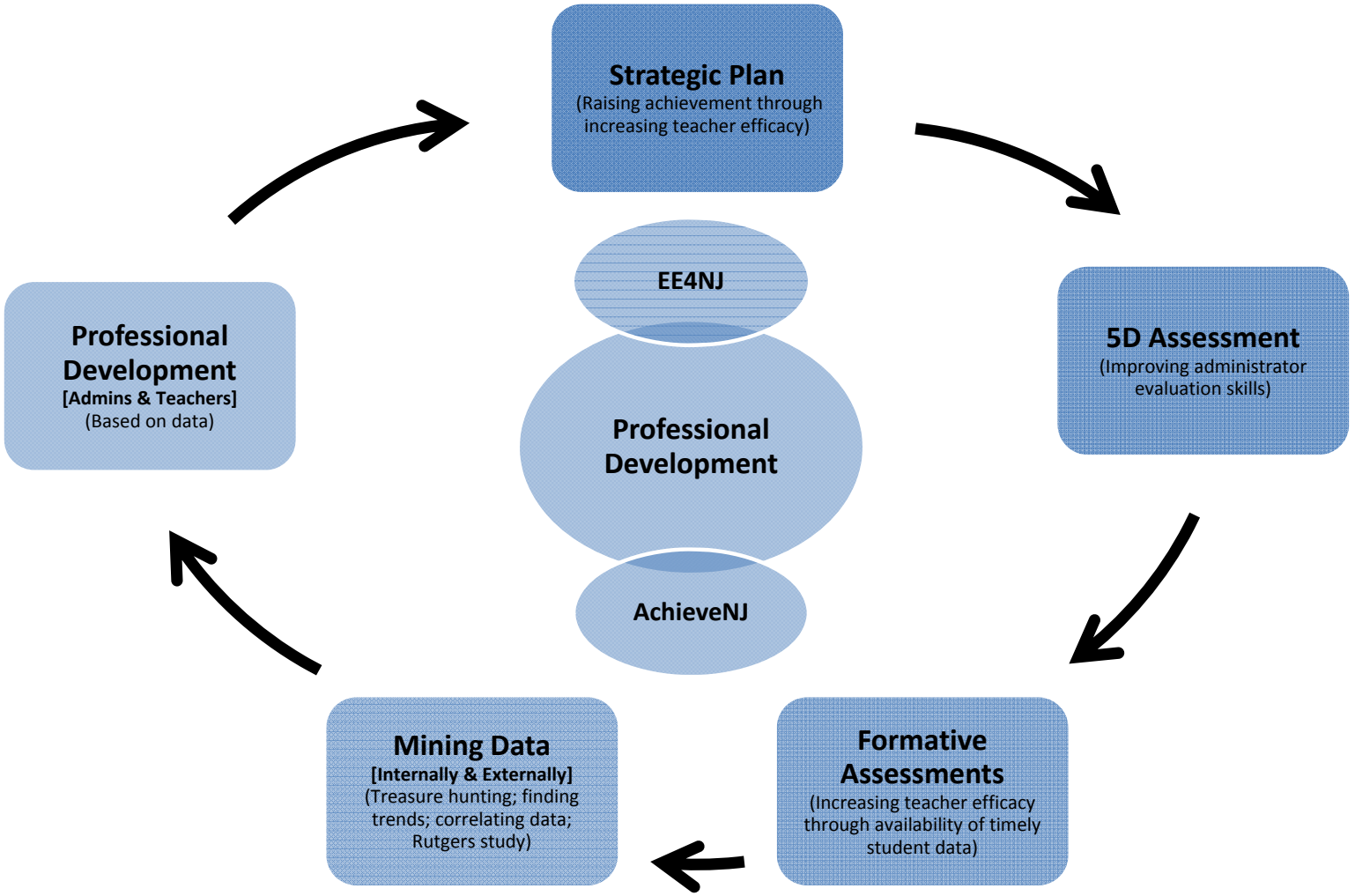
Middle States Regional Forum

Using Research to Increase Teacher Efficacy: Outcomes from the 3-Year EE4NJ Pilot

Dr. Michael Kuchar, Superintendent, Bergenfield, NJ
Dr. Frank Auriemma, EE4NJ Consultant, retired Superintendent, Pearl River, NY
Dr. Cynthia Blitz, Research Professor, Exec. Director Center for Effective School Practices, Rutgers University
Ms. Elizabeth Jewett, Superintendent Watchung Hills Regional HS District, and Educational Consultant


Strategic Plan
(Raising achievement through increasing teacher efficacy)
5D Assessment
(Improving administrator evaluation skills)
Formative Assessments
(Increasing teacher efficacy through availability of timely student data)
Mining Data
[Internally & Externally]
(Treasure hunting; finding trends; correlating data; Rutgers study)
Professional Development
[Admins & Teachers]
(Based on data)
EE4NJ
Professional Development
AchieveNJ

Planning, Implementation, Assessment, and Reflection

Historical Context of the Problem

The Chicago Teacher Strike- September, 2012

Among the major issues, the teachers objecting to their evaluations being tied to performance and fretting about potential job losses.

Managements motives:

In 2010 high school graduation rate for Chicago Public Schools was 55.8 percent.

During the same time period, only .03% of all Chicago Public School teachers received an unsatisfactory rating on annual evaluation.

The Widget Effect

Fewer than one percent of the 40,000 teachers covered by the study had ever received a lower than “satisfactory” rating on an evaluation.

Effective teachers are the key to student success. Yet our school systems treat all teachers as interchangeable parts, not professionals. Excellence goes unrecognized and poor performance goes unaddressed. This indifference to performance disrespects teachers and gambles with students’ lives.

The Teacher Project (2009)

The Challenge

The national high school graduation rate is reported to be between 72-75 percent, dependent upon the data source. Currently, one in four students drops out before he/she finishes high school. That's one every 26 seconds or more than one million students a year.

America's Promise Alliance (2013)

Linking Student Achievement to Teacher Practice

More than two decades of research findings are unequivocal about the critical connection between teacher effectiveness and student learning. The research shows that student achievement is strongly related to teacher quality; highly skilled teachers produce improved student results.

Excellent Educators for New Jersey (EE4NJ)
Teacher Evaluation Reform NJ

- NJ was 27th state in US to take on Teacher Evaluation Reform

- New Jersey is reforming teacher evaluations, and it is better to be providing insight and feedback to the state rather than to be forced into a new system with no input.

- Because our district was already working to increase student performance through teacher practice, and our evaluators were already working to become better observers through 5D Assessment and Instructional Rounds, the next logical step was to tie in new teacher performance measures.

Major reasons why Bergenfield choose to participate in first EE4NJ.

The district has been:

- utilizing short cycle assessment since 2006 and has seen dramatic increase in student achievement.
- We were participating in the University of Washington study of the competence of administrator evaluation of teaching since 2010.
- We were committed to increasing administrator professional development since 2010 through the use of administrator walkthrough training which focused on the instructional core.

Major reasons why Bergenfield chose to participate in the EE4NJ pilot

- The district has employed a model of expansive leadership since 2005. As part of the district strategic plan, the district employed the Baldrige Model of Continuous School Improvement. The Bergenfield Board of Education would develop District goals as part of the district leadership team. In turn, each of the 7 schools would employ a Building leadership team to align school goals with district goals.
- The issue of whether the teachers would like to accept a teacher evaluation system given to them by the state of NJ or would they like to develop one of their own- the faculty of the Bergenfield School District choose to be a pilot school district.
- The mantra of giving everyone in the system “Voice and Choice” emanated throughout the EE4NJ and continues today and drives individualized and global professional development in the Bergenfield Schools.

Dr. Auriemma

- Will talk about our data sources and using district data to improve student learning (through focused professional development) which ultimately led to higher student achievement.

Bergenfield's Initial Data Findings

- Although created as a tool to improve teacher practice…Bergenfield selected the Danielson Model as their teacher evaluation instrument and served as a New Jersey EE4NJ Pilot District.
- Through an initial double blind study using teacher volunteers, we were able to collect data which aligned with the University of Chicago's Danielson study relative to Rater Accuracy and Agreement along with Component Rigor.
- Our data confirmed teachers were challenged by two Danielson Components:
  - Questioning Techniques and Use of Assessments

5D Rater Assessment-Best Fit to Danielson

- 5D Assessment (U. of Wash.) was used as a primary administrator training and assessment tool with the best fit to Danielson. 5D provided rater accuracy scores through the use of video exemplars.
- Administrators receive accuracy scores based on both local and nationally normed performance data.
- Our initial district study utilized multiple evaluators observing the same lesson and provided administrators an opportunity to compare, discuss and reflect upon their scores, along with rater accuracy and agreement data.
- As a result, administrators and teachers developed a common language, lexicon and “Look Fors” which have become more sophisticated over time.

Use of Formative Short Cycle Assessment Data

- Use of Short Cycle Assessment SGPs (Ren Learn) provide another valuable, albeit different, measure of student skill based growth data.
- Teacher, Principal and Superintendent Data Dashboards provide ease of monitoring and collection of student performance data.
- These data sources have allowed our district to provide pinpoint instruction and remediation to students, while simultaneously identifying teacher professional development needs.

Moving from narrative generalities to an evidence based evaluation process

- Over three years, 50 teacher leaders and administrators spearheaded the rollout of the Danielson Framework, while addressing a number of thorny issues in a culture of a true professional learning community
- We have learned that quality data allows us to link:
  - Student Assessment Data to Teacher Practice
  - Student Assessment Data to Teacher Evaluation
  - Student Assessment Data to Administrator Evaluation
  - Student Assessment Data to Professional Development Needs of Teachers and Administrators

- Dr. Cindy Blitz, Exec. Director, Center for Effective School Practices, Rutgers University will present the findings of her research in which she analyzed Bergenfield's data.

Bergenfield Partnership with CESP-RU

Goals of Partnership

- Analyze available data to provide Bergenfield with further information for PD planning and teacher support.

Some specific items of interest were:

- To explore observation data, inter-rater reliability, as well as the relationship with student achievement data.
- To better understand the possible role of short-cycle assessments in predicting student achievement and as a potential tool for evaluating teacher performance.

Data sources

- Danielson Teacher Observation Data
- Short-cycle Assessment SGP Data (Ren Learn)
- NJ Department of Education SGP Data (NJ ASK)

Examples of Analysis Conducted

- Observation scores by subject, grade level, tenure status.
- Short-cycle assessment and DOE SGP scores by subject, grade level, tenure.
- Direct comparison of short-cycle assessment SGP and NJDOE scores.
- Correlation between SGP scores and observation scores.

Review of Findings from Observation Data

- Observations in Bergenfield tend to yield higher scores than those sampled in the MET study.

- On average, teachers tend to score lower in domain 3 – professional responsibility than in the other 3 domains.
  - Specifically, teachers tend to score lower in 3b – Using questions and discussion techniques and 3d – Using assessment.

- Untested teachers tend to score higher in domains 2 and 3 (observed domains) and lower in domains 1 and 4 – planning and professional responsibilities.
  - Out of these untested subjects, Specials and Science receive the highest observation scores.

Review of Findings from Observation Data

- Teachers in elementary schools tend to get higher observation scores than those in middle or high schools.
  - » Real difference or evaluator bias?
- Tenured teachers tend to score significantly higher on observation ratings than teachers who are untenured.
- Across measures of inter-rater agreement, evaluators in Bergenfield tend to show moderate to good agreement on ratings.
  - However, agreement does not necessarily equal accuracy.
  - Investigate further by comparing to SGP data.

Review of Findings from SGP Data

- Short-cycle Assessment SGPs
  - Growth relative to peers nationwide on assessments.
  - Compares growth from baseline assessment in fall to two time points: end of fall, end of spring. Also compares growth from end of fall to end of spring.
- NJDOE SGP
  - Growth relative to peers statewide on NJASK.
  - Compares growth from end of previous academic year to end of following academic year.
  - Calculated for a smaller subset of teachers (tested subjects and grades).
- Commonalities
  - They compare a student's growth relative to a group of his peers. Thus, an SGP of 50 indicates that a student grew more than 50% of his peers who scored similarly on the baseline assessment.

Review of Findings from SGP Data

- Median short-cycle assessment SGP for teachers in Bergenfield is in the high-typical range, while DOE SGP is in the low typical range.
    - Lower number of teachers? More stringent norms?
- Teachers in elementary school classrooms tend to have higher growth in their classrooms, on average, compared to middle school teachers, but comparable to high school teachers.
    - Also, why the winter-spring drop?
- Tenured teachers receive higher median SGPs.

Review of Findings across Data

- Across domains, teachers tend to receive higher observation scores in elementary schools than in middle or high schools
  - Supported in part by SGP data;
    - Elementary SGP > Middle school SGP (both DOE & short-cycle).
    - However: Elementary SGP is similar to High School SGP.
      - » So why low observation scores in high school?
- Across observation domains and SGPs, tenured teachers tend to perform better than untenured teachers.
- Teacher observation ratings have a moderate correlation to short-cycle assessment SGP
- Strong, positive correlations between short-cycle assessment SGP and NJDOE SGP but NJDOE scores generally lower.
  - Norms? Sample bias?

Future Directions and Questions

- What accounts for the difference in growth rate between elementary and high school levels and middle school?
- Why are observation ratings in high school lower than in elementary despite similar SGP outcomes?
- Would there be any benefits to having observers external to the building? District level?
- What are tenured teachers doing differently that is leading to both higher observation scores and higher student outcomes?
- What sort of training would help administrators conduct evaluations more consistently?
- Why is there a decrease in student growth rate during the winter-spring semester?

- Ms. Elizabeth Jewett, Superintendent Watchung Hills Regional High School District, Warren, NJ & Dr. Elaine Walker, Professor, Graduate School of Education, Seton Hall University, were hired as consultants and to lead a two day administrative retreat and subsequently led a two week professional development for teachers.
- Ms. Jewett and Dr. Walker used all the research data to plan focused and specific PD for these events.
- Ms. Jewett will now present on her PD and how she helped formalize the strategic plan to reflect PD activities

Turning data into results: Professional Development for administrators and teachers

Key questions

- What is the responsibility of the administrative team in all of this and how do we expand their capacity as instructional leaders?
- How do we use this data to improve instructional practice of teachers?
- June 23 & 24, 2014 Dr. Elaine Walker, Seton Hall University Professor, and Elizabeth Jewett, WHRHS Superintendent, conducted a 2 Day Administrative Retreat for Bergenfield

Purpose and Objectives of Retreat

1. Identify strengths and weaknesses of current professional development programming based on student outcome and teacher observation data;
2. Identify areas of priorities based on needs; utilize Rutgers preliminary data
3. Identify possible professional development opportunities and revisit the strategic plan to reflect these needs

All through the lens of continuous improvement

Planning, Implementation, Assessment, and Reflection

Deliverable from Two Day Retreat

- Together we will collaboratively create a Comprehensive Professional Development program for administrators and teachers that supports the Common Core/PARCC using the district strategic plan as a vehicle for student success and all available data points (research).

Strategic Plan 2011-2016

Selected Goals

Goal 3: High School- 80% of seniors will take calculus

Goal 8: Fifty percent of 8th graders are in the advanced proficient range on NJASK Language Arts

Goal 9: Fifty percent of 8th graders are in the advanced proficient range on NJASK Math

Goal 10: Thirty-five percent of 5th graders are in the advanced proficient range on NJASK Language Arts

Goal 11: Thirty-five percent of 5th graders are in the advanced proficient range on NJASK Math

Goal 12: Thirty-five percent of 3rd graders are in the advanced proficient range on NJASK Language Arts

Goal 13: Seventy-five percent of 3rd graders are in the advanced proficient range on NJASK Math

Strategic Plan 2011-2016 Student GAP Assessment

Strategic Goal	Grade Level	Language Arts Goal	Current Status	Mathematics Goal	Current Status
Goals 12 & 13	Grade 3	35% Advanced Proficient (NJASK)	11%	75% Advanced Proficient (NJASK)	53.2%
Goals 10 & 11	Grade 5	35% Advanced Proficient (NJASK)	8.6%	35% Advanced Proficient (NJASK)	44.7%
Goals 8 & 9	Grade 8	50% Advanced Proficient (NJASK)	8.1%	50% Advanced Proficient (NJASK)	47.6%
Goal 3	High School	N/A	N/A	80% of seniors take calculus	41%

Administrative reflection on student gap analysis

- Align Report Cards to CC/Assessments Utilized
- Revisit the domains and rubrics in Danielson
- Conversion chart - Ren/SGP (Calibrate score)
- How do we account for lack of writing/open ended response in Ren?
- PD opportunities for teacher to be a part of a best practice model
- iPad for admins w/Danielson software
- Unit planning – UbD – curriculum maps?
- PD – Eval – Common Core – all areas / teacher strategies, - CC, PARCC
- PD – Teacher/Admin shared training
- Danielson - calibration among raters, accuracy, agreement

Strategic Goal Action Plan

Goal 3: High School - 80% of seniors take Calculus

OBJECTIVES	STRATEGIES	BASELINE DATA	CURRENT STATUS	PERSON(S) RESPONSIBLE	PD Activities
1. The Guidance Department to support K-12 and instill the idea that college is the goal and calculus and physics are predictors for success	1. Provide all high school students the opportunity to take physics 2. Ensure all students are enrolled and successful in 9th grade algebra 1 or higher 3. Math rigor and support start in kindergarten and continues through 12th grade	In 2007: 55 out of 300 students attended 4-year colleges	2014: 172 out of 308 students (55.8) attended 4-year colleges	Director of Guidance Asst. Supt. of Curriculum High School Principal Math Director Guidance Counselors Math Teachers Science Teachers	Professional development workshops offered to the guidance department to ensure all students are on target and have the opportunity to take calculus and physics classes Springboard Instructional Framework PD College Bd Administrator training for Principals and DOG AP Counselor Workshops NOSCA 8 Components of College and Career Ready Calculus and physics teachers provided both internal and external PD to address both student participation and performance
2. Professional learning committees, teaming, implementation of standards-based mathematics curriculum	1. Use Renaissance Learning and state testing data to drive instruction 2. Technology professional development will provide teachers w/tools to assist in raising student achievement	1. In 2008: HSPA grade 11 math, 21.3 partially proficient, 65.8% proficient, 13% advanced proficient 2. In 2008: NJASK grade 8 math, 28.3% partially proficient, 51.3% proficient, 20.4% advanced proficient	1. In 2014: HSPA grade 11 math, 9.9% partially proficient, 56.9% proficient, 33.2% advanced proficient 2. In 2014: NJASK grade 8 math, 16.2% partially proficient, 36.2% proficient, 47.6% advanced proficient	Director of Guidance Asst. Supt. of Curriculum High School Principal Math Director Math Teachers	All staff offered PD on DuFour PLC's. Opportunities are provided for all teachers to share PLC best practices across the district Math curriculum mapping shared across departments to provide for sharing on horizontal articulation of curriculum and development of assessments AP Community Forum K-12 Math teachers to write curriculum
3. Increase access to higher level math courses	1. Math rigor and support start in kindergarten and continues through 12th grade 2. Increase communication among families, counselors and teachers to increase both participation and achievement	1. In 2008, less than 10% of senior class took a calculus course (30 students) 2.In 2009, on the American Diploma Project, algebra 1 end of year course exam 0% advanced proficient, 18% proficient, 35% basic, 47% below basic	1. In 2014, over 41% of senior class is taking a calculus course (128 students) 2. In 2012, on the American Diploma Project, algebra 1 end of year course exam 10% advanced proficient, 43% proficient, 28% basic, 18% below basic	Director of Guidance Asst. Supt. of Curriculum High School Principal Math Director Math Teachers	Springboard Training conducted three times annually for all math teachers, guidance counselors and administrators AP Calculus, College Board workshops three times annually for all students and staff, and students provided opportunity for Saturday online support Engagement with Higher order questioning 9,10, 11th grade PSAT results disaggregate for

Commitment to Professional Development

- Hired two Instructional Technology Coaches
- Purchased Eduplanet21 to streamline the process of districtwide PD
- Had the most teachers and administrators take PD than in my prior 9 years as superintendent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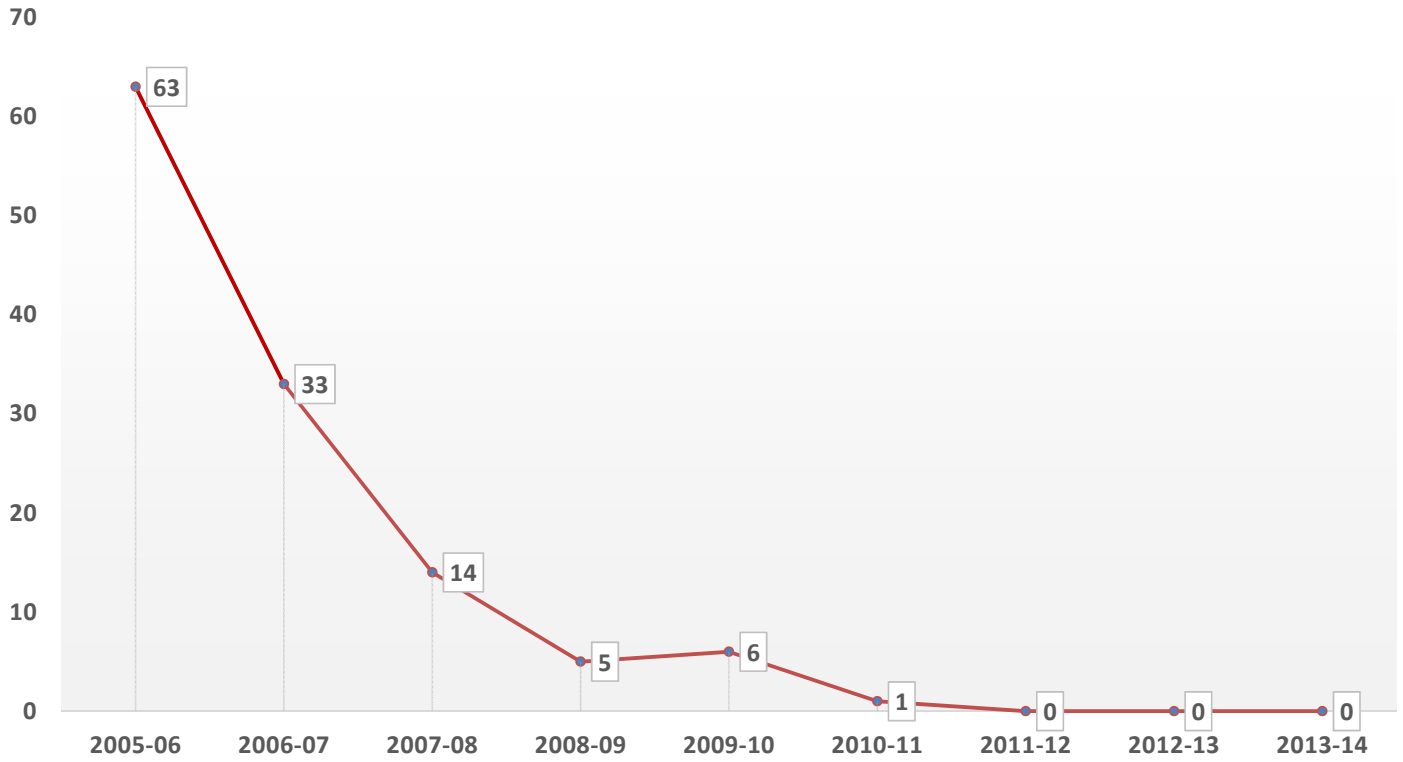
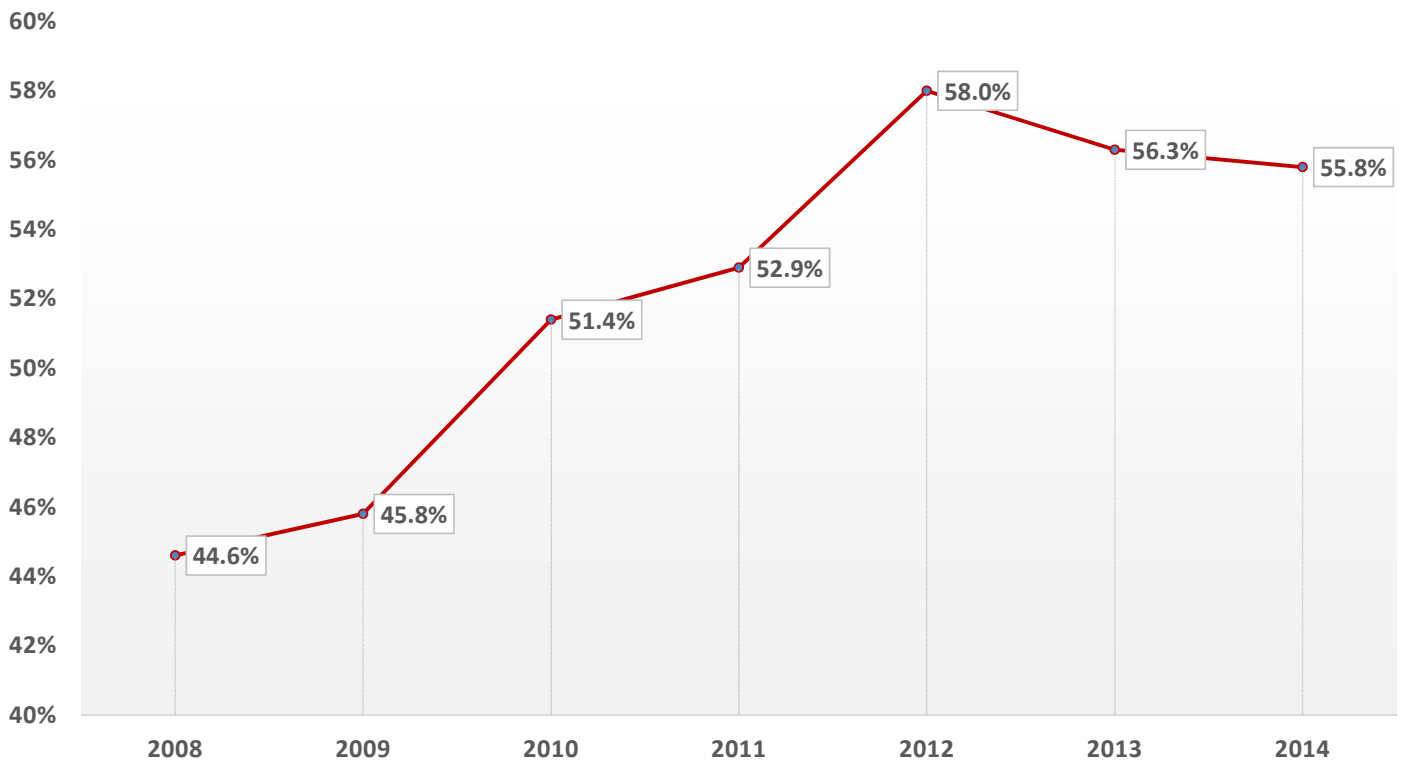
Bergenfield School District ACADEMIC Achievements

Using data to drive Professional Development

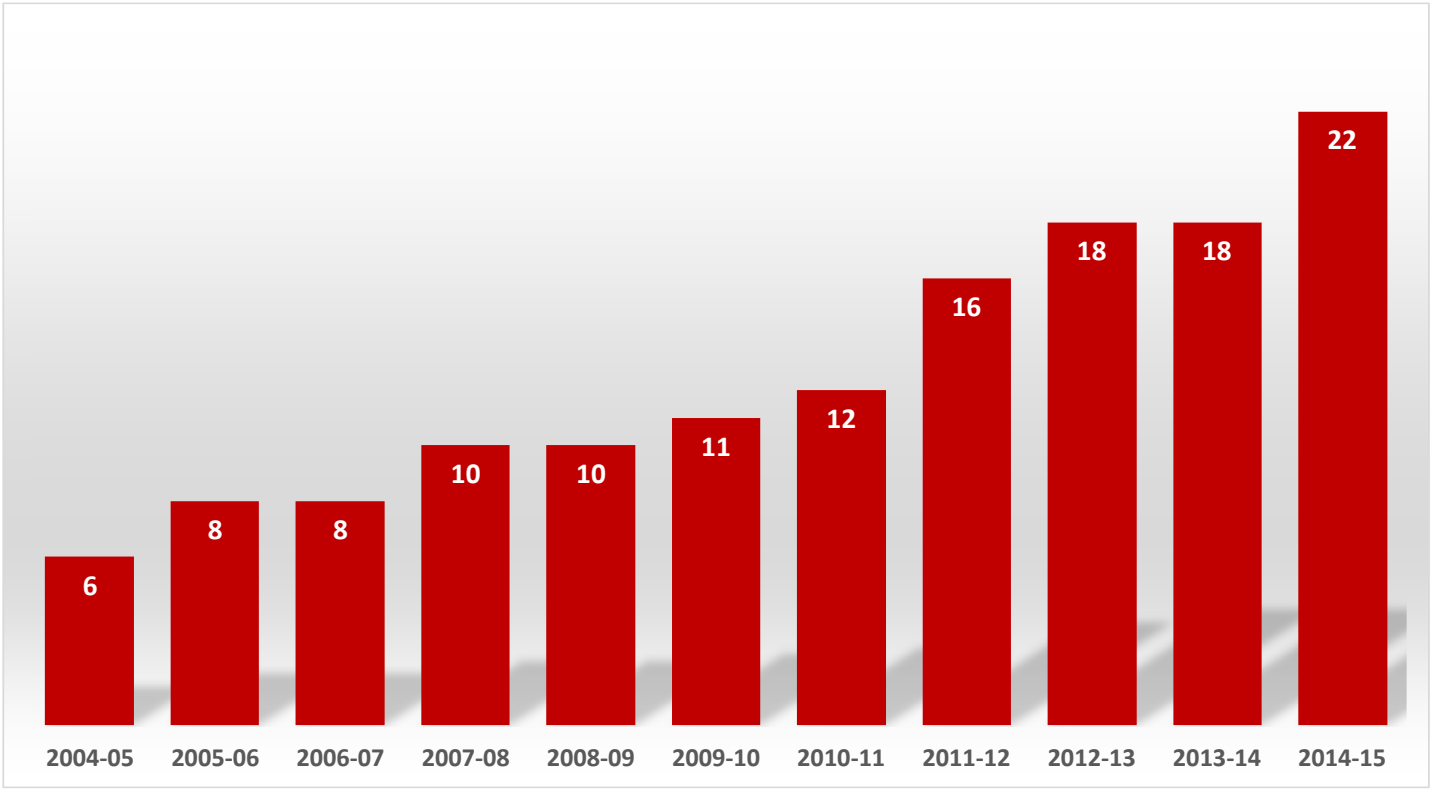
Number of Dropouts



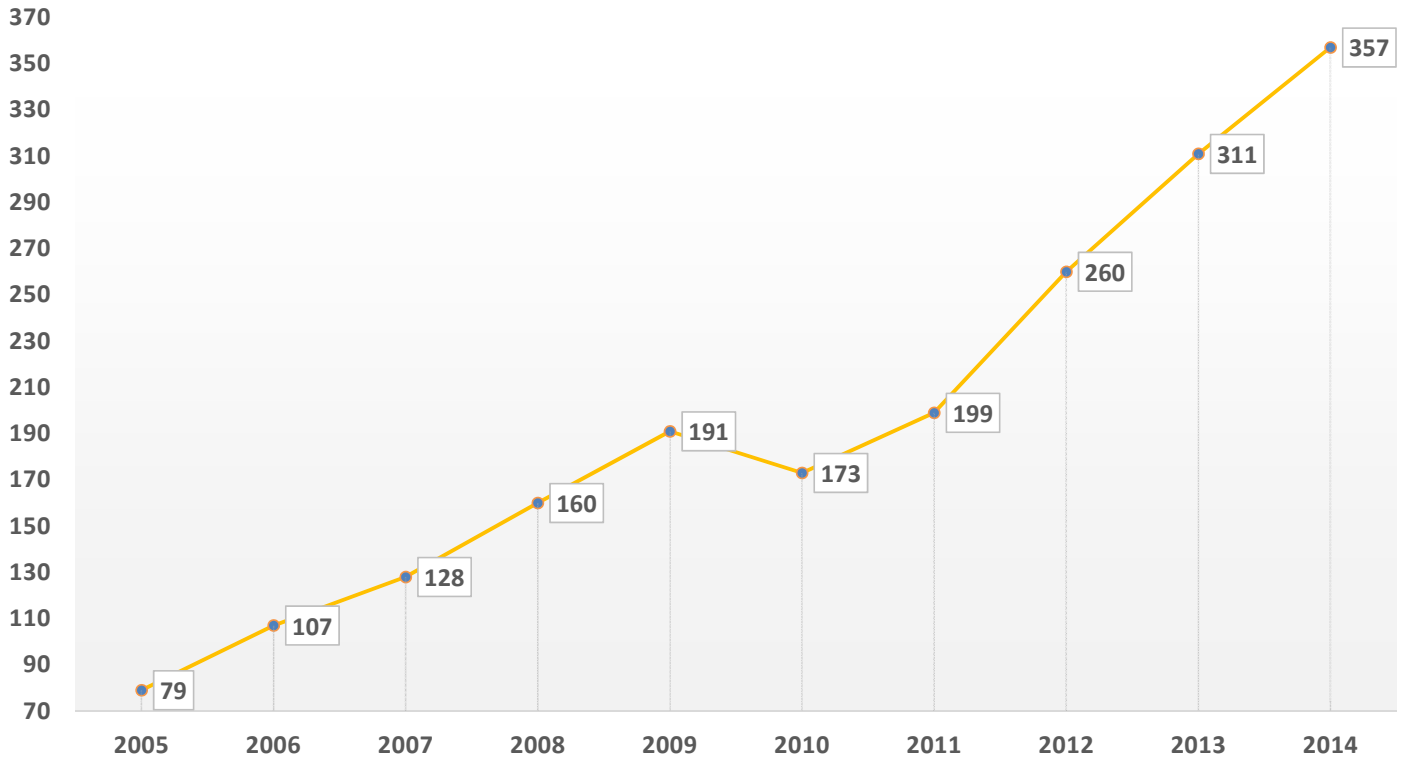
Graduates Attending 4-Year Colleges



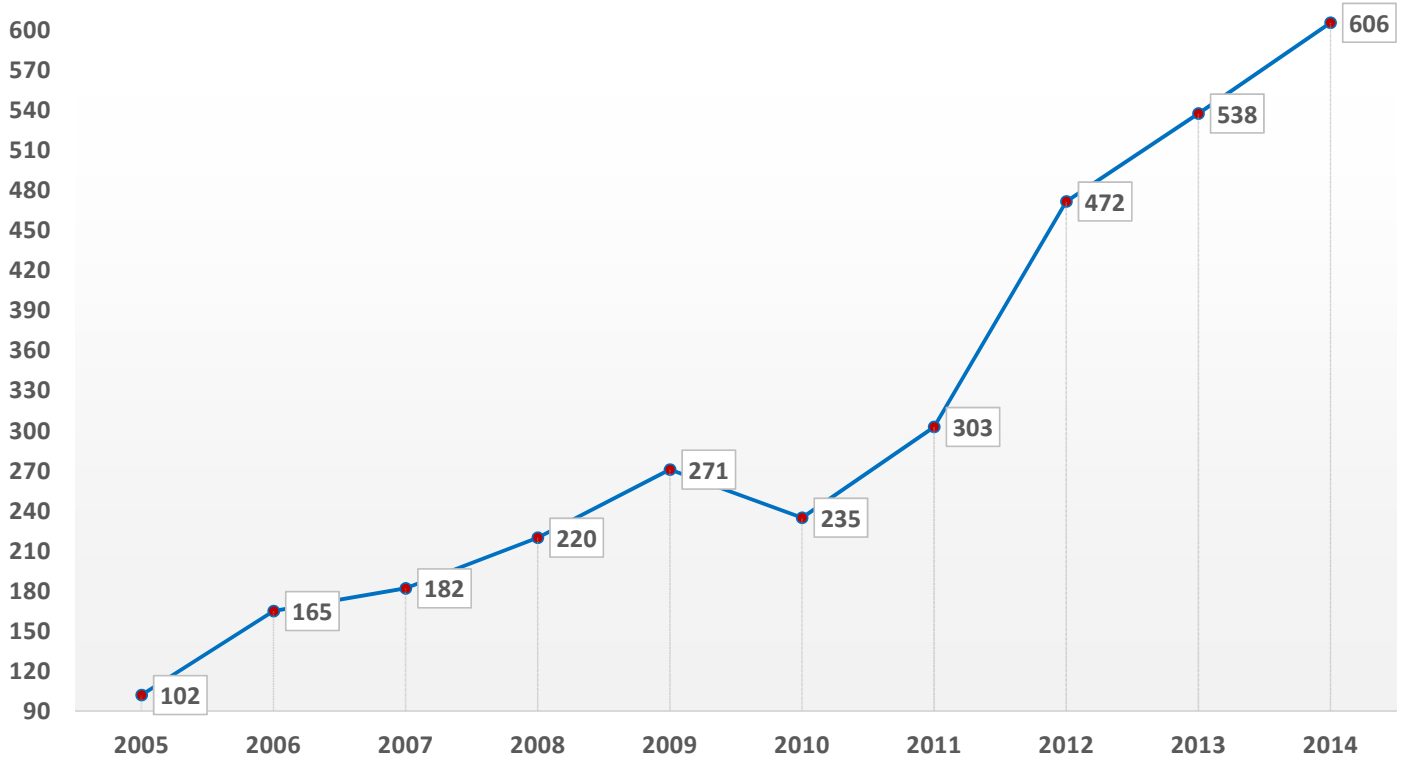
Total AP Courses



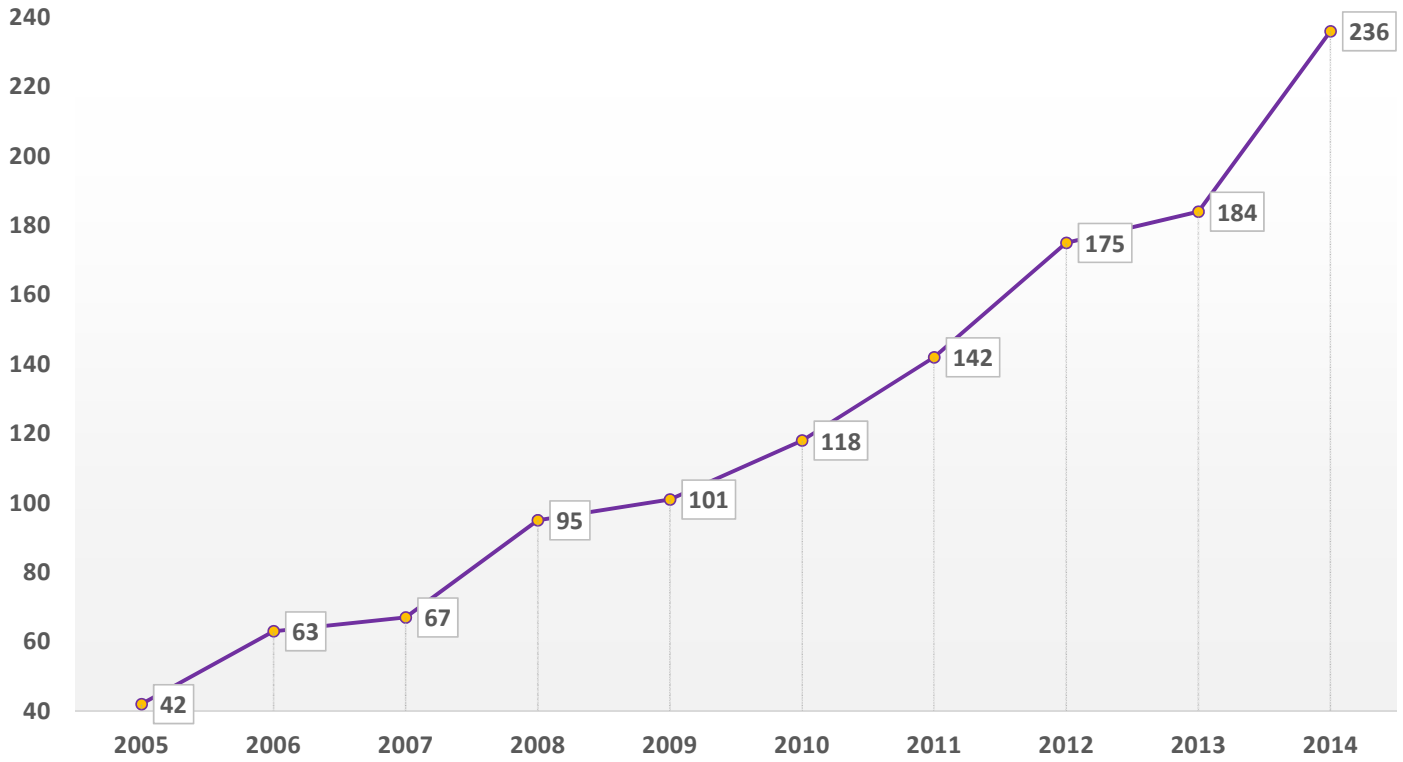
Total # of AP Students



Total # of Exams



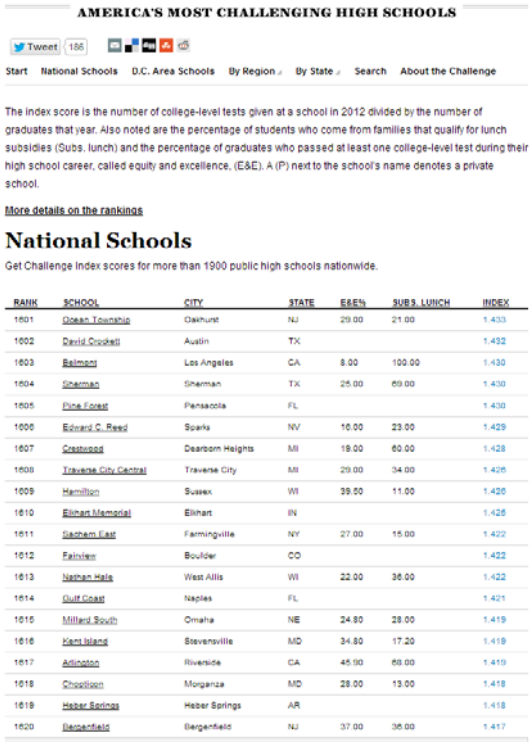
Total # of AP Students with Score 3+



2013 Magna Award

- Prestigious national award from National School Boards Association
- Recognized for our Advanced Placement Success

Ranked by Washington Post Among America's Most Challenging High Schools



AMERICA'S MOST CHALLENGING HIGH SCHOOLS

Tweet 186

Start National Schools D.C. Area Schools By Region By State Search About the Challenge

The index score is the number of college-level tests given at a school in 2012 divided by the number of graduates that year. Also noted are the percentage of students who come from families that qualify for lunch subsidies (Subs. lunch) and the percentage of graduates who passed at least one college-level test during their high school career, called equity and excellence, (E&E). A (P) next to the school's name denotes a private school.

More details on the rankings

National Schools

Get Challenge Index scores for more than 1900 public high schools nationwide.

RANK	SCHOOL	CITY	STATE	E&E%	SUBS. LUNCH	INDEX
1601	Ocean Township	Oakhurst	NJ	29.00	21.00	1.433
1602	David Crockett	Austin	TX			1.432
1603	Belmont	Los Angeles	CA	8.00	100.00	1.430
1604	Sherman	Sherman	TX	25.00	69.00	1.430
1605	Pine Forest	Pensacola	FL			1.430
1606	Edward C. Reed	Sparks	NV	16.00	23.00	1.429
1607	Crestwood	Dearborn Heights	MI	19.00	60.00	1.428
1608	Traverse City Central	Traverse City	MI	29.00	34.00	1.426
1609	Hamilton	Sussex	WI	39.50	11.00	1.426
1610	Elkhart Memorial	Elkhart	IN			1.426
1611	Skaneateles	Farmingville	NY	27.00	15.00	1.422
1612	Fairview	Boulder	CO			1.422
1613	Nathan Hale	West Allis	WI	22.00	36.00	1.422
1614	Gulf Coast	Naples	FL			1.421
1615	Millard South	Omaha	NE	24.80	28.00	1.419
1616	Kent Island	Stevensville	MD	34.80	17.20	1.418
1617	Arlington	Riverside	CA	45.90	68.00	1.419
1618	Chopticon	Morganza	MD	28.00	13.00	1.418
1619	Heber Springs	Heber Springs	AR			1.418
1620	Bergenfield	Bergenfield	NJ	37.00	36.00	1.417

- 2012-13, BHS was ranked 1620 in the nation for rigorous high school academics
- **2013-14, BHS is ranked 1442 in the nation, moving up the rankings 178 places**
- Ranked 57th in NJ and 9th in Bergen County

- Gratified as in 2006 Bergenfield was ranked 73 out of 75 districts in Bergen county (only two districts ranked lower)

Questions?

- A copy of this Powerpoint can be found at www.bergenfield.org