strom Thurmond</i>	<i>Edgefield</i>
Participant 6	Scotts Branch High	Clarendon 1
<i>Match 6</i>	<i>Denmark-Olar</i>	<i>Bamberg 2</i>

Study Design

Study	Contribution	Primary Tool	Method	Level of Analysis
Comparison of Grades / Achievement	Compare End-of-Course pass rates and student grades between participants and matches	Descriptive statistical / cross-tab	Quantitative	Grade / course level
Student focus groups	Ask students what they liked and what can enhance program implementation	Structured discussion	Qualitative	Individual
Parent Communication	Ask parents / families how they benefited from the program and what can enhance program implementation	Scaled & open-ended survey	Qualitative	Individual
Teacher lesson plans	Describe integrating technology into lesson plans changes how a teacher teaches and how students learn	Content analysis	Qualitative	Class / School
Technology Plan Evaluation	Gather school & district technology plans to evaluate worth and what improvements can be made	Content analysis	Qualitative	Organizational
Cost Study	Identify major costs (per pupil for laptop schools and paired schools)	Analytical accounting	Quantitative	Organizational

Laptop Distribution & Training

	# Compu- ters	Fall Distribution			Teacher Training			Site Visits		
		2007- 08	2008- 09	2009- 10	2007- 08	2008- 09	2009- 10	2007- 08	2008 -09	2009- 10
Bethune Bowman	190	Feb.	Nov.	Oct.	Yes	Yes	No	6	5	4
CA Johnson	401	Jan.	Nov.	NONE	Yes	Some	No	7	7	9
Creek Bridge	180	Jan.	Aug.	Aug.	Yes	Yes	No	6	3	4
Lakewood	712	Jan.	Nov.	Nov.	Yes	Some	No	4	4	4
Midland Valley	781	Jan.	Sept.	Sept.	Yes	Yes	No	3	4	4
Scott's Branch	239	Jan.	Nov.	Sept.	Yes	Yes	No	7	6	5

A total of 2503 laptops were distributed.

District Technology Plans

- Mostly about function and process / capacity
- Lack of standardization across districts
- Technology dimensions, learners/environment
 - Professional capacity
 - Instructional capacity
 - Community connection
 - Support capacity
- Need to address instructional infusion
- No evaluation component; check-off rather than outcomes

Technology budgets

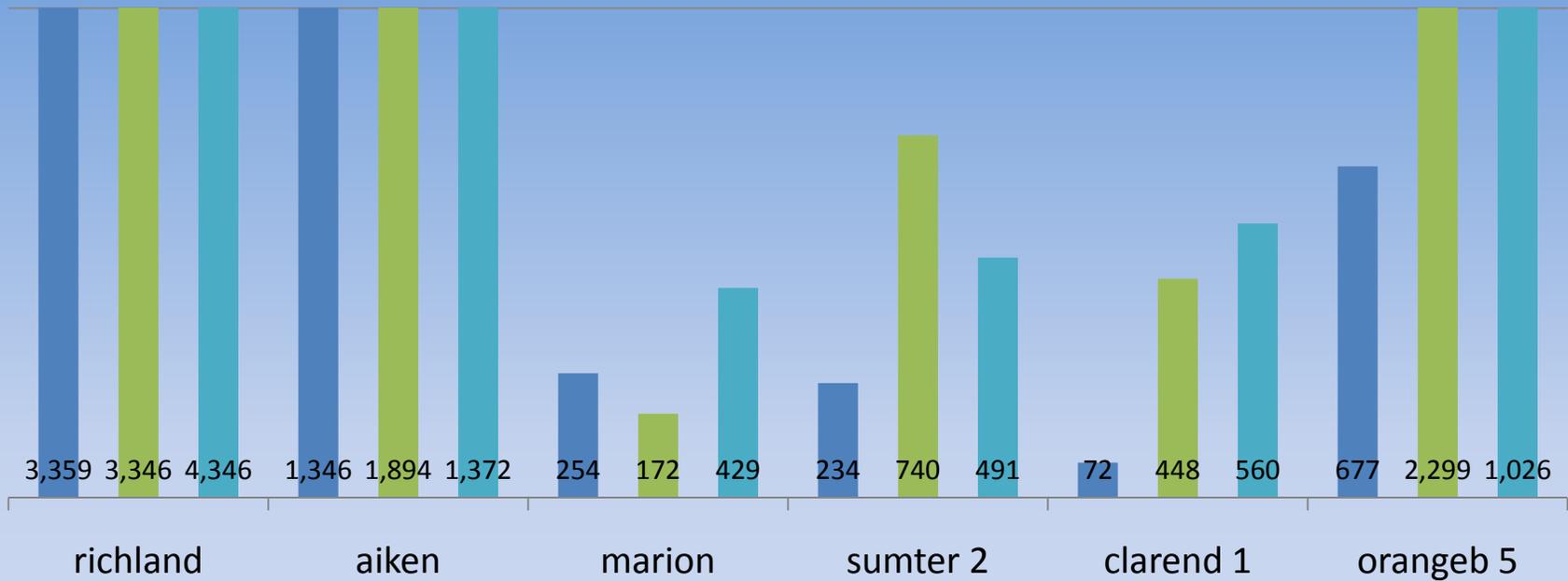
We gathered data from our participating districts on how they spend their technology dollars. The match school districts did not share their information.

	2006-07	2007-08
Funding Source		
District Technology Funds		
Facilities Improvement Funds		
E-Rate		
Lottery Funds for K-5		
Ed Tech Formula Grant		
Technology Initiative (state)		
Technology (State SIF server)		
Other (reimbursements, etc.)		
Other (Carry over from previous)		
Other (<i>DESCRIBE</i>)		
TOTAL	\$ -	\$ -

Technology budgets

Expenditures	2006-07	2007-08
Hardware Equipment		
** Separate line for wireless network enhancements**		
Software		
Hardware Maintenance		
Software Maintenance		
Licenses		
Cabling		
Contracted Services (network support)		
Supplies		
Other (<i>Describe each item by line</i>)		

Revenue Total Funds



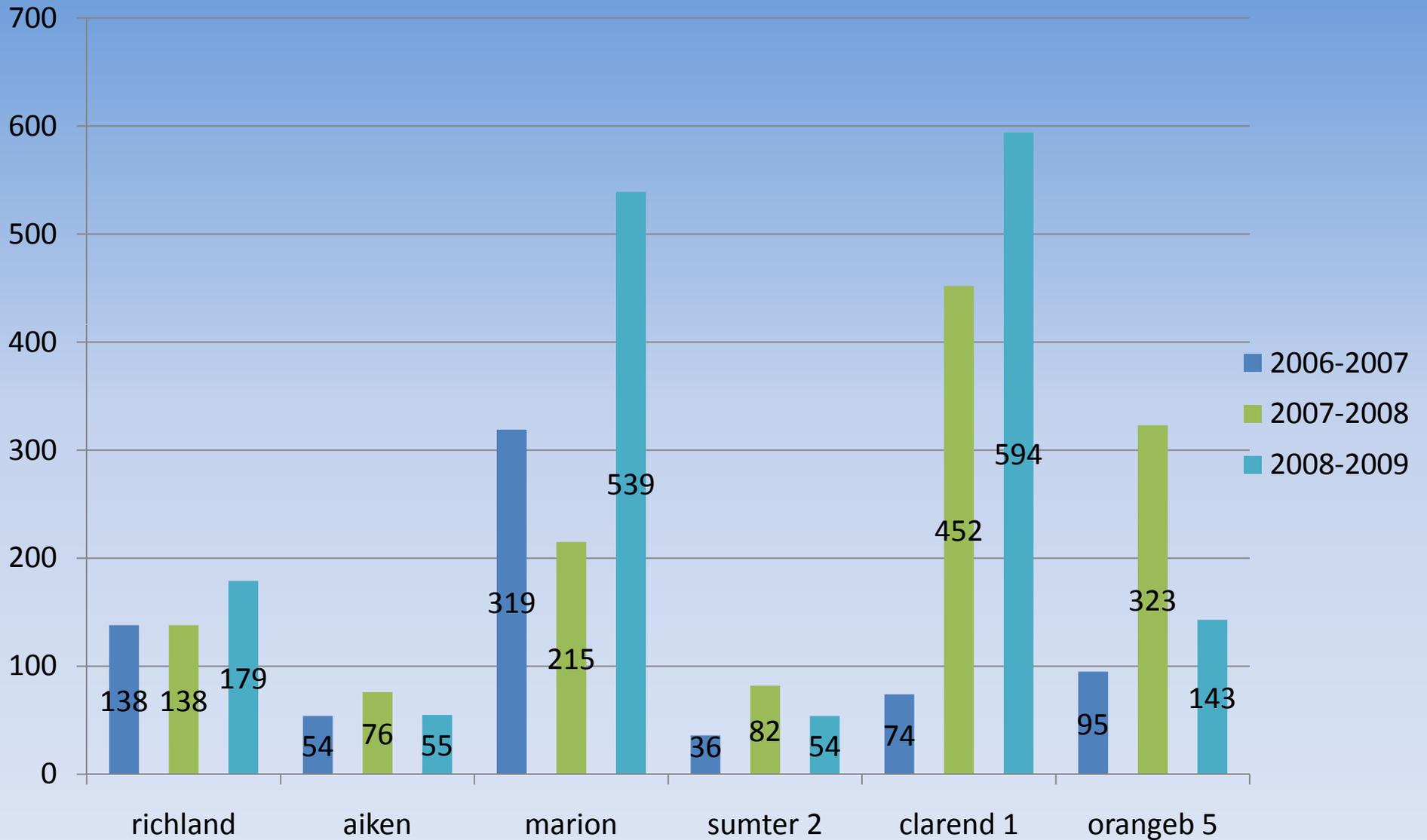
■ 2006-2007

■ 2007-2008

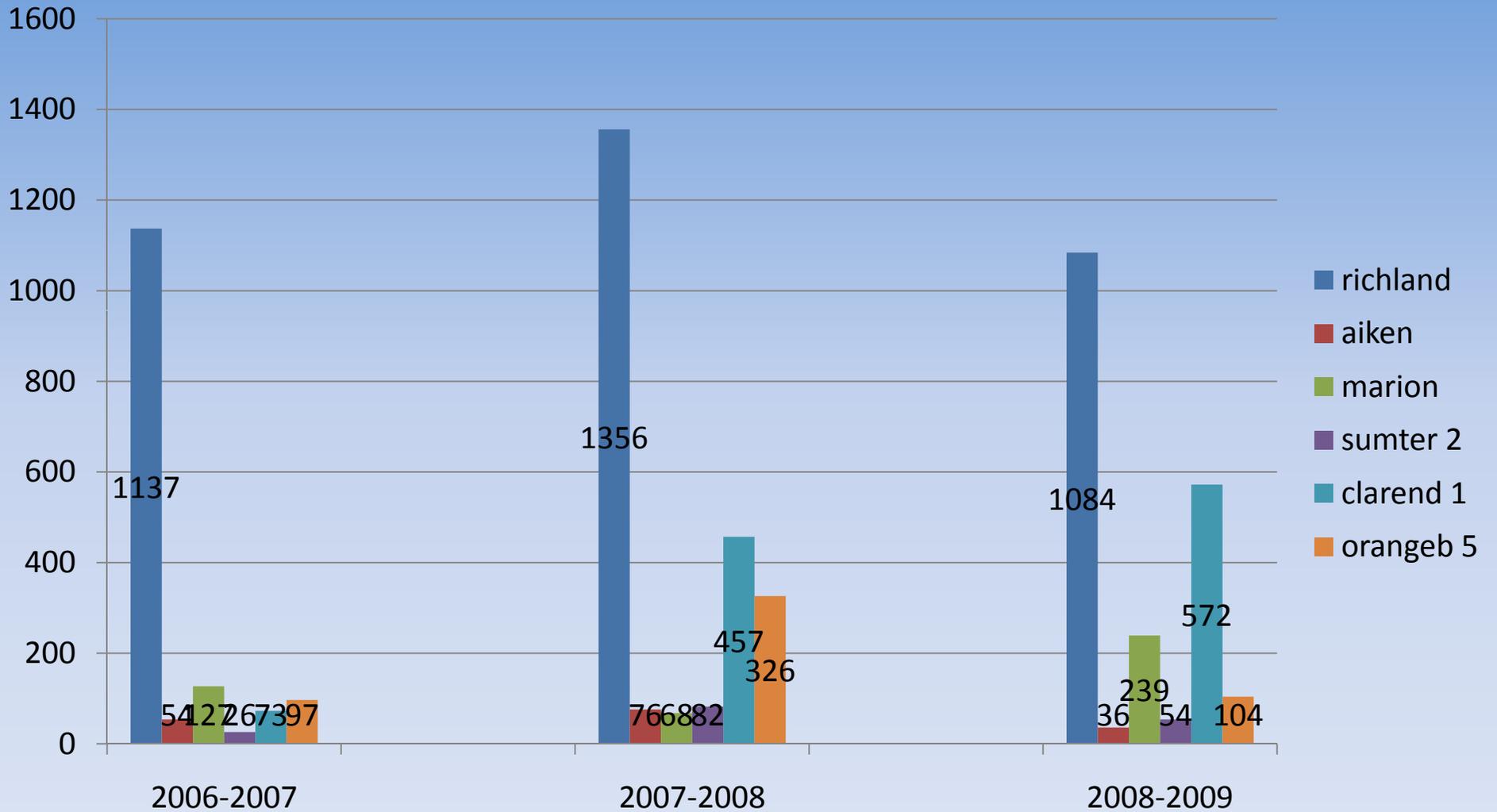
■ 2008-2009

Chart Goes from 100,000 to 999,999

Total Per Student Revenue



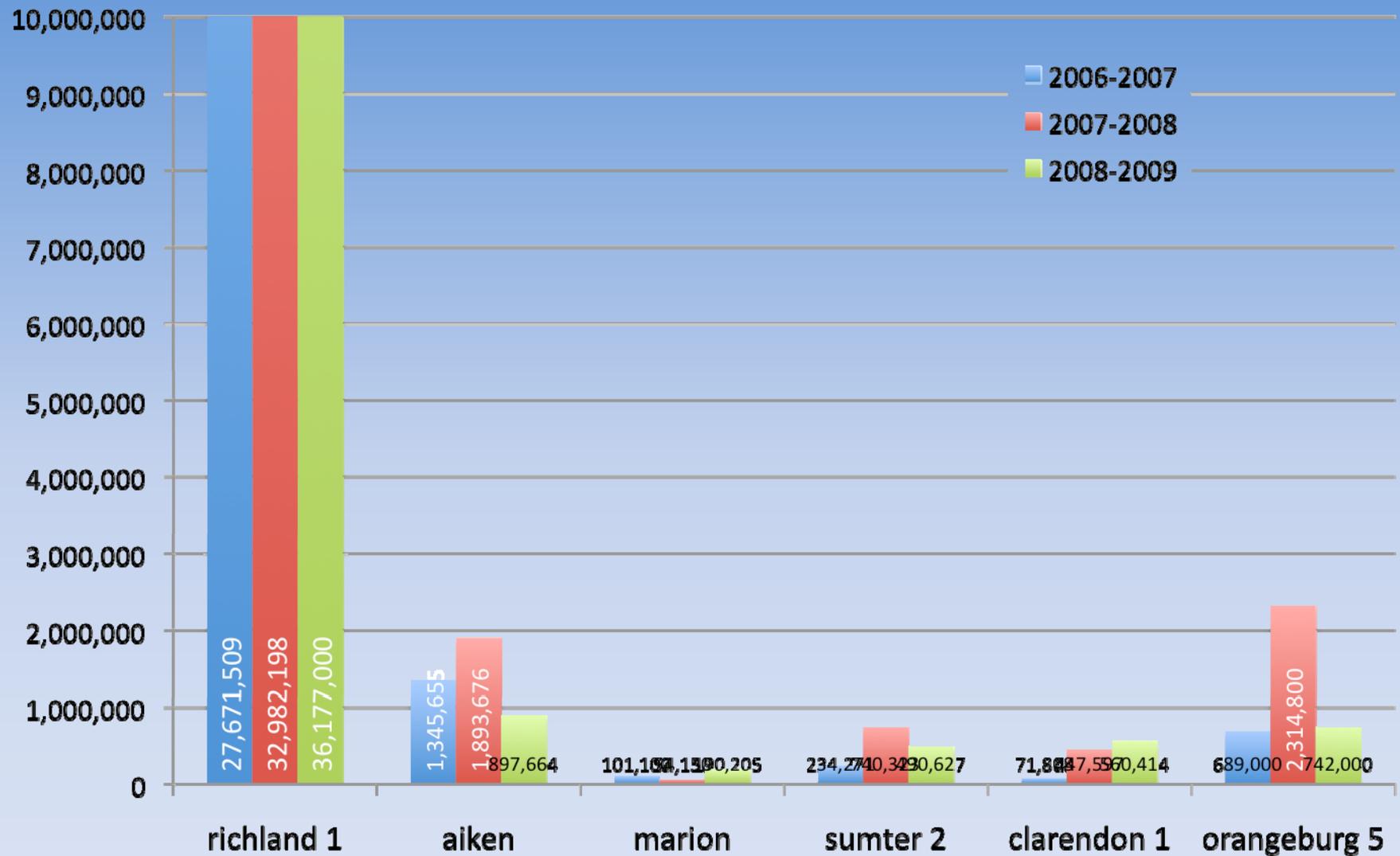
Expenditures Per Pupil



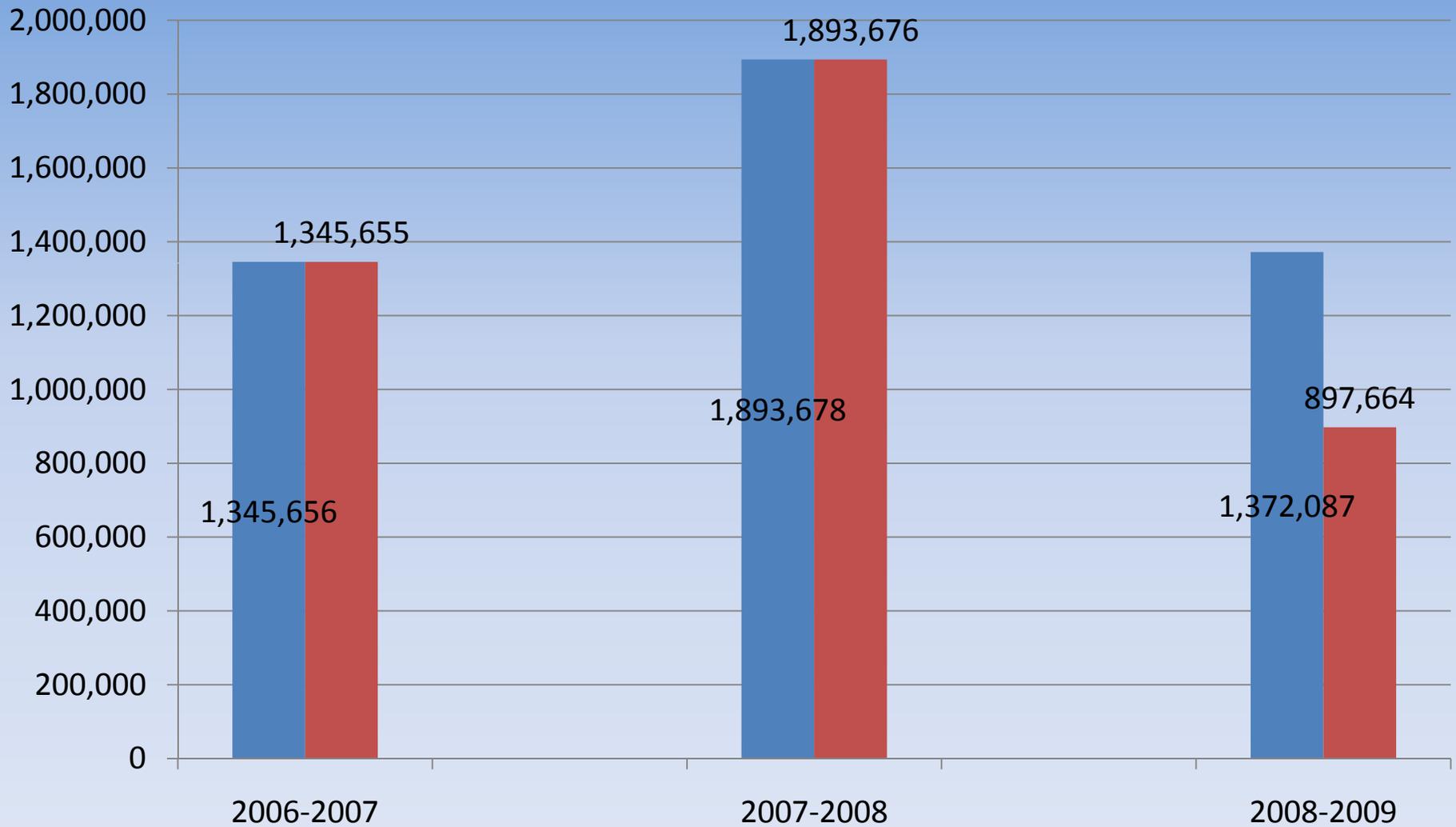
Revenue and Expenditure Totals Richland 1



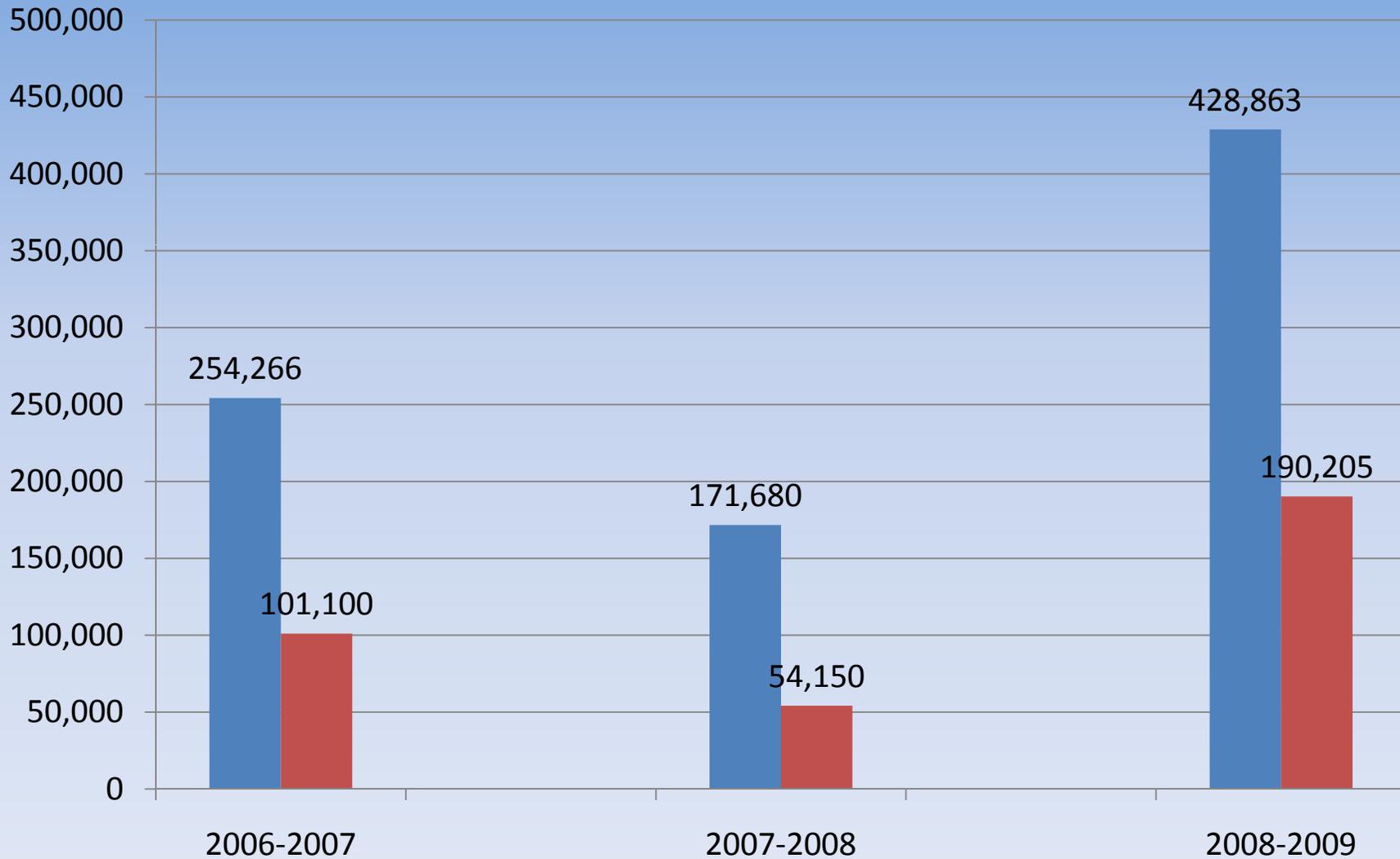
Expenditures Totals



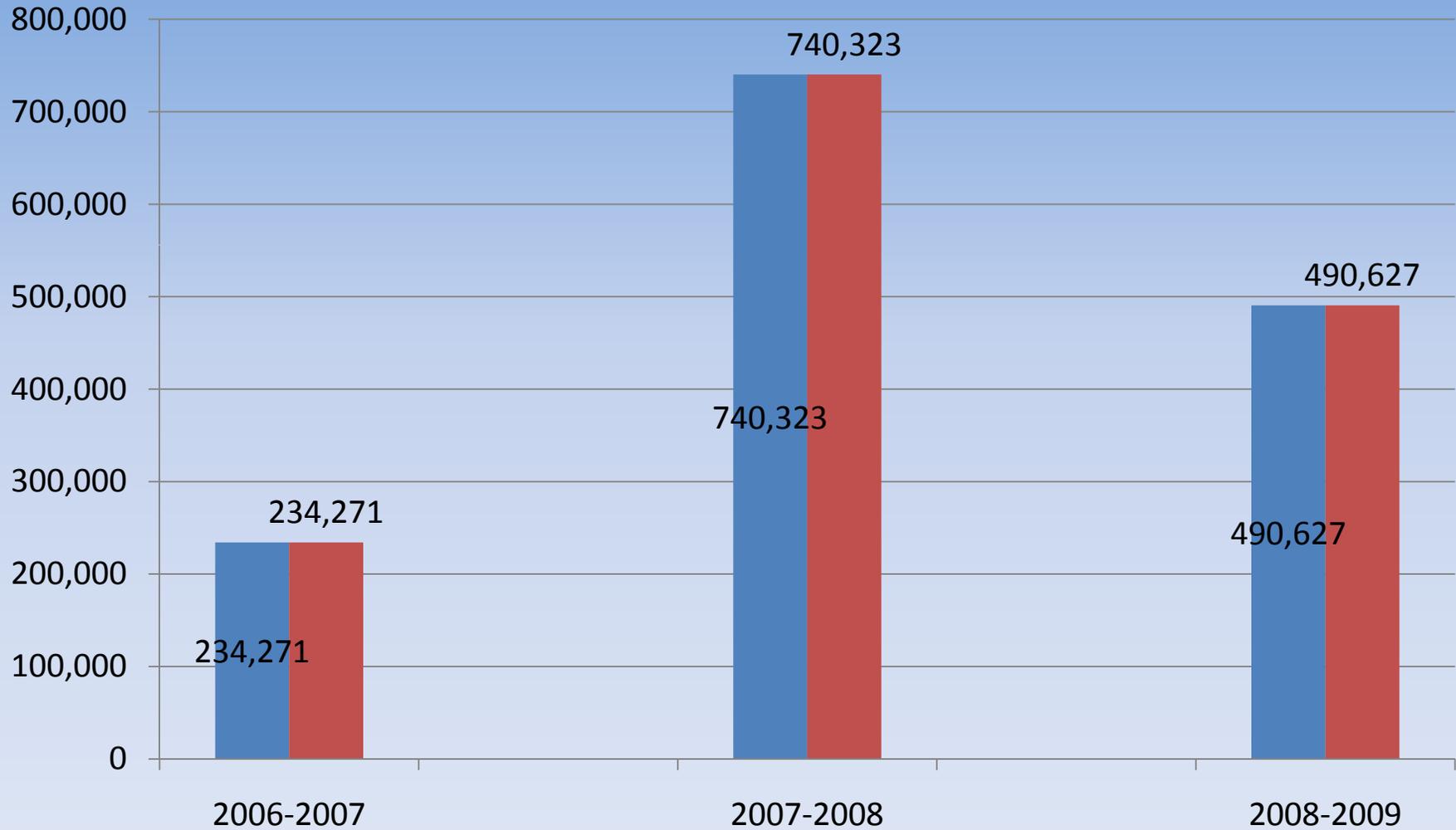
Revenue and Expenditure Totals Aiken



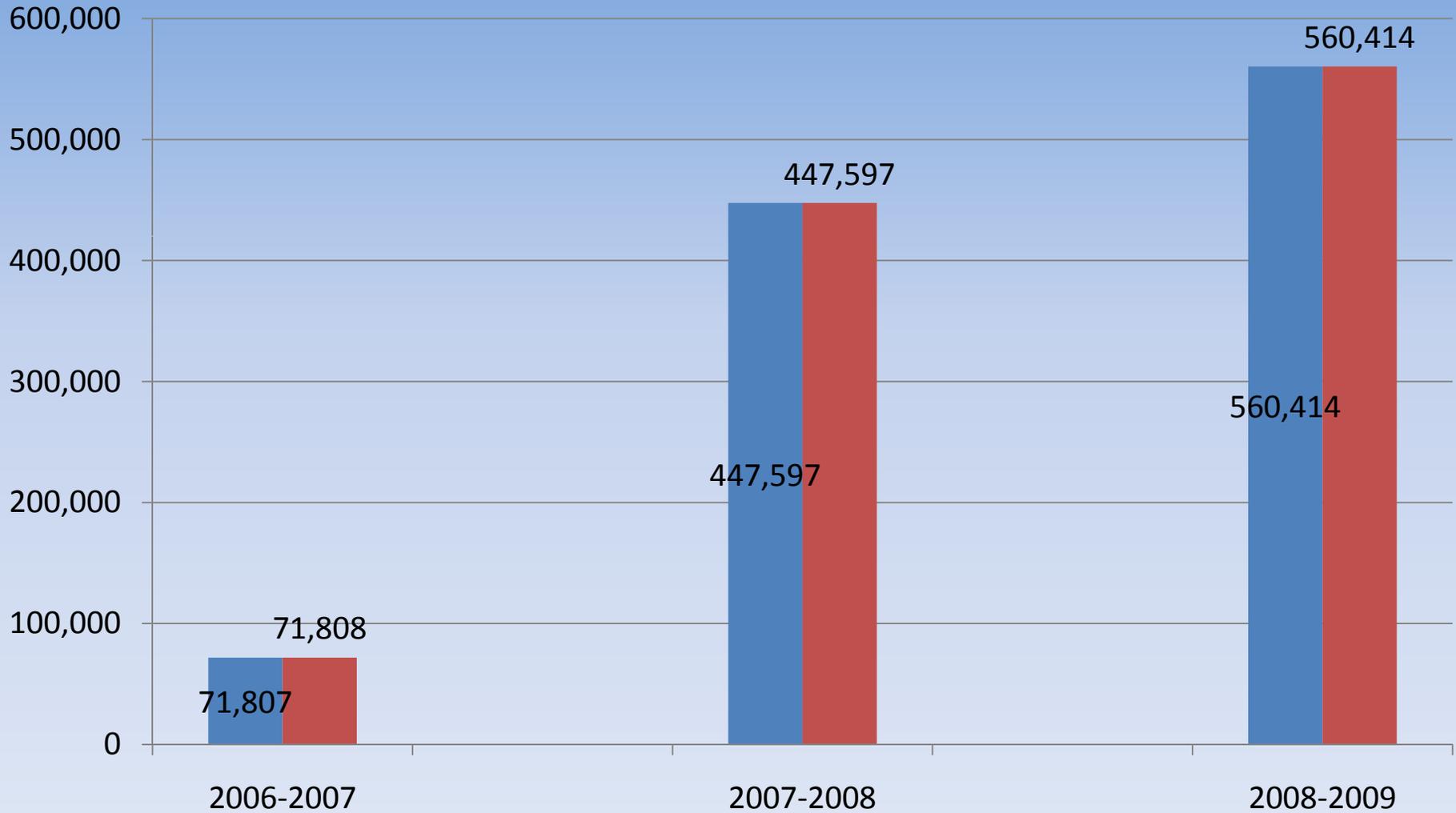
Revenue and Expenditure Totals Marion



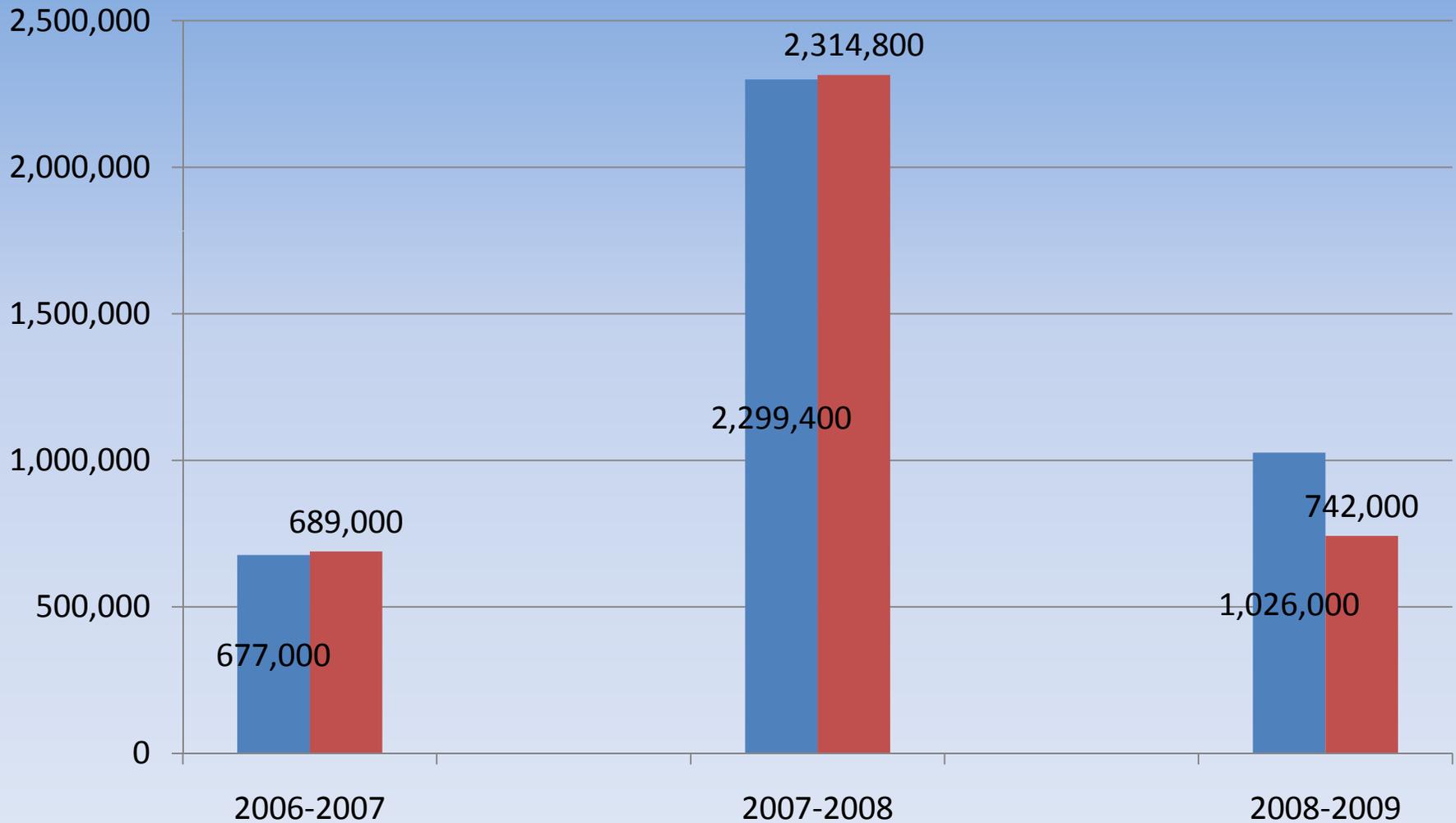
Revenue and Expenditure Totals Sumter 2



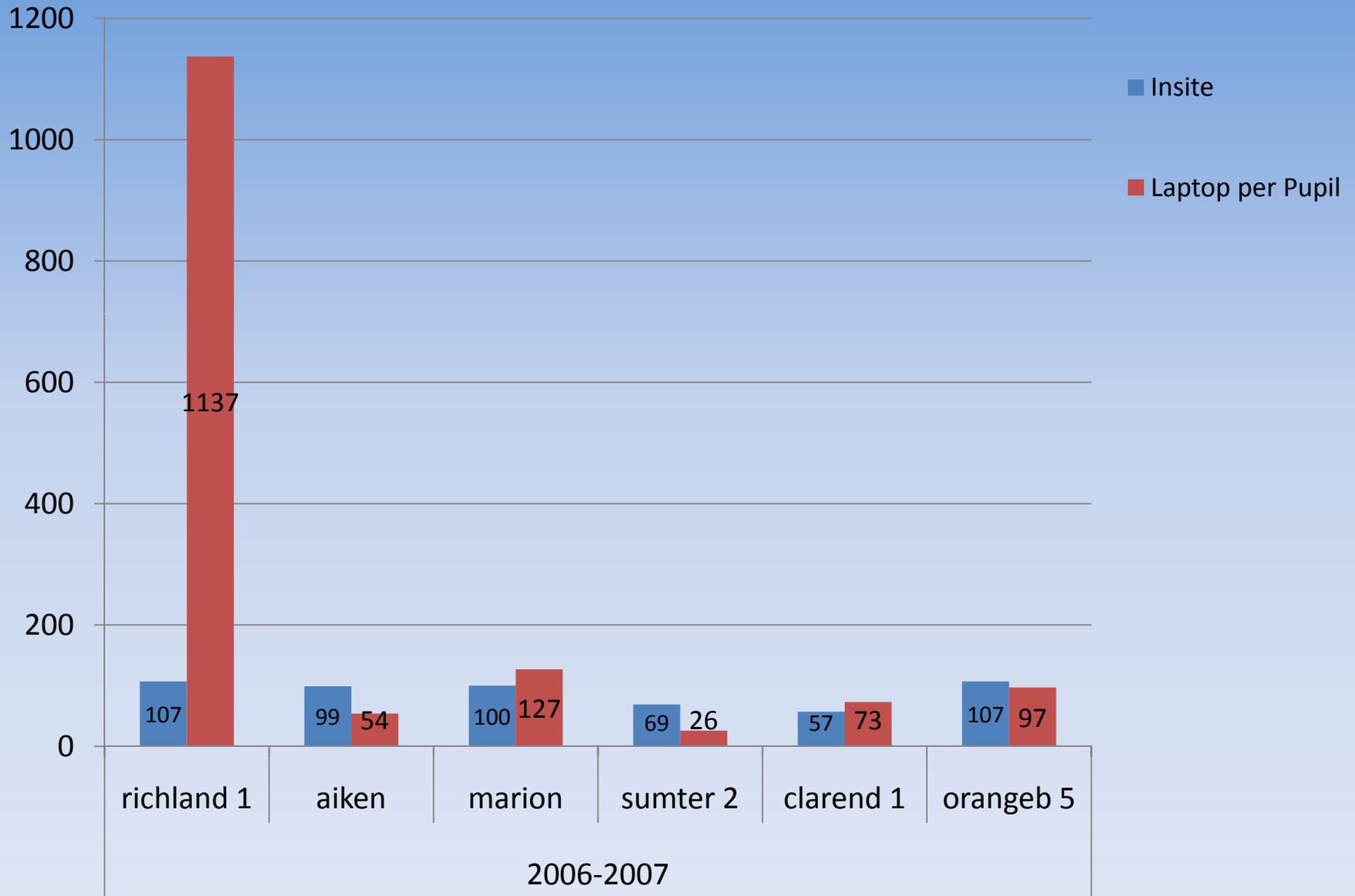
Revenue and Expenditure Totals Clarendon 1



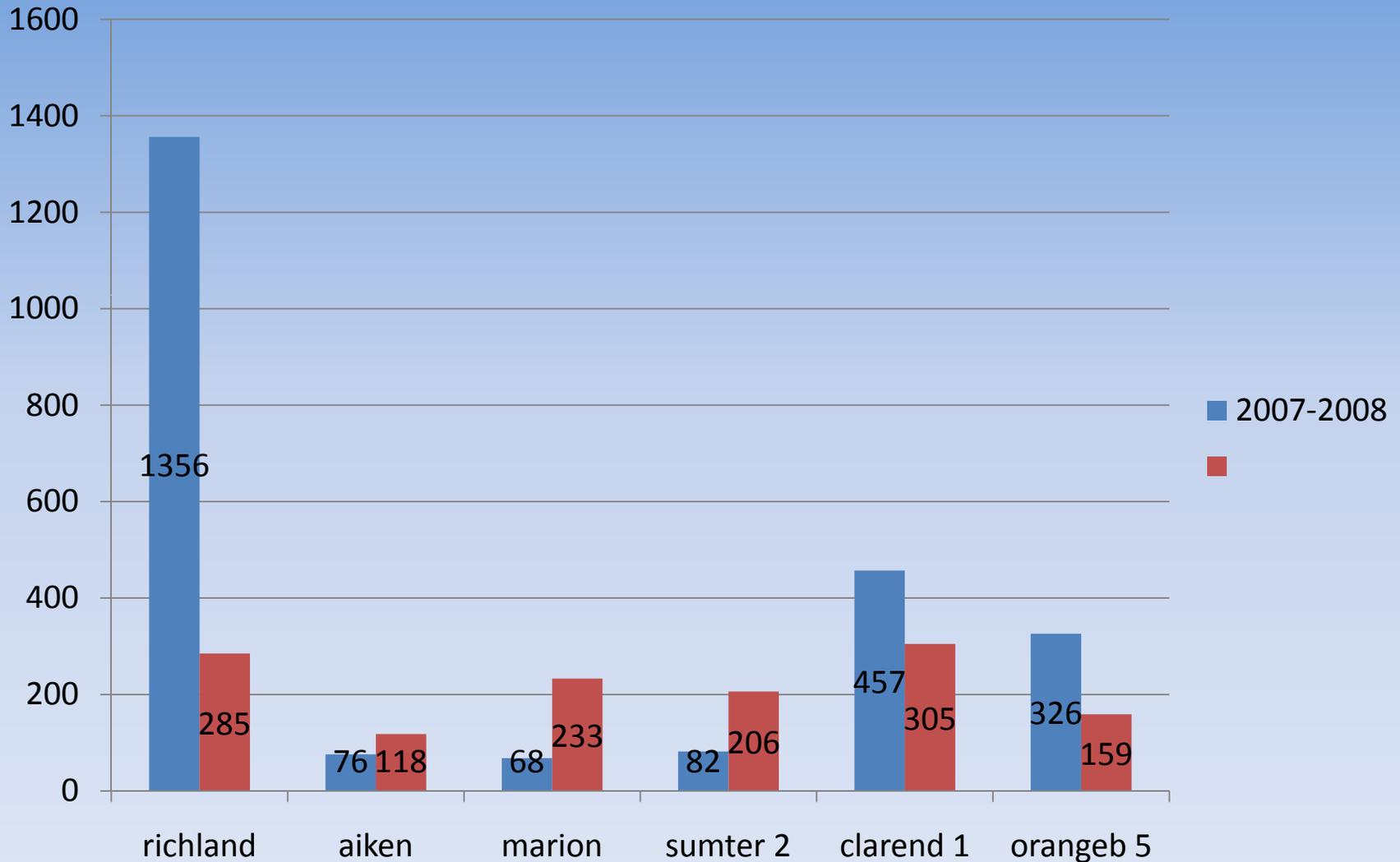
Revenue and Expenditure Totals Orangeburg 5



Insite vs. Laptop Data



Insite Vs. Laptop Data 2007-2008



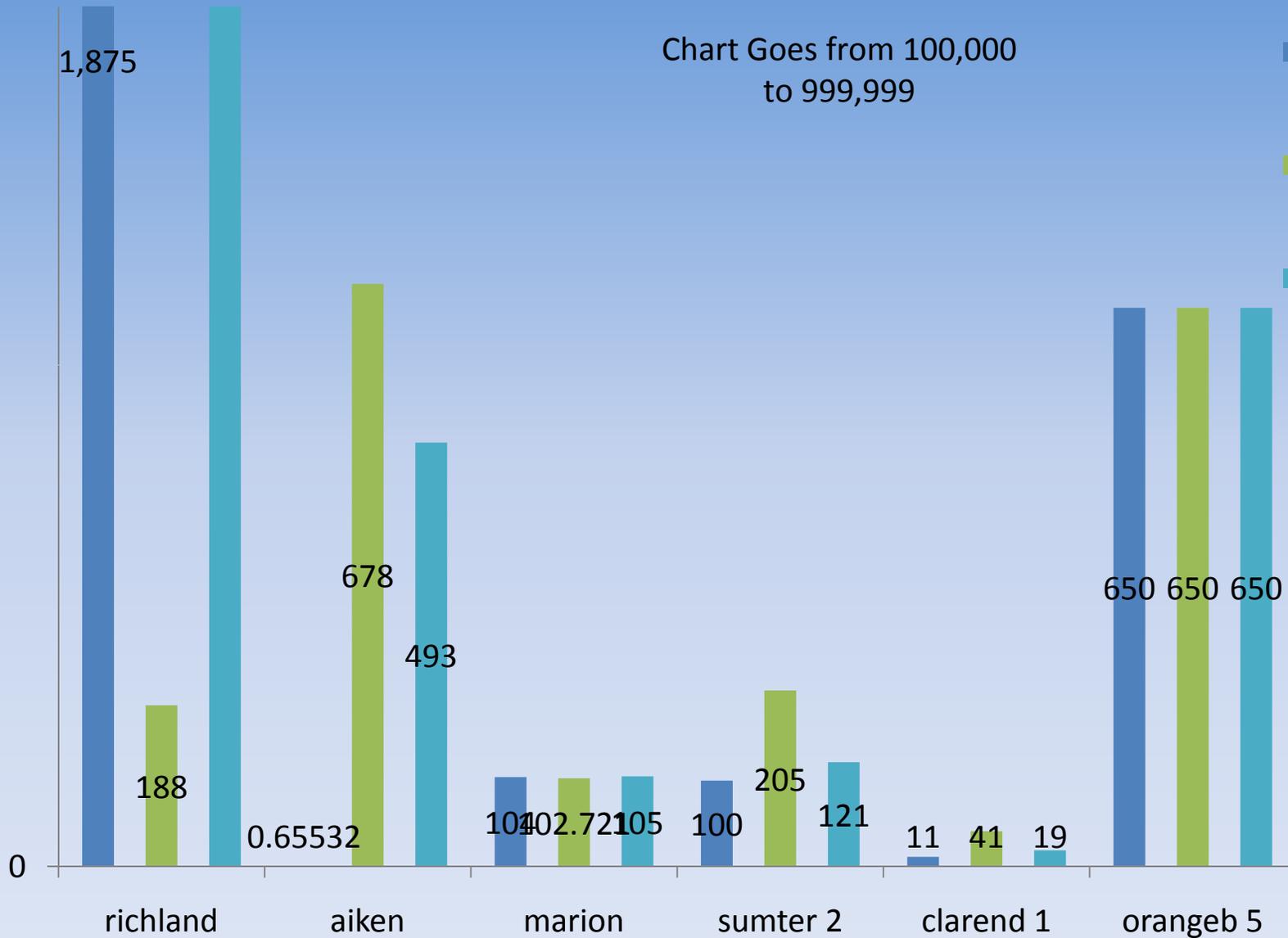
District Technology Funds

Chart Goes from 100,000
to 999,999

2006-2007

2007-2008

2008-2009



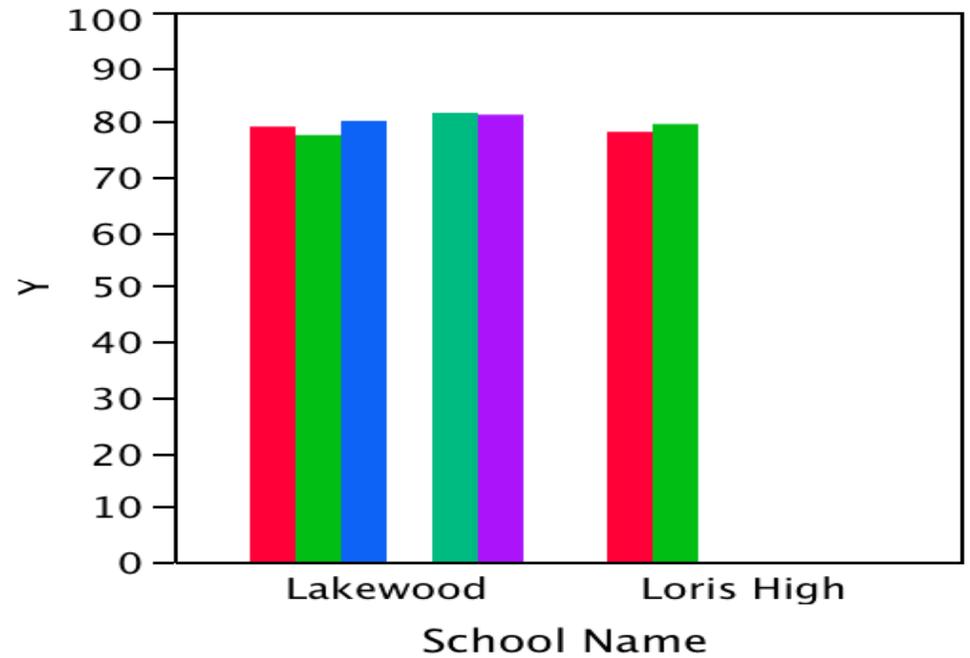
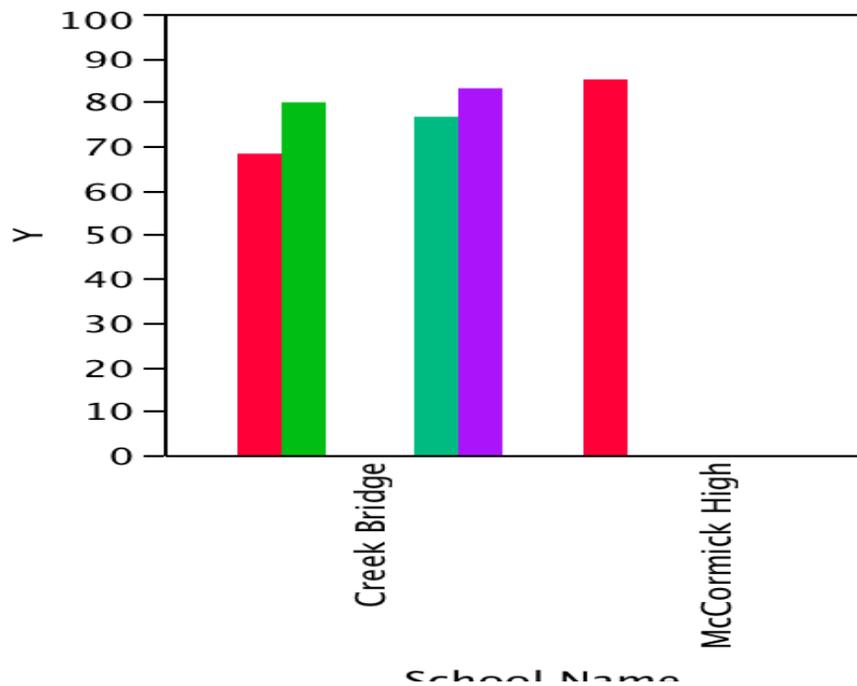
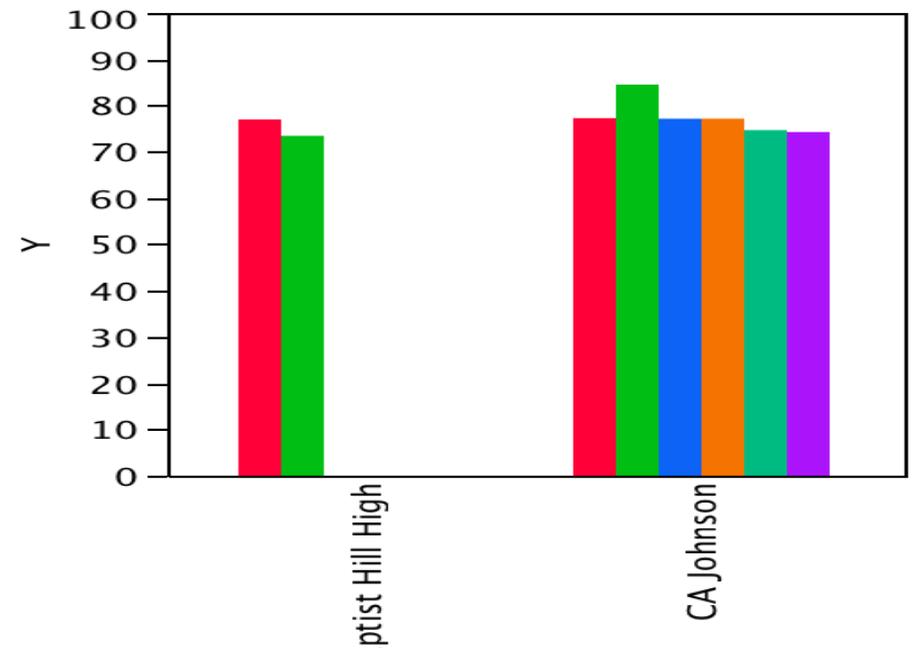
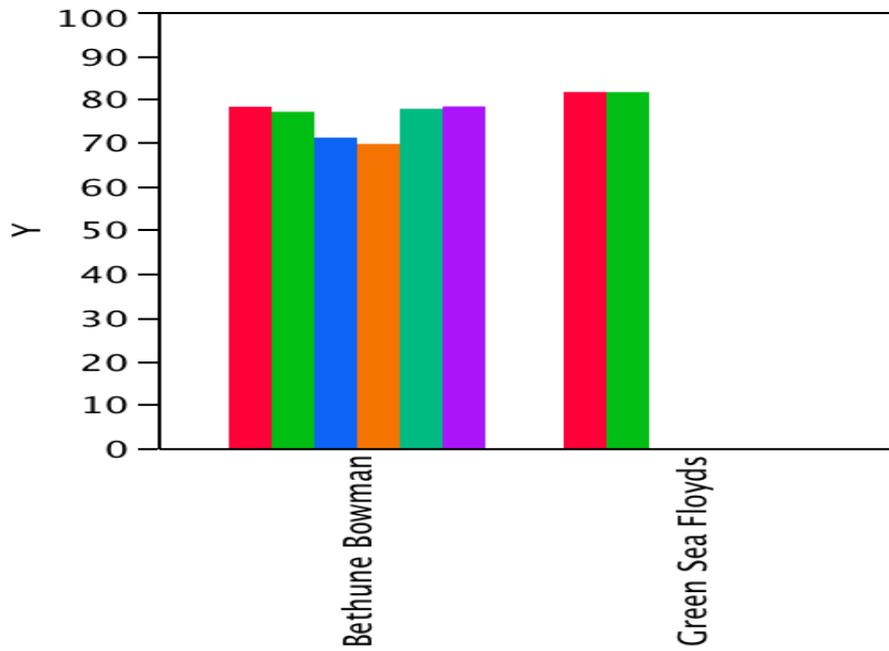
Student Achievement

- Slides compare participant schools with matched schools.
- Year grades are included only as a point of reference because laptops were not available until 2008.
- The comparisons are the 2007-08 ninth graders consistently tracked across time.
- Courses are broadly grouped; additional time is needed to refine groups and categories of courses.

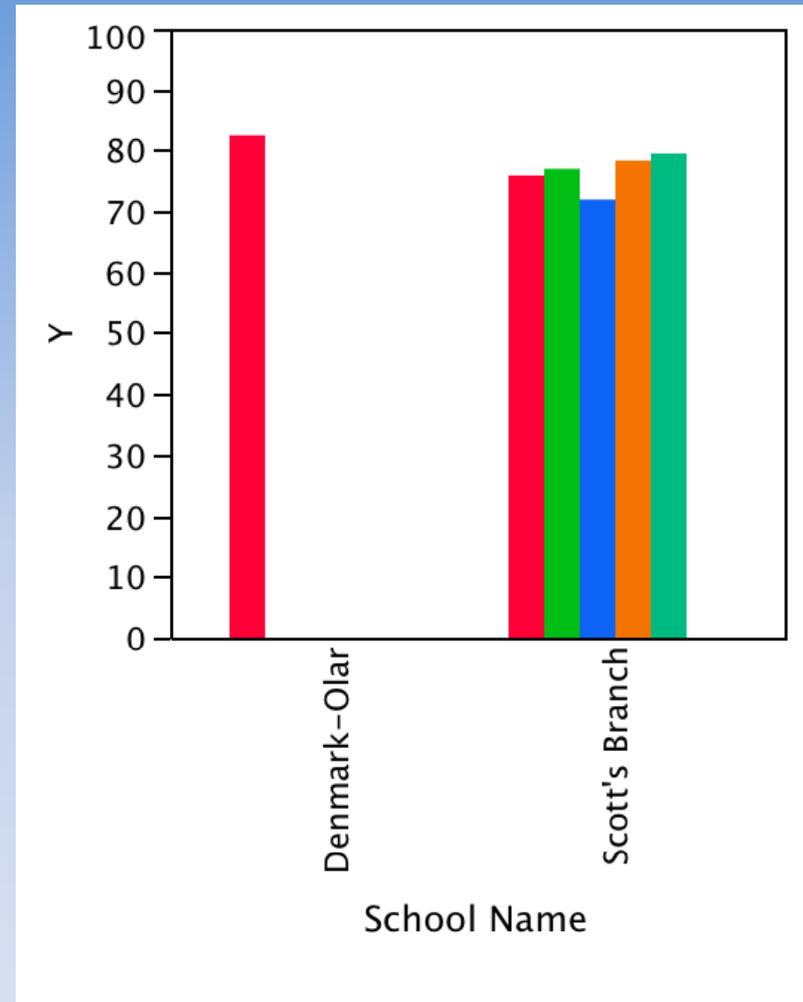
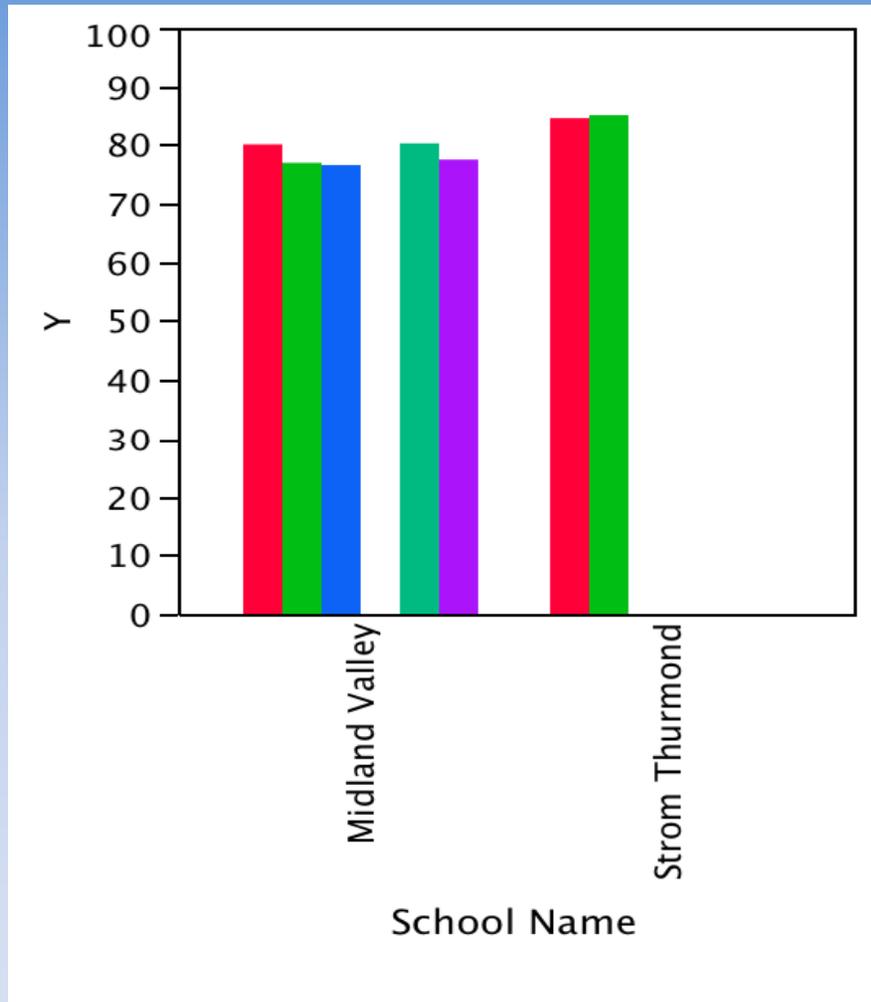
TECHNOLOGY STATUS OF PAIRED SCHOOLS in Evaluation Period 07/09

	<u>computer</u>	<u>student</u>
Strom Thurmond High –no new technology	225DT	900
McCormick High-smart boards 8	120DT	260
Loris High –new 60 DT, 40LT	400DT	900
Green Sea Floyd- 60 LT,30 DT, 11 boards	550 DT/LP	650
Denmark Olar- software upgrades	150DT/20LT	296
(most 10yrs.old)		
Baptist Hill 25 new DT, Smart Boards	222DT/LT	456

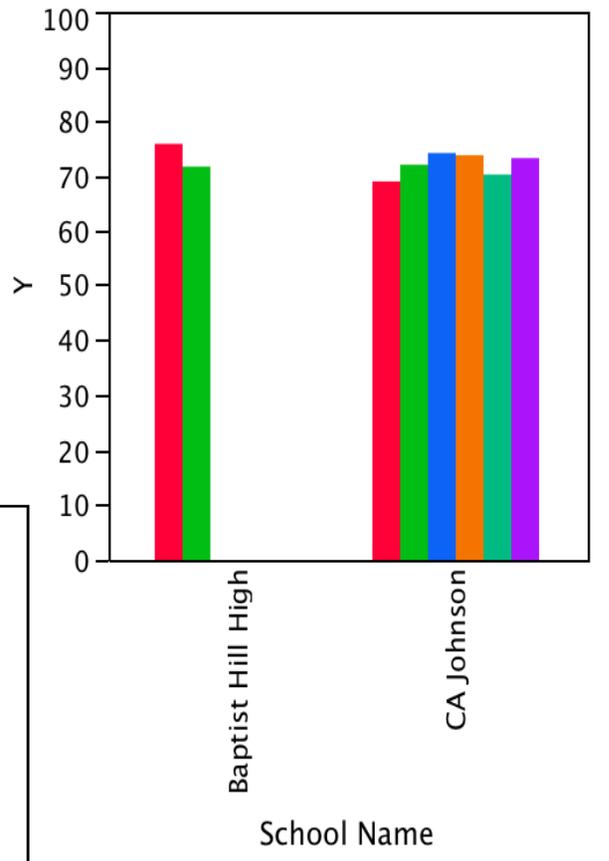
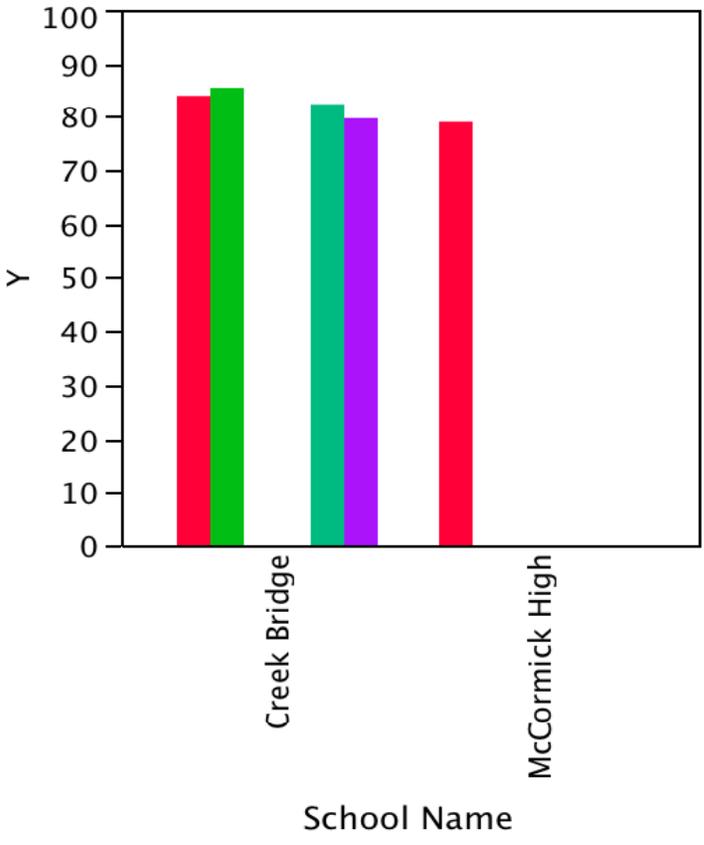
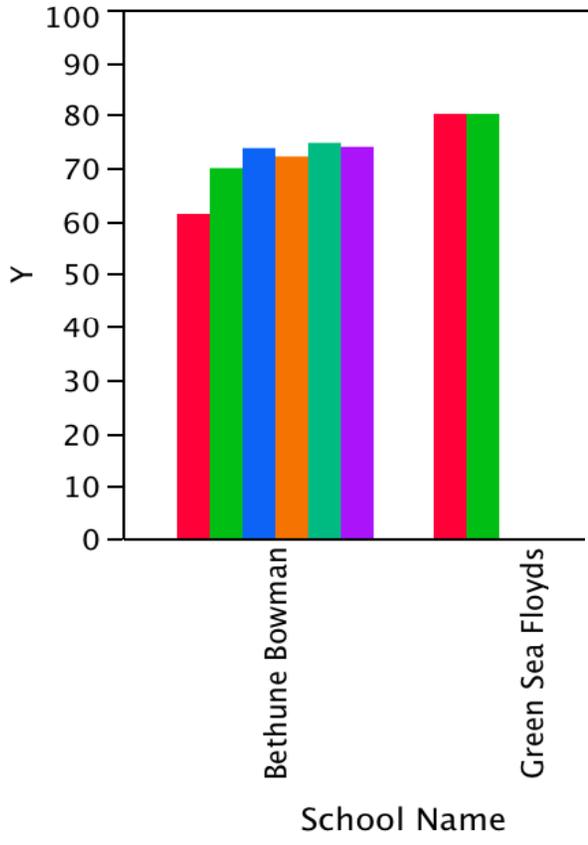
ENGLISH GRADE COMPARISONS – 2nd Year Cohort



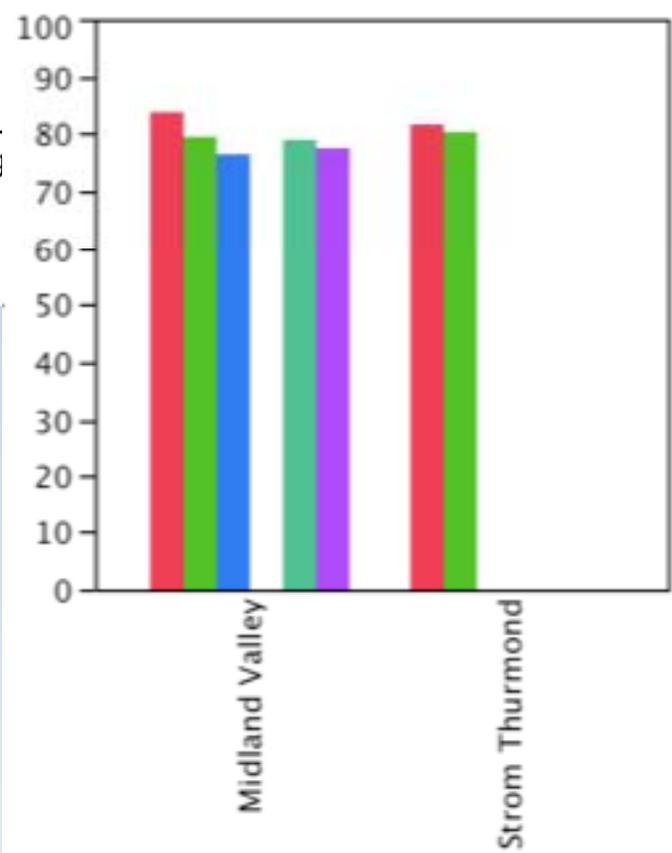
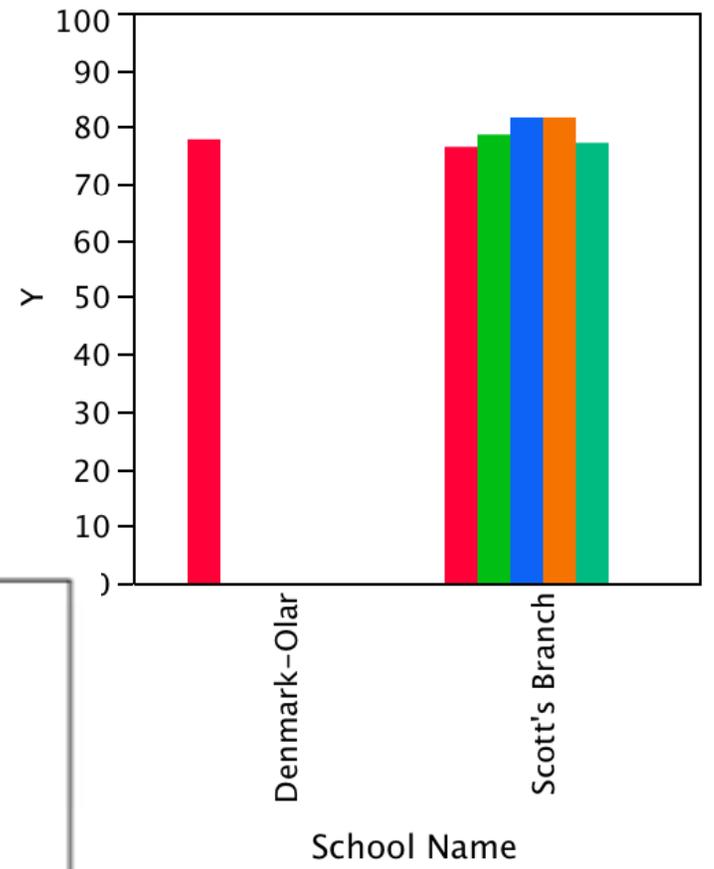
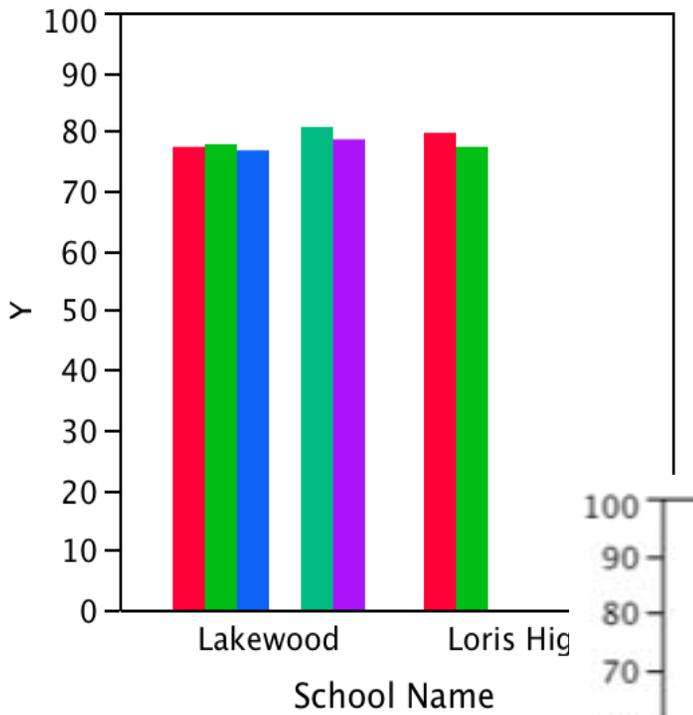
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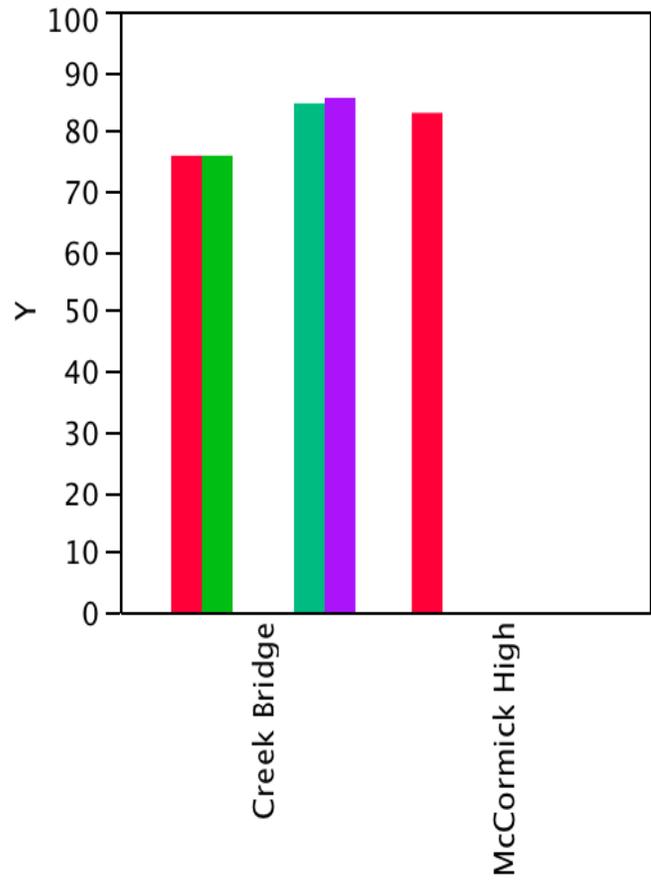
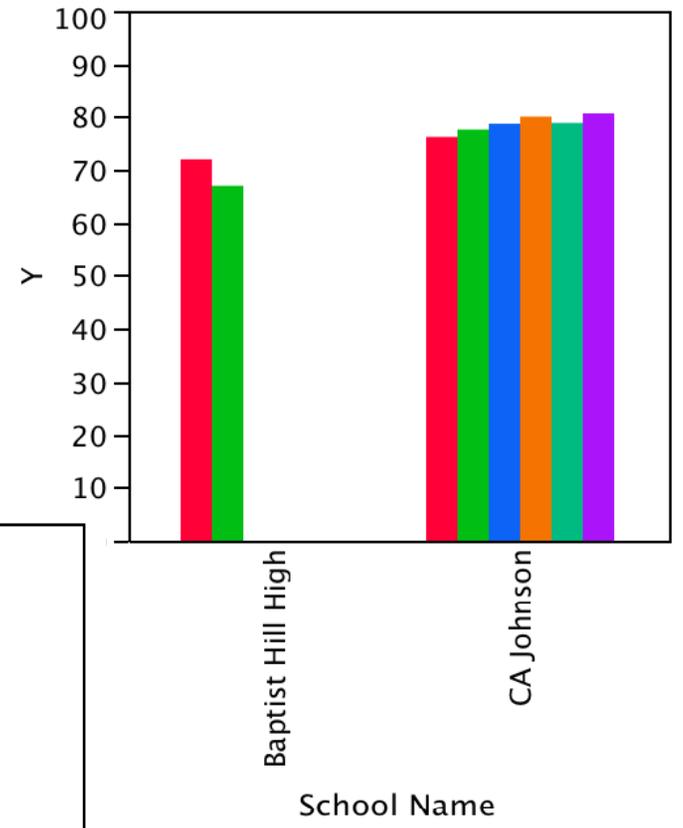
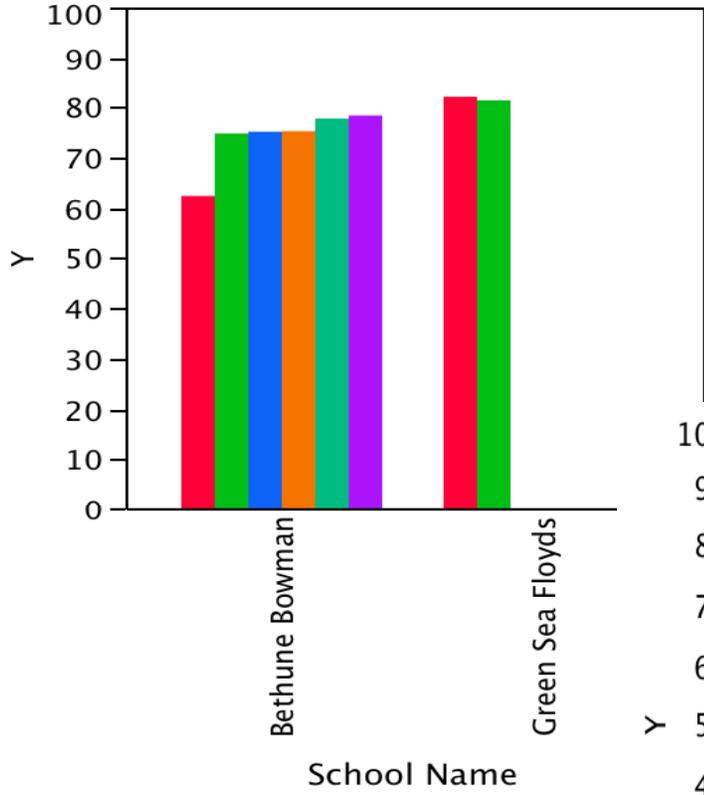
MATH GRADE COMPARISONS – 2nd Year Cohort



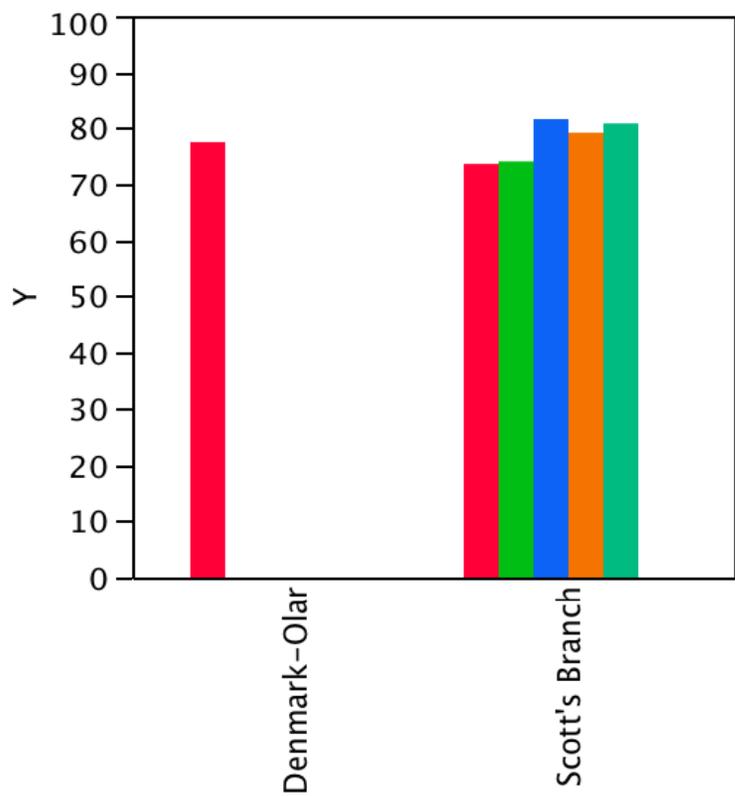
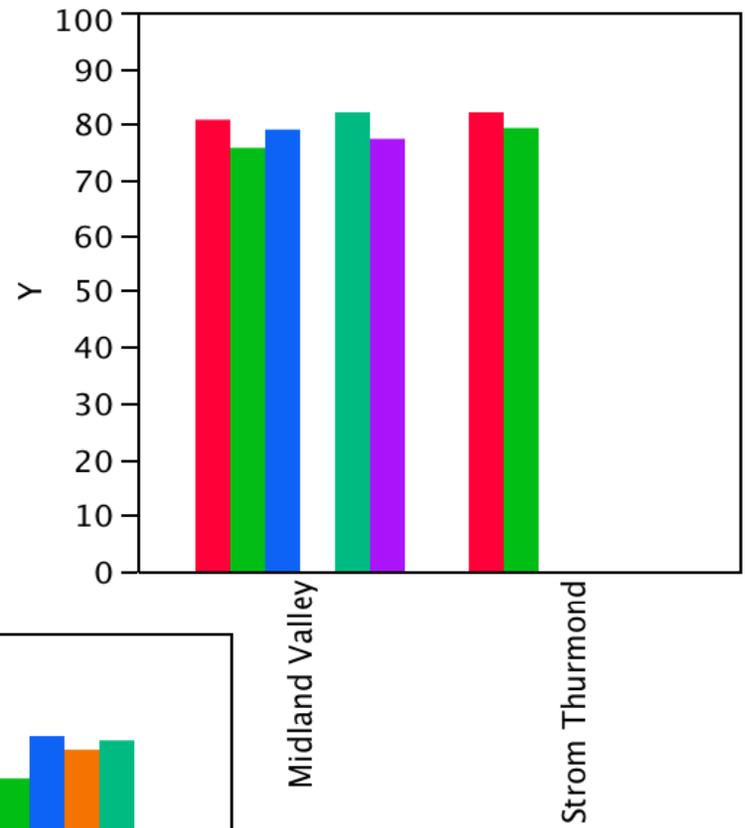
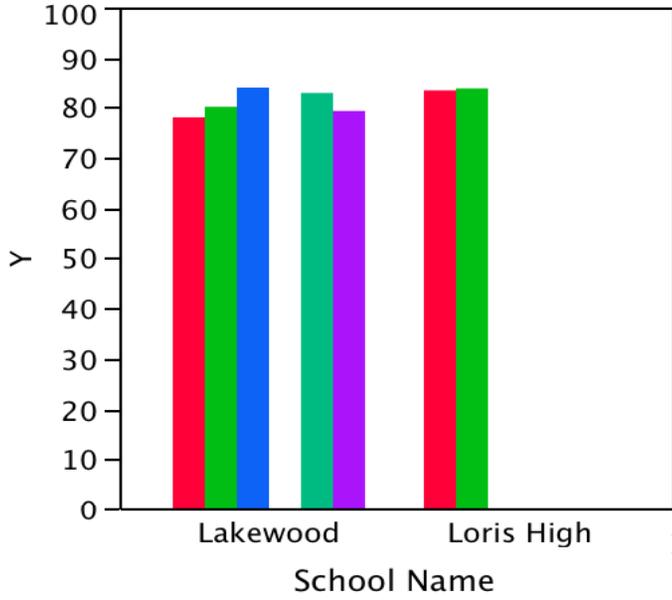
MATH GRADE COMPARISONS – 2nd Year Cohort



SCIENCE GRADE COMPARISONS – 2nd Year Cohort

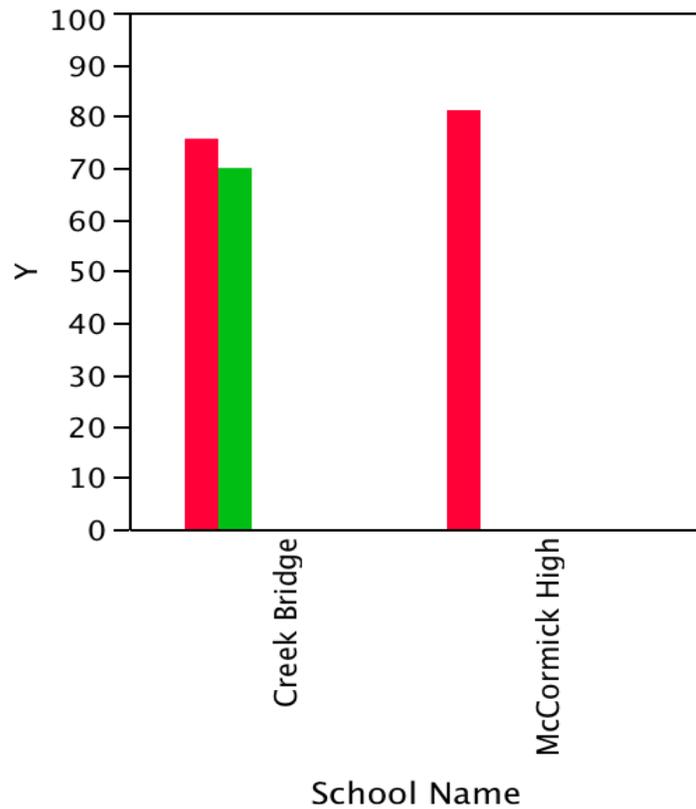
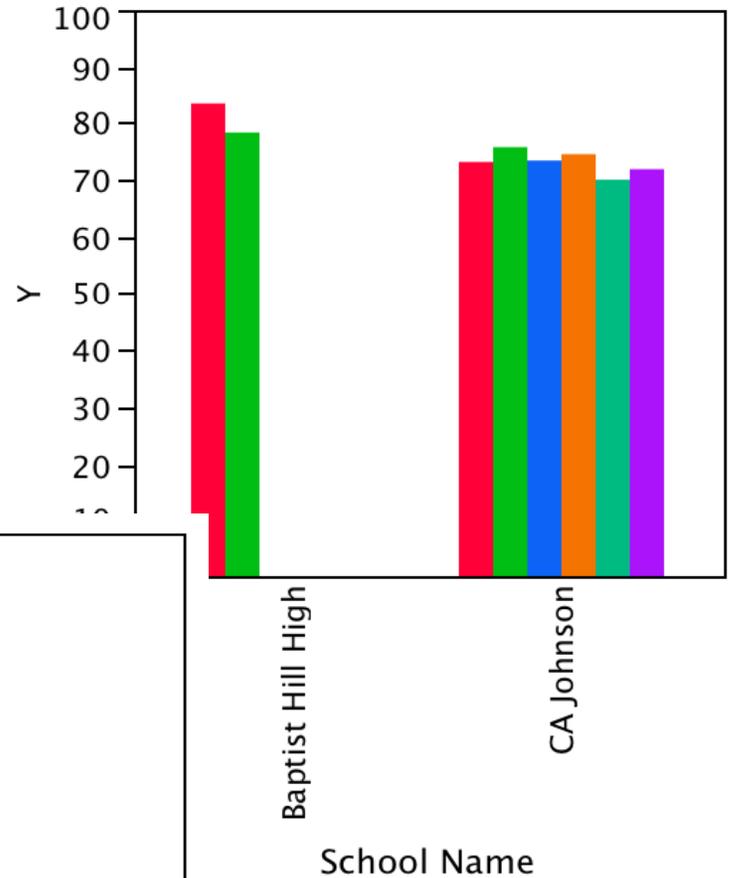
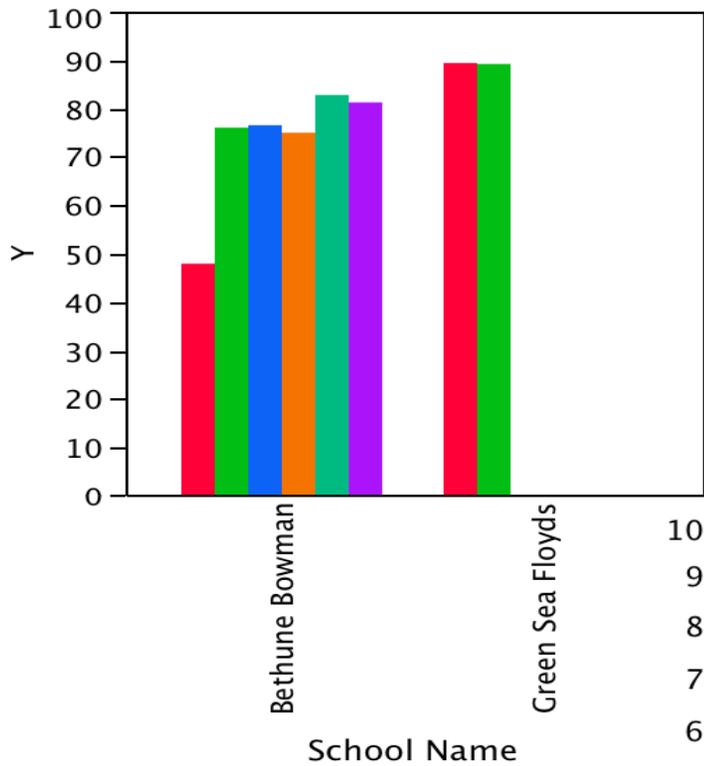


SCIENCE GRADE COMPARISONS – 2nd Year Coh

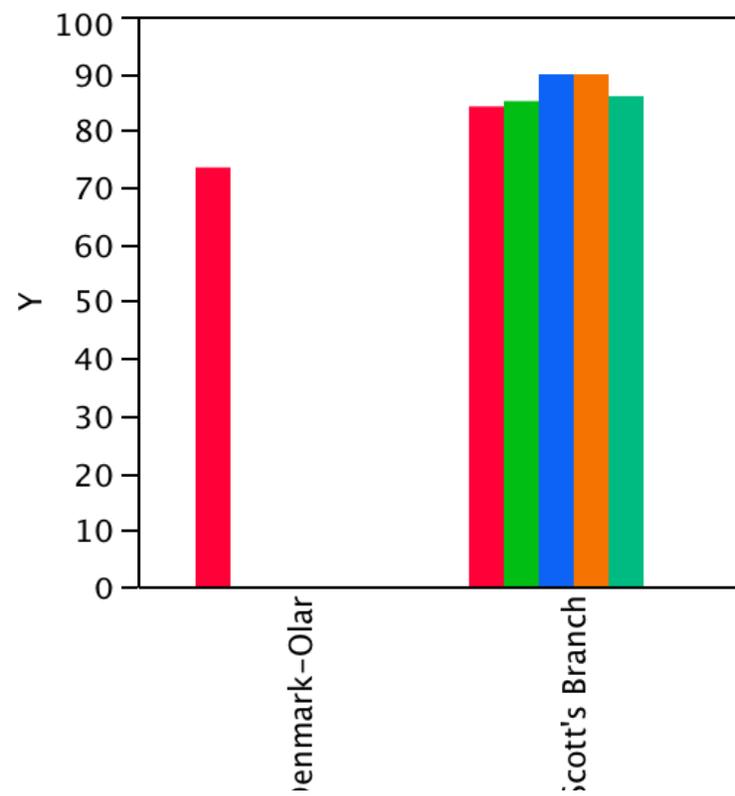
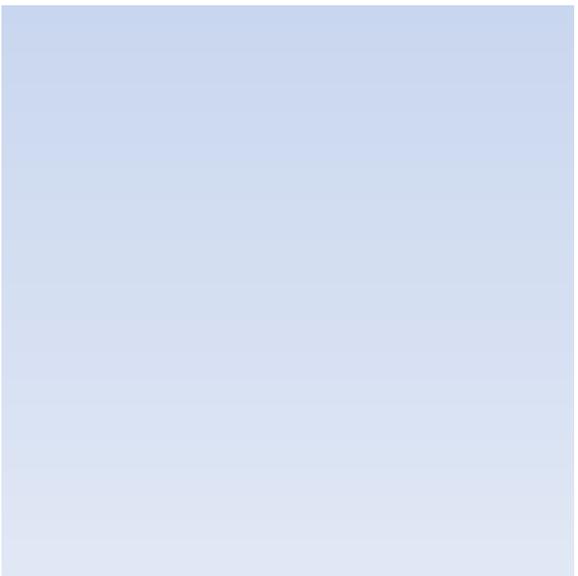
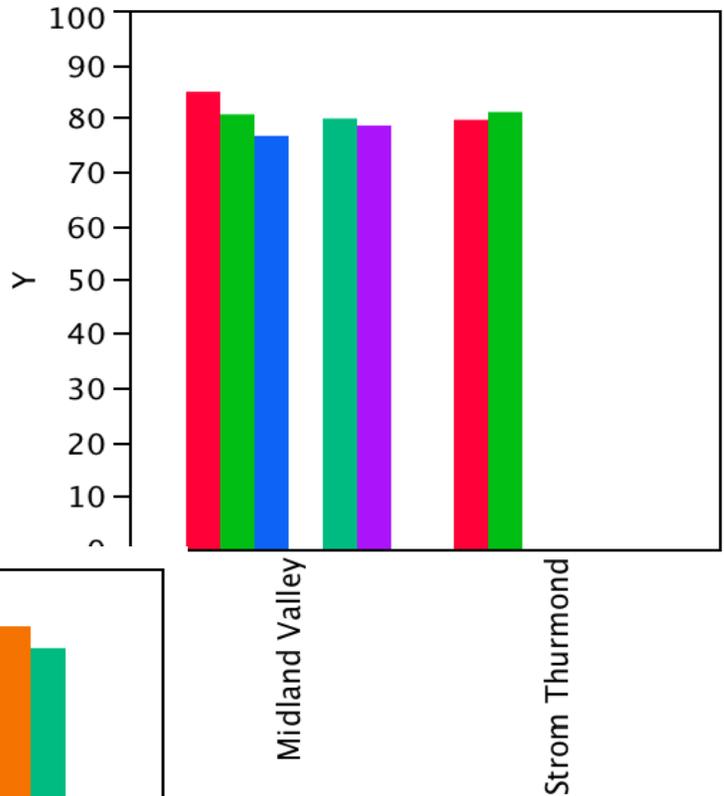
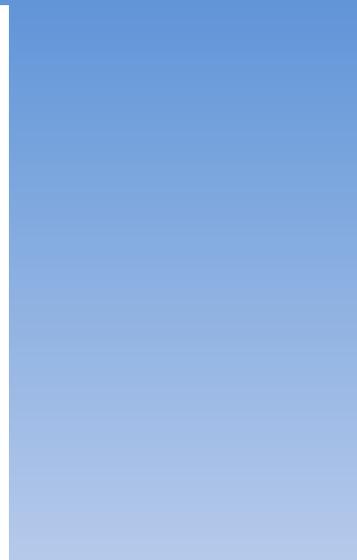
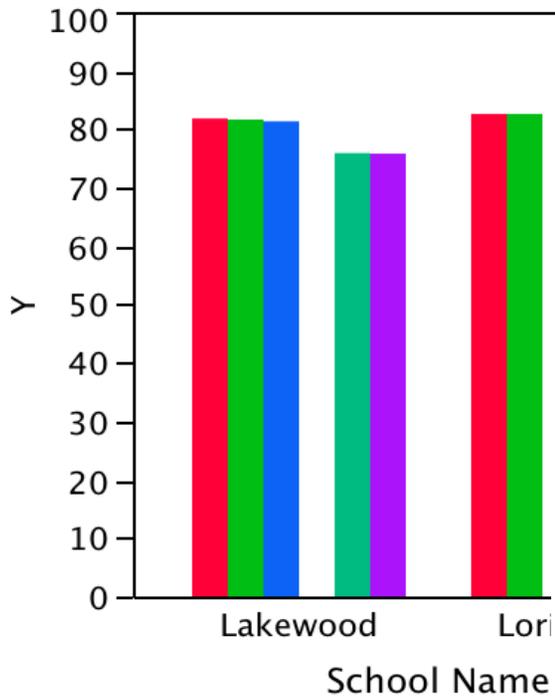


School Name

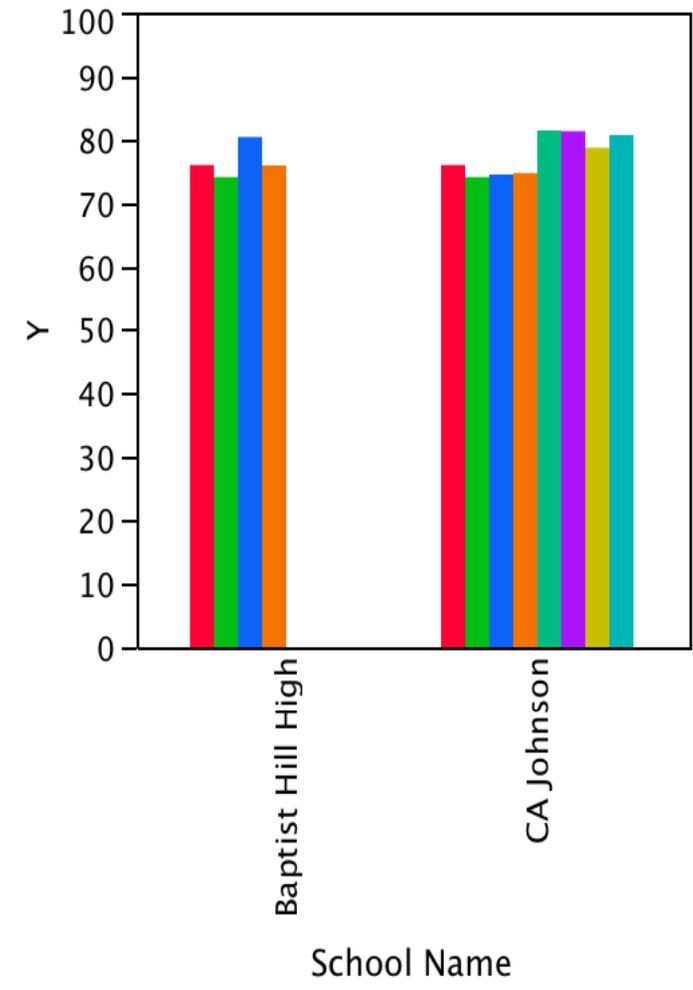
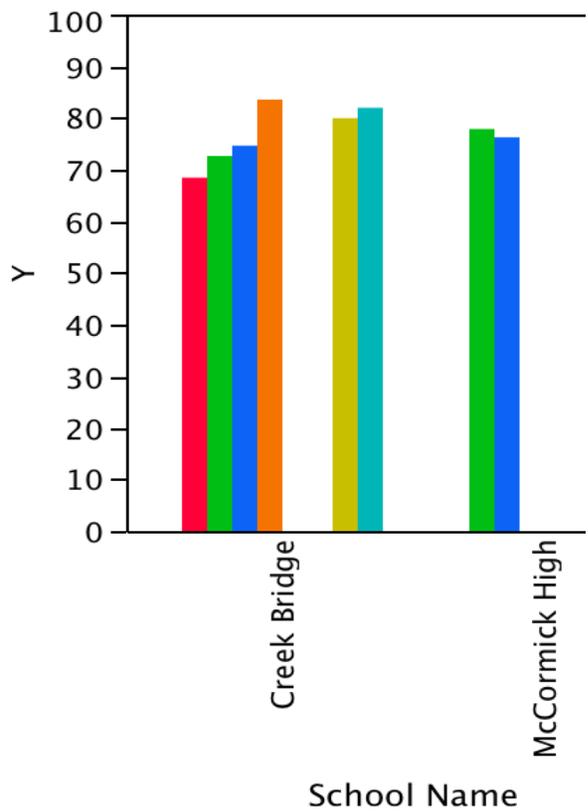
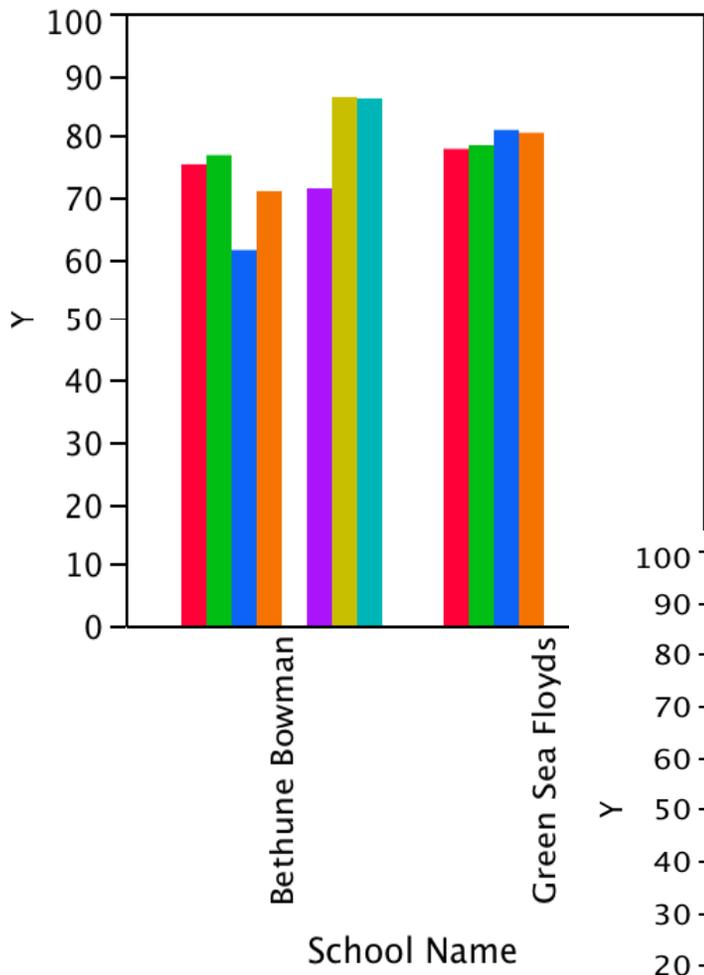
SOCIAL STUDIES GRADE COMPARISONS – 2nd Year Cohort



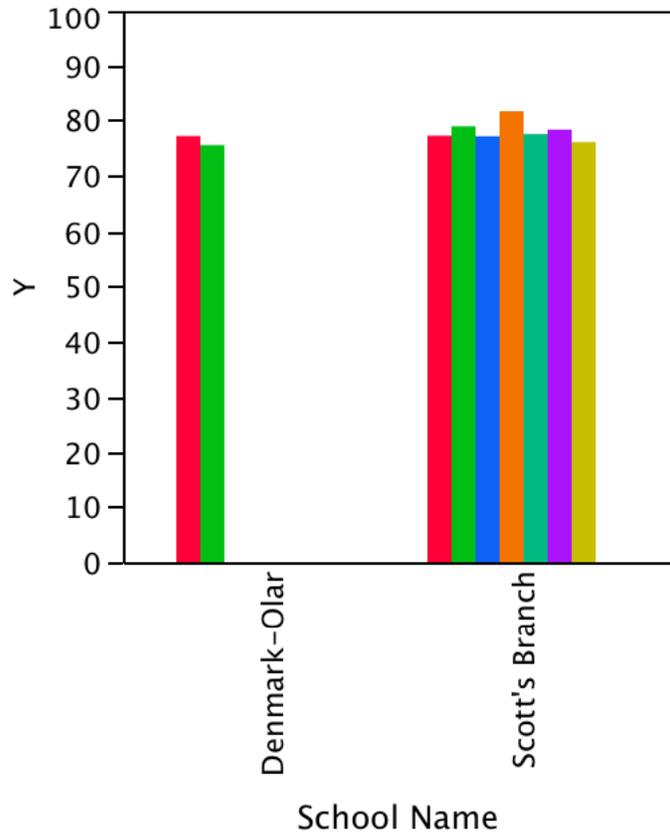
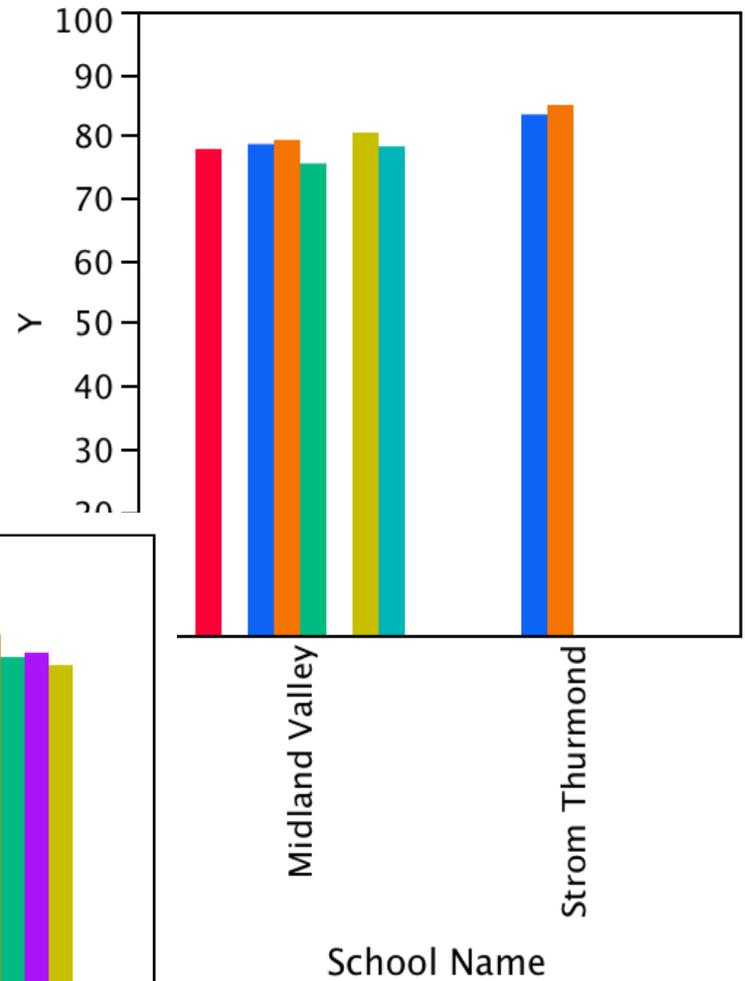
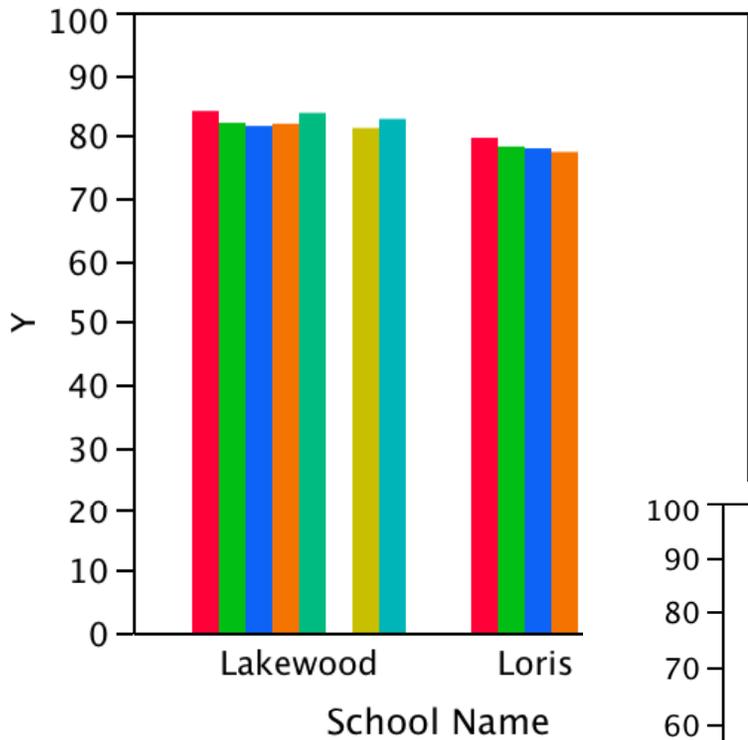
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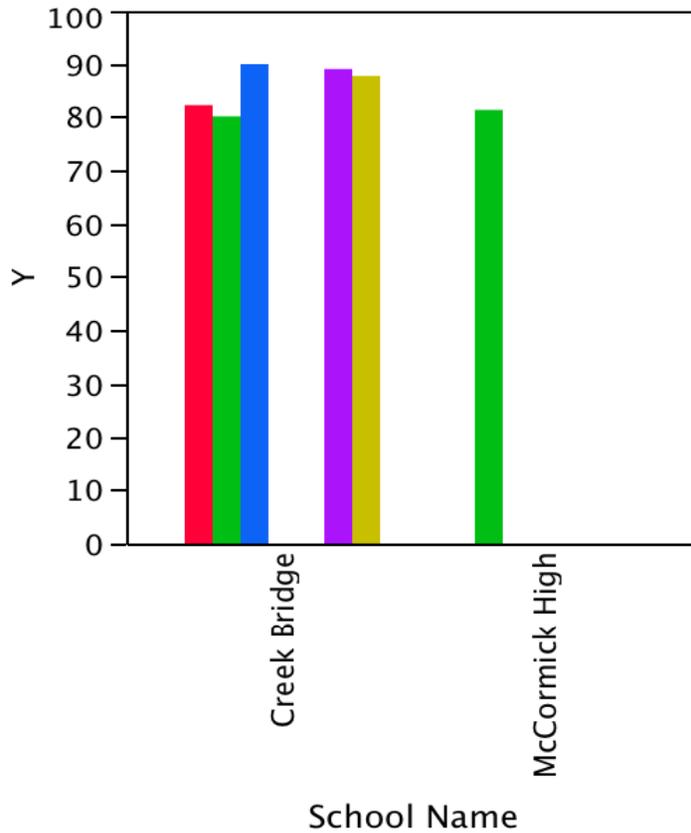
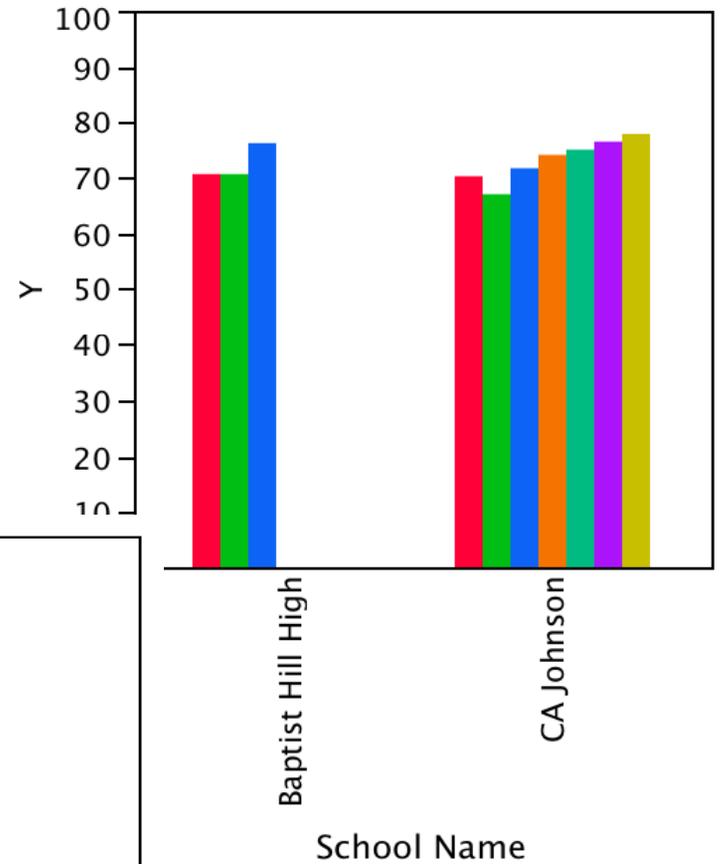
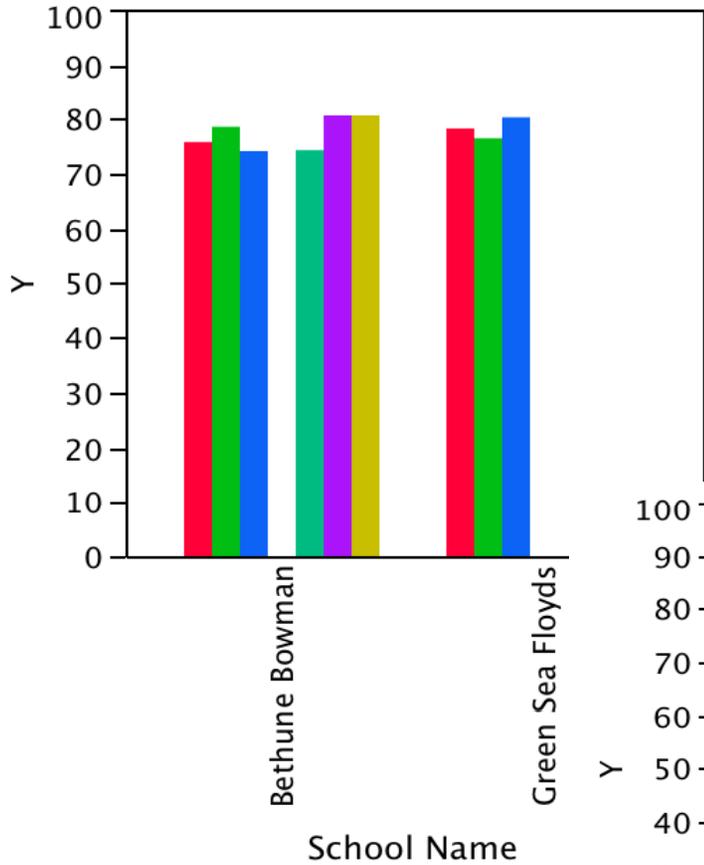
ENGLISH GRADE COMPARISONS – 1st Cohort – 07-08 FRESHMEN



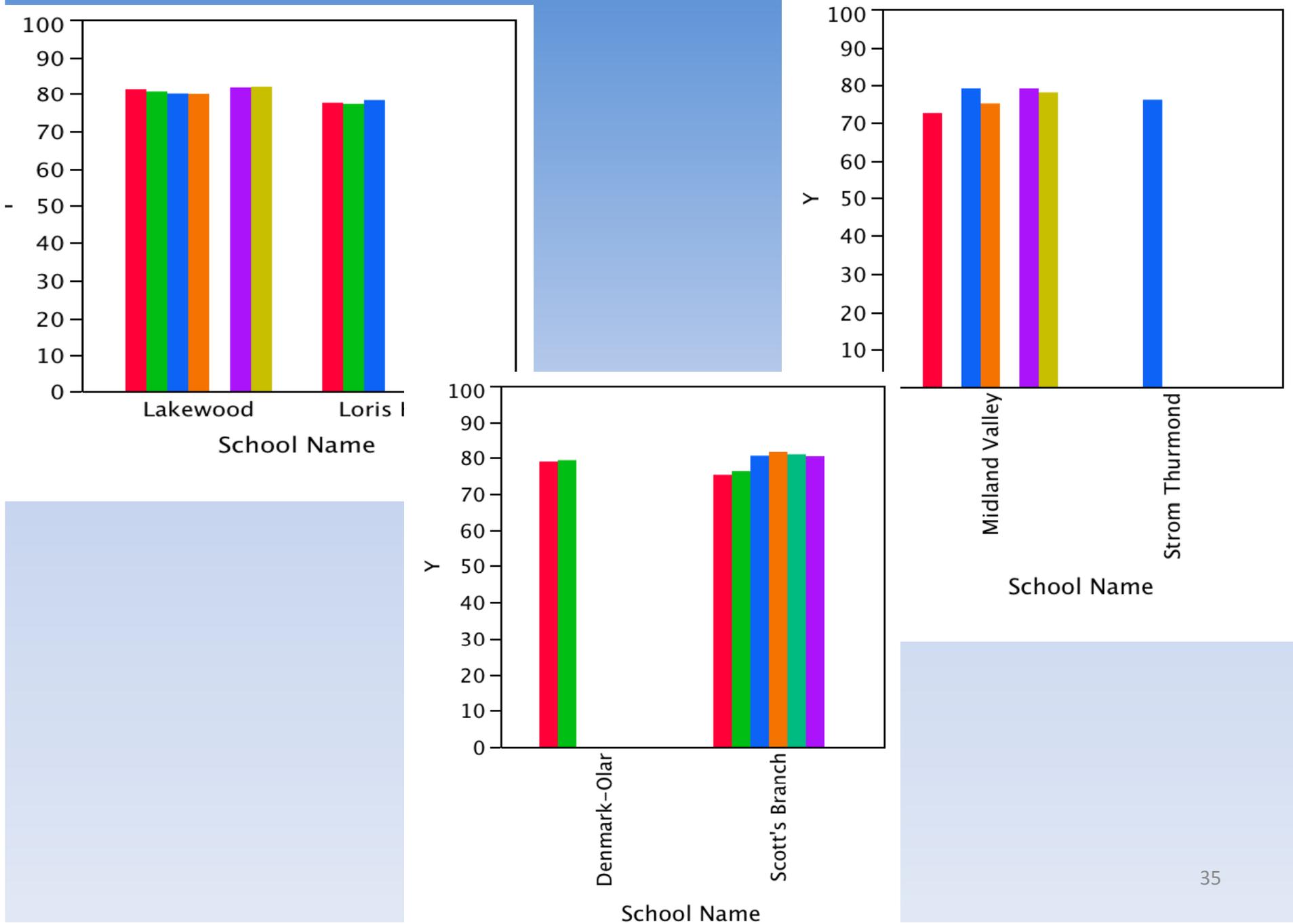
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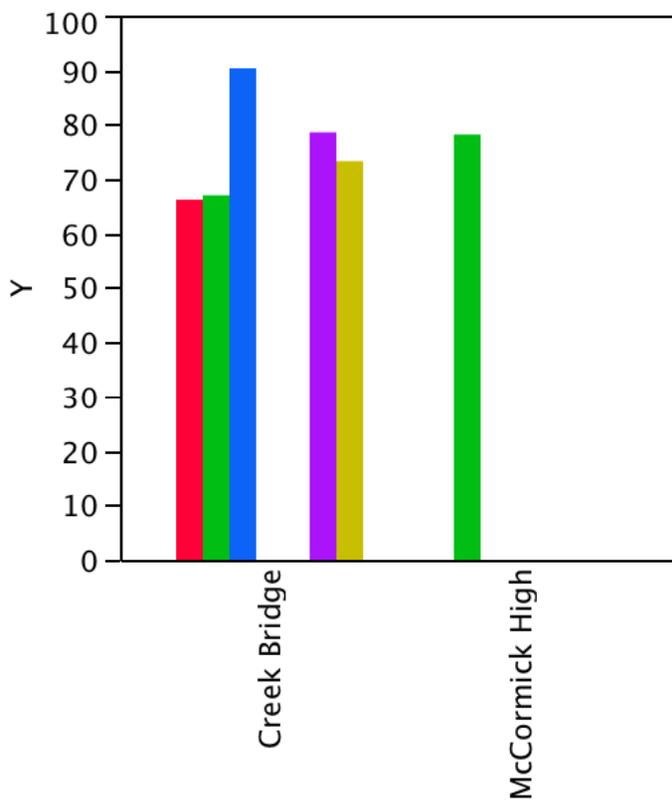
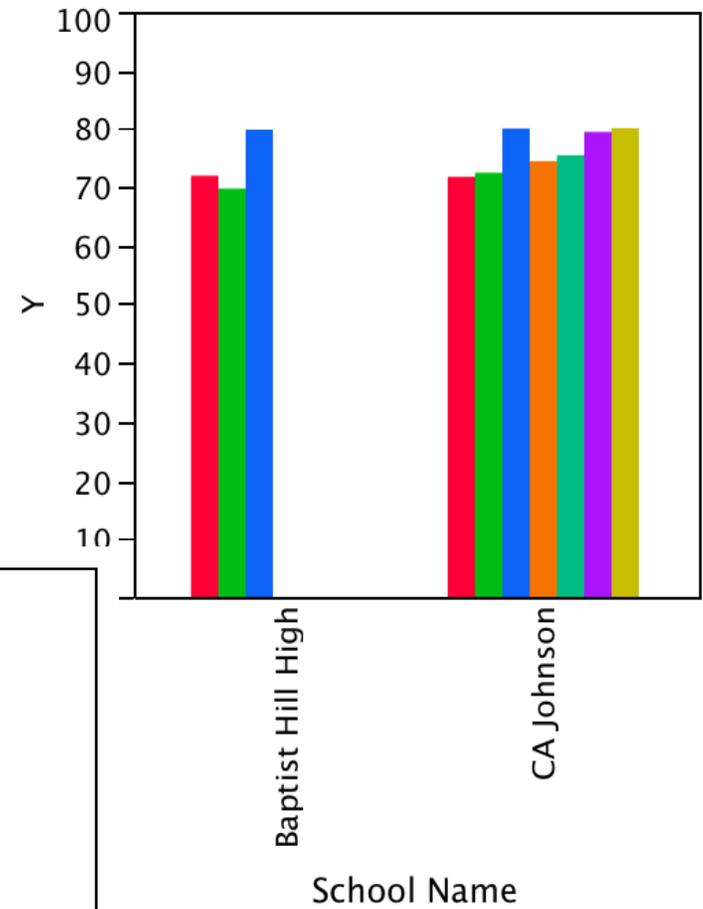
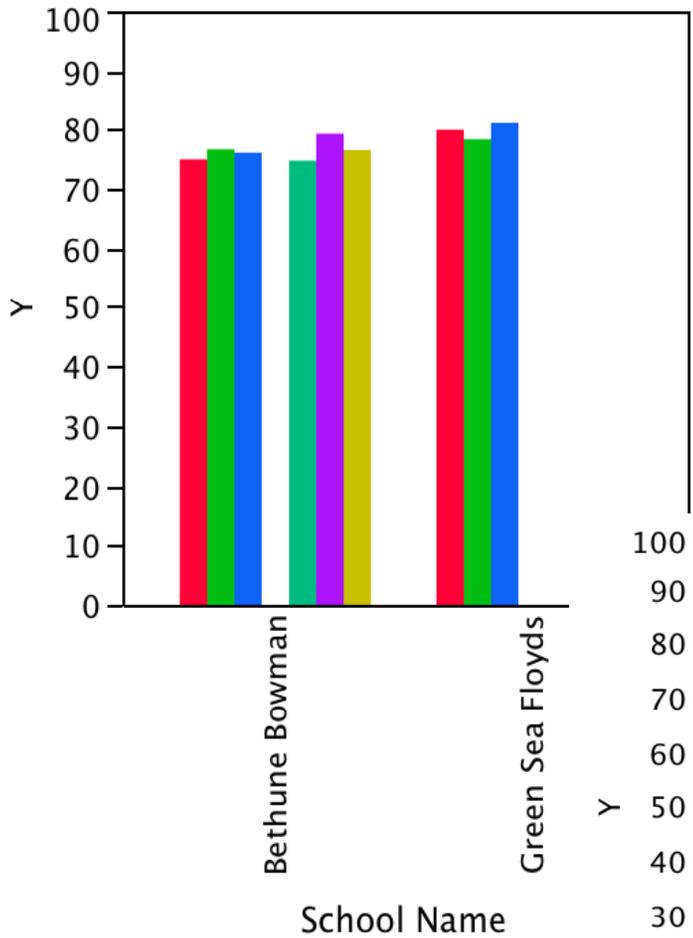
MATH GRADE COMPARISONS – 1st Cohort – 07-08 FRESHMEN



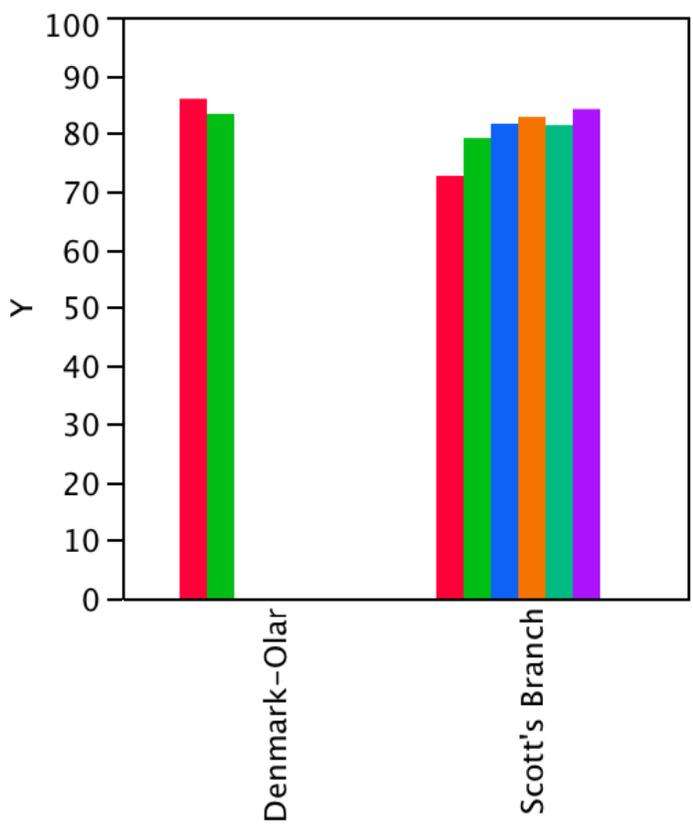
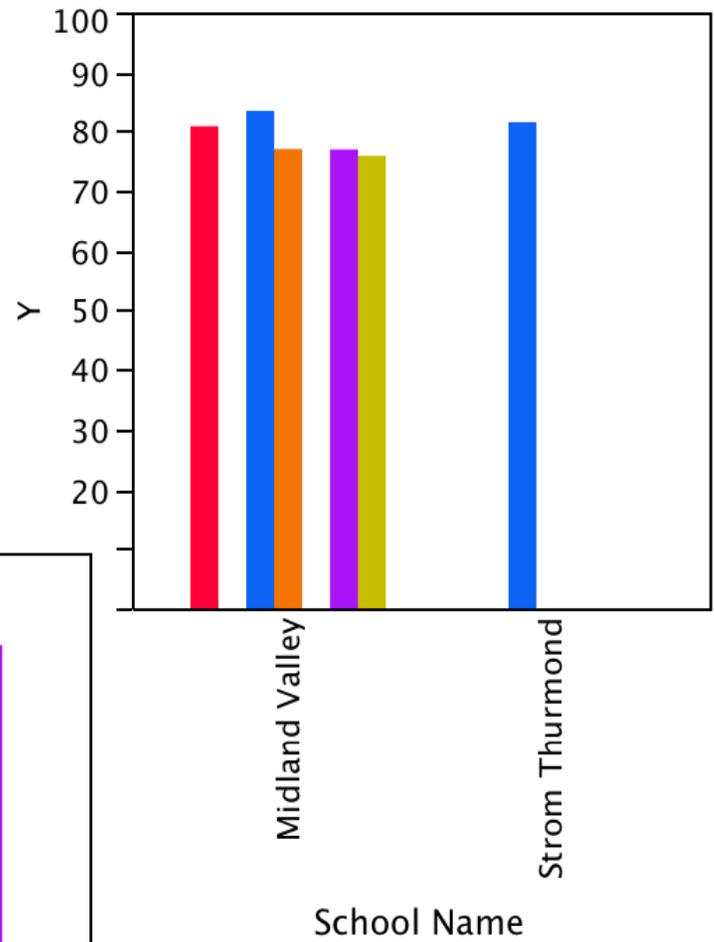
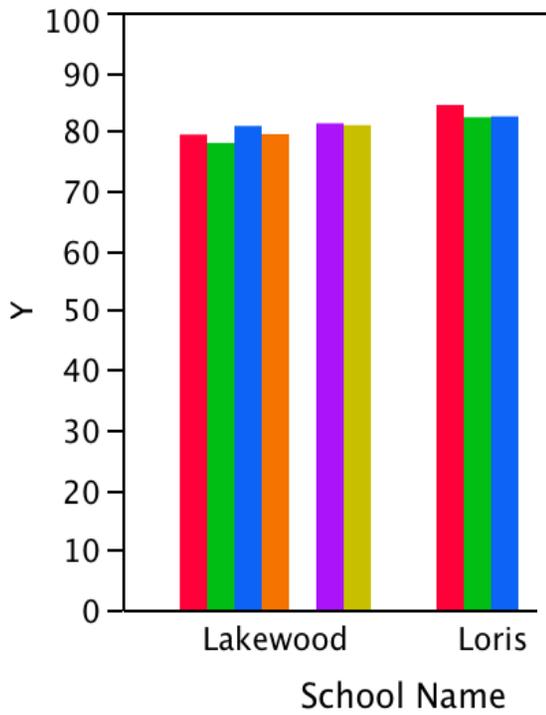
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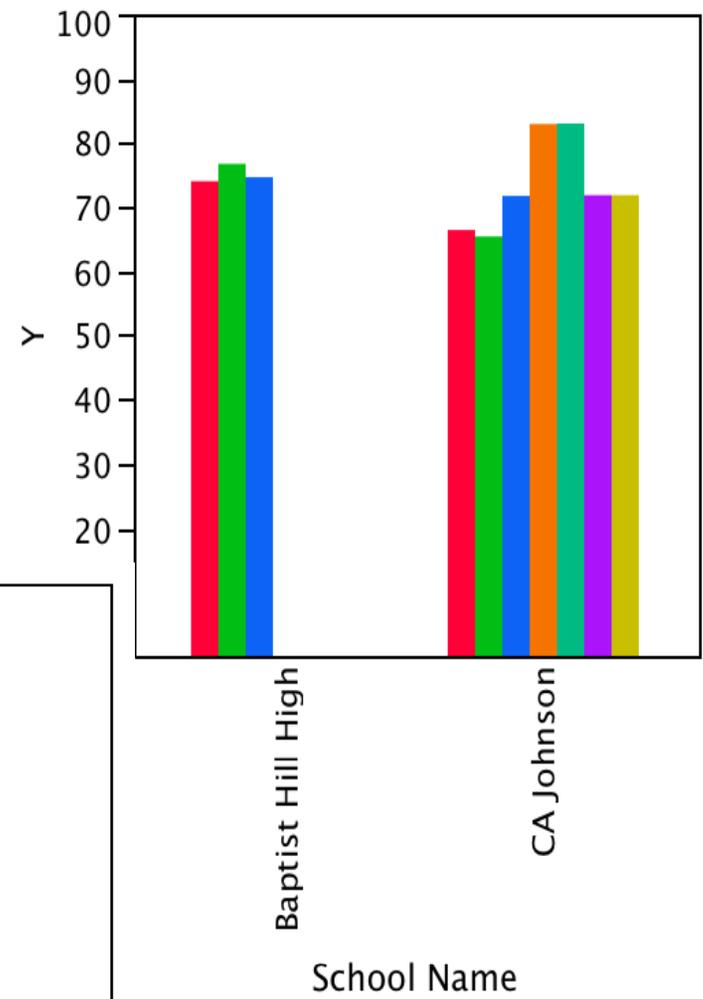
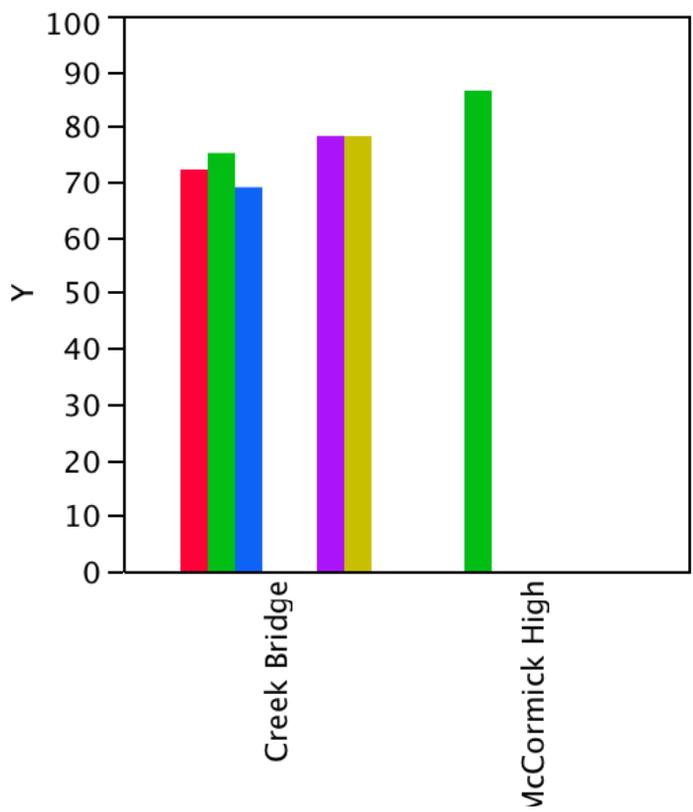
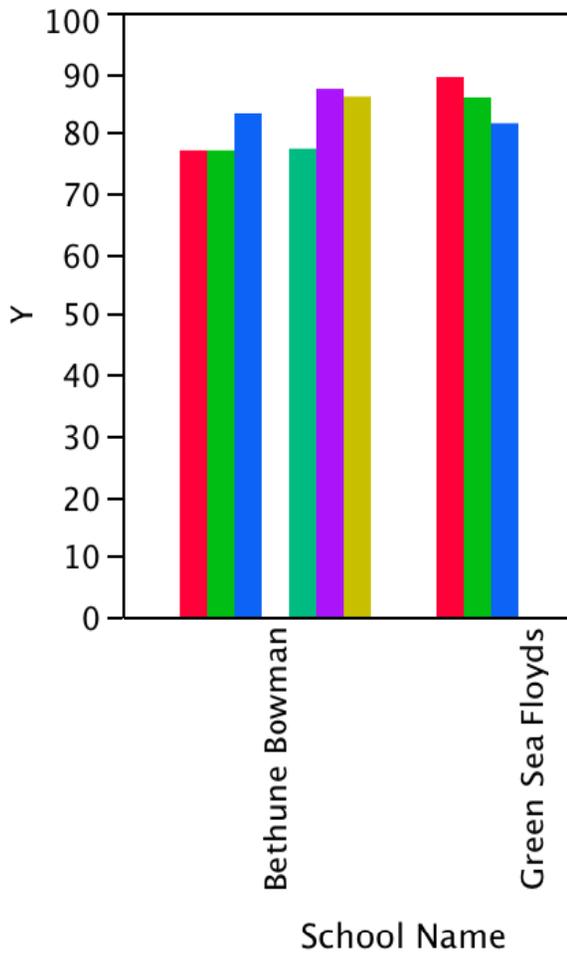
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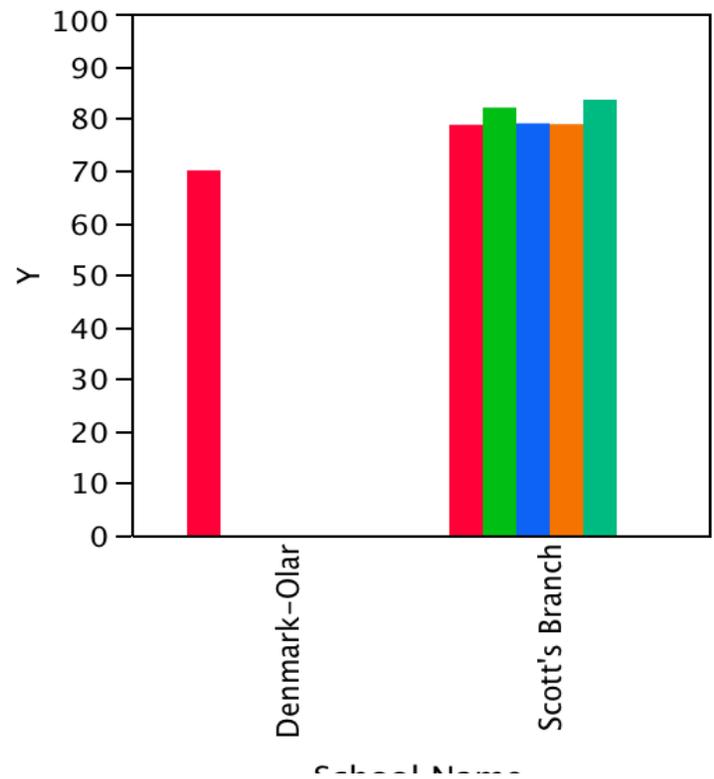
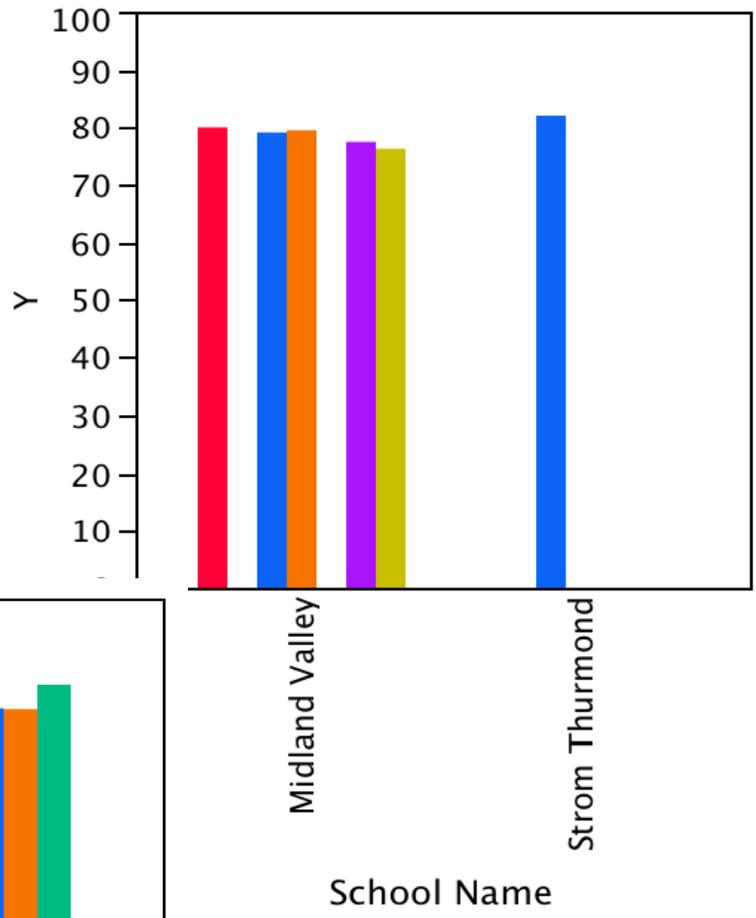
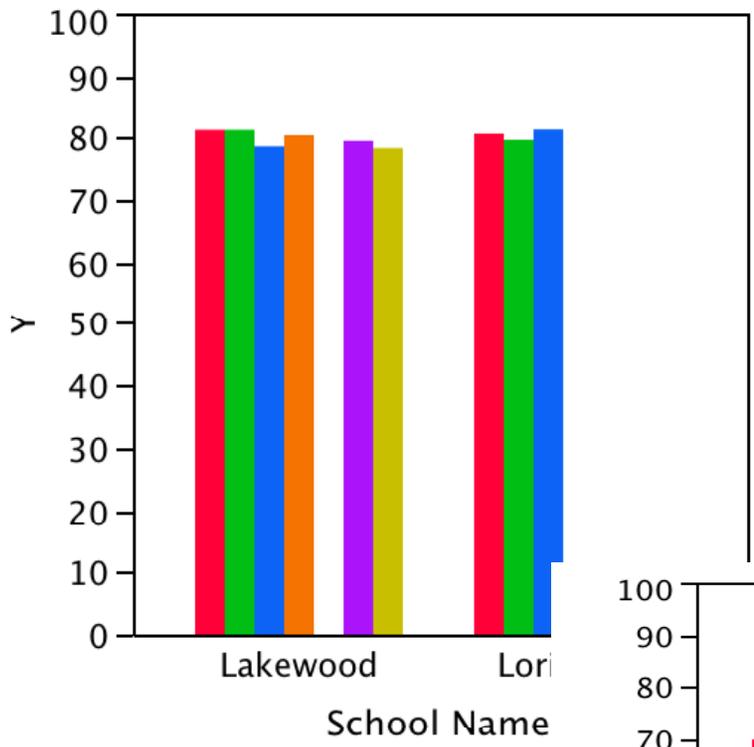
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SOCIAL STUDIES GRADE COMPARISONS – 1st Cohort – 07-08 FRESHMEN



SOCIAL STUDIES GRADE COMPARISONS – 1st Cohort – 07-08 FRESHMEN



Surveys Conducted

- Using online web tool for surveys; teachers and students link directly to the [Strom Thurmond Institute's survey program.](#)
- 8 Student Surveys
- 6 Faculty Surveys
- Weekly questions
- Weekly lesson plan uploads
- The results did not ever change

Opportunities Provided Teachers

- Website for Laptop evaluation, downloads/uploads/resources
- Webinar on instruction & access to Dell training at any time
- Wiki
- Group discussions
- Ability to review other technology lessons for ideas etc.

Teacher Surveys

Teachers surveys / focus groups evaluate their comfort and use of technology. Please note that there is overlap between grades, and we have allowed teachers to remain anonymous for responses.

- Teachers are not going to do but one lesson plan
- Teachers did not buy into the grant
- Without school level leadership, did not participate
- Did not upload lesson plans or report counts without push
- Did not utilize tools or training provided on web site

Teachers' Use & Lessons

- Teachers were asked to send us weekly emails to tell us how many lessons they teach each week using technology (with and w/o internet).
- Also, they are to upload 4 lessons per month to the web site.
- This process has not gone as smoothly as we hoped; many teachers have not responded well.
- For 09-10, there was no compliance with this request.

Parent survey results and focus groups

- 50% of the parents surveyed had home computers
- Of those 60% had internet access
- Parents said students were proficient in using technology
- Parents had concerns about requirements to pay \$1500 to the school if the computer was lost. cited as the main reason for not signing to allow child to receive a laptop

Student Focus Groups

- By far the most honest
- Were excited about the laptops
- Wanted to use them more (told us when they weren't being used)
- Class more interesting/paid attention
- Liked the challenge of research and educational games in subjects on the internet
- Best emailing homework to the teacher

Recommended Best Practices

- Integration of technology and instruction works best when distribution is school wide.
 - - After freshmen year, most classes are multi-grade
 - Especially in small districts
 - Reinforces that change to technology is permanent
- Teachers will default to non-tech lesson plan if forced to plan more than one.
- Being able to evaluate grades across districts will allow for greater accountability of dollars.
- Teachers should be required to adopt/master and integrate instruction with technology

Recommendations for Future

- Teachers sign off on grant proposals
 - Increased accountability across all levels for outcomes and finances
- Better communication with parents
- Insite Changes in reporting technology finances
- Students more engaged in learning

Challenges

- No standardization of school course data
- Training is generally about mechanics not skills of integration & adaptation of technology to the classroom.
- Technology costs are a challenge, especially for small districts
- Lack of strategic planning for technology and instruction *integration* across a district
- The system itself will not improve simply because of supplying a new piece of technology
 - Change must occur across levels within a district
 - School leadership matters; district leadership matters

Summary of Grant Outcomes

- Students feel laptops provide an incentive to attend school/stay in school
- Incentive to stay and graduate
- Increased curiosity/exploration/ownership