

IRVINGTON UNION FREE SCHOOL DISTRICT

Board of Education

FOR IMMEDIATE RELEASE

Contact: Superintendent, Dr. Kristopher Harrison / 914.591.8501

Consultant Delivers Findings Regarding Future School Organization and Facility Usage

Dr. Paul Seversky of the consulting group, *SES Study Team*, has delivered a data-driven analysis of the Irvington School District's potential options for school reorganization and facility usage. This document is now available on the district's website for community members to read.

The study was generated over a months-long process of investigation, data-gathering and analysis of current space allocations in the District's four schools. The study also includes: correlations to NY State Education Department school building capacity guidelines; future projected enrollments of the district; qualitative measures of program delivery; and current scheduling patterns and use of staff resources.

"The Board of Education requested this process because it has an obligation to exercise all due diligence in the long-range planning effort," said Board of Education President Robert Grados. "Without independent and objective data, we would just be guessing about how to best manage our future."

A specific driver of the study is the anticipated unused capacity in the district's buildings based upon declining enrollments. Current projections identify that building utilization will be well below functional capacity at all buildings over the next 3-5 years.

"Beyond the study's parameters, I think it's important to recognize that this exercise is also being driven by the enormous changes we are seeing in instruction, evaluation, and financing of our public schools," said Kris Harrison, Superintendent of Schools. "Any concrete actions resulting from this will be defined by extensive community discussion, but it's fair to say that we at least have a baseline of real data to build our conversations around in the coming months."

The study does not make recommendations; rather, it seeks to provide as much hard data and extrapolated **opportunities** and **challenges** for each of the scenarios it identifies. These scenarios include no action; renovations at Dows Lane; reorganization of elementary schools and the middle school; and potential closing or reuse of Main Street School for district operations, BOCES, or other uses. Numerous iterations of the above represent the multiple scenarios.

Superintendent Harrison indicated that the next step would be for the community to become familiar with the study, leading to organized conversations that would take place in the next school year.

“It is suggested in the preface of the study that previously successful ways and decisions about serving pupils may not be viable solutions in ‘this new normal,’ said Dr. Seversky. ‘Detailed planning is necessary to ensure that all public resources are rallied to achieve the very best program possible for student of the district.’”

2013

KINDERGARTEN THROUGH GRADE TWELVE PROGRAM DELIVERY STUDY

ARE THERE OPTIONS THAT MIGHT PROVIDE
MORE EFFICIENT WAYS OR PATTERNS TO ORGANIZE
HOW THE KINDERGARTEN THROUGH GRADE TWELVE
PROGRAM IS IMPLEMENTED/DELIVERED
OVER THE NEXT THREE YEARS?

for the

**IRVINGTON
UNION FREE SCHOOL DISTRICT**

**IRVINGTON,
NEW YORK**

*“Custom tools and research to aid a school district in defining a vision and
decision options for serving students in the future.”*

PREFACE

A MATTER OF THE ECONOMY AND NOT POOR STEWARDSHIP OF PUBLIC RESOURCES

The Irvington UFSD officials have been and are concerned about the financial resources available to support a quality educational program for their students. The district, like many in New York State (as well as individuals and businesses) has had to reduce expenditures for staff, programs, and general operations to deal with the recession of 2008 and its continued fallout for the foreseeable future for public school districts.

With state aid revenues in all categories likely to remain flat, it is projected that school district expenditure reductions may be needed in order to offset these flat or declining revenues and/or a transfer of the shortfall in state aid revenues to increased property taxes to raise the revenue is another possibility.

In addition, with the passage of the property tax levy cap law by the NYS Legislature and Governor in June 2011, schools cannot go legislatively beyond that measure without 60% or more of their voting residents agreeing to do so.

THE DILEMMA FACING COMMUNITIES AND THEIR RESPECTIVE BOARDS OF EDUCATION ACROSS THE STATE

1. State aid to support local school districts may stay flat for the foreseeable future;
And,
2. The capacity for local taxpayers of a school district to shoulder more revenue responsibility through property taxes may or may not be possible;
And,
3. School district communities, the State of New York, and the Federal perspective are expecting higher measured achievement for all students;
And,
4. School district communities, the State of New York, and the Federal perspective are requiring the delivery of an educational program to all students that will enable them to be productive citizens in the workforce, and to be competitive in the global economy, as well as have the basic skills to pursue post-high school specialized education opportunities.

DUE DILIGENT PLANNING BY THE IRVINGTON BOARD OF EDUCATION AND THIS STUDY

The Board of Education and the Superintendent engaged this study to help answer the question:

Are there options to the current practice that might provide more efficient ways or patterns to organize how the kindergarten through grade twelve program is implemented/delivered over the next three years?

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The Board of Education and the leadership team had no pre-conceived notions about the findings of the study or a pre-conceived advocacy for what the findings should be.

The Board recognizes that the financial projections and economic projections underscore that previously successful ways and decisions about serving pupils may not be viable solutions in ‘this new normal’ caused by economic conditions facing our region, the state and the nation.

Because of the due diligence of the Board of Education and superintendent in exploring options, the information offered in this study provides a concrete way for the community and the Board of Education to engage public discussion in an open and transparent fashion about how best to serve the pupils in grades K through 12 in the future. The study ‘holds up a mirror’ in to various kinds of data; organizes that data into a useable resource tool; and reports a list of options for discussion and review by the community and the Board without bias or advocacy as to what decision, if any, the Boards and communities should or should not implement.

It is hoped that the study will be a valuable tool to help local decision-making deal with the dilemma facing Irvington as a public school in an economy that likely will not provide increased financial support to deliver grades K through 12 public education.

Thank you for inviting me to prepare the study as one tool to help with your on-going planning.

Dr. Paul M. Seversky
Spring, 2013

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decision options for serving students in the future.”*

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PURPOSE OF THE STUDY

The Irvington UFSD Board of Education and the senior administration are engaged in long range planning for the district. As part of their efforts, they have commissioned a study to research data to help the school district answer the following planning question:

Are there options to the current practice that might provide more efficient ways or patterns to organize how the kindergarten through grade twelve program is implemented/delivered over the next three years?

The goal of the analysis and study report is to provide substantiation for suggestions and insights about the current organization and delivery of the K-12 program. The study report identifies various options for action that the Board of Education, senior administration, and the community may want to give further focus and consideration as they identify efficiencies to ensure the most support of all pupils in the delivery of the instructional program with the resources available.

METHODOLOGY OF THE STUDY

- ✓ First, the study analyzes the use of space by the current program offering in the two elementary schools and the middle/high school of the district. The principals provided detailed information about how the assets of each building are used in the 2012-2013 school year to implement the grades K-12 program. The detailed space allocation data are benchmarked to the NY State Education Department's school building capacity guidelines as well as to the class size guidelines endorsed by the school district to deliver the program. The school buildings pupil capacity study data and findings are in the *K-12 School Building Capacity Study* in **Appendix A**.
- ✓ Second, the study estimates future enrollment trends of the district based on historical enrollment data, historical live data, and patterns of enrollment at each of the grade levels K-12. The enrollment projection calculations study data and findings are in the *Demographic/Enrollment Projection Calculations Study* in **Appendix B**.
- ✓ Third, the senior administration and the building principals of the district were interviewed to learn as comprehensively as possible the short range and long range objectives of delivery of the program in the existing facilities. The meeting also provided insights to better understand local conditions and points of view that could affect the viability of various suggestions and options to use the current facilities to the very

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maximum and meet program expectations for pupils. The interview meeting helped to further the understandings about the values and policies that guide the vision of the district and the long-ranging planning efforts of the district.

- ✓ Fourth, a visit was made to each school building hosted by each respective principal. The principals provided data about the scheduling patterns and use of instructional and instructional support staff resources that now exist in the schools to implement the program.

Following are findings of the *School Building Capacity Analysis* and the *Enrollment Projection Calculations Studies* that form the foundation for the rationale for each of the program delivery options suggested by the study. In addition, findings and inferences made based on the visit to the district are also discussed.

FINDINGS OF THE K-12 PUPIL CAPACITY ANALYSIS

- **Pupil Capacity of the Irvington School Buildings**

The combined pupil capacity of the elementary buildings is charted below. The pupil capacity is benchmarked to how the buildings are used to implement the 2012-2013 school year program and to the class size functional delivery guidelines and goals endorsed by the district.

The district currently utilizes the following class size maximum goals to guide the delivery and implementation of the program. Class sizes for self-contained special education classrooms are outlined by SED regulation.

*Grades Kindergarten through five; 21 pupils per class
Grades six through twelve; 25 pupils per class*

The operational class size goals used by the district at its discretion address the discussion of class size in the Teachers' Contract. *Article XVII: Class Size* of the agreement between Irvington UFSD District and the Irvington Teachers' Association states:

The Board and the teachers recognize that it is desirable to maintain class size at a level which will allow teachers to achieve the goal of reaching every student. The Board will consider the recommendations of teachers and will make every effort to determine class size according to the needs of the pupils."

Flexibility of program delivery is an important tool in serving pupils and supporting instruction. Therefore, the district may want to have a planned *functional operating pupil capacity* that is

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about 90 to 95% of total operating capacity calculated based on the class size goals of the district. It is suggested that the *functional operating capacity* estimates of each building are best to use for planning for three main reasons. First, flexibility is necessary on a case-by-case basis annually to ensure that the pupils of a given school year are served with a focus on what is educationally sound for those pupils in that school year. Second, flexibility is necessary to deal with unforeseen ebbs and flows of seasonal enrollment fluctuations. Third, flexibility is necessary to accommodate program/curriculum improvement ideas of faculty and staff; and new initiatives supported by grants, for example. Such initiatives and ideas often need ‘more space’ instead of ‘more money’ to implement them.

TABLE ONE

PUPIL CAPACITY OF EACH OF THE SCHOOLS OF THE IRVINGTON UFSD BASED UPON HOW THE PROGRAM IS DELIVERED IN 2012-2013

	October 2012 Enrollment	Pupil Capacity of the Building Serving Solely Irvington Pupils Based on District Class Size Goals	Enrollment Compared to Pupil Capacity Based on District Class Size Goals	Special Education Capacity of the Classrooms Rented to the BOCES for Regional Programming	Irvington Grade Level Class Section Capacity of the Classrooms Rented to the BOCES for Regional Programming
Elementary Grades K-5					
Dows Lane Grades K-3	515	504	Over by 11 pupils or 2.2%		
Main Street Grades 4-5	284	315	Under by 31 pupils or 9.8%	20	43
TOTAL K-5	799	819	Under available operating pupil capacity by 20 pupils or 2.5%.		
Elementary Grade 6 and Secondary Grades 7-12; Middle/High School					
Grade 6	145	242			
Grades 7-12	900	1097		72	176
TOTAL 6-12	1045	1339	Under available operating capacity by 294 pupils or 22%		
TOTAL K-12	1844	2158	Under available operating capacity by 314 or 14.6%	92	219

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OBSERVATIONS:

- ✓ The elementary schools in 2012-2013 are at 97.5% of operating capacity benchmarked to the class size goals of the district not including the rental of space (pupil capacity) to the BOCES.
- ✓ The Middle/High School is currently at 78% of operating capacity benchmarked to the class size goals of the district and not including the rental of space (pupil capacity) to the BOCES.
- ✓ Irvington UFSD has over a 20 year history of collaboration in the rental of classroom spaces to the BOCES to host regional shared programming for special needs pupils.

In 2012-2013, Irvington received a rent revenue of \$261,878 from the BOCES for 12 instructional spaces. If the twelve spaces were not rented to the BOCES, the added capacity that could be available for Irvington programming is 219 pupils benchmarked to the Irvington local class size goals.

In identifying possible grade level delivery options, the study assumes that rental to the BOCES for regional programming will continue.

There are value-added benefits for Irvington as a location where shared special needs classes of the BOCES region are hosted. In 2012-2013 there are eight Irvington resident students who are enrolled in the special needs classes sponsored by the BOCES at the high school at no cost to the school district. The program service now received from BOCES for these pupils is equivalent to the cost of one full-time special education teacher and one full-time aide not having to be part of the Irvington budget. In addition, Irvington and the BOCES share the delivery of a Therapeutic Support Program. A full-time BOCES staff delivers two core subjects to Irvington pupils in Irvington special needs programs and to pupils of other school districts enrolled in the BOCES classes hosted at Irvington. In partnership, Irvington provides a full-time teacher to deliver two other core subjects, resource room and Academic Support class.

Therefore, the value-added benefit to Irvington for renting space to the BOCES, in addition to the rent paid by BOCES, is equivalent to about \$245,000. The \$245,000 represents the cost savings to Irvington for not having to hire 2.0 FTE special education teachers and 1.5 FTE teacher aides.

- ✓ The number of direct instruction elementary K-5 classrooms that are sized at or above the minimum 770 square feet are significant and a positive program delivery resource for the future. Past facility planning by the community, Boards of Education, and leadership of the school district are commended for the forethought in providing for most classrooms to be above the minimum square footage to support pedagogy that often requires ample square footage to deliver. The historic Main Street Elementary School has only four direct instruction rooms that equal or are above the 770 square foot SED recommended minimum. The Middle/High School 35 out of 85 instructional classrooms that meet the 770 square foot minimum standard.

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Table Two
Classroom sizes Used to Deliver Grade Level and Special Needs Self-Contained Instruction in 2012-2013

Square Footage	900+	800 to 899	770 to 799	700 to 769	550 to 699
SCHOOL BUILDING	Above or at standard classroom square footage.			Below standard classroom square footage.	
Dows Lane	23	2			
Main Street	2	2			13
Middle/High School	18	2	15	26	23

- ✓ Spaces assigned to instructional support purposes are not counted toward the pupil capacity total for a school building. It is important to note that the pupil capacity of a school building is directly related to class size guidelines/goals of the district as well as to how many instructional spaces are used for grade level direct instruction and how many spaces are assigned to instructional support programs which do not generate pupil capacity.
- ✓ **Table Three** below lists rooms assigned to instructional support programs that could be redeployed to serve grade level/subject direct instruction thus adding to the elementary and/or secondary pupil capacity of the buildings. It must be quickly added that the current assignment of the classroom-sized space to instructional support activity is **not inappropriate**. The delivery of the expected curriculum program is the overall driving factor that determines the pupil capacity of the building. However, if elementary or secondary instructional grade level classroom space capacity is needed, the study suggests that there is the possibility for such space. Listed below are some spaces assigned to support services that generally accepted practice usually implements the services in smaller spaces than what are assigned currently. If some instructional support services in a building could *possibly* be provided in a smaller space or shared spaces, then additional classrooms and pupil capacity would be available for grade level/subject section classes.

School	Room and Size of room:	In 2012-2013, the room use is:	Pupil Capacity if the instructional support space is reassigned to grade level section/subject class delivery
Dows Lane	Rm. 110; 924 square feet	Psychologist	21
	Rm. G1; 748 square feet	OT/PT	21
	Rm. 101; 922 square feet	Pre-School Therapy	21
	Rm. 202; 922 square feet	Math AIS	21
	Rm. 208; 922 square feet	Math AIS	21
	Rm. 201; 922 square feet	Reading	21
	Rm. 125; 729 square feet	English as a Second Language	21

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School	Room and Size of room:	In 2012-2013, the room use is:	Pupil Capacity if the instructional support space is reassigned to grade level section/subject class delivery
Dows Lane	Rm. 204; 922 square feet	Math Enrichment	21
	Rm. 223; 863 square feet	ICT Resource Room	21
	Rm. 102; 922 square feet	Storage	21
Estimated potential added elementary pupil capacity with a re-deployment of instructional support space:			Estimated 50% x 210 = 105
Middle/High School	Rm. H224; 733 square feet	Resource/Academic Support	24
	Rm. H012; 733 square feet	Resource/Academic Support	24
	Rm. H124; 733 square feet	Resource/Academic Support	24
	Rm. H125; 733 square feet	Academic Support/ Alternative Ed.	24
Estimated potential added middle/secondary pupil capacity with a re-deployment of instructional support space:			Estimated 50% x 96 = 48

- ✓ When the Dows Lane Elementary Building was built, the district prudently planned space that could eventually be utilized to house the central administration offices for the district. The space is in a wing section of the building where the cafeteria is on the ground floor. The first and second floor of the wing above the cafeteria totals about 4500 square feet. The space on the second floor is finished and useable and the space on the third floor is unfinished. The 4500 square feet could support a renovation to establish at least 5 standard classrooms of 770 square feet each or support an additional pupil capacity of 105.

The conversion of available space at Dows to serve an adult function rather than to classroom instruction should be weighed very carefully before implementation in this ‘new normal’ financial climate regarding public schools.

Therefore, conservatively, the pupil capacity at Dows Lane Elementary could increase by about 210 to an estimated pupil capacity of 714 if:

- a. the space now assigned to instructional support is realigned to generally acknowledged allocated square footage models, and;
- b. the space originally thought about for central district office space is renovated to serve grade level class sections.

• Grade Level Class Section Enrollments Grades K-6 in 2012-2013

Table Four below list the Irvington grade level class section sizes at each elementary grade level K through 6. A major challenge faced by other school districts is delivering instruction when there is a lack of pupils of at a specific age level in an attendance zone. The delivery of the program efficiently as close to the class size goals of the district is hindered in such circumstances. Such a challenge usually results in ‘overstaffing’ since an attendance zone may have to serve class sections well-below the class size standards of the school district. It also

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results in an ‘equity’ gap in class sizes between and among various attendance zones. This is not the case at Irvington.

TABLE FOUR: 2012-2013 SCHOOL YEAR ELEMENTARY GRADE LEVEL CLASS SECTION ENROLLMENTS AS OF OCTOBER 1, 2012

GRADE LEVEL	Dows Lane	GRADE LEVEL	Main Street	GRADE LEVEL	Middle School Grade 6
KINDERGARTEN Class size goal: 21	20	GRADE 4 Class size goal: 21	22	GRADE 6 Class size goal: 25	24
	20		23		22
	21		22		24
	21		21		23
	22		21		23
	21		21		23
	20		20		
K Range	20-22	GRADE 4 Range	20-23	GRADE 6 Range	22-24
K Average	20.7	GRADE 4 Average	21.4	GRADE 6 Average	23.2
GRADE 1 Class size goal: 21	20	GRADE 5 Class size goal: 21	20		
	21		24		
	20		23		
	20		23		
	20		22		
	20		23		
			24		
GRADE 1 Range	20-21	GRADE 5 Range	20-24		
GRADE 1 Average	20.2	GRADE 5 Average	22.7		
GRADE 2 Class size goal: 21	18				
	20				
	21				
	20				
	20				
	20				
GRADE 2 Range	18-21				
GRADE 2 Average	19.8				
GRADE 3 Class size goal: 21	22				
	22				
	23				
	21				
	20				
	22				
GRADE 3 Range	20-23				
GRADE 3 Average	21.7				

In 2003, Irvington instituted an elementary delivery plan that serves pupils of various grade levels at a single site thus eliminating attendance zones and the usual problem of class size equity among different elementary attendance zones. Such a model of delivery is often referred to as the Princeton Model. The pattern of delivery allows Irvington to meet its locally defined class section size goals **and** to deploy staff efficiently and cost-effectively. **Table Five** lists the on-average ‘efficient deployment’ of instructional staff skills at each grade level K-5 for 2012-2013.

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The table is based on the premise that the local Irvington operational class size goals define the ‘efficient deployment’ of instructional staff. That is, *unless* there is a clearly defined student need variable that requires a class size lower than the class size goal of the district, an indicator of ‘financial efficiency’ in deploying staff is how close the average of the class sections at each grade level in a school building approaches the district class size goal for that grade level. This approach of viewing and discussion ‘efficient deployment’ of instructional staff is not an absolute measure nor should it be an absolute decision guide. Delivering instruction is a human enterprise and flexibility in the implementation of instruction because of pre-defined variables cannot be ignored. At the same time, professional instructional human resources are the backbone of the public school enterprise funded with public resources. The study suggests that an on-average utilization of instructional staff as benchmarked to the district grade level class section size goal between 86% and 100% is one reasonable criterion/objective to help define the ‘efficient deployment of teaching staff’. Irvington is a model of success in meeting this suggested staff deployment efficiency/cost-effective criterion at grades K-6.

Grade Level						
K	One	Two	Three	Four	Five	Six
<i>District class size goal: 21</i>	<i>District class size goal: 21</i>	<i>District class size goal: 21</i>	<i>District class size goal: 21</i>	<i>District class size goal: 21</i>	<i>District class size goal: 21</i>	<i>District class size goal: 25</i>
Average Class Section Size District-wide						
20.7	20.2	19.8	21.7	21.4	22.7	23.2
On Average ‘Efficient Deployment’ of Instructional Staff Skill sets Benchmarking to the District Class Size Goal for the Grade Level (average grade level class size at a school divided by the district class size goal for the grade level)						
98.6%	96.2%	94.3%	103.3%	101.9%	108.1%	92.8%

• Middle School Grades 7 through 8 English Core Subject Sections 2012-2013

GRADE	SECTIONS	RANGE OF SECTION CLASS SIZES	AVERAGE CLASS SIZE	CLASS SIZE DISTRICT GOAL	On Average ‘Efficient Deployment’ of Staff %
7	6	19-24	21.5	25	86%
8	6	19-26	23.2	25	92.8%

The average class sizes for grades 6, 7, and 8 in the core subject area of English are well within the range of above 86% to 92% which may be used to suggest efficient deployment of core teaching staff *with* a recognition of flexibility in serving pupils as diverse clients.

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OBSERVATIONS:

✓

Out of the 44 class sections serving grades Kindergarten through grade 6 pupils in 2012-2013, the number of grade level sections that are:		
<i>Below</i> the class size goals set by the district	<i>At the</i> class size goals set by the district	<i>Above</i> the class size goals set by the district
22	9	13

- ✓ It is important to point out that determining class size delivery is not just a mathematical exercise of dividing the total population by the class size goal. A priority element is deciding how best to serve a specific set of pupils given their learning skill sets and the instructional goals for those pupils. Pedagogy and skill sets of the teacher are usually considered primary variables. Class size is also a variable. Therefore, having some flexibility by leaving a factor of unassigned pupil capacity for a building is a good planning step.
- ✓ The district seems to have diligently and prudently allocated grade level staffing in 2012-2013 to deliver instruction to grades K-6 guided by the district class size goals. Even though the current grade level configuration service pattern is an asset in serving the various grade levels efficiently, the district may face soon ‘dilemma decision’ circumstances. Such ‘dilemma decisions’ occur where the district must consider the best interest of children in deciding to increase or decrease the number of sections. For example, currently at grade one there are 121 pupils served with 6 grade level sections averaging a class size of 20.2. The Irvington class sizes goal for grade one is 21 pupils. If the grade one population declines to 111 pupils, the ‘dilemma decision’ facing the district is whether to serve the 111 pupils with six sections averaging 18.5 pupils per section or to serve the 111 pupils with five sections averaging 22 pupils per section. When such enrollment circumstances occur at the same time at two or three grade levels, the district is faced with continuing with the same staff deployment or the addition of two to three new teaching positions. Each new elementary FTE at Irvington costs about \$103,000 in new expenditures.

Other districts when faced with the circumstances described above, often implement a multi-age level delivery model. Such a model enables a school district to adhere to its class size values and to efficiently deploy talented teaching staff. Irvington may wish to explore and consider the multi-age delivery concept before it is faced with possible ‘dilemma decisions’ regarding the number of elementary grade level sections.

What is a *multi-age level delivery model*?

The multi-age instructional delivery technique uses a flexible age and curricular approach to instruction. Students within an age range of usually a two year span are grouped together into classroom sections. The focus of curriculum delivery in a multi-age classroom is using varied learning opportunities such as learning centers that emphasize a ‘shared learning’ experience with other students and the teacher. The multi-age delivery method can help students more readily learn at their own pace with recognition of the varied learning styles of individual students. There are benefits to a wide range of learners with this type of instructional model.

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In addition to the potential for providing options for the instruction of students, the multi-age model also can better handle fluctuations in student enrollment. In a traditional class section model, a drop in students at one level can cause one classroom to end up with higher enrollment while another may have quite lower enrollment. With a multi-age model, student numbers that go up or down can more readily be absorbed without negatively impacting class size equity and the values of the district about class sizes.

Multi-age level delivery of instruction is a pedagogy that requires talented and skilled teachers and the support of those teachers with materials and in-service opportunities regarding differentiated instruction skills.

The assignment of a teacher to lead a multi-age class and the pupils who will be served are decided on a case-by-case basis. Generally, a multi-age classroom teacher: is flexible; has skill sets to work with differentiated learning groups; is an effective communicator with students, staff, and parents; desires to grow professionally; demonstrates values and skills regarding adaption and change. Generally, a multi-age classroom pupil: possess peer leadership skills; has the ability and desire to work independently at times; ‘naturally’ has cooperative learning skills and works well with other students; may be a student with an IEP (Individual Learning Program plan) and can benefit from a diverse class.

• **Instructional Support Space in the Elementary Buildings**

Table Six below inventories all of the instructional support spaces in the elementary buildings as deployed by the principals for the 2012-2013 school year. This table is useful in reviewing the equity of available instructional support services in the buildings serving elementary pupils. It also serves as a resource tool in speculating what current instructional support spaces--which carry no assigned pupil capacity--could be reassigned to instructional classroom spaces--which do carry assigned pupil capacity--if enrollment grows district-wide or new grade level configurations require establishing more or different grade level classes.

OBSERVATIONS:

- ✓ The comparative inventory can serve as a tool to judge if the current space assigned to instructional support activities are not only equitable across the district, but to help discussion to judge if they are adequate for the goals expected to be accomplished by the support activities.
- ✓ The data substantiate that careful planning and thought has been done by the district to help ensure that all elementary schools provide support services and spaces equitably. **Table Seven** can be a useful tool for discussions about future K-5 programming and the necessary facilities to support the program vision. Some typical discussion questions include:

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- What should be the reason for the availability of a unique instructional support space and program in an elementary building and not in other elementary buildings?
- What currently unique instructional support spaces and services should be in each elementary school consistently as district-wide elements of the Board authorized elementary program?
- What instructional support spaces and services are *appropriately* unique to one or more elementary buildings and attendance zones?
- Are there other instructional support spaces or services that should be authorized as part of the program of each elementary school building?

TABLE SIX: SUMMARY OF ROOMS/SQUARE FOOTAGE ASSIGNED FOR INSTRUCTIONAL SUPPORT SPACE SERVING GRADES K-5 IN 2012-2013 AS LISTED BY THE PRINCIPALS (NUMBER DENOTES SQUARE FOOTAGE; ‘X’ DENOTES PRESENCE; BLANK DENOTES NO ASSIGNED PRESENCE IN THE BUILDING)

* Large enough to serve an instructional grade level section classroom instead of a support service and might be able to share with another service in a different location.

SUPPORT SERVICE/PROGRAM	Main Street	Dows Lane
Library	1310	2000
Library Classroom		945
Computer Lab	830	945
Art	1050	1090
Music	600	748
Band	650	
Orchestra strings	650	
Cafeteria	2225	2300
Gym	13,043	5606
Nurse	364	425
School Psychologist		372
School Psychologist		945*
Speech	650	240
Speech		x
OT/PT		748*
Therapy		121
Pre-school therapy		922*
AIS-math	675	922*
AIS-math		922*
AIS-reading	675	
AIS-reading	600	
Reading		922*
English as a Second Language		729*
Math Enrichment		922*
ICT Resource Room		863*
Faculty Work Room	360	330
Professional Learning Center	675	
Auditorium	2680	
Multipurpose room		2520
Conference room		690
Storage		600
Storage		922*
Bookroom		560
Bookroom		x

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• **K-12 Self-contained Classrooms for Special Needs Pupils**

Listed below are the locations of the self-contained special needs classrooms. These classrooms serve pupils for 60% or more of the day outside of a regular grade level class section. The primary instructional practice in serving special needs pupils is full integration into grade level class sections with appropriate support services to the pupil in the classroom.

TABLE EIGHT: SUMMARY OF CURRENT 2012-2013 SPECIAL EDUCATION CLASSROOM CAPACITY IN EACH ELEMENTARY SCHOOL BUILDING

*Denotes classrooms under state minimum recommended square footage of 770 square ft.

SCHOOL	CLASS	SQUARE FOOTAGE	OPERATING CAPACITY
Main Street	8:1:1 BOCES rental	860	8
	12:1:1 BOCES rental	650*	12
Dows Lane			0
Middle/High School	8:1:1 Irvington UFSD	727	8
	8:1:1 Irvington UFSD	770	8
	12:1:1 BOCES rental	550*	12
	8:1:1 BOCES rental	547*	8
	8:1:1 BOCES rental	727	8
	12:1:1 BOCES rental	782	12
	8:1:1 BOCES rental	727	8
	8:1:1 BOCES rental	550	8
	8:1:1 BOCES rental	727	8
	8:1:1 BOCES rental	556	8
Total Self-Contained Special Needs Classroom Capacity			108
Total Capacity Irvington Self-Contained Program Space			16
Total Capacity BOCES rented Self-Contained Program Space			92

FINDINGS OF THE ENROLLMENT PROJECTION CALCULATIONS

The estimated enrollment projections suggest the following ranges of K-12 enrollments that Irvington may expect in five years. *Appendix B* discusses in detail the assumptions that underlie the various enrollment projection scenarios.

The *Enrollment Projection Calculations* study provides sets of estimates about future K-12 enrollments ranging from ‘low’ to ‘high’ based on defined assumptions and historical patterns of population and enrollment data. It is suggested that the Board of Education and the school district leadership team discuss the projection scenarios and come to consensus with the community about what the *school district and the community* believe about the local future—will the “glass be filled, half filled or half empty?” with regard to such items as increased numbers of

FINDINGS

pupils completing graduation, new residential construction, new population to the district, and increased jobs within commuting distance of the district.

Enrollment Projection Estimates as of February 2013

The enrollment projection estimates suggest that:

- **K-5 enrollments** may likely decrease up to about 60 pupils over the next five years.
- **6-8 enrollments** may likely decrease up to about 30 pupils over the next five years.
- **9-12 enrollments** may likely decrease up to 85 pupils over the next five years.

ENROLLMENT PROJECTION SCENARIO ESTIMATES AS OF FEBRUARY 2013		GAP BETWEEN ESTIMATED FUTURE ENROLLMENT ESTIMATES OVER THE NEXT FIVE YEARS AND CURRENT SCHOOL BUILDING PUPIL CAPACITIES BENCHMARKED TO DISTRICT CLASS SIZE GUIDELINES AND THE CURRENT PROGRAM OFFERING.			
		CURRENT 2012-2013 GRADES K-3 ENROLLMENT	CURRENT 2012-2013 GRADES 4-5 ENROLLMENT	CURRENT 2012-2013 GRADES 6-8 ENROLLMENT	CURRENT 2012-2013 GRADES 9-12 ENROLLMENT
		509 (all resident pupils)	271 (all resident pupils)	414 (all resident pupils)	603 (all resident pupils)
		CURRENT K-3 PUPIL CAPACITY 504	CURRENT 4-5 PUPIL CAPACITY 315	CURRENT 6-12 PUPIL CAPACITY 1339	
Base Cohort Low Range	<i>2013-14</i>	468	262	410	587
	<i>2014-15</i>	465	252	423	549
	<i>2015-16</i>	434	241	418	543
	<i>2016-17</i>	379	265	400	530
	<i>2017-18</i>	375	234	387	520
Base Cohort Mid Range	<i>2013-14</i>	483	262	410	587
	<i>2014-15</i>	505	252	423	549
	<i>2015-16</i>	498	241	418	543
	<i>2016-17</i>	467	265	400	530
	<i>2017-18</i>	473	249	387	520
Base Cohort High Range	<i>2013-14</i>	508	262	410	587
	<i>2014-15</i>	516	252	423	549
	<i>2015-16</i>	525	241	418	543
	<i>2016-17</i>	510	265	400	530
	<i>2017-18</i>	511	275	387	520

**all resident pupils enrolled regardless of location of program (i.e. Irvington school building; homebound; at a BOCES site)*

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The enrollment projection estimates suggest that a significant portion of unused pupil capacity will likely exist into the future in the current 6-12 Irvington school building given how the space is deployed to deliver the current program in 2012-2013.

Current Pupil Capacity		Estimated Enrollment in 2015-16:	Estimated Unused Pupil Capacity in 2015-16:	Estimated Percentage of Pupil Capacity Unused in 2015-16:
K-3 PUPIL CAPACITY	504	434 to 525 pupils	68 to -21	13.5% to -4.2%
4-5 PUPIL CAPACITY	315	241 pupils	74	13%
6-12 PUPIL CAPACITY	1339	961 pupils	378	23.5%
		Estimated Enrollment in 2017-18:	Estimated Unused Pupil Capacity in 2017-18:	Estimated Percentage of Pupil Capacity Unused in 2017-18:
K-3 PUPIL CAPACITY	504	375 to 511 pupils	129 to -7	25.6% to -1.4%
4-5 PUPIL CAPACITY	315	234 to 275 pupils	81 to 40	25.7% to 12.7%
6-12 PUPIL CAPACITY	1339	907	432	32.3%

The study points out two ways to make maximum the pupil capacities of the existing buildings. Additional pupil capacity can be generated by assigning some current instructional services to spaces with square footages that meet generally accepted practice. Pages 5-6 describe the rationale to suggest that additional pupil capacity of 105 can be available at Dows and an additional pupil capacity of 48 can be available at the middle/high school with a careful alignment of instructional services to be provided and the customary square footage necessary for such services. Pages 5-6 also discuss the availability of establishing up to five classrooms within the space at Dows that originally was slated for the district central offices. Achieving such a fit out of the existing available space can increase pupil capacity at Dows by about 105.

The table below is provided as a tool to compare estimated future enrollments with the suggested maximum pupil capacity of the existing buildings achieved as summarized above.

Current Pupil Capacity		Pupil Capacity with steps to maximize the pupil capacity of the existing school buildings:	Estimated Enrollment in 2015-16:	Estimated Unused Pupil Capacity in 2015-16:	Estimated Percentage of Pupil Capacity Unused in 2015-16:
K-3 PUPIL CAPACITY	504	+105+105 = 714	434 to 525 pupils	280 to 189	39.2% to 26.5%
4-5 PUPIL CAPACITY	315	315	241 pupils	74	13%
6-12 PUPIL CAPACITY	1339	+48 = 1387	961 pupils	426	30.7%

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			Estimated Enrollment in 2017-18:	Estimated Unused Pupil Capacity in 2017-18:	Estimated Percentage of Pupil Capacity Unused in 2017-18:
K-3 PUPIL CAPACITY	504	+105+105 = 714	375 to 511 pupils	339 to 203	47.5% to 28.4%
4-5 PUPIL CAPACITY	315	315	234 to 275 pupils	81 to 40	25.7% to 12.7%
6-12 PUPIL CAPACITY	1339	+48 = 1387	907	480	34.6%

FINDINGS, INFERENCES AND OBSERVATIONS BASED ON THE VISITS TO EACH IRVINGTON SCHOOL BUILDING AND THE INTERVIEWS WITH THE ADMINISTRATIVE TEAM

- Charted below is information as to the current school sites:

Perspective: Part 155.1(c) of Commissioner’s Regulations lists the following minimum usable acres for school sites unless otherwise approved by the Commissioner.

Elementary schools (kindergarten through sixth grade): 3 acres plus one acre for each 100 pupils, or fraction thereof.

Secondary schools (seventh through twelfth grade): 10 acres plus one acre for each one hundred pupils, or fraction thereof.

	Dows Lane	Main Street	Gym Building at Main Street	Middle/ High School
Total acres of the school building site:	16.5 acres	2.2 acres	2.5 acres	30.6 acres
Size of the building:	87,168 square feet	47,042 square feet	13,043 square feet	219,756 square feet
Pupil Capacity as per the program implementation and class size guidelines of the district in 2012-2013	504	315		1339
Suggested maximum pupil capacity as per current class size guidelines of the district	714	315		1387
Current acres now used for building playfields, site features, open space:	14.4 acres	4.7 acres		25.5 acres
Benchmark to School Site regulations of the Commissioner (Part 155.1 (c) given the current school site and the pupil capacity of the existing building footprint:				
Minimum acres required as per 2012-2013 pupil capacity:	9 acres	7 acres		24 acres
Minimum acres required as per the maximum pupil capacity suggested by the study:	11 acres	7 acres		24 acres

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○ “Temporary” Buildings on Dows Lane Site

Two temporary, wooden modular ‘classrooms’ hold the central administration offices for the district. The temporary buildings were placed on the Dows Lane campus in 1997. Both connected modulars total about 5800 square feet in size. In the 2011-2012 year, electricity and gas for the Dows Lane elementary school and the modular buildings totaled \$134,474.31. The modulars are not separately metered from the school building. A conservative estimate of the utility cost for the wooden structures is 1.25 times the per square foot gas and electricity energy costs for the 92,968 square feet at Dows Lane that includes the school and the administration offices. The yearly energy expenditure for the modulars is estimated to be \$10,512.

○ Current capital debt for each school building in the district:

	As of August 1, 2012	Year in which bond will be retired:
Dows Lane	\$5,385,000	2012-2013
District-wide bonds	\$34,195,000 (refunding)	2021-2022
	\$15,925,000	2021-2022

○ “Teacher day” and ‘student day’ times:

	Teacher day begin	Teacher day end	Student day begin	Student day end
High School	7:45	3:00	7:50	2:35
Middle School	8:00	3:30	8:33	3:20
Main Street	8:05	3:30	8:50	3:05
Dows Lane	7:50	3:05	8:00	2:20

	Length of Teacher day	Length of Student day
High School	7 hours, 15 minutes	6 hours, 45 minutes
Middle School	7 hours, 30 minutes	6 hours, 47 minutes
Main Street	7 hours, 25 minutes	6 hours, 15 minutes
Dows Lane	7 hours, 15 minutes	6 hours, 20 minutes

○ The mileages between the four schools of the district are charted below. The district boundaries serve 4.94 square miles.

	Dows Lane	Main Street	Middle School
High School	1.1	.5	0
Middle School	1.3	.7	
Main Street	.8		

FINDINGS

○ Bus Run Data for 2012-2013:

	Dows Lane Attendance Zone	Main Street Attendance Zone	Middle School	High School
Earliest pick up	7:11	7:59	7:53	7:12
Student Day Begins	8:00	8:50	8:33	7:50
Estimated longest pupil ride on a bus	39 minutes	45 minutes	44 minutes	40 minutes
Number of bus runs AM to school	8	4	4	4
Number of bus runs PM to home	8	4	4	4

Total number of AM bus runs in the district in the AM	20
Total number of PM bus runs in the district in the PM	20
Percentage of transportation aid expected as a revenue for 2012-2013 based on transportation expenses submitted for 2011-2012:	13.1%
Estimated average cost per each bus run for AM to school and PM to home transportation in 2012-2013: \$23,170	
Estimated local Irvington taxpayer average cost per each one way bus run: \$20,134	
Estimated average state support of each Irvington one way bus run: \$ 3036	
<i>Where the estimates come from: Take the total transportation budget (\$926,782) NOT INCLUDING SPECIAL RUNS FOR SPECIAL NEEDS, FIELD TRIPS, VOCATIONAL CENTER RUNS, ATHLETIC AND CO-CURRICULAR RUNS which can vary yearly based on student programs and needs; divide that resulting expenditure number by the number of roundtrip bus runs to and from school in 2012-2013; i.e. 40 one way bus runs.</i>	

Bus Fleet:

	66 passenger	Mini Van	Wheel Chair Mini Van
Used daily for AM and PM runs	10 for AM 9 for PM		
Used for unique runs for Special Needs Pupils and homeless pupils		3	1

FINDINGS

- Shared Staffing Among the Four Schools (full time equivalents)

SHARED POSITION	Dows Lane	Main Street	Middle School	High School
AIS Math	.6		.4	
AIS Math	.5	.5		
Art			.7	.3
Art		.6	.1	.3
Art			.6	.4
Assistant Principal	.5			.5
ELA/English			.2	.8
ESL	.4	.3		
Health			.8	.2
Hearing Impaired	.25	.25	.25	.25
Language			.4	.6
Language			.2	.8
Math Specialist	.6	.4		
Music		.4	.2	.4
Music			.3	.7
Music			.8	.2
Orchestra		.33	.33	.33
Physical Ed			.8	.2
Physical Ed			.1	.9
Science			.6	.4
Social Studies			.8	.2
Speech			.5	.5
Technology/Math			.8	.2
Total Shared FTE	2.85	2.78	8.88	8.18

22.7 Full Time equivalent instructional staff are shared among the four schools.

- Full Time Equivalent Cost for Instructional Staff in 2012-2013:

Program	TOTAL FTE	TOTAL SALARY	TOTAL FICA	TOTAL HEALTH INSURANCE	TOTAL RETIREMENT	TOTAL OTHER BENEFITS	Total	Average Cost per FTE
K-6	85.38	\$8,848,696	\$676,925	\$1,320,974	\$1,047,686	\$92,140	11,986,421	\$103,639
7-12	93.42	\$9,584,180	\$733,190	\$1,204,417	\$1,134,767	\$100,812	\$9,584,180	\$102,592
Supervision	7.5	\$1,078,131	\$71,817	\$108,649	\$127,651	\$12,000	\$1,398,248	\$186,433

- Three year pattern of grade 8 students who accelerated and took high school credit for language, science, math and art instead of grade 8 language, science math and art

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School Year	Total number of grade 8 pupils	Total number of grade 8 pupils who took accelerated courses for high school credit. (unduplicated)	Total number of grade 8 pupils who took an accelerated language course for high school credit	Total number of grade 8 pupils who took an accelerated science course for high school credit	Total number of grade 8 pupils who took an accelerated math course for high school credit	Total number of grade 8 pupils who took another accelerated for high school credit (Studio Art)
2012-2013	141	129	127	57	62	31
2011-2012	148	131	131	50	48	21
2010-2011	128	116	115	43	44	19

School Year	Total number of grade 8 pupils	Percent of grade 8 pupils who took accelerated courses for high school credit. (unduplicated)	Percent of grade 8 pupils who took an accelerated language course for high school credit	Percent of grade 8 pupils who took an accelerated science course for high school credit	Percent of grade 8 pupils who took an accelerated math course for high school credit	Percent of grade 8 pupils who took another accelerated for high school credit (Studio Art)
2012-2013	141	91.5%	90.1%	40.4%	44.0%	22.0%
2011-2012	148	88.5%	88.5%	33.8%	32.4%	14.2%
2010-2011	128	90.6%	89.8%	33.6%	34.4%	14.8%

INFERENCES AND OBSERVATIONS:

- ✓ The Main Street school site is about .8 acres too small given its pupil capacity as per New York State Education Department school site standards. However, given that the school already exists, the landlocked characteristic of the site, and that it is located in an ‘urban’ location, the discretion of the Commissioner prevails. Historically, Main Street has received Commissioner’s approval for renovation projects.
- ✓ The debt service on a \$5,385,000 bond on Dows Lane retires at the end of the 2012-2013 fiscal year. An opportunity exists for the community to consider a new project at Dows Lane or other building. The budgeted debt service that ends in June 2013 can help fund an approved and appropriately sized capital project without a property tax increase.
- ✓ The condition of the school buildings is good. They are clean, look to be well-maintained overall, and there seems to be no obvious major infrastructure issues. The faculty, staff and pupils of the buildings practice ‘good housekeeping’ as evidenced generally by the overall neat, organized condition of the classrooms and instructional support spaces

Listed below are some observations and impressions as a ‘guest outsider’ to each building.

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Main Street:

- Security is primarily addressed with one central access entry to the school.
- The gym is not handicapped accessible directly from the main building. It is handicapped accessible by walking around the building to a ground floor entrance. All pupils must exit the main building to reach the gym via a covered outdoor series of stairs.
- There is no kitchen allowing a hot lunch program. Recently, steam tables are available for a warm lunch option. Pupils bring 'bag lunches' and an active and supportive Parent Organization provides pizza on Fridays for pupils to purchase.
- The pupil bathrooms have been renovated to modern standards.
- The location of the building is in the heart of the village. It has a stone exterior that 'fits' the neighborhood. Neighbors to the school include the police department and a community theatre organization.
- The gym is used by the high school wrestling team for practice. The modified wrestling team and the fencing team are also served by this gym. The gym also is the location for modified basketball games and practices when there are scheduling conflicts in using the Mayer Gym. It also serves as a 'bad weather' practice venue for fall and spring sports teams.
- The auditorium is a positive attribute of the building.

Dows Lane:

- Security is primarily addressed with one central public access entry to the school to the extreme right of the building. What looks to be the main entry way into the school where the name of the building is located is not the main entry to the building. It is important to note and commend the recess monitor who with initiative redirected me to the entry at the end of the building even though what looked like the main entrance was unlocked.
- An outstanding asset to the building is the availability of about 5 classrooms worth of space that originally was slated to be renovated for the central administrative offices of the district. More pupils can be served within the footprint of the school in a cost-effective manner compared to the building of an addition at any of the school sites.
- The location of the principal's office is not in the center of the building (near what looks to be the main entrance to the building, but is not).
- The two modular buildings on the campus that house the district administrative offices are 'showing their age' and seem to be an eyesore compared to the neighborhood and the appealing brick exterior of the school building.
- There are ten classroom sized rooms assigned to instructional support functions. There *might* be the availability of an estimated five rooms now used for instructional support that could serve grade level instructional class sections.
- A uniquely odd element of the building is the availability of only a single bathroom directly adjacent to the cafeteria which is located on the ground floor ('basement') of the building.

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Middle School/High School

- Access to the building is less secure than what has become the norm for school buildings.
- Connection of the middle school with the high school is by walking outside. There are some covered sidewalks. There is a courtyard. The 'path of choice' to walk is across the courtyard. The exit doors from the middle school are opened often. There is a security aide at a desk, but the volume of people in and out of the doors is often high to allow much scrutiny. High school students usually walk through the main lobby of the middle school first floor to access the main campus gym and auditorium in a separate building behind the middle school building. Middle school students walk outside to access the Maher Gym which is located in connecting wing to the high school which includes the campus library.
- The middle school is primarily made up of two floors. There are two sets of five classrooms divided by a 'lobby stairway' on each floor for a total of 20 classrooms plus support rooms for guidance, the principal, faculty, and multi-person bathrooms on each of the two floors.
- There are four classroom sized rooms assigned to instructional support functions in the high school. There *might* be the availability of an estimated two rooms now used for instructional support that could serve grade level/subject instructional class sections.
- The library is large and a quality instructional space.
- The cafeteria services grades 6-12. The middle school has three lunch periods; the high school has four. Grade 6 eats lunch at a separate time from the high school. Grades 7 and 8 share the cafeteria with 9-12 for their lunch periods.
- The combined population size of grades 6-12 is about 1000 students. There is intermingling of the pupils throughout the day in using the ample facilities of the middle/high school campus.
- The morning arrival of buses and parents who drive their students to school is busy. However, it seems that the traffic pattern achieved by the site design works. There is another road access to the first floor lobby area of the separate building on campus that houses the auditorium and a large gym. Is it possible that this entrance might be explored to split the parent traffic such that the entrance is primarily for middle school pupils whose parents drive them to school?
- The building behind the middle school building that houses the main gymnasium and the auditorium. Upon entering the building, entrance to the senior high boys and girls locker rooms is immediate off of a very large roomy corridor. Proceeding down the corridor is the entrance to a very large two story lobby for the auditorium. It is well lit with natural light. This lobby and auditorium section of the building is not used daily for instruction or functions and as such seems an 'underused' quality space during the school day. The auditorium first floor lobby is 2544 square feet in size. In order to give a perspective about the lobby as a possible lunch site, the SED guideline is a usual 1872 square feet for an elementary cafeteria eating area or 15 square feet per pupil to be served. The 2544 square feet area therefore can accommodate up to about 170 pupils comfortably for lunch. Entrances to the auditorium are down two

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separate small hallways off of the lobby whose doors are locked when the auditorium is not in use.

- ✓ Commissioner's Regulations require that the daily sessions for students in full-day kindergarten and grades 1-6 must be a minimum of five hours, exclusive of time for lunch. The daily sessions for grades 7-12 must be a minimum of five and one-half hours, exclusive of time for lunch. Irvington elementary pupils receive at least 5 hours and 45 minutes of daily instruction exclusive of lunch; Irvington secondary pupils receive at least 6 hours and 15 minutes of daily instruction exclusive of lunch.

It is clear that the Board, leadership, and faculty have focused professional instructional time available on student contact time. The research of best teaching-learning practices suggests that contact time with teachers is a prime ingredient for pupil learning success.

- ✓ The elementary schools and the middle and high school arrange instruction using a 2-day schedule. Days are designated A or B days instead of using the nomenclature Monday through Friday. Such an organization technique is very helpful in making sure that all pupils receive instruction in classes that do not meet every day (ex. physical education, science labs, music lessons) on a consistent basis. School vacations or emergency closings due to poor weather could cause pupils to miss instruction in such classes for multiple days in schools with a Monday-Friday nomenclature. At Irvington, if an emergency closing day or a scheduled holiday occurs on an *A* day, then the day students return to school remains an *A* day.

The district implements the efficient practice of shared staffing among the buildings to help ensure breadth of program offerings for all pupils in a cost-effective manner across the district. In the current 2012-2013 school year 22.7 full time equivalent staff members are shared among the 4 school buildings.

The common day cycle in all the school buildings make the scheduling of such shared staff easier and more understandable. A common day schedule across the district encourages creative delivery of instruction to provide even more opportunities in sharing of staff to meet instructional needs of each respective building. The common day schedule drives more flexibility since the scheduling of such shared staff is not inhibited with incongruent day cycles at the elementary and secondary levels.

Also, a by-product benefit of a common day cycle pattern among the schools makes it easier for families with elementary and secondary children in the same household 'to keep track of' what are the school day's offerings and expectations for their children.

- ✓ Instructional technology is present in the buildings. It is recommended that the district continue analyzing its technology plan and revise it as necessary to reflect the future goals of the district in supporting instruction with technology. The use of technology to deliver learning is often a prime variable in school building planning and use. Bandwidth (size of data lines), types of equipment, staff training, and pedagogical impact on learning outcomes given the investment are important topics that once decided usually translate into 'brick and mortar' decisions. The technology plan of the district will give insights as to the provision of computers for student instruction and video enhanced instructional

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tools for teachers in the future. The technology plan is often a major part of a district's blueprint in defining the vision and the instructional goals of infusing technology in the curriculum. It also can give direction as to what are the program delivery roles of all the instructional spaces in each school building including the classrooms, library and computer labs as they interrelate with technology to support learning and instruction.

- ✓ The community and the school district have not considered the implementation of a Pre-Kindergarten program offering as a priority part of its long-term vision. The community is fortunate to have private sector pre-kindergarten opportunities that have fulfilled the needs of the community and its families.
- ✓ The Main Street School is valued by the community and the school district community as an asset for the school district and the community.
- ✓ After spending time in the school buildings interviewing and listening to the principals and senior leadership separately, I perceive that the administrative team members are 'on the same page' regarding goals for instruction and the expected values that drive and guide school district decisions about pupils.

SOME POSSIBLE OPTIONS TO EXPLORE IN DELIVERING THE IRVINGTON UNION FREE SCHOOL DISTRICT K-12 PROGRAM OVER THE NEXT THREE YEARS

An important asset to the district in engaging an outside guest consultant is that the district receives a perspective not influenced by the history of the district, or by knowledge of the preferences of various school district community stakeholders. This study 'holds up a mirror' in an unbiased manner to: collect and analyze the pupil capacity data of the existing school buildings; inventory and review the program deployment in those facilities; and to estimate future pupil enrollments. The results of the analyses provide for a data driven rationale in looking at other ways to organize the delivery of the K-12 program. The purpose of the study is to offer suggestions that could answer:

Are there options to the current practice that might provide more efficient ways or patterns to organize how the kindergarten through grade twelve program is implemented/delivered over the next three years?

The Board of Education and senior administration do have knowledge of the district's history, its culture, and the preferences held by school district stakeholders. They are ultimately responsible and are most able to determine with engagement of the district community which delivery option, adapted delivery option, or set of options for the future will be best--as judged by local values-- to deliver instruction to the children of the district.

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The charts that follow list and describe various scenarios that may help define the best option to implement to deliver the Irvington K-12 program. The baseline variables that guide the identification of the scenarios are the current pupil capacity assets of the Irvington school buildings, the current class size goals of the district, the current educational program, and the estimated future enrollments of the district over the next three to five years. Other related example variables analyzed to suggest the 'doable' scenario options for community/Board review include such items as: the condition of the buildings; the school sites; distances between each school building; the culture of sharing instructional staff among the schools; the values of the district regarding pupil transportation time; the value of the district and community about the existing schools.

Common to each scenario is the assumption that the district wishes to continue the district class size goals in place for grades kindergarten through grade 12. The study does not take the liberty of ignoring those values in the analyses or in the suggestions for program delivery options. All of the scenarios assume that the maximum class size goal of 21 for kindergarten through grade five, and 25 for grades six through twelve will continue to guide the delivery of the program.

Each scenario assumes the continued long-standing rental of classrooms to the BOCES for regional programming and the continuation of the resulting collaborative and mutually beneficial relationship.

If the *high range* enrollment estimates for three to five years from now come to fruition, the scenarios do require pre-planning regarding the kind of spaces allocated for instructional support services. For example, currently there are support services that are assigned to full grade level classroom sized spaces. Program expectations for the instructional support service will need to be aligned with the space necessary to achieve those expectations. Doing so will allow appropriately sized rooms to be available for use as grade level class sections, if needed.

The scenario charts are provided in a format such that this document can be used as a tool to analyze and add to each possible scenario as the school community ponders what actions should be taken, if any, to deliver the K-12 program as academically and financially efficient as possible at the quality levels expected by the district and the community. Local school district community

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discussion and analysis of the perceived instructional impact of each scenario will in all likelihood identify additional ‘Opportunities and Challenges’ not listed now in the charts.

The value judgment that balances how the scenario options might ‘best’ serve the pupils of Irvington UFSD, and how the scenario options might ‘best’ reduce operating expenditures must rest with the local Board and the community it serves and not with a guest consultant. The study is a tool to help the local public policy discussion necessary to choose an option, if any, to implement.

*The charts for of scenarios B through G reflect those options that the study suggests to be the most educationally sound and cost-effective avenues to pursue given the data and inferences gained throughout the research for the study. **The scenarios are not listed in any priority order or advocacy order.***

There is no scenario listed that includes placing the district offices in renovated space that was originally planned for the district central offices when Dows Lane was built. Such a space allocation is possible, but the study suggests that such an action is probably not educationally sound or cost-effective. Adding adult space to Dows Lane limits the future flexibility of the district. For example, if enrollments continue to decline over the next five to ten years, it is likely that only Dows Lane and the Middle/High School will be needed to serve the pupils of the district. If community demographic patterns change with such variables as the number of children per family; number of live births in the district; employment opportunities in the Westchester commuting area; and turnover of homes from empty-nesters to a population with children or with the potential for children; then, the district may need instructional space to serve more enrollment over the next five to ten years. Building a new school or adding on to an existing school may be too cost prohibitive. There seems to be a lack of available land to purchase. Even if land was available for purchase, the price may be prohibitive for purchase by the school district. In addition, any purchased land by the school district removes the property from the tax roll. Weighing the impact of removing green space at Dows Lane or at the Middle/High School to try and add classrooms at those existing sites is another consideration. The 4000 to 4500 square feet at the Dows Lane School that originally was to house the district offices is looked upon by the study as an existing *instructional* asset to the district regardless if future enrollments decline or increase.

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Scenarios B, C, G and H include the sale or rental of the Main Street Building. Estimating the market value of the building exceeds the parameters of this study. It is suggested that the building has high market value to a private developer given the location of the building in the village, the historical nature of the building, the condition of the building, along with its ‘curb appeal’. If closed, the Main Street building may have an immediate impact on reducing general fund budget expenditures by about \$231,517. The estimate includes: facility personnel, \$185,598; utilities, \$34,941; and building supplies, \$10,978. Another \$52,411 of utility ‘savings’ from closing the building is necessary to use to keep the closed building at an appropriate minimum temperature and to ensure daily security and upkeep for the building and the grounds.

Scenario F does not suggest what happens to the Main Street School; i.e. ‘moth ball’ it, use it for storage, house the district offices, or sell/rent it.

Scenarios B, D, F and G include a required public referendum to renovate existing space at Dows Lane that originally was planned to house the district offices and instead create up to 5 classrooms for instruction.

Scenarios D and E use the Main Street Building to house the school district offices. In this way the modular buildings at Dows Lane that now hold the offices would be sold and removed. The utility savings from closing and removing the modulares total an estimated \$10,512. The two modulares have some capital value and can be bid for sale *including* bonded removal by the successful bidder.

One of the items that all principals suggested during the site visit is a need is storage for instructional items that are used once a year or once or twice a semester. It is suggested that the third floor of Main Street, accessible by elevator, could supply a central storage site for the elementary and secondary buildings. There are an ample number of rooms on floor three to allocate one classroom worth of space to each of the K-6 grade levels. The second floor can supply nine more rooms to allow secondary subject area locked storage. The first floor has ample spaces for all the functions of the district office and for possible rental to community groups or to the BOCES. The auditorium remains an accessible asset for the community and the

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school district. The gymnasium is a separate building that can continue to be used as a gym station for athletic practices. The location of the gymnasium can also serve as a possible opportunity for the local police next door, or for community recreation for young people as well as adults, or as a special project resource for the neighboring community theatre.

Redeploying the Main Street Building to house central office services and storage will likely reduce the current expenditures necessary to operate the building as an elementary school. Instead of four cleaning staff, the equivalent of one full-time cleaner/custodian will be needed to maintain the building and to implement the district-wide storage plan. Heating the first floor, the gym and the auditorium at a normal occupancy temperature, and heating floors two and three at a lower 'storage' setting should save at least 25% of the utility expenditures now spent on the building. The cost of supplies should be reduced by an estimated 75%. Therefore, the estimated savings to the general fund for using Main Street for the district offices and storage total \$216,584: \$185,598 for personnel; \$21,838 for utilities; and \$9,148 for building supplies.

It is suggested strongly that if Main Street was to be used for the District Offices and for storage, then no permanent structural renovations take place to accommodate the offices. Certainly, painting, possibly carpeting and appropriate furniture may well be needed. The use of Main Street for offices and storage protects the flexibility of the district with regard to the availability of instructional space 10 to 20 years from now. The current enrollment projections do not suggest increasing enrollments. Future enrollment projections in four to eight years may suggest increasing enrollments *if* variables that influence the residence of a growing school-age population begin to evolve. The Main Street building is a key asset for the future in case there are growing enrollments at Irvington. Adults and non-instructional services can always be accommodated in rented commercial space if in the future Main Street is needed to serve as a school again.

All of the scenarios B through H do not use Main Street as a school building. Therefore, there is an immediate expenditure savings due to reduced cost of operations. It is also likely that there may be some savings in the number of bus runs that will not be needed since all pupils are transported to two sites instead of three. Each one way bus run lowers local taxpayer expenditures by about \$20,134.

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In addition, currently Dows Lane and Main Street share 3.5 FTE specialty teachers. These teachers could be assigned to Dows Lane full time which eliminates loss time due to traveling between two schools as occurs now.

There is one fewer FTE principal without the use of Main Street as a school. The availability of about \$186,433 allows other types of supervision services or program enhancements within existing budgeted funds.

Scenarios C, E, F and H include the use of the Middle/School to serve grades 5 through 12 instead of grades 6 through 12. The enrollment projections suggest that the Middle/High School will have the highest percentage of unused pupil capacity over the next five years. The Middle/High School campus complex has some interesting features to accommodate a grades 5-12 configuration. They include:

- ◇ The Middle School has two floors with four ‘pods’ of five classrooms each. The table below lists the enrollment projections for grades five, six, and seven over the next five years. The pods can support either a self-contained pedagogy or a middle school teaming pedagogy.

	Grade 5	Grade 6	Grade 7	Class section classrooms needed	Instructional Support rooms
Estimated 2015-2016 enrollment:	123	134	142	18	2
Estimated number of class sections based on the class size goals of the district:	6	6	6		
Estimated 2017-2018 enrollment	147	123	130	18	2
Estimated number of class sections based on the class size goals of the district:	7	5	6		

Physical education, art, technology, language and music are provided to grades 5-7 in the same manner as they are now provided to grades 6-8 in the high school section of the campus.

- ◇ It is suggested that the district explore using the large foyer outside of the auditorium as a lunch cafeteria exclusively for grades 5, 6 and 7. The foyer is 2544 square feet in size. It can easily accommodate, for example, round fold up tables each with eight seats and wheels. Nineteen such tables can serve up to 152 students. It is suggested that three lunch settings be offered; one for each grade level. Such a simple lunch scheduling method allows all of the teachers of a grade level to have lunch together as a value-added benefit to support communication. The tables fold for easy storage in the large foyer itself, or in the large hallway leading to the foyer, or inside the locker rooms on a night when there is a large community crowd using the auditorium.

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- ◇ Appendix C provides pictures of a moveable double serving line that accommodates hot and cold lunch items. The current school lunch staff prepare the food and/or deli station items and the food is wheeled to the new lunch site in appropriate bulk containers using the elevator. One cash register staff person and the usual resources for supervision are assigned. The portable serving line is of high quality, easily moveable, and has been successfully used by school districts for years to accomplish what is suggested by the study for Irvington.
- ◇ Grade 8 already shares the cafeteria at the high school. This would continue in all scenario options listed.
- ◇ **Scenarios C, E, F, and H** include serving grade 8 instructionally in spaces outside the Middle School Pods.

	Grade 8	Three year Average number of grade 8 pupils	Three year Average percentage of grade 8 pupils who took an accelerated course for high school credit
Estimated 2015-2016 enrollment:	142		
Estimated number of class sections based on the class size goals of the district:	6		
		139	89.5%
Estimated 2017-2018 enrollment:	133		
Estimated number of class sections based on the class size goals of the district:	6		

- ◇ Teachers designated as grade 8 teachers now deliver the accelerated courses that earn grade 8 pupils high school credit. The table below lists the three year average number of grade 8 pupils who accelerated in language, science, math and art to achieve high school graduation credit in grade 8.

Three year average percent of grade 8 pupils who took an accelerated language course for high school credit	Three year average Percent of grade 8 pupils who took an accelerated science course for high school credit	Three year average percent of grade 8 pupils who took an accelerated math course for high school credit	Three year average percent of grade 8 pupils who took another accelerated course for high school credit (Studio Art)
89.2%	33.7%	33.4%	14.5%
ESTIMATED NUMBER OF GRADE 8 PUPILS WHO WILL ENROLL IN RESPECTIVE ACCELERATED COURSES FOR HIGH SCHOOL CREDIT IN 2015-2016			
127	48	47	21
ESTIMATED NUMBER OF GRADE 8 PUPILS WHO WILL ENROLL IN RESPECTIVE ACCELERATED COURSES FOR HIGH SCHOOL CREDIT IN 2017-2018			
119	45	44	19

Charted below are the enrollment projection estimates for grades 9-12 for 2015-16 and 2017-18.

	Grade 9	Grade 10	Grade 11	Grade 12	Total:	Est. Net difference from 2012-13
Enrollment in 2012-2013:	152	140	155	156	603	
Estimated 2015-2016 enrollment:	135	119	140	149	543	-60
Estimated 2017-2018 enrollment:	133	137	132	118	520	-83

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The data suggest that in 2015-2016 and in 2017-2018 there will be enough teacher resources in grades 9-12 to accommodate the high school credit acceleration enrollments by grade 8 pupils expected to be enrolled in 2015-2016 and in 2017-2018.

Therefore, it seems reasonable to expect one way to serve the grade 8 pupils starting in 2015-2016 might be implemented as follows:

Estimated enrollment of students in grade 8 in 2015-2016: 142								
Grade 8 Course	Grade 8 English	Grade 8 Social Studies	Grade 8 Science	Grade 8 Pupils in Accelerated grade 9 Science	Grade 8 Math	Grade 8 Pupils in Accelerated grade 9 Math	Grade 8 Art (10 week exploratory)	Grade 8 Pupils in Accelerated grade 9 Art
Estimated Enrollments	142	142	94	48	95	47	121	21
Estimated number of grade 8 sections	6	6	4		4		No anticipated change in FTE's even with 21 pupils in taking grade 9 studio art	
Estimated number of grade 8 teacher FTE's	1.2	1.2	.8		.8			

The above illustration suggests that .4 FTE of a grade 8 science teacher and .4 FTE of a grade 8 math teacher can be reduced in 2015-2016 as an expenditure (about \$51,300) or both .4 FTE's become an existing resource expenditure that can add new program offerings to the 8-12 high school without affecting current property taxes.

It is suggested that the grade 8 class sections (6 in English, 6 in social studies; 4 in science; 4 in math) be housed in a designated wing or part of a wing dedicated to grade 8. It may be necessary for some grade 9-12 rooms to be used each period of the day. In such cases, a teacher will not necessarily have his/her prime teaching classroom available during a preparation or a study hall supervision assignment.

Grade 8 pupils are already part of the high school culture. They use the library, pass to get to the gym in the high school building (grades 9-12 pass through the middle school to get to the high school gym in the building behind the middle school), and eat lunch in the high school cafeteria. Technology, orchestra/music and language instruction also takes place in the 'high school'.

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2013 IRVINGTON UFSD DISTRICT

<p align="center">SCENARIOS FOR CONDISERATION BY THE IRVINGTON UFSD DISTRICT TO ANSWER THE QUESTION:</p> <p align="center"><i>Are there options to the current practice that might provide more efficient ways or patterns to organize how the kindergarten through grade twelve program is implemented/delivered over the next three years?</i></p>	<p align="center">MAIN STREET</p>	<p align="center">DOWS LANE</p>	<p align="center">MIDDLE/HIGH SCHOOL</p>	<p align="center">DISTRICT OFFICES</p>
<p>Scenario A: Continue the current pattern of delivery.</p>	<p align="center">4-5</p>	<p align="center">K-3</p>	<p align="center">6-12</p>	<p align="center">Remain in modulars</p>
<p>Scenario B: Serve K-5 at Dows Lane. Renovate the spaces once allocated for the district offices to serve up to five classes. Do not use Main Street Elementary. Sell or rent it. Serve 6-12 at the Middle/High School facilities. District office remains in the modulars.</p>		<p align="center">K-5</p>	<p align="center">6-12</p>	<p align="center">Remain in modulars</p>
<p>Scenario C: Serve K-4 at Dows Lane. Do not use Main Street Elementary. Sell or rent it. Serve 5-12 at the Middle/High School facilities. District office remains in the modulars.</p>		<p align="center">K-4</p>	<p align="center">5-12</p>	<p align="center">Remain in modulars</p>
<p>Scenario D: Serve K-5 at Dows Lane. Renovate the spaces once allocated for the district offices to serve up to five classes. Main Street houses the district offices and hosts other possible community agencies/services and/or specialized BOCES services. Serve 6-12 at the Middle/High School facilities.</p>	<p align="center">District Office</p>	<p align="center">K-5</p>	<p align="center">6-12</p>	
<p>Scenario E: Serve K-4 at Dows Lane. Main Street houses the district offices and hosts other possible community agencies/services and/or specialized BOCES services. Serve 5-12 at the Middle/High School facilities.</p>	<p align="center">District Office</p>	<p align="center">K-4</p>	<p align="center">5-12</p>	
<p>Scenario F: Serve K-4 at Dows Lane. Renovate the spaces once allocated for the district offices to serve up to five classes. Serve 6-12 at the Middle/High School facilities. Do not use Main Street as a school.</p>		<p align="center">K-4</p>	<p align="center">5-12</p>	<p align="center">Main St. or modulars or rent commercial space.</p>
<p>Scenario G: Serve K-5 at Dows Lane. Renovate the spaces once allocated for the district offices to serve up to five classes. Do not use Main Street Elementary. Sell or rent it. Serve 6-12 at the Middle/High School facilities. District office is in commercial rented space.</p>		<p align="center">K-5</p>	<p align="center">6-12</p>	<p align="center">In commercial rented space.</p>
<p>Scenario H: Serve K-4 at Dows Lane. Do not use Main Street Elementary. Sell or rent it. Serve 5-12 at the Middle/High School facilities. District office is in commercial rented space.</p>		<p align="center">K-4</p>	<p align="center">5-12</p>	<p align="center">In commercial rented space.</p>
<p>Scenario I: Worksheet....other?</p>				

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SCENARIO A:					
<i>Continue the current pattern of delivery.</i>					
RATIONALE:					
<ul style="list-style-type: none"> No change from current practice. 					
<p style="text-align: center;">Pupil Capacity Available (Benchmarked to local class size goals and the instructional program offerings of 2012-2013)</p>					
Location (Current Enrollment)	Pupil Operating Capacity as the Program is Implemented in 2012-2013	Estimated Enrollment In 2015-16	Est. Pupil Capacity Use with this Scenario in 2015-2016	<i>Estimated Enrollment In 2017-18</i>	<i>Est. Pupil Capacity Use with this Scenario in 2017-2018</i>
K-3 Dows Lane (515)	504	434 to 525	86.1% to 104.2%	375 to 511	74.4% to 101.4%
4-5 Main Street (315)	315	241	76.5%	234 to 275	74.3% to 87.3%
Total K-5	819	675 to 766	82.4% to 93.5%	609 to 786	74.4% to 96%
6-12 Middle/High School (1017)	1339	961	71.8%	907	67.7%

SCENARIO A: OPPORTUNITIES AND CHALLENGES	
<i>Continue the current pattern of program delivery in all buildings.</i>	
OPPORTUNITIES:	CHALLENGES:
<ul style="list-style-type: none"> ✓ No changes. ✓ Within three years, the available pupil capacity in the two elementary buildings and the middle school will be used for a total of 82 to 94% because of the likelihood of decreasing enrollment in the school district. Therefore, there is pupil capacity space to add new programs. ✓ There is ample instructional space available to rent to BOCES for regional programs. 	<ul style="list-style-type: none"> ✓ Likely decreasing enrollments K-5 and 6-12. ✓ Resource allocation; affordability of maintaining a second elementary building ✓ Continued use of aging and utility inefficient modular structures for the district central office. ✓ The Middle/High School likely will have about 23% unused capacity in three years; 32% unused capacity in five years
✓	✓
✓	✓
✓	✓
✓	✓
✓	✓
✓	✓
✓	✓
✓	✓
✓	✓
✓	✓

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SCENARIO B:						
Serve K-5 at Dows Lane. Renovate the spaces once allocated for the district offices to serve up to five classes. Do not use Main Street Elementary. Sell or rent it. Serve 6-12 at the Middle/High School facilities. District office remains in the modulars.						
RATIONALE:						
<ul style="list-style-type: none"> • Estimated future enrollments in three to five years suggest that two elementary buildings will not be necessary to serve the expected K through grade 5 population. • The location of the Main Street building probably makes it very desirable to buy by a private vendor. • The district can probably reduce fixed budget expenditures and help keep the tax levy at a moderate acceptable level with one fewer building and the proceeds from a sale. 						
Pupil Capacity Available (Benchmarked to local class size goals and the instructional program offerings of 2012-2013)						
Location (Current Enrollment)	Pupil Operating Capacity as the Program is Implemented in 2012-2013	Pupil Operating Capacity with renovations and delivery of instructional support services in reassigned spaces	Estimated Enrollment In 2015-16	Est. Pupil Capacity Use with this Scenario in 2015-2016	<i>Estimated Enrollment In 2017-18</i>	<i>Est. Pupil Capacity Use with this Scenario in 2017-2018</i>
K-3 Dows Lane (515)	504	504+105+105 = 714				
4-5 Main Street (315)	315	0				
Total K-5		714	675 to 766	94.5% to 107%	<i>609 to 786</i>	<i>85.3% to 110%</i>
6-12 Middle/High School (1017)	1339	1339 + 48 =1387	961	69.3%	<i>907</i>	<i>65.4%</i>

SCENARIO B: OPPORTUNITIES AND CHALLENGES	
Serve K-5 at Dows Lane. Renovate the spaces once allocated for the district offices to serve up to five classes. Do not use Main Street Elementary. Sell or rent it. Serve 6-12 at the Middle/High School facilities. District office remains in the modulars.	
OPPORTUNITIES:	CHALLENGES:
<ul style="list-style-type: none"> ✓ Proceeds from the sale of a building in a highly desirable location that can be reserved to mitigate future tax impacts and/or fund upkeep/renovations to remaining buildings. ✓ The closing of the Main Street building will have an immediate impact on reducing expenditures by about \$231,517. ✓ The space available at Dows Lane renovated to serve pupils. ✓ One fewer FTE principal for a personnel reduction of about \$186,433. ✓ Delivery of instructional support services in spaces meeting more closely the requirements of the service. ✓ Possibility of fewer transportation bus routes. ✓ K-5 Teaching talent all under one roof helping to keep scope/sequence of curriculum 	<ul style="list-style-type: none"> ✓ The closing of a building that has historical significance to the community. ✓ The district offices remain in modular buildings that will need on-going maintenance and require a higher energy per square foot cost to operate. ✓ The Middle/High School will likely have declining enrollments and more unused pupil capacity than currently. ✓ The passage of a capital referendum for renovations at Dows. ✓ One fewer FTE principal to delegate district-wide tasks. ✓ Delivery of instructional support services in spaces meeting more closely the requirements of the service. ✓ Redesign of the bus route patterns.

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more consistent and communicated across grades K-5.	
✓ 3.5 FTE teachers once shared between two buildings are now serving in one building	
✓	✓
✓	✓
✓	✓
✓	✓
✓	✓

SCENARIO C:

Scenario C: Serve K-4 at Dows Lane. Do not use Main Street Elementary. Sell or rent it. Serve 5-12 at the Middle/High School facilities. District office remains in the modulars.

RATIONALE:

- Estimated future enrollments in three to five years suggest that two elementary buildings will not be necessary to serve the expected K through grade 5 population.
- The location of the Main Street building probably makes it very desirable to buy by a private vendor.
- The district can probably reduce fixed budget expenditures and help keep the tax levy at a moderate acceptable level with one fewer building and the proceeds from a sale.
- The Middle/High School will likely have declining enrollments and more unused pupil capacity than currently.

Pupil Capacity Available (Benchmarked to local class size goals and the instructional program offerings of 2012-2013)						
Location (Current Enrollment)	Pupil Operating Capacity as the Program is Implemented in 2012-2013	Pupil Operating Capacity with renovations and delivery of instructional support services in reassigned spaces	Estimated Enrollment In 2015-16	Est. Pupil Capacity Use with this Scenario in 2015-2016	<i>Estimated Enrollment In 2017-18</i>	<i>Est. Pupil Capacity Use with this Scenario in 2017-2018</i>
K-3 Dows Lane (515)	504	504+105 = 609				
4-5 Main Street (315)	315	0				
Total K-4		609	553 to 643	90.8% to 105.6%	<i>462 to 639</i>	<i>75.9% to 105%</i>
5-12 Middle/High School (1017)	1339	1339 + 48 =1387	1084	78.2%	<i>1053</i>	<i>75.9%</i>

SCENARIO C: OPPORTUNITIES AND CHALLENGES

Serve K-4 at Dows Lane. Do not use Main Street Elementary. Sell or rent it. Serve 5-12 at the Middle/High School facilities. District office remains in the modulars.

OPPORTUNITIES:	CHALLENGES:
<ul style="list-style-type: none"> ✓ Proceeds from the sale of a building in a highly desirable location that can be reserved to mitigate future tax impacts and/or fund upkeep/renovations to remaining buildings. ✓ The closing of the Main Street building will have an immediate impact on reducing expenditures by about 	<ul style="list-style-type: none"> ✓ The closing of a building that has historical significance to the community. ✓ The district offices remain in modular buildings that will need on-going maintenance and require a higher energy per square foot cost to operate.

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<p>\$231,517.</p> <ul style="list-style-type: none"> ✓ One fewer FTE principal for a personnel reduction of about \$186,433. ✓ Delivery of instructional support services in spaces meeting more closely the requirements of the service. ✓ Possibility of fewer transportation bus routes. ✓ K-4 teaching talent all under one roof helping to keep scope/sequence of curriculum more consistent and communicated across grades K-5. ✓ 3.5 FTE teachers once shared between two buildings are now serving in one building ✓ More program efficient use of the Middle/High School campus 	<ul style="list-style-type: none"> ✓ One fewer FTE principal to delegate district-wide tasks. ✓ Delivery of instructional support services in spaces meeting more closely the requirements of the service. ✓ Redesign of the bus route patterns. ✓ Looking at the use of the Middle/High School facilities assets differently and implementing a delivery plan that is not what 'always has been'. ✓ Renovations to help Dows Lane to be 'more functional' not addressed.
✓	✓
✓	✓
✓	✓
✓	✓
✓	✓
✓	✓
✓	✓

SCENARIO D:

Serve K-5 at Dows Lane. Renovate the spaces once allocated for the district offices to serve up to five classes. Main Street houses the district offices and hosts other possible community agencies/services and/or specialized BOCES services. Serve 6-12 at the Middle/High School facilities.

RATIONALE:

- Estimated future enrollments in three to five years suggest that two elementary buildings will not be necessary to serve the expected K through grade 5 population.
- The Main Street building is a valuable asset for the far future if public school enrollment begins to grow.
- The Main Street building is an historical building and a resource for the community.
- End the use of the modulars at Dows Lane will reduce utility and upkeep expenditures.
- Utilize the entire Dows Lane asset for pupil instruction and achieve renovations to better utilize the building to serve instruction.

Pupil Capacity Available
(Benchmarked to local class size goals and the instructional program offerings of 2012-2013)

Location (Current Enrollment)	Pupil Operating Capacity as the Program is Implemented in 2012-2013	Pupil Operating Capacity with renovations and delivery of instructional support services in reassigned spaces	Estimated Enrollment In 2015-16	Est. Pupil Capacity Use with this Scenario in 2015-2016	<i>Estimated Enrollment In 2017-18</i>	<i>Est. Pupil Capacity Use with this Scenario in 2017-2018</i>
K-3 Dows Lane (515)	504	504+105+105 = 714				
4-5 Main Street (315)	315	0				
Total K-5		714	675 to 766	94.5% to 107%	<i>609 to 786</i>	<i>85.3% to 110%</i>
6-12 Middle/High School (1017)	1339	1339 + 48 =1387	961	69.3%	<i>907</i>	<i>65.4%</i>

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SCENARIO D: OPPORTUNITIES AND CHALLENGES	
Serve K-5 at Dows Lane. Renovate the spaces once allocated for the district offices to serve up to five classes. Main Street houses the district offices and hosts other possible community agencies/services and/or specialized BOCES services. Serve 6-12 at the Middle/High School facilities.	
OPPORTUNITIES:	CHALLENGES:
<ul style="list-style-type: none"> ✓ The space available at Dows Lane renovated to serve pupils. ✓ One fewer FTE principal for a personnel reduction of about \$186,433. ✓ Delivery of instructional support services in spaces meeting more closely the requirements of the service. ✓ Possibility of fewer transportation bus routes. ✓ K-5 Teaching talent all under one roof helping to keep scope/sequence of curriculum more consistent and communicated across grades K-5. ✓ 3.5 FTE teachers once shared between two buildings are now serving in one building. ✓ The Main Street building is preserved as an asset for the community and for the district if enrollments rise over the next ten years. ✓ About \$216,584 in operating expenditures are reduced with the redeployment of Main Street for the district offices. ✓ Ample and appropriate storage is now available to the instructional programs. ✓ The modulars at Dows Lane are removed and sold. At least \$10,512 is saved on utility expenditures. ✓ The district offices have sufficient and appropriate space. ✓ Possibility of fewer transportation bus routes. 	<ul style="list-style-type: none"> ✓ One fewer FTE principal to delegate district-wide tasks. ✓ Delivery of instructional support services in spaces meeting more closely the requirements of the service. ✓ Redesign of the bus route patterns. ✓ The Middle/High School will likely have declining enrollments and more unused pupil capacity than currently. ✓ The passage of a capital referendum for renovations at Dows.
✓	✓
✓	✓
✓	✓
✓	✓
✓	✓

FINDINGS

SCENARIO E:						
Serve K-4 at Dows Lane. Main Street houses the district offices and hosts other possible community agencies/services and/or specialized BOCES services. Serve 5-12 at the Middle/High School facilities.						
RATIONALE:						
<ul style="list-style-type: none"> • Estimated future enrollments in three to five years suggest that two elementary buildings will not be necessary to serve the expected K through grade 5 population. • The Main Street building is a valuable asset for the far future if public school enrollment begins to grow. • The Main Street building is an historical building and a resource for the community. • End the use of the modulars at Dows Lane will reduce utility and upkeep expenditures. • The Middle/High School will likely have declining enrollments and more unused pupil capacity than currently. 						
Pupil Capacity Available (Benchmarked to local class size goals and the instructional program offerings of 2012-2013)						
Location (Current Enrollment)	Pupil Operating Capacity as the Program is Implemented in 2012-2013	Pupil Operating Capacity with renovations and delivery of instructional support services in reassigned spaces	Estimated Enrollment In 2015-16	Est. Pupil Capacity Use with this Scenario in 2015-2016	<i>Estimated Enrollment In 2017-18</i>	<i>Est. Pupil Capacity Use with this Scenario in 2017-2018</i>
K-3 Dows Lane (515)	504	504+105 = 609				
4-5 Main Street (315)	315	0				
Total K-4		609	553 to 643	90.8% to 105.6%	<i>462 to 639</i>	<i>75.9% to 105%</i>
5-12 Middle/High School (1017)	1339	1339 + 48 = 1387	1084	78.2%	<i>1053</i>	<i>75.9%</i>

SCENARIO E: OPPORTUNITIES AND CHALLENGES	
Serve K-4 at Dows Lane. Main Street houses the district offices and hosts other possible community agencies/services and/or specialized BOCES services. Serve 5-12 at the Middle/High School facilities.	
OPPORTUNITIES:	CHALLENGES:
<ul style="list-style-type: none"> ✓ One fewer FTE principal for a personnel reduction of about \$186,433. ✓ Delivery of instructional support services in spaces meeting more closely the requirements of the service. ✓ Possibility of fewer transportation bus routes. ✓ K-4 teaching talent all under one roof helping to keep scope/sequence of curriculum more consistent and communicated across grades K-5. ✓ 3.5 FTE teachers once shared between two buildings are now serving in one building ✓ More program efficient use of the Middle/High School campus ✓ The Main Street building is preserved as an asset for the community and for the district if enrollments rise over the next ten years. ✓ About \$216,584 in operating expenditures are reduced with the redeployment of Main Street for the district 	<ul style="list-style-type: none"> ✓ One fewer FTE principal to delegate district-wide tasks. ✓ Delivery of instructional support services in spaces meeting more closely the requirements of the service. ✓ Redesign of the bus route patterns. ✓ Looking at the use of the Middle/High School facilities assets differently and implementing a delivery plan that is not what ‘always has been’. ✓ Renovations to help Dows Lane to be ‘more functional’ not addressed.

FINDINGS

offices. ✓ Ample and appropriate storage is now available to the instructional programs. ✓ The modulars at Dows Lane are removed and sold. At least \$10,512 is saved on utility expenditures. ✓ The district offices have sufficient and appropriate space.	
✓	✓
✓	✓
✓	✓
✓	✓
✓	✓
✓	✓
✓	✓

SCENARIO F:						
Serve K-4 at Dows Lane. Renovate the spaces once allocated for the district offices to serve up to five classes. Serve 5-12 at the Middle/High School facilities. Do not use Main Street as a school.						
RATIONALE:						
<ul style="list-style-type: none"> • Estimated future enrollments in three to five years suggest that two elementary buildings will not be necessary to serve the expected K through grade 5 population. • Prepare the entire Dows Lane asset for pupil instruction and achieve renovations to better utilize the building to serve instruction. • Provide as much availability of pupil capacity if the high range enrollment projections come to fruition over the next five years. 						
Pupil Capacity Available (Benchmarked to local class size goals and the instructional program offerings of 2012-2013)						
Location (Current Enrollment)	Pupil Operating Capacity as the Program is Implemented in 2012-2013	Pupil Operating Capacity with renovations and delivery of instructional support services in reassigned spaces	Estimated Enrollment In 2015-16	Est. Pupil Capacity Use with this Scenario in 2015-2016	<i>Estimated Enrollment In 2017-18</i>	<i>Est. Pupil Capacity Use with this Scenario in 2017-2018</i>
K-3 Dows Lane (515)	504	504+105+105 = 714				
4-5 Main Street (315)	315	0				
Total K-4		714	553 to 643	77.5% to 90.1%	462 to 639	64.7% to 89.5%
5-12 Middle/High School (1017)	1339	1339 + 48 =1387	1084	78.2%	1053	75.9%

SCENARIO F: OPPORTUNITIES AND CHALLENGES	
Serve K-4 at Dows Lane. Renovate the spaces once allocated for the district offices to serve up to five classes. Serve 5-12 at the Middle/High School facilities. Do not use Main Street as a school.	
OPPORTUNITIES:	CHALLENGES:
<ul style="list-style-type: none"> ✓ The space available at Dows Lane renovated to serve pupils. ✓ One fewer FTE principal for a personnel reduction of about \$186,433. 	<ul style="list-style-type: none"> ✓ One fewer FTE principal to delegate district-wide tasks. ✓ Delivery of instructional support services in spaces meeting more closely the

FINDINGS

<ul style="list-style-type: none"> ✓ Delivery of instructional support services in spaces meeting more closely the requirements of the service. ✓ Possibility of fewer transportation bus routes. ✓ K-4 Teaching talent all under one roof helping to keep scope/sequence of curriculum more consistent and communicated across grades K-5. ✓ 3.5 FTE teachers once shared between two buildings are now serving in one building.. ✓ Possibility of fewer transportation bus routes. 	<ul style="list-style-type: none"> requirements of the service. ✓ Redesign of the bus route patterns. ✓ The passage of a capital referendum for renovations at Dows.
✓	✓
✓	✓
✓	✓
✓	✓
✓	✓

SCENARIO G:

Serve K-5 at Dows Lane. Renovate the spaces once allocated for the district offices to serve up to five classes. Do not use Main Street Elementary. Sell or rent it. Serve 6-12 at the Middle/High School facilities. District office is in commercial rented space.

RATIONALE:

- Estimated future enrollments in three to five years suggest that two elementary buildings will not be necessary to serve the expected K through grade 5 population.
- The location of the Main Street building probably makes it very desirable to buy by a private vendor.
- The district can probably reduce fixed budget expenditures and help keep the tax levy at a moderate acceptable level with one fewer building and the proceeds from a sale.
- End the use of the modulars at Dows Lane will reduce utility and upkeep expenditures.
- Utilize the entire Dows Lane asset for pupil instruction and achieve renovations to better utilize the building to serve instruction.

Pupil Capacity Available
(Benchmarked to local class size goals and the instructional program offerings of 2012-2013)

Location (Current Enrollment)	Pupil Operating Capacity as the Program is Implemented in 2012-2013	Pupil Operating Capacity with renovations and delivery of instructional support services in reassigned spaces	Estimated Enrollment In 2015-16	Est. Pupil Capacity Use with this Scenario in 2015-2016	<i>Estimated Enrollment In 2017-18</i>	<i>Est. Pupil Capacity Use with this Scenario in 2017-2018</i>
K-3 Dows Lane (515)	504	504+105+105 = 714				
4-5 Main Street (315)	315	0				
Total K-5		714	675 to 766	94.5% to 107%	609 to 786	85.3% to 110%
6-12 Middle/High School (1017)	1339	1339 + 48 =1387	961	69.3%	907	65.4%

FINDINGS

SCENARIO G: OPPORTUNITIES AND CHALLENGES	
Serve K-5 at Dows Lane. Renovate the spaces once allocated for the district offices to serve up to five classes. Do not use Main Street Elementary. Sell or rent it. Serve 6-12 at the Middle/High School facilities. District office is in commercial rented space.	
OPPORTUNITIES:	CHALLENGES:
<ul style="list-style-type: none"> ✓ Proceeds from the sale of a building in a highly desirable location that can be reserved to mitigate future tax impacts and/or fund upkeep/renovations to remaining buildings. ✓ The closing of the Main Street building will have an immediate impact on reducing expenditures by about \$231,517. ✓ The space available at Dows Lane renovated to serve pupils. ✓ One fewer FTE principal for a personnel reduction of about \$186,433. ✓ Delivery of instructional support services in spaces meeting more closely the requirements of the service. ✓ Possibility of fewer transportation bus routes. ✓ K-5 teaching talent all under one roof helping to keep scope/sequence of curriculum more consistent and communicated across grades K-5. ✓ 3.5 FTE teachers once shared between two buildings are now serving in one building ✓ The modulars at Dows Lane are removed and sold. At least \$10,512 is saved on utility expenditures. ✓ The district offices have sufficient and appropriate space. 	<ul style="list-style-type: none"> ✓ The closing of a building that has historical significance to the community. ✓ One fewer FTE principal to delegate district-wide tasks. ✓ Delivery of instructional support services in spaces meeting more closely the requirements of the service. ✓ Redesign of the bus route patterns. ✓ The passage of a capital referendum for renovations at Dows. ✓ Finding and renting appropriate commercial space to house the district offices.
✓	✓
✓	✓
✓	✓
✓	✓
✓	✓

FINDINGS

SCENARIO H:						
Serve K-4 at Dows Lane. Do not use Main Street Elementary. Sell or rent it. Serve 5-12 at the Middle/High School facilities. District office is in commercial rented space.						
<i>RATIONALE:</i>						
<ul style="list-style-type: none"> • Estimated future enrollments in three to five years suggest that two elementary buildings will not be necessary to serve the expected K through grade 5 population. • The location of the Main Street building probably makes it very desirable to buy by a private vendor. • The district can probably reduce fixed budget expenditures and help keep the tax levy at a moderate acceptable level with one fewer building and the proceeds from a sale. • End the use of the modulars at Dows Lane will reduce utility and upkeep expenditures. • The Middle/High School will likely have declining enrollments and more unused pupil capacity than currently. 						
Pupil Capacity Available (Benchmarked to local class size goals and the instructional program offerings of 2012-2013)						
Location (Current Enrollment)	Pupil Operating Capacity as the Program is Implemented in 2012-2013	Pupil Operating Capacity with renovations and delivery of instructional support services in reassigned spaces	Estimated Enrollment In 2015-16	Est. Pupil Capacity Use with this Scenario in 2015-2016	<i>Estimated Enrollment In 2017-18</i>	<i>Est. Pupil Capacity Use with this Scenario in 2017-2018</i>
K-3 Dows Lane (515)	504	504+105 = 609				
4-5 Main Street (315)	315	0				
Total K-4		609	553 to 643	90.8% to 105.6%	462 to 639	75.9% to 105%
5-12 Middle/High School (1017)	1339	1339 + 48 = 1387	1084	78.2%	907	75.9%

SCENARIO H: OPPORTUNITIES AND CHALLENGES	
Serve K-4 at Dows Lane. Do not use Main Street Elementary. Sell or rent it. Serve 5-12 at the Middle/High School facilities. District office is in commercial rented space.	
OPPORTUNITIES:	CHALLENGES:
<ul style="list-style-type: none"> ✓ Proceeds from the sale of a building in a highly desirable location that can be reserved to mitigate future tax impacts and/or fund upkeep/renovations to remaining buildings. ✓ The closing of the Main Street building will have an immediate impact on reducing expenditures by about \$231,517. ✓ One fewer FTE principal for a personnel reduction of about \$186,433. ✓ Delivery of instructional support services in spaces meeting more closely the requirements of the service. ✓ Possibility of fewer transportation bus routes. ✓ K-4 teaching talent all under one roof helping to keep scope/sequence of curriculum more consistent and 	<ul style="list-style-type: none"> ✓ The closing of a building that has historical significance to the community. ✓ One fewer FTE principal to delegate district-wide tasks.. ✓ Delivery of instructional support services in spaces meeting more closely the requirements of the service. ✓ Redesign of the bus route patterns. ✓ Finding and renting appropriate commercial space to house the district offices. ✓ Renovations to help Dows Lane to be 'more functional' not addressed. ✓ Looking at the use of the Middle/High School facilities assets differently and implementing a

FINDINGS

<ul style="list-style-type: none"> ✓ communicated across grades K-5. ✓ 3.5 FTE teachers once shared between two buildings are now serving in one building ✓ The modulares at Dows Lane are removed and sold. At least \$10,512 is saved on utility expenditures. The district offices have sufficient and appropriate space. 	<p>delivery plan that is not what 'always has been'.</p>
✓	✓
✓	✓
✓	✓
✓	✓
✓	✓

WORKSHEET SCENARIO I:

RATIONALE:

Pupil Capacity Available (Benchmarked to local class size goals and the instructional program offerings of 2012-2013)					
Location (Current Enrollment)	Pupil Operating Capacity as the Program is Implemented in 2012-2013	Estimated Enrollment In 2015-16	Est. Pupil Capacity Use with this Scenario in 2015-2016	<i>Estimated Enrollment In 2017-18</i>	<i>Est. Pupil Capacity Use with this Scenario in 2017-2018</i>
K-3 Dows Lane (515)	504	434 to 525		<i>375 to 511</i>	
4-5 Main Street (315)	315	241		<i>234 to 275</i>	
Total K-5	819	675 to 766		<i>609 to 786</i>	
6-12 Middle/High School (1017)	1339	961		<i>907</i>	

OPPORTUNITIES:	CHALLENGES:
✓	✓
✓	✓
✓	✓

APPENDIX A:
**PUPIL CAPACITY ANALYSIS
OF EACH SCHOOL BUILDING OF
IRVINGTON UFSD**

**Pre-KINDERGARTEN
THROUGH
GRADE 12**

“Custom tools and research to aid a school district in defining a vision and decision options for serving students in the future.”

PURPOSE OF THE SCHOOL BUILDINGS PUPIL CAPACITY STUDY

This study provides a school building pupil capacity assessment that first documents how the instructional spaces in all of the school buildings of the Irvington UFSD School District are utilized in the 2012-2013 school year to deliver *the current pre-kindergarten through grade twelve program including special education*. Second, it provides an assessment of pupil capacity of each building measured against local district goals for grade level class sizes and measured against State Education Department building aid unit capacity guidelines for instructional space.

The study is instructionally focused on the current year implementation of the educational program within the school buildings of the district. It does not provide technical or qualitative evaluation regarding architectural specifications, design, construction or management of the facilities. The best source for such infrastructure analysis is the architect for the district.

The protocol to accomplish the school building pupil capacity assessment is an analysis of each instructional space compared to a New York State Education Department defined room schedule of minimum spaces necessary to house a district's educational program for a given number of pupils. 'Number of pupils' is benchmarked to local class size contractual definitions, if any, and local school district class size goals.

BACKGROUND ABOUT THE ROLE OF PUPIL CAPACITIES OF SCHOOL BUILDINGS AND PROGRAM/FACILITY PLANNING*

The instructional program envisioned by the district and how best to efficiently deploy that program within the educational facilities drive the analysis of school building pupil capacity. The Commissioner of Education must approve plans and specifications for capital construction projects undertaken by public schools and BOCES. Such construction may include new buildings, additions, and alterations/reconstruction of facilities. Eligibility for new construction as well as state building aid to help in funding a facility project is determined through an assessment of information contained in the school district's Facilities Needs Assessment summary, enrollment projections, Instructional Space Review form,

**Information outlined, quoted, and discussed is sourced to the New York State Education Department Office of Facilities Planning documents.*

floor plans of actual and proposed use of space, as well as the required curriculum and the specific educational programs offered by the district.

The calculated pupil capacity number based on the program to be implemented represents a factor that is then used by the SED to determine a maximum ‘aid ceiling’ for proposed facility project construction and related incidental expenditures upon which NYS Building Aid is computed.

This ‘aid ceiling’ calculation is the total project expenditure amount *up to* which the State of New York will provide building aid.

An estimate of building aid equals the calculated *maximum cost allowances* derived for both the construction contracts and for incidental costs or the actual costs incurred, *whichever is less*, multiplied by the district’s Building Aid Ratio at the time a project is approved. A district may expend beyond the maximum cost allowance. However, such expenditure beyond the calculated maximum cost allowances for contracts and incidental expenses will receive no state building aid and thus would be fully funded by the local taxpayers.

The Maximum Cost Allowance is determined by three factors: the *Building Aid Units (BAU)* assigned to the project by grade level or category within existing space and proposed new space; the *Construction Cost Index* that is in effect the month the general construction contract is signed; and a *Regional Cost Factor* for the fiscal year that the project contracts are signed.

The purpose of Building Aid is to help ensure that each school district provides suitable and adequate facilities to accommodate the students and programs of the district and that the allocation of building aid is done in an equitable manner regardless of the wealth or location of the school district in the State. Therefore, new buildings, additions to existing facilities, and major alterations to existing facilities must meet specific standards pertaining to the type, size and number of teaching stations, as well as building code requirements. Existing facilities must meet health and safety regulations, and reconstruction of existing facilities must meet building code requirements. A project is not eligible for building aid unless the construction costs of the project equal or exceeds \$10,000 excluding incidental costs.

The determination of the eligibility for Building Aid is a result of an assessment that *compares district-wide pupil enrollment projections with the efficient operating pupil capacity of existing school buildings to determine building needs*. The tool for a pupil capacity assessment is a room schedule of minimum spaces necessary to house a district's educational program for a given number of pupils.

DEFINITION OF TERMS RELATED TO PUPIL CAPACITY OF SCHOOL FACILITIES AND DETERMINING BUILDING AID

▪ **ORIGINAL CAPACITY**

This represents the total number of pupils the original building, or total complex in the case of additions, was designed to accommodate. This number is the operational capacity of the building or complex when it was constructed and was the basis for the determination of minimum size of the site. The original capacity factor is not germane since current pupil capacity is based on the current program offered in the facilities of the school district.

▪ **STATE-RATED 'CAPACITY'—BUILDING AID UNITS**

The measure for the state-rated capacity is called *Building Aid Units (BAU's)*. The BAU's assigned to a particular building is computed using space standards established by the Commissioner. Using these standards, the total anticipated pupil enrollment by grade levels *across the district* is compared to the actual number of Building Aid Units assigned by formula to the classrooms *in all the buildings* that serve specific grade levels of those pupils. When new buildings, additions, or major renovations are planned, the total projected pupil enrollments for the grade levels to be housed in a specific new/renovated building is compared to the total number of Building Aid Units generated by the classrooms in all district buildings proposed to deliver the program to the same grade levels.

Therefore, regardless of the grade level configuration of specific school buildings in the district, state-rated capacity allowed for the district as a whole is viewed as total K-6 pupils to be served; total 7-8 or 7-9 and total 9-12 or 10-12 pupils (if a separate building (s) for junior high or middle school or senior high exist in the district); and/or total 7-12 pupils to be served if separate buildings do not exist for secondary pupils.

In the case of the Irvington School District, there are two elementary school buildings and a set of three buildings that serve grades 6-12 on one campus. One primarily serves grades 6-8, the second primarily serves grades 9-12, and third serves 6-12 as a theater/gym building. Therefore, the capacity of the set of two elementary buildings that serve K-5 and the space allocated to serve grade 6 in the middle school program is analyzed with regard to the total enrollment in K-6 to determine ‘pupil capacity need’ for the elementary program if the district was planning an elementary facility project. The pupil capacity of the set of the middle school building and the high school building on the same campus is analyzed with regard to the total enrollment in grades 7-12 to determine ‘pupil capacity need’ for the secondary program if the district was planning a secondary facility project.

It is important to note that *a change in room use to deliver the program may result in a change in Building Aid Units assigned and pupil capacity as per the established SED space standards*. The pupil capacity analyses offered in this study are benchmarked to the program use of the spaces by the building principals to deliver the program in the 2012-2013 school year.

▪ **OPERATING CAPACITY**

This measure reflects the total number of pupils a building can reasonably and efficiently house *based on the district’s educational program and class size policy as per formal Board of Education policy and/or teacher contract language* and the number, square footage size, and the program delivery use of the rooms in that building. The operating capacity of a building is computed using the space standards established by the Commissioner to define state-rated capacity *modified* by any differences due to the district’s documented educational program delivery model and/or formal class size policy or contract language.

Using these standards, the total pupil enrollment by grade levels *across the district* is compared to the number of Building Aid Units assigned by formula to the classrooms *in all the buildings* that serve specific grade levels of those pupils *modified* by formal class size practice as found in board policy or written teacher contract clauses. When new buildings, additions, or major renovations are planned that create classrooms, the total operating capacity BAU’s projected for the grade levels to be served in a specific new/renovated

building is compared to the total operating capacity BAU's in all district buildings proposed to deliver the program to the same grade levels.

When determining a building aid ceiling allowance for a facility project, the total of the K-6 BAU's calculated as the district's K-6 operating capacity cannot exceed the projected K-6 enrollment five years from now. The total grades 7-8 BAU's calculated based on the one middle school location cannot exceed the projected grades 7 and 8 enrollment eight years from now. The total grades 9-12 BAU's calculated based on the one high school location cannot exceed the projected grades 9 through 12 enrollment ten years from now. In the case of Irvington there are three buildings that serve grades 6-12 on one campus and are used daily to deliver the program to grade 6 through 12 pupils with students walking between buildings. Therefore, the pupil capacity analysis views the three buildings as 'one school building site'.

▪ **“FUNCTIONAL CAPACITY”**

Functional Capacity is a term not in SED regulations regarding school facilities. It is used in the study to describe the result of planning for a flexibility factor of unassigned pupil capacity as a district develops its ongoing long range plan for program delivery in the schools of the district. If a district supersedes *district-wide* the number of classrooms necessary to house projected enrollment K-6 and 7-12, then the district receives no building aid on 'excess' classrooms that are built. Normally, SED project managers are granted some discretion of approving an aid ceiling for a facility project without deductions for excess capacity if the operating capacity of the project is within 10% of the projected enrollment. The availability of up to 10% additional pupil capacity over the estimated enrollment projection is often used in planning by a district to ensure enough flexibility in implementing the instructional program and to accommodate unforeseen enrollment and/or to encourage additional program offerings.

CALCULATION OF BUILDING AID UNITS FOR ELEMENTARY SCHOOLS

The SED does not endorse any one particular class size. Class size is at the discretion of the Board of Education of each school district. When defining state-rated capacity the Building Aid Units for a new or an existing elementary school is determined by assigning 27 BAU to each 770

square foot classroom used for grades 1-6 and to each 900 square foot kindergarten or pre-kindergarten room. The operating capacity is the same as state-rated capacity (Building Aid Units) *unless* formal board policy or union contract language exists that limits the number of students in a classroom to less than 27 for Pre-K through grade 6. When such policy or contract language is in place, the lesser number will be used to define the **operating** pupil capacity of the elementary classrooms grades pre-K through grade 6 in all of the buildings in the district as a whole. The higher state-rated capacity (Building Aid Units) is used by SED to define potential building aid ceilings for each school building.

In an existing elementary building, the BAU of a room over 550 square feet, but less than 770 square feet is determined by dividing the area of the room by 28.5 square feet per pupil and assigning the whole number without rounding up. Rooms of less than 550 square feet are not included in BAU calculations. Only classrooms for Pre-Kindergarten through grade 6 are counted for BAU in an elementary school. It is assumed by the State that the aid ceiling calculated by multiplying the BAU's times a cost index will be sufficient to provide for both classrooms and all ancillary spaces including instructional support spaces like a library, cafeteria, gymnasium, and auditorium. Normally, the aid ceiling for an elementary school will be sufficient for most reconstruction projects and possibly for a small addition. There is the possibility for BAU's (called 'supplemental' or 'special case' BAU) to be increased for an elementary project to build a new building or an addition that might include a library, cafeteria, gymnasium, auditorium and teacher-parent conference rooms only on an 'as needed' basis. An alternative method to determine BAU's for an elementary addition is the square foot method. The gross area for grades K-6 in the existing building is divided by 100. Then, the BAU are determined for the entire complex including existing and proposed as described above. The second factor is subtracted from the first. The result is the BAU of the addition for the purpose of determining maximum cost allowances. The square foot method for elementary schools may have application when a proposed building does not contain classrooms which produce BAU. *The Room Schedule of Minimum Spaces and Sizes for Elementary Schools* (source: NY SED Office of Facility Planning) is reported below.

MINIMUM ROOM SIZES – required for new buildings and additions; recommended for new spaces created within existing space.

General

a. Spaces in new buildings and additions which are required to house a district's educational program shall meet the size standards listed below. Where no square footage (sq. ft.) is listed, the size may be as determined locally.

- b. In every case, listed square footage means minimum, net, clear, new educational space.
- c. Newly-created spaces in alterations to existing school buildings should attempt to meet the size standards insofar as possible or practical.
- d. Criteria to determine the number of spaces necessary is also included below.

Elementary School

- a. Classrooms --
 - 1. Grades 1-6 770 sq. ft.
(27 BAU/room)
 - 2. Pre-kindergarten/kindergarten.....900 sq. ft.
(27 BAU/room)
- b. Library 900 sq. ft.
(1 thru 12 classroom buildings -- none required)
(13 plus classroom building -- 1 required)
- c. Physical Education - gymnasium 36' x 52'
(1 and 2 classroom buildings -- none required)
(2 thru 14 classroom building -- 1 required)
(1 thru 14 additional classrooms -- 1 additional)

d. Special Education

Student/Teacher/Ratio	Max. Pupil Capacity	Min. Classroom Size
12:1 or 15:1	12 or 15	770 sq. ft.
12:1:1	12	770 sq. ft.
6:1:1	6	450 sq. ft.
8:1:1	8	550 sq. ft.
12:1+3:1	12	900 sq. ft.
Resource Room	----	300 sq. ft.

NOTE: Provide ancillary space equivalent to at least ¼ of the area of a special education classroom for each special education classroom being constructed, either as part of the new classroom or other designated space.
 Preschool: 50 sq. ft. per student or 60 sq. ft. for classroom serving non-ambulatory students (maximum of 12 students per room).

NOTE: Approval may be given for classrooms less than 50 sq. ft. per student if other areas of the building are allocated for preschool recreational or instructional use.

- e. Usual ancillary spaces --
 - 1. Administration
 - 2. Adult Education
 - 3. Auditorium or multi-purpose room
(number of fixed seats, or 36' x 52' usual, 7 sq. ft./person)
 - 4. Art Room (usual)770 sq. ft.
 - 5. Cafeteria and Kitchen
(36'x52' usual, 15 sq. ft./person)
(operating capacity of building divided by number of servings)
 - 6. Computer Lab
 - 7. Conference Room
 - 8. Gifted and Talented
 - 9. Grounds Maintenance
 - 10. Health Suite
 - 11. Music Room (usual) 770 sq. ft.
 - 12. Music Practice room(s) -- small, individual
 - 13. Remedial Rooms
 - 14. Resource Rooms
 - 15. Storage
 - 16. Swimming Pool -- 25 meters x 7 ft. lanes
 - 17. Teachers' room(s)
 - 18. Toilets -- individual and/or gang

CALCULATION OF BUILDING AID UNITS AND PUPIL CAPACITY FOR SPECIAL EDUCATION

The BAU's for special education classrooms is determined by assigning the BAU and pupil capacity based on the disabilities of the students (i.e. 15:1, 12:1, 12:1:1, 12:1+3:1, 8:1, 6:1). Only classrooms are counted for BAU in K-6 buildings and in 7-12 buildings. It is assumed by the State that the aid ceiling calculated by multiplying the BAU's times a cost index will be sufficient to provide for both classrooms and all ancillary spaces including resource rooms and other spaces that may be needed to provide appropriate spaces for special education students.

CALCULATION OF BUILDING AID UNITS AND PUPIL CAPACITY FOR SECONDARY SCHOOLS

A secondary school is a new or existing building housing any or all grades above sixth grade. When a school houses both elementary and secondary pupils, the Building Aid Units and pupil capacities are determined separately for the elementary versus the secondary spaces. The Building Aid Units and pupil capacity for a secondary school is determined by either of two methods: the Teaching Station Method or the Pupil Station Method, dependent on the size of the school. Teaching stations are considered to be:

1. Agricultural shop, including an agricultural classroom.
2. Art room (each).
3. Business education rooms (each).
4. Home and Careers (homemaking) (each, if 1000 sq. ft. or more).
5. Technology (industrial arts) shop (each).
6. Mechanical drawing room (each).
7. Music room (each, if 770 sq. ft. or more).
8. Physical education/gymnasium (each, if standard size).
9. Recitation classroom/interchangeable classroom (each).
10. Science general, earth or advanced (i.e. biology, physics, chemistry).
11. Study hall (each, if 770 sq. ft., or more, and cafeteria/study hall, if so labeled and used).
12. Swimming pool.

The Teaching Station Method applies to:

- Junior High Schools having 29 or fewer teaching stations.
- Junior/Senior High Schools having 25 or fewer teaching stations.
- Senior High Schools having 22 or fewer teaching stations.

For Junior High Schools with 29 or fewer teaching stations, the total number of teaching stations used only for English, social studies, mathematics, languages, health education and general or

earth science (not biology, chemistry, or physics) is calculated. This total is multiplied by 30. The result is the Building Aid Units. The same calculation of teaching stations with the same criteria is done for Junior/Senior High Schools having 25 or fewer teaching stations. The total number of defined teaching stations is then multiplied by 33. The result is the BAU. For Senior High Schools with 22 or fewer teaching stations, the total number of teaching stations used only for English, social studies, mathematics, languages, and health education is calculated. This total (**X**) is used in the formula: $8(7X - 12)$. The result is the BAU.

The Pupil Station Method applies to:

- Junior High Schools having 30 or more teaching stations.
- Junior/Senior High Schools having 26 or more teaching stations.
- Senior High Schools having 23 or more teaching stations.

The total number of pupil stations in a building is determined by first dividing the net square foot area of each of the rooms in the building that are listed in the “Pupil Stations” chart below by the listed square feet per pupil allowance to calculate the pupil stations in each room. The results of the pupil station calculations for each room are totaled not exceeding the maximums listed in the “Pupil Stations” chart. Then, the calculation continues by subtracting 200 from the total pupil stations calculated for the building, and dividing the remainder by 1.16. The resulting number of pupil stations is the Building Aid Units total of the building for calculating building aid ceiling. Note that the operating pupil capacity by the pupil station method is computed using the same method as outlined, but *modified* by any differences due to the district’s educational program and/or maximum class sizes which are clearly outlined in formal board policy and/or in teacher contract clauses.

Pupil Stations Chart

ROOM	SQUARE FEET PER PUPIL	MAXIMUM # OF PUPIL STATIONS
Agriculture shop and classroom	75	20
Art	45	25
Business or computer classrooms		
• Distributive education	50	20
• Office/secretarial/typing/keyboarding	35	24
• Computer classroom	35	24
Home and careers	50	24
Technology (industrial arts)	75	24
Mechanical drawing	35	25
Library—reading room only	25	Not to exceed 15% of PS total for recitation classrooms
Music		
• Classroom	25	30
• Instrumental	25	(area of room/25) x .4

ROOM	SQUARE FEET PER PUPIL	MAXIMUM # OF PUPIL STATIONS
• Vocal	20	(area of room/20) x .4
Physical education		
• Gymnasium	Per station	30
• Swimming pool	Per station	30
Recitation classroom		
• Interchangeable classroom	26	30
• Open planned classroom	30	-----
Science		
• General, earth	30	30
• Advanced—biology, chemistry, physics	50	24
Study hall	16.5	Not to exceed 40% of PS total for recitation classrooms
• Cafeteria/study hall (if so labeled and used)	16.5	Area of room/16.5) x .7 Not to exceed 40% of PS total for recitation classrooms

CALCULATION OF BUILDING AID UNITS AND PUPIL CAPACITY FOR SECONDARY SCHOOL ADDITIONS

The Building Aid Units of the existing building considering the prospective space usage by applying the appropriate “Teaching Station” or “Pupil Station” method. Next, the BAU of the total building including the existing and the addition is calculated. The BAU calculation for the existing building is subtracted from the BAU calculated for the entire proposed complex. The result is the Building Aid Units assigned for the addition to the existing building. An alternative method to determine BAU’s for a secondary school addition is the square foot method. The gross area for grades 7-9 or 7-12 (10-12) in the existing building is divided by 100 or 125 respectively. Then, the BAU are determined for the entire complex including existing and proposed as described above. The second factor is subtracted from the first. The result is the BAU of the addition for the purpose of determining maximum cost allowances. The square foot method for secondary schools may have application when a proposed building does not contain classrooms which produce BAU.

BUILDING AID

Regardless of the building aid for which a district may qualify, total expenditures for capital construction are limited to the amount properly authorized by either a district vote of the public in a referendum or as part of the annual budget vote. In specific circumstances, a declaration of an ordinary contingent expense by a Board of Education also can authorize facility work that qualifies for building aid. There are additional avenues for the Big Five City School Districts.

The formula for determining estimated building aid for a new building, addition, reconstruction and/or alteration is described below.

Building Aid Units are calculated using the rules and guidelines described earlier. The total Building Aid Units are multiplied by a *construction cost index* resulting in a dollar total called the *maximum cost allowance*. The construction cost index is prepared by the New York State Labor Department which represents the cost of labor and materials. It varies monthly. Each set of grade levels qualify for a factor of the monthly construction cost index. Grades K-6 qualify for 1.0 times the current index; grades 7-9 qualify for 1.4 times the current index; and 7-12 (10-12) qualifies for 1.5 times the index. Special Education housed in a separate facility qualifies for 2 times the index, while special education students served in a building with regular education students qualify for 3 times the index.

The index has two parts: one for *construction costs*, and one for *incidental costs*. Construction costs are normally those expenditures for labor and materials to accomplish the project. Incidental costs are expenditures for site purchase, grading or improvement of the site, original furnishings or equipment, professional fees both design, construction management, and legal, and other miscellaneous incidental costs such as insurance and general administrative costs during construction. Generally, the maximum cost allowance for incidentals is 25% of the maximum cost allowance for construction for secondary schools and special education, and 20% for elementary schools. Further, in the case of a project having construction of a new addition, as well as reconstruction or alterations of an existing building, a separate maximum cost allowance is determined for the construction costs and for the incidental costs for both the addition and the reconstruction or alterations separately. The month the district signs the major contract for the work proposed under each particular project determines what construction index amount is used to compute actual Building Aid.

The result of multiplying the total Building Units by category (i.e. K-6, 7-9, 7-12, or 10-12 as applicable, special education integrated, and special education stand alone) times the construction cost index results in a total called *the maximum cost allowance*. An allowance is determined separated for new construction as well as renovation and/or reconstruction for each project by building in a school district with multiple projects even though the projects were

approved by the public in one referendum. The maximum cost allowances for new versus existing BAU and contracts versus incidental costs, are *adjusted* by the district's *regional cost factor*. The regional cost factor is used to compensate for higher construction costs in various geographical areas of the State. No part of the State can have a regional cost factor less than 1.0. The current 2012-2013 regional cost factor for Westchester County is designated as 1.5538 by the SED.

To determine the *estimated building aid* a district will receive for a project, the maximum cost allowance adjusted by the regional cost factor is multiplied by the *district's building aid ratio*. The district building aid ratio represents a fixed percentage determined annually for each individual school district in the State. The ratio is based on the full value of property in the district and the number of students in the district and reflects the wealth of the school district. Normally, the standard building aid ratio varies from 0% in the wealthiest districts to as high as 95% in the poorest districts in the State. Irvington qualifies for an aid ratio of up to .178. In addition, Irvington was allocated an amount through a new facility grant type aid under a 2006 legislative program called *Excel*. *Excel Aid* may be used towards the local share of a facility project that is approved by SED as meeting the purposes of the special building aid program.

The actual building aid a district will ultimately receive is determined when the *final cost report* for an approved project is filed with the SED when the project is completed. If the documented actual expenses allowed for construction and incidentals are equal to, or less than the adjusted maximum cost allowances for construction and incidentals, the district will receive building aid equal to its building aid ratio times those documented expenditures. If the final documented expenses in either the construction or incidental categories exceed the adjusted maximum cost allowances provided to the district for those categories before the project began, there is no penalty. However, the building aid ratio will be applied only to the adjusted maximum cost allowances and not to the total expenditures the district documents by category in the final cost report.

IRVINGTON SCHOOL DISTRICT GUIDELINES GOVERNING CLASS SIZE

The analyses in this study of the pupil capacities of the school buildings first reviewed to see if there is board policy or teacher contract language that would modify the calculation of operating capacity from the calculation of state-rated capacity. There are no specific Board policies

concerning class sizes. The following clause is in the current contract with the Teachers' Association:

Article XVII-CLASS SIZE

The Board and the teachers recognize that it is desirable to maintain class size at a level which will allow teachers to achieve the goal of reaching every student. The Board will consider the recommendations of teachers and will make every effort to determine class size according to the needs of the pupils."

The district currently utilizes the following class size goals to guide the delivery and implementation of the program.

*Grades Kindergarten through five; 21 pupils per class
Grades six through twelve; 25 pupils per class*

The district class size guidelines and goals for class sizes are used by the capacity study to modify the state-rated capacity calculations to determine the *functional* operating pupil capacity of each school building. At the time of a facility project submittal to the SED, the class size school district guidelines and goals endorsed by the Board is the substantiation provided to SED to document the class size practices of the district are *core and critical* to the program vision of the school district in helping all pupils successfully complete high school with the achievement of expected State and local standards. Twenty-seven Building Aid Units is the minimum standard used by SED guidelines to calculate state-rated and operating elementary school capacities when no class size maximum below 27 is outlined in local guidelines, board policy or local teachers' contract. The local district class size guidelines are incorporated in the capacity analysis of each elementary school and classroom space allocated for the elementary grades K-6. The applicable SED class size allocations for the square footage size of each respective program and classroom space and the local class size guidelines--whichever is most conservative--is applied to the space hosting secondary students to determine a grades 7-12 pupil capacity.

The following pages outline the detailed pupil capacity analysis for each of the Irvington school buildings. The analyses are benchmarked to and reflect how the instructional spaces are deployed in each building in the school year 2012-2013 to deliver the curriculum to kindergarten through grade 12 as reported by each respective building principal.

Two pupil capacity measurements are provided in the analysis charts:

1. The *operating pupil capacity* calculation reflects the class size goals of the district.
2. The *estimated building aid units/State Education Department rated guidelines* that likely would guide the determination of building aid allocation to the district in the case of a facility project.

**MAIN STREET
ELEMENTARY SCHOOL**

Total Enrollment as of October, 2012					
<ul style="list-style-type: none"> • Grades 4-5 including <li style="padding-left: 20px;">Special Needs Self-contained <li style="padding-left: 40px;">○ BOCES rental 	<table border="1" style="width: 100%;"> <tr> <td style="width: 80%;"></td> <td style="text-align: center;">284</td> </tr> <tr> <td style="width: 80%;"></td> <td style="text-align: center;">20</td> </tr> </table>		284		20
	284				
	20				

**BUILDING CAPACITY ANALYSIS:
‘OPERATING’ BASED ON LOCAL INSTRUCTIONAL DELIVERY STANDARDS;
‘RATED’ BASED ON CURRENT SED GUIDELINES AS OF 10/1/12**

**MAIN STREET OPERATING CAPACITY BENCHMARKED TO HOW SPACE IS
CURRENTLY ASSIGNED TO MEET THE EXPECTED INSTRUCTIONAL PROGRAM FOR
2012-2013:**

OPERATING CAPACITY	
GRADE 4 - GRADE 5 AS PER LOCAL CLASS SIZE GOALS	
	315
SPECIAL EDUCATION SELF-CONTAINED IRVINGTON	
	0
SPECIAL EDUCATION SELF-CONTAINED BOCES RENTAL	
	20
MAIN STREET TOTAL OPERATING PUPIL CAPACITY GRADES 4-5: 315	
SED ‘RATED’ CAPACITY (BUILDING AID UNITS) FOR ESTIMATED BUILDING AID CEILING CALCULATIONS	
GRADE 4–GRADE 5	343
SPECIAL EDUCATION	20
ESTIMATED TOTAL BUILDING AID UNITS	363

UNDER OR OVER TOTAL BUILDING PUPIL CAPACITY	CURRENT GRADES 4-5 ENROLLMENT COMPARED TO THE PUPIL CAPACITY OF THE SCHOOL BENCHMARKED TO THE IMPLEMENTATION OF THE 2012-2013 PROGRAM
OPERATING PUPIL CAPACITY AS PER CLASS SIZE DISTRICT GOALS: 315	Under by 31 pupils or 9.8%

CAPACITY ANALYSIS MAIN STREET ELEMENTARY SCHOOL

*Denotes classrooms under state minimum recommended square footage of 770 square feet.

CLASSROOM USE	ROOM NUMBER	SQUARE FEET	DISTRICT CLASS SIZE PROGRAM GOAL	RATED CAPACITY SED GUIDELINES AND EST. BUILDING AID UNITS
Grade 4	101	675*	21	23
Grade 4	103	980	21	27
Grade 4	105	980	21	27
Grade 4	106	620*	21	21
Grade 4	205	665*	21	23
Grade 4	208	675*	21	23
Grade 5	207	675*	21	23
Grade 5	301	675*	21	23
Grade 5	307	675*	21	23
Grade 5	302	675*	21	23
Grade 5	304	640*	21	22
Grade 5	306	640*	21	22
Grade 5	308	675*	21	23
Unassigned	102	675*	21	23
Unassigned	406	860	21	27
TOTAL GRADES K-5			315	343

MAIN STREET ELEMENTARY SPECIAL EDUCATION SELF-CONTAINED INSTRUCTIONAL CLASSROOMS				
CLASS	ROOM NUMBER	SQUARE FEET	OPERATING CAPACITY	BUILDING AID UNITS
8:1:1	404	860	8	8
12:1:1	409	650*	12	12
TOTAL SPECIAL EDUCATION			20	20

MAIN STREET ELEMENTARY INSTRUCTIONAL SUPPORT SPACE

Instructional support space in an elementary building does not have ‘pupil capacity’ assigned to it. Only space that serves grade level sections generates ‘pupil capacity’. If an instructional support space is changed to serve a grade level section instead of a support service, then it does have a pupil capacity assigned to its use as a grade level classroom. Please note that a blank next to a support service/program indicates that this school building does not have a space assigned to the support service/program and that other elementary building(s) in the district do have assigned space.

SUPPORT SERVICE/PROGRAM	ROOM NUMBER	SQUARE FEET
Library	305	1310
Library Classroom		
Computer Lab	303	830
Art	405	1050
Music	407	600
Band	402	650
Orchestra strings	408	650
Cafeteria	caf	2225
Gym	Gym	13,043
Nurse	212	364
School Psychologist		
School Psychologist		
Speech	401	650
Speech		
OT/PT		
Therapy		
Pre-school therapy		
AIS-math	201	675
AIS-math		
AIS-reading	107	675
AIS-reading	403	600
Reading		
English as a Second Language		
Math Enrichment		
ICT Resource Room		
Faculty Work Room	206	360
Professional Learning Center	202	675
Auditorium	211	2680
Multipurpose room		
Conference room		
Storage		
Storage		
Bookroom		
Bookroom		

**DOWS LANE
ELEMENTARY SCHOOL**

Total Enrollment as of October, 2012

<ul style="list-style-type: none"> • Grades K-3 including <li style="padding-left: 20px;">Special Needs Self-contained <li style="padding-left: 40px;">○ Pre-School (Easter Seals Program) 	<table border="1" style="width: 100%;"> <tr> <td style="text-align: center;">515</td> </tr> <tr> <td style="text-align: center;">26 (half-day)</td> </tr> </table>	515	26 (half-day)
515			
26 (half-day)			

**BUILDING CAPACITY ANALYSIS:
'OPERATING' BASED ON LOCAL INSTRUCTIONAL DELIVERY STANDARDS;
'RATED' BASED ON CURRENT SED GUIDELINES AS OF 10/1/12**

DOWS LANE ELEMENTARY OPERATING CAPACITY BENCHMARKED TO HOW SPACE IS CURRENTLY ASSIGNED TO MEET THE EXPECTED INSTRUCTIONAL PROGRAM FOR 2012-2013:

OPERATING CAPACITY	
PRE-SCHOOL EASTER SEALS	
18 (36 half day)	
KINDERGARTEN-GRADE 3 AS PER LOCAL CLASS SIZE GOALS	
504	
IRVINGTON SPECIAL EDUCATION SELF-CONTAINED	
0	
DOWS LANE TOTAL OPERATING PUPIL CAPACITY GRADES K-3: 504	
SED 'RATED' CAPACITY (BUILDING AID UNITS) FOR ESTIMATED BUILDING AID CEILING CALCULATIONS	
PRE-KINDERGARTEN	27
KINDERARTEN-GRADE 3	648
SPECIAL EDUCATION	0
ESTIMATED TOTAL BUILDING AID UNITS	675

UNDER OR OVER TOTAL BUILDING PUPIL CAPACITY	CURRENT GRADES K-3 ENROLLMENT COMPARED TO THE PUPIL CAPACITY OF THE SCHOOL BENCHMARKED TO THE IMPLEMENTATION OF THE 2012-2013 PROGRAM
OPERATING PUPIL CAPACITY AS PER CLASS SIZE DISTRICT GOALS: 504	Over by 11 pupils or 2.2%

CAPACITY ANALYSIS DOWS LANE ELEMENTARY SCHOOL

*Denotes classrooms under state minimum recommended square footage of 770 square feet.

CLASSROOM USE	ROOM NUMBER	SQUARE FEET	DISTRICT CLASS SIZE PROGRAM GOAL	RATED CAPACITY SED GUIDELINES AND EST. BUILDING AID UNITS
Pre-Kindergarten	105	922	18	27
Kindergarten	106	1239	21	27
Kindergarten	108	1032	21	27
Kindergarten	126	1010	21	27
Kindergarten	127	1010	21	27
Kindergarten	128	1010	21	27
Kindergarten	129	1010	21	27
Kindergarten	130	1010	21	27
Grade 1	103	922	21	27
Grade 1	104	922	21	27
Grade 1	107	922	21	27
Grade 1	109	922	21	27
Grade 1	200	1046	21	27
Grade 2	203	922	21	27
Grade 2	205	922	21	27
Grade 2	206	922	21	27
Grade 2	207	922	21	27
Grade 2	210	922	21	27
Grade 2	211	1090	21	27
Grade 3	217	967	21	27
Grade 3	218	900	21	27
Grade 3	219	900	21	27
Grade 3	220	900	21	27
Grade 3	221	863	21	27
Grade 3	222	828	21	27
TOTAL GRADES K-3			504	648

DOWS LANE ELEMENTARY SPECIAL EDUCATION SELF-CONTAINED INSTRUCTIONAL CLASSROOMS				
CLASS	ROOM NUMBER	SQUARE FEET	OPERATING CAPACITY	BUILDING AID UNITS
TOTAL SPECIAL EDUCATION			0	0

DOWS LANE ELEMENTARY INSTRUCTIONAL SUPPORT SPACE

Instructional support space in an elementary building does not have ‘pupil capacity’ assigned to it. Only space that serves grade level sections generates ‘pupil capacity’. If an instructional support space is changed to serve a grade level section instead of a support service, then it does have a pupil capacity assigned to its use as a grade level classroom. Please note that a blank next to a support service/program indicates that this school building does not have a space assigned to the support service/program and that other elementary building(s) in the district do have assigned space.

SUPPORT SERVICE/PROGRAM	ROOM NUMBER	SQUARE FEET
Library		2000
Library Classroom		945
Computer Lab		945
Art	211	1090
Music	G4	748
Band		
Orchestra strings		
Cafeteria		2300
Gym	Gym	5606
Nurse		425
School Psychologist	108A	372
School Psychologist	110	945
Speech	124	240
Speech	212A	x
OT/PT	G1	748
Therapy		121
Pre-school therapy	101	922
AIS-math	202	922
AIS-math	208	922
AIS-reading		
AIS-reading		
Reading	201	922
English as a Second Language	125	729
Math Enrichment	204	922
ICT Resource Room	223	863
Faculty Work Room		330
Professional Learning Center		
Auditorium		
Multipurpose room	G	2520
Conference room		690
Storage	G2	600
Storage	102	922
Bookroom		560
Bookroom	212	x

IRVINGTON MIDDLE/HIGH SCHOOL CAMPUS

Both the Middle and High School programs are hosted on one campus. The middle school provides a 'stand alone' program/pedagogy in delivering instruction to grade 6-8 students. However, the Middle School facilities are not 'stand alone'. Middle school students, for example, are taught in the science rooms of the 9-12 facility. Physical education is taught for grades 6-12 in a separate Theatre/Gym Building on Campus. Therefore, the pupil capacity analysis addresses the pupil capacity available from the three buildings on the Middle/High School campus.

Total Enrollment as of October 1, 2012	
• Elementary grade 6 and Special Needs Self-contained	145
• Secondary grades 7-8 and Special Needs Self-contained	300
• Secondary grades 9-12 and Special Needs Self-contained	600
○ BOCES rental	(up to 72)
Total enrollment 6-12	1045

**BUILDING CAPACITY ANALYSIS:
 'OPERATING' BASED ON LOCAL INSTRUCTIONAL DELIVERY STANDARDS;
 'RATED' BASED ON CURRENT SED GUIDELINES AS OF 10/1/12**

MIDDLE/HIGH SCHOOL CAMPUS OPERATING CAPACITY BENCHMARKED TO HOW SPACE IS CURRENTLY ASSIGNED TO MEET THE EXPECTED INSTRUCTIONAL PROGRAM FOR 2012-2013:

OPERATING CAPACITY	
GRADE 6	
	242
SECONDARY GRADES 7-12	
PUPIL STATION METHODOLOGY	
	(1455-200)/1.16 = 1081
IRVINGTON SPECIAL EDUCATION SELF-CONTAINED GRADES 6-12	
	16
SPECIAL EDUCATION SELF-CONTAINED BOCES RENTAL	
	72
IRVINGTON TOTAL OPERATING PUPIL CAPACITY GRADES 6-12: 1339	
SED 'RATED' CAPACITY (BUILDING AID UNITS) FOR ESTIMATED BUILDING AID CEILING CALCULATIONS	
GRADE 6	252
GRADES 7-12	(1654-200)/1.16 = 1253
SPECIAL EDUCATION IRVINGTON UFS	16
SPECIAL EDUCATION BOCES RENTAL	72
ESTIMATED TOTAL BUILDING AID UNITS:	1593

UNDER OR OVER TOTAL BUILDING PUPIL CAPACITY	CURRENT GRADES 6-12 ENROLLMENT COMPARED TO THE PUPIL CAPACITY OF THE MIDDLE/HIGH SCHOOL CAMPUS BENCHMARKED TO THE IMPLEMENTATION OF THE 2012-2013 PROGRAM
OPERATING PUPIL CAPACITY AS PER CLASS SIZE DISTRICT GOALS: 1339	Under by 294 pupils or 22%

Grade 6 Elementary

*Denotes classrooms under state minimum recommended square footage of 770 square feet.

CLASSROOM USE	ROOM NUMBER	SQUARE FEET	DISTRICT CLASS SIZE PROGRAM GOAL	RATED CAPACITY SED GUIDELINES AND EST. BUILDING AID UNITS
Grade 6	101	575*	20	20
Grade 6	208	770	25	27
Grade 6	214	760*	25	26
Grade 6	216	760*	25	26
Grade 6	218	1016	25	27
Grade 6	220	627*	22	22
Grade 6	210	722*	25	25
Grade 6	212	725*	25	25
Grade 6	201	1075	25	27
Grade 6	110 (HIS)	1032	25	27
TOTAL GRADE 6			242	252

Grades 7-12 Secondary

PUPIL STATION METHODOLOGY
(Secondary schools having 26 or more teaching stations)

CLASSROOM USE	ROOM NUMBER	SQUARE FOOTAGE	DISTRICT CLASS SIZE PROGRAM GOAL	RATED CAPACITY SED GUIDELINES AND EST. BUILDING AID UNITS
Middle School Building				
French	118	770	25	29
Math	120	770	25	29
Social Studies	127	770	25	29
English Language Arts	129	770	25	29
Social Studies	131	770	25	29
English Language Arts	132	770	25	29
Math	133	770	25	29
English Language Arts	219	770	25	29
Spanish	220	770	25	29
English Language Arts	228	788	25	30
Math	232	770	25	29
Social Studies	233	770	25	29
Spanish	234	788	25	30

CLASSROOM USE	ROOM NUMBER	SQUARE FOOTAGE	DISTRICT CLASS SIZE PROGRAM GOAL	RATED CAPACITY SED GUIDELINES AND EST. BUILDING AID UNITS
High School Building				
Home and Careers 6-8	105	1032	20	20
7-8 Science	107	1187	25	30
Grade 7 Science	108	1187	25	30
Grade 8 science	205	1032	25	30
English	H201	733	25	28
English	H203	733	25	28
English	H211	733	25	28
English	H212	733	25	28
English	H213	733	25	28
Spanish	H216	733	25	28
English-Language	H217	733	25	28
Spanish	H218	733	25	28
French	H219	733	25	28
Latin	H222	733	25	28
Spanish	H223	733	25	28
Latin	H225	733	25	28
Art	L102	998	22	22
Art	L103	992	22	22
Photography	L106	623	13	13
Architecture/Engineering	L108	796	25	30
Math	H110	733	25	28
Math	H111	733	25	28
Math	H112	733	25	28
Math	H113	733	25	28
Math	H116	733	25	28
Social Studies	H117	733	25	28
Social Studies	H118	733	25	28
Social Studies	H119	733	25	28
Social Studies	H122	733	25	28
Social Studies	H123	733	25	28
Campus Library		7-12 est. 5556; reading area 1000	25	40
Maher Gym		7-12 est. 2801 one station	25	30
Biology	S203	1214	24	24
Biology	S204	1214	24	24
Earth Science	S206	1032	25	30
Forensics/Marine Science	S301	984	25	30
Chemistry	S303	1222	24	24
Chemistry	S304	1222	24	24
Physics	S306	984	19	19
General Music	CM102	828	25	30
Chorus	CM103	1380	25	27
Orchestra	CM104	828	13	13
Band	CM106	1738	25	27
Campus Gym		13,588; 7-12 4 stations	100	120
RAW TOTAL			1455	1654

**MIDDLE/HIGH SCHOOL CAMPUS SELF-CONTAINED
SPECIAL EDUCATION INSTRUCTIONAL CLASSROOMS**

SUPPORT SERVICE/PROGRAM	ROOM NUMBER	SQUARE FOOTAGE	OPERATING CAPACITY	BUILDING AID UNITS
8:1:1 Irvington UFSD	H018	727	8	8
8:1:1 Irvington UFSD	216	770	8	8
12:1:1 BOCES rental	H011/H013	550*	12	12
8:1:1 BOCES rental	H015/H017	547*	8	8
8:1:1 BOCES rental	H016	727	8	8
12:1:1 BOCES rental	H019	782	12	12
8:1:1 BOCES rental	H022	727	8	8
8:1:1 BOCES rental	H023	550	8	8
8:1:1 BOCES rental	H024	727	8	8
8:1:1 BOCES rental	H025	556	8	8
TOTAL SPECIAL EDUCATION			88	88

*Denotes classrooms under state minimum recommended.

INSTRUCTIONAL SUPPORT SPACE MIDDLE/HIGH SCHOOL CAMPUS

Instructional support space in a secondary building does not have ‘pupil capacity’ assigned to it. Only space that serves a direct instruction subject class generates ‘pupil capacity’. If an instructional support space is changed to serve a class subject section instead of a support service, then it does have a pupil capacity assigned to its use as a direct instruction classroom. Please note that a blank next to a support service/program indicates that this school building does not have a space assigned to the support service/program and that other middle school building(s) in the district do have assigned space.

SUPPORT SERVICE/PROGRAM	ROOM NUMBER	SQUARE FOOTAGE
Grade 6 AIS	115	328
Grade 6 Art	L101	992
Grade 6 Gym-Maher Gym		2 stations; 5602
Reading	215	328
Computer Lab	230	770
Copy Room	110	x
Counselor	111	114
Counselor	112	114
MS School Psychologist	225	153
Speech/Language	226	153
Grade 7/8 AIS	229	328
Grade 7/8 AIS	128	328
Health Office	125	272
Teacher Work Room	212	110
Faculty Room	221	615
MS Conference Room	124	222
HS Conference Room		391
Pupil Personnel Services	H202A; H204	524
Nurse		422
HS School Psychologist	H206	220

SUPPORT SERVICE/PROGRAM	ROOM NUMBER	SQUARE FOOTAGE
Student Assistance Counselor	H220	185
Guidance		917
World Language Office	H221	185
10-11 Resource/Academic Support	H224	733
Resource/Academic Support	H012	733
Resource/Academic Support	H124	733
Academic Support/Alt. Ed.	H125	733
Computer Lab	H210	733
Computer Lab		560
Computer Lab	H010	733
ESL		318
Campus Presentation Room		996
Cafeteria		4203
Fitness Room		1992
Auditorium		2702
Staff/Faculty Room	H001	960

APPENDIX B:
ENROLLMENT PROJECTION ESTIMATES
2013-2022 FOR THE
IRVINGTON UFSD

PURPOSE AND USE OF THE ENROLLMENT PROJECTION CALCULATIONS STUDY

This demographic/enrollment projection calculations baseline study provides historical and current Irvington School District enrollment data and suggests enrollment projection scenarios based on the trending of patterns of historical data. The Irvington UFSD has 4.94 square miles within its enrollment boundaries.

The main purpose of the study is to provide a tool to help school district decision-making. The study provides projected pupil enrollments based on different assumptions about the future. The study is a tool to engage a community in identifying what they believe about the future of the school district and the community it serves. The study also enables the school district to comply with Commissioner's Regulation Section 155.1. The Regulation requires long-range planning of program requirements, pupil capacity of existing facilities, and a plan for repair or modernization of facilities and/or provision for additional facilities to support the delivery of program. The enrollment projection study combined with the values, intuition, and vision of school district officials can frame planning discussions as the school district projects its facilities, staffing and program needs into the future.

VARIABLES THAT INFLUENCE FUTURE SCHOOL DISTRICT ENROLLMENTS

The six sources of current and projected school district enrollment are:

- live births within the school district and their eventual kindergarten enrollment in the district;
- new household population with children who move to the district;
- new population who move to the district who are at child-bearing age and plan to begin a family;
- enrollment of students from non-public schools or from home schooling settings;
- school program and academic intervention changes that may increase the success of the school district in keeping existing enrollment as long as possible to culminate in high school graduation;
- a change by other public schools, if any, who tuition students to attend Irvington School District.

If there are data to suggest that one or more of the variables listed above will not continue into the near future of the next five years in the same historical pattern, then the baseline enrollment

projections results are modified to estimate the potential impact the variable(s) may have on future school district enrollments.

METHODOLOGY TO PROJECT BASELINE ENROLLMENT FORECASTS

Compilation of Data

The study collects the following data to execute the cohort survival statistic to project *baseline* future enrollments of the school district:

- Student enrollments of the Irvington School District by grade level from 2007-2008 through 2012-2013 are compiled from data provided by district personnel. *All* enrolled children including special needs students, temporarily home-bound pupils, and non-resident tuitioned pupils *regardless of instructional program placement* are included in the calculations. For example, in 2012-2013 there are 12 Irvington resident kindergarten through grade 6, and 11 Irvington resident grades 7-12 pupils who are served in other schools or BOCES regional program sites. Annually since 2006 between 21 and 25 Irvington resident pupils have been served at other locations rather than in Irvington school buildings.
- Annual kindergarten class enrollments are compared to the total school district enrollment area live births five years earlier.
- Live birth numbers in the school district since 2002 as reported by the NYS Department of Health are analyzed.

Application of the Baseline Cohort Survival Statistic

The cohort survival statistic identifies a ‘percentage of survival’ ratio that describes the relationship of a grade level enrollment in a given year compared to the grade enrollment in the next lower grade from the previous year. If a ratio falls below 1.0, the ratio signifies that the enrollment of students in a grade level decreased or did not ‘survive’ enrollment into the next grade level of the next year. If a ratio rises above 1.0, the ratio then signifies new enrollment has moved to the district or a significant change in grade-to-grade promotion policy.

Calculating the survival ratios from 2007-2008 through 2012-2013 for each of the grade enrollments provides the basis for a set of average grade-to-grade survival ratios that can be used to estimate future *baseline* grade enrollments in the Irvington School District.

Limitations of the Study

- The future enrollments predicted using the cohort survival statistic should be adjusted if there is evidence that one or more of the study assumptions have changed.
- Projections for the immediate future are more reliable than those for years further in the future. Enrollment projection totals for K-5, or 6-8 and for 9-12 are more reliable than are those for specific grade levels in specific years. Focus should be given to estimates five years into the future for grades K-6; eight years into the future for grades 7 and 8, and ten years into the future for grades 9-12.
- The cohort survival statistic is a linear calculation. As such, sporadic fluctuations of historical enrollment data from year-to-year could affect the estimated projections of future enrollments.

HISTORICAL PERSPECTIVE OF ANNUAL ENROLLMENTS

Total K-12 enrollment in the five enrollment years since 2007-2008 has changed from 1953 pupils to 1797 in the current school year. There are 156 fewer pupils which equates to a -8% change over the past six years. The six year average is 1834 pupils and the median is 1809.

**CHART ONE: IRVINGTON UFSD
HISTORICAL K-12 ENROLLMENT
2007-2012**

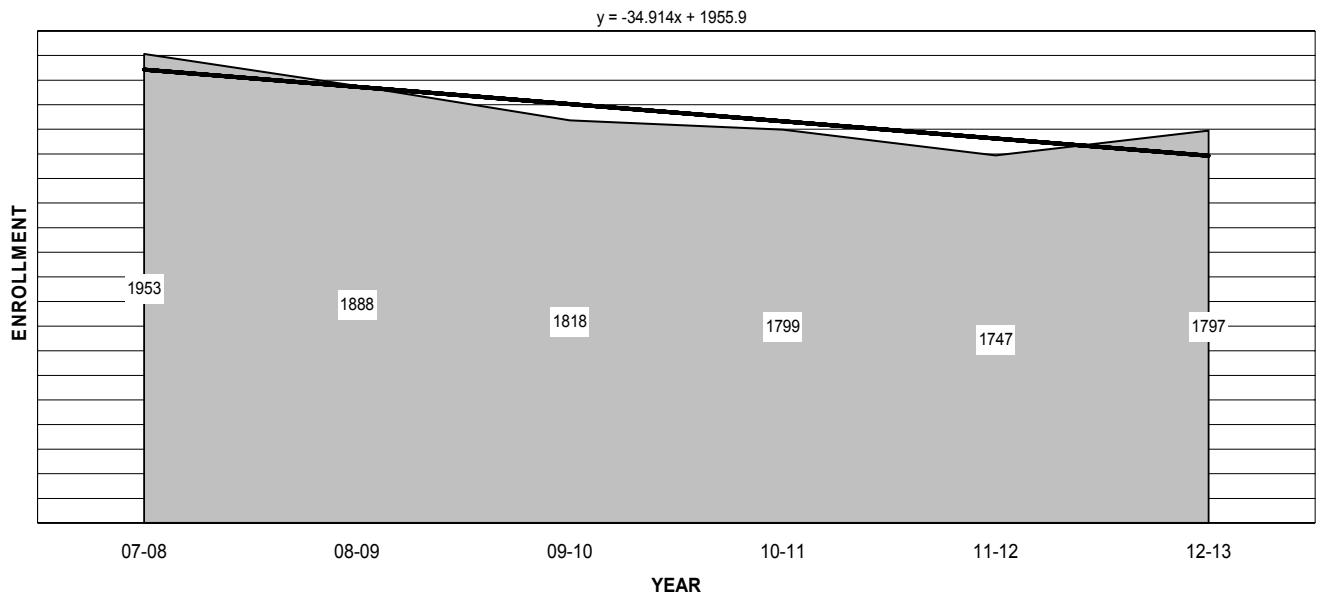


Chart Two illustrates the historical pattern of K-6, and 7-12 enrollments since 2007.

**CHART TWO: IRVINGTON
HISTORICAL K-6, 7-12 ENROLLMENT
2007-2012**

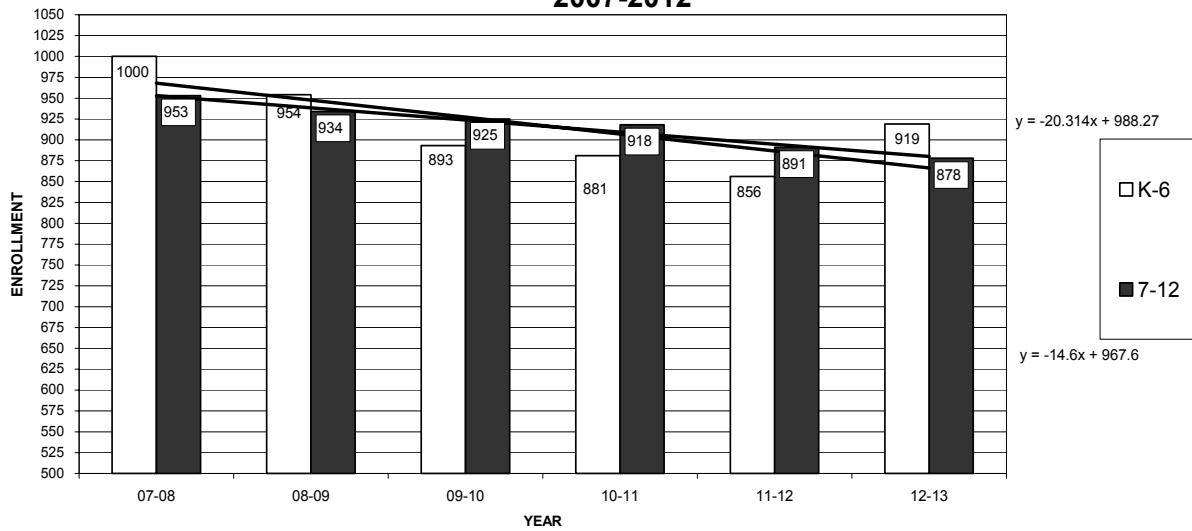
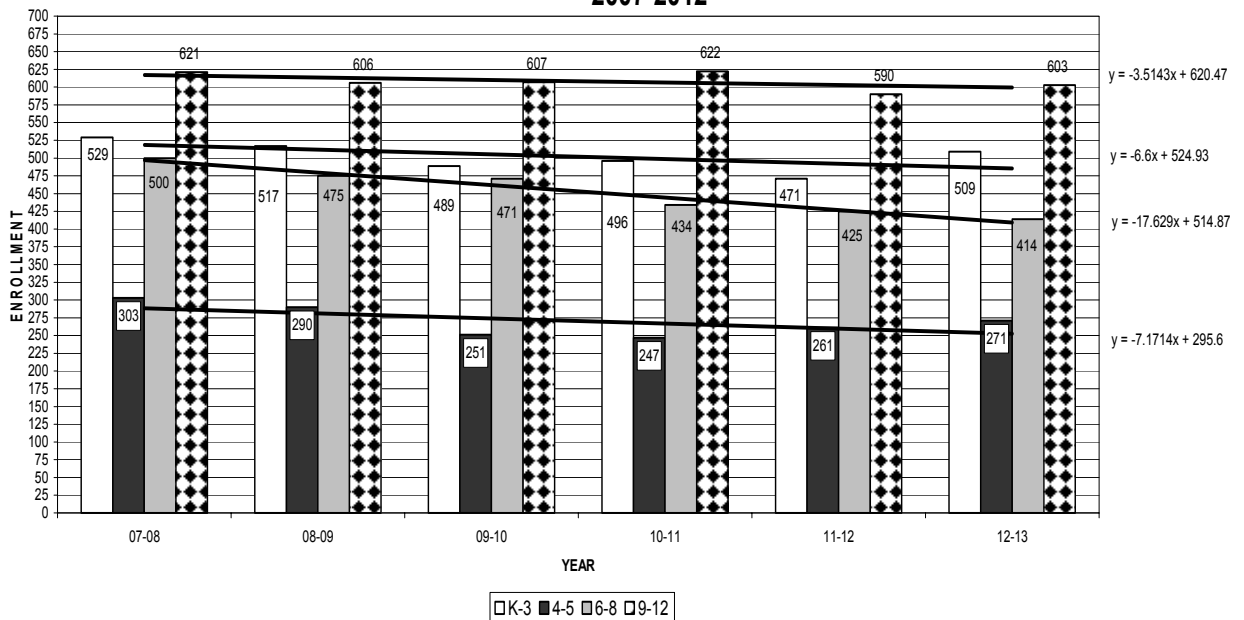


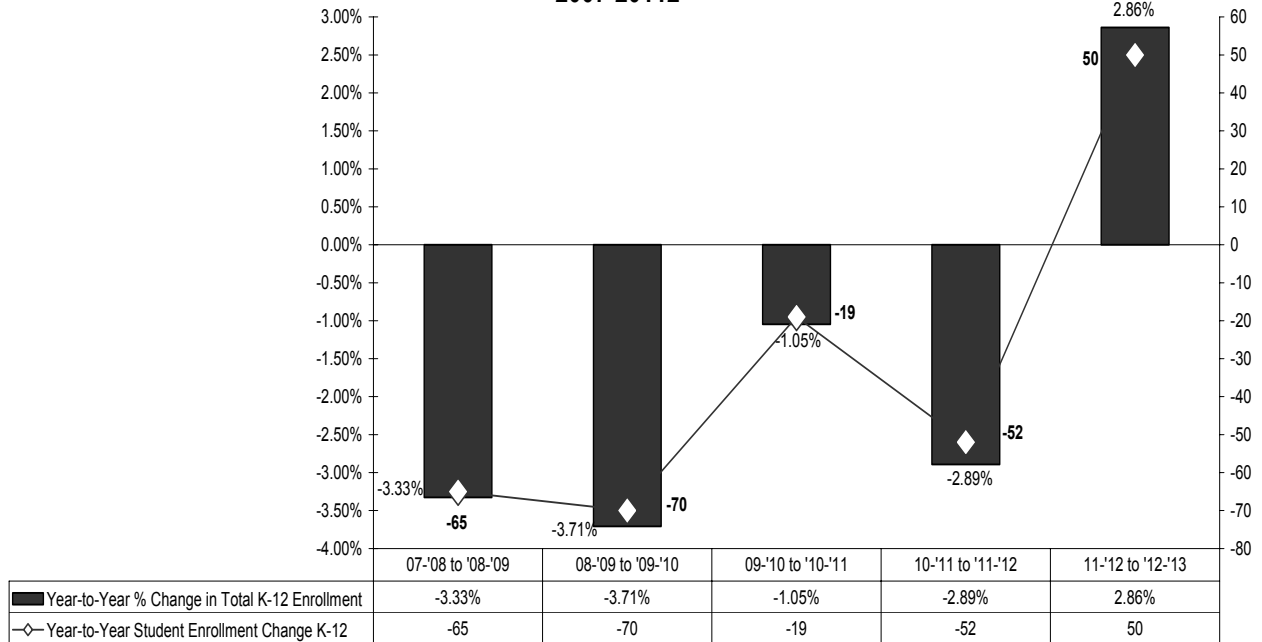
Chart Two-A illustrates the historical pattern of K-3, 4-5, 6-8, and 9-12 enrollments since 2007. Note the decreasing trend lines for grades K-8. As this ‘generation’ of K-8 pupils cycle through the elementary and middle schools, it is likely that high school grades 9-12 will experience decreasing enrollments over the next eight years.

**CHART TWO-B: IRVINGTON
HISTORICAL K-3, 4-5, 6-8, 9-12 ENROLLMENT
2007-2012**

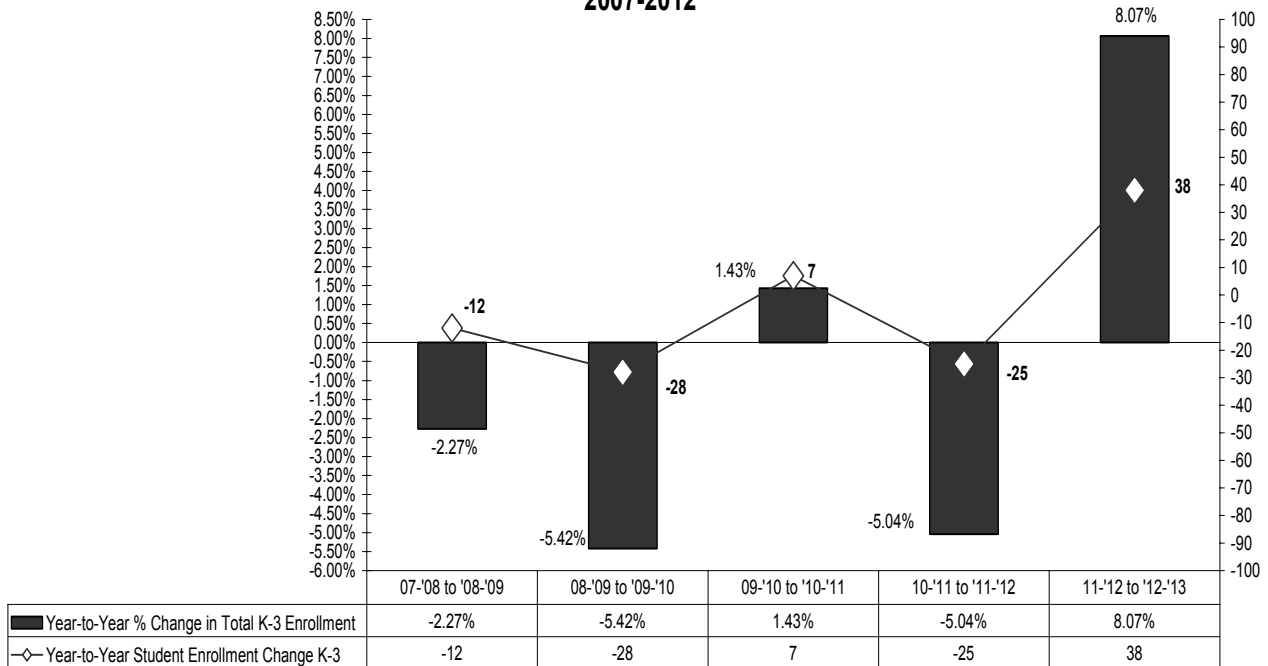


Charts Three, Four, Five, Six, and Seven graphically represent the net percentage changes in enrollment from 2007 through 2012 for grades K-12, K-3, 4-5, 6-8 and 9-12 respectively.

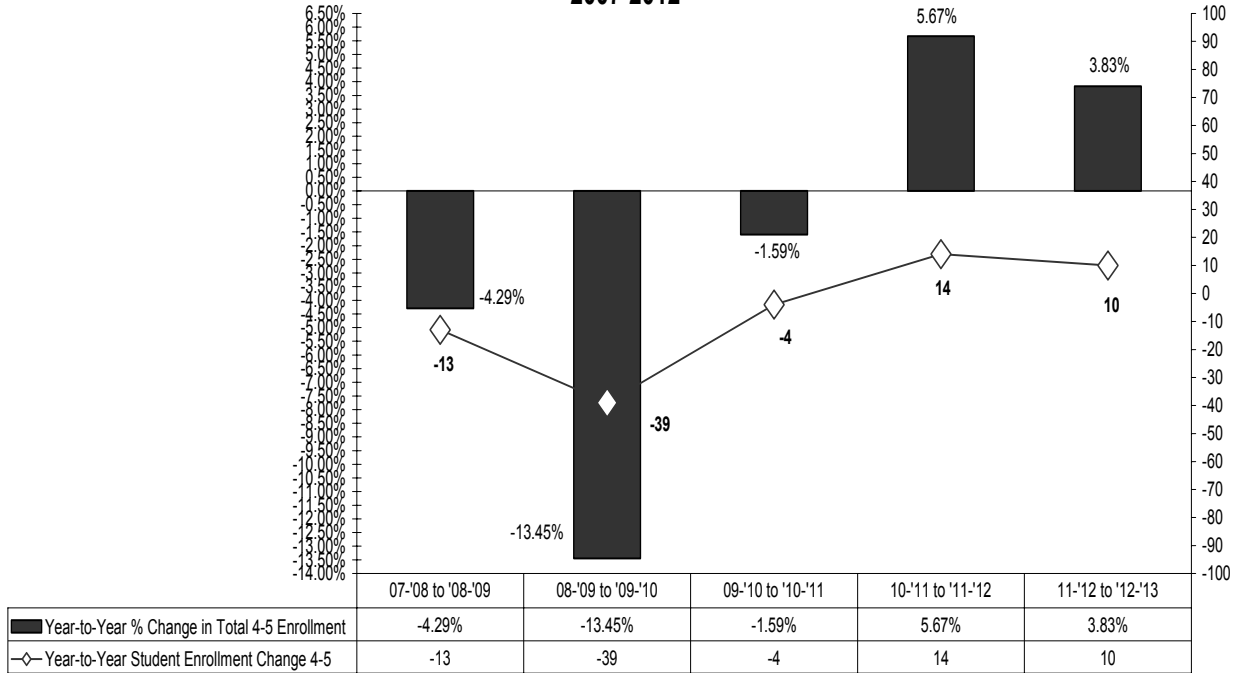
**CHART THREE: IRVINGTON K-12 ENROLLMENT CHANGE
2007-20112**



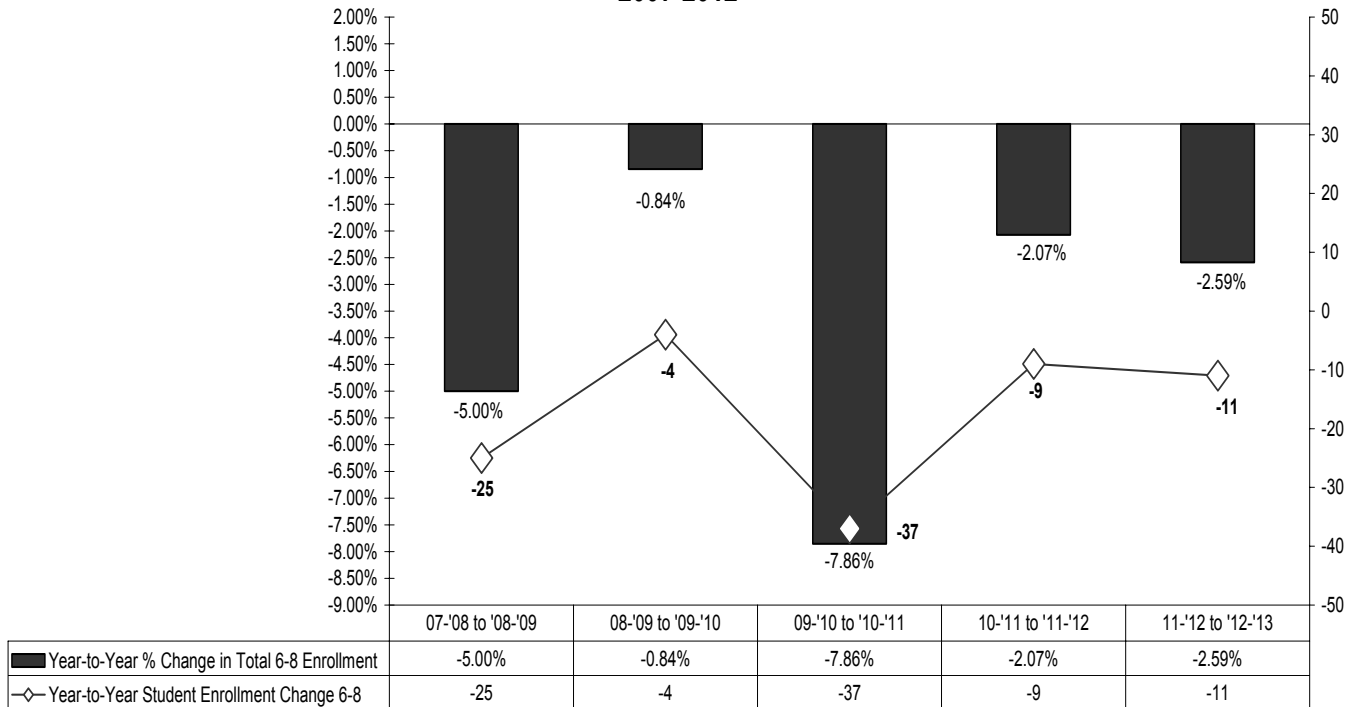
**CHART FOUR: IRVINGTON K-3 ENROLLMENT CHANGE
2007-2012**



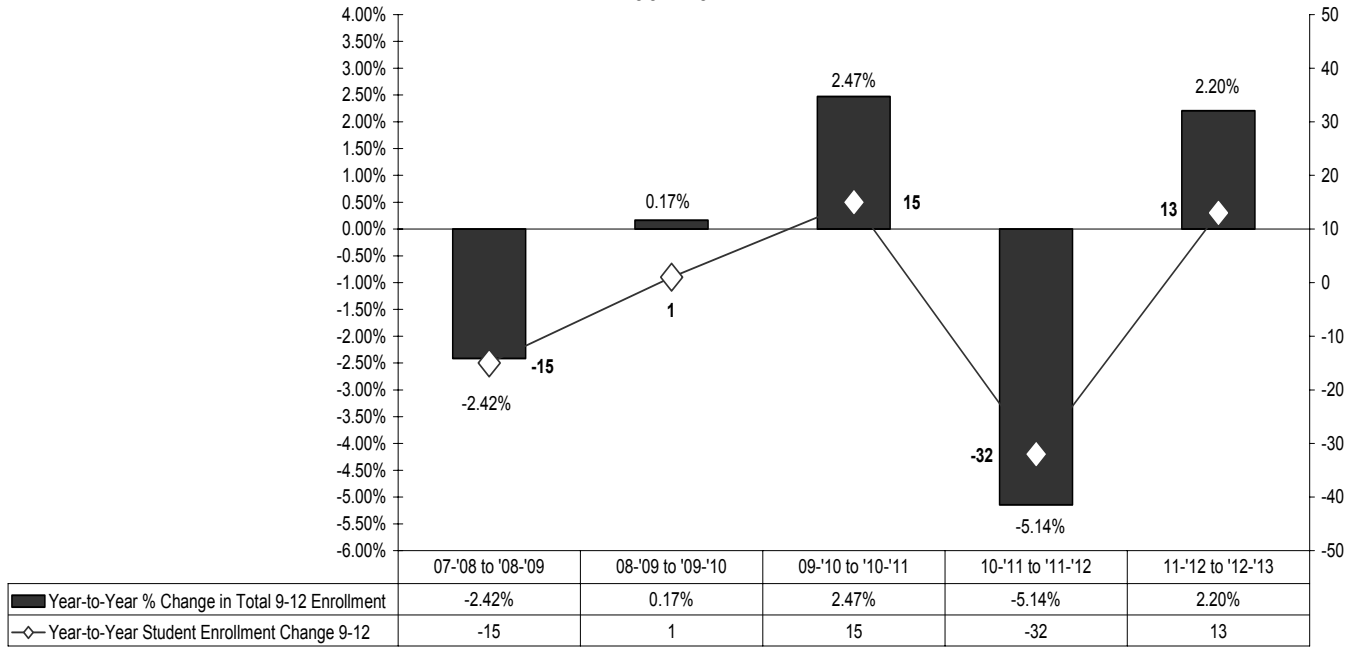
**CHART FIVE: IRVINGTON GRADES 4-5 ENROLLMENT CHANGE
2007-2012**



**CHART SIX: IRVINGTON GRADES 6-8 ENROLLMENT CHANGE
2007-2012**



**CHART SEVEN: IRVINGTON GRADES 9-12 ENROLLMENT CHANGE
2007-2012**



DISTRICT ENROLLMENT AREA AND DISTRICT LIVE BIRTHS

Table 1 lists live birth data from 2002 through 2010 for the geographic area of the Irvington Union Free School District; Westchester County; and all of the towns and villages that make up the ‘catchment area’ of the Irvington School District. The Health Department geocoded live birth data supports a trend analysis of the pattern of the nine year set of yearly live birth totals attributed to the school district. *Table 2* lists the annual Irvington kindergarten enrollments since 2001.

TABLE 1
LIVE BIRTHS IN THE CATCHMENT AREA SERVED BY THE
IRVINGTON UNION FREE SCHOOL DISTRICT
AS REPORTED BY THE NEW YORK STATE DEPARTMENT OF HEALTH
2002-2010

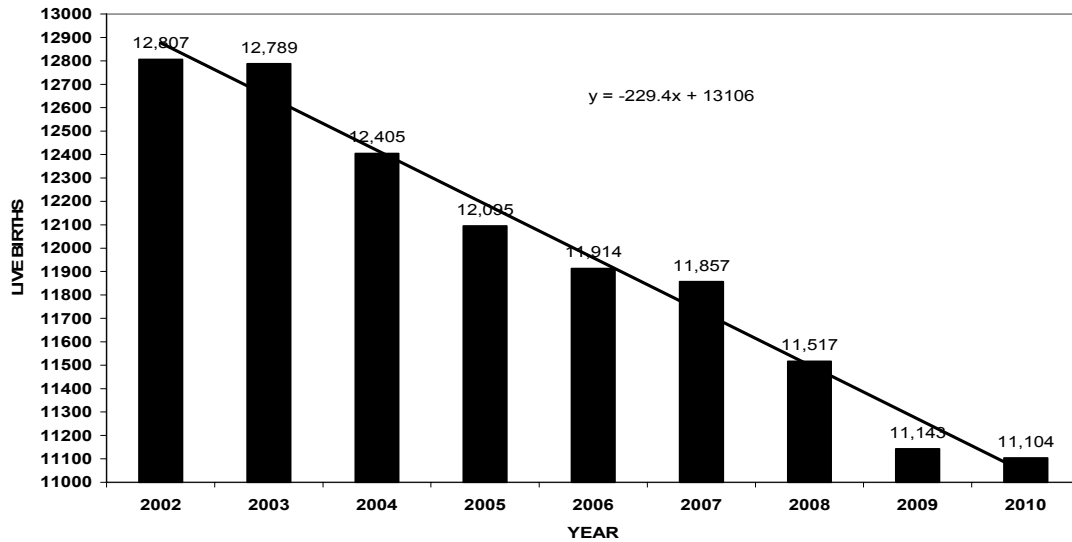
TOWN	2002	2003	2004	2005	2006	2007	2008	2009	2010	TOTAL
BIRTHS IN EACH MUNICIPALITY										
Greenburgh 2.39%	1117	1092	1075	1030	1031	1021	963	902	903	9134
Village of Irvington 100.00%	74	54	59	53	57	47	42	60	46	492
<i>Percentages refer to the share of residential parcels that are in the Irvington School District</i>										
TOTAL BIRTHS IN CATCHMENT AREA	1191	1146	1134	1083	1088	1068	1005	962	949	9626
NYS HEALTH DEPARTMENT 'LIVE BIRTHS BY SCHOOL DISTRICT'	120	107	104	108	96	94	72	97	72	870
DISTRICT/CATCHMENT AREA LIVE BIRTH RATIO	10.08%	9.34%	9.17%	9.97%	8.82%	8.80%	7.16%	10.08%	7.59%	9.006%
WESTCHESTER COUNTY TOTAL BIRTHS	12,807	12,789	12,405	12,095	11,914	11,857	11,517	11,143	11,104	85,384
DISTRICT/WESTCHESTER COUNTY LIVE BIRTH RATIO	1.03%	0.91%	0.92%	0.98%	0.88%	0.87%	0.68%	0.95%	0.71%	0.774%

TABLE 2
KINDERGARTEN ENROLLMENT OF THE IRVINGTON SCHOOL DISTRICT
2002-2012

2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
145	150	142	127	123	131	128	116	121	111	142

Figure One charts the live birth data for Westchester County since 2002. The annual totals of live births in Westchester County have trended downward from 2002 to 2010; slope of -229.

**FIGURE ONE: WESTCHESTER COUNTY
LIVE BIRTHS 2002-2010**



The illustration in *Figure Two* of the pattern of live births in the enrollment area of the Irvington School District from 2002 through 2010 has also trended downward. The trend pattern is at a considerably slower rate when compared to the annual live births in all of Westchester County for the same eight year period; slope of -5 compared to -229. Will the historical pattern of live births in the Irvington School District service area for the nine years since 2002 continue for the next five years through 2015?

**FIGURE TWO: LIVE BIRTHS IN THE
IRVINGTON SCHOOL DISTRICT
ENROLLMENT AREA
2002-2010**

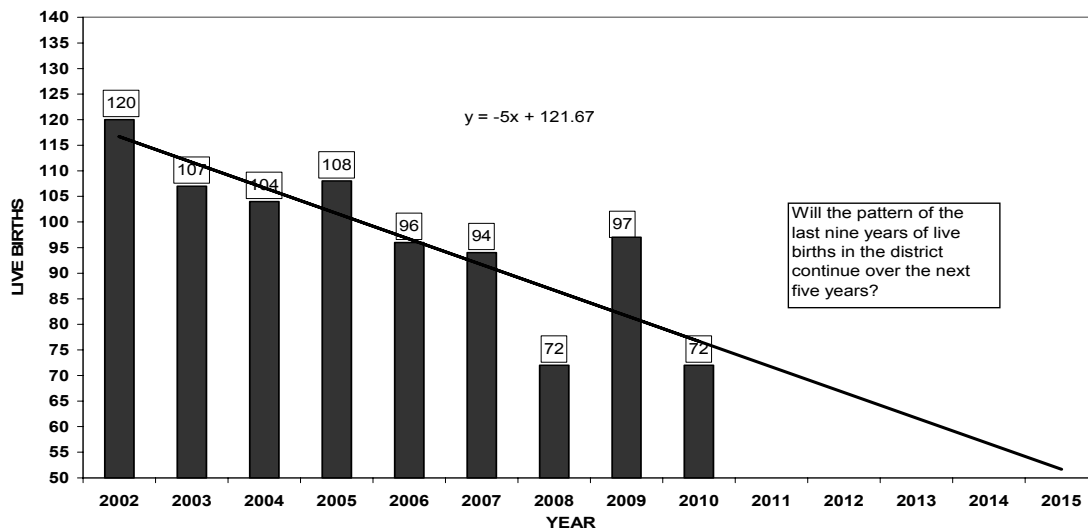
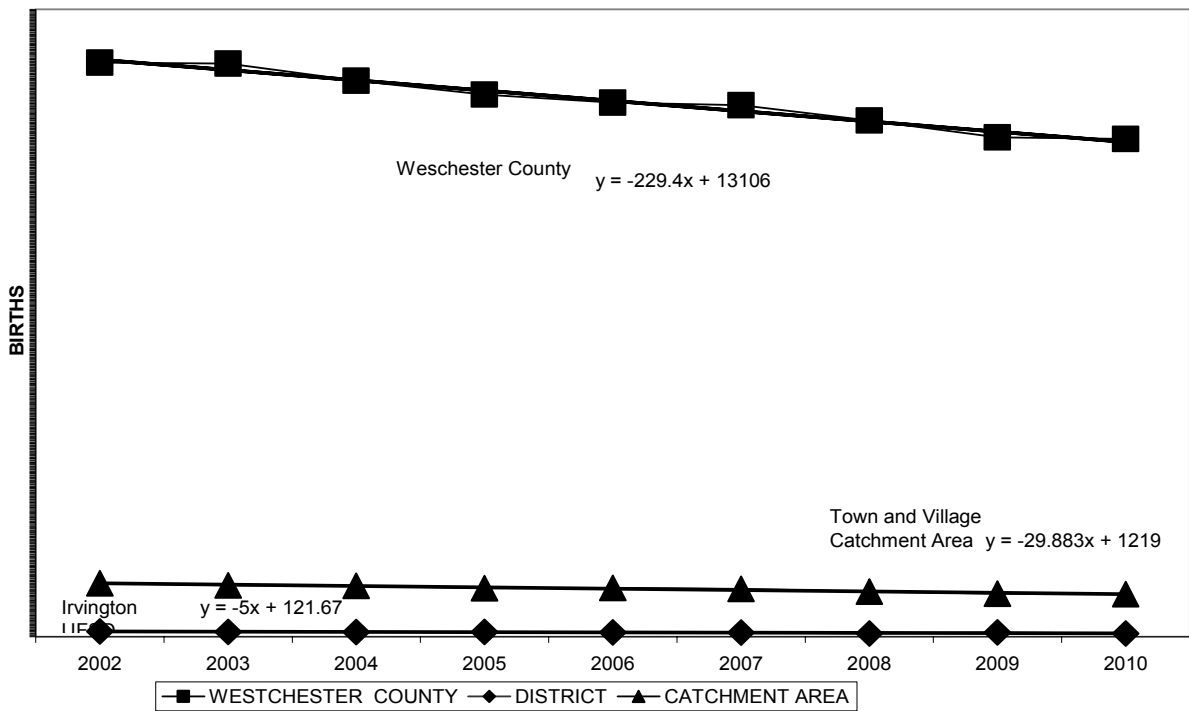


Figure Three charts the live births in Westchester County, the ‘catchment area’ of the district, and for the enrollment area of the district. Note the slower rate of live births decrease in the enrollment area of the district as well as in the towns that comprise the ‘catchment area’ of the district compared to the county as a whole.

FIGURE THREE: IRVINGTON SCHOOL DISTRICT ENROLLMENT AREA (2002-2010), CATCHMENT AREA, AND WESTCHESTER COUNTY BIRTH TRENDS (2002-2010)



DISTRICT KINDERGARTEN ENROLLMENTS AND DISTRICT LIVE BIRTHS

Figure Four charts the Irvington School District kindergarten enrollment from 2003 through 2012. There is a decreasing pattern of enrollments over the past ten years (slope -2). It is too early to prudently suggest that the spike in enrollment in 2012 or 142 pupils may be characteristic of the future or reflective of an historical pattern that began in 2004 with an enrollment of 142 pupils.

FIGURE FOUR: IRVINGTON UFSD KINDERGARTEN ENROLLMENT 2003-2012

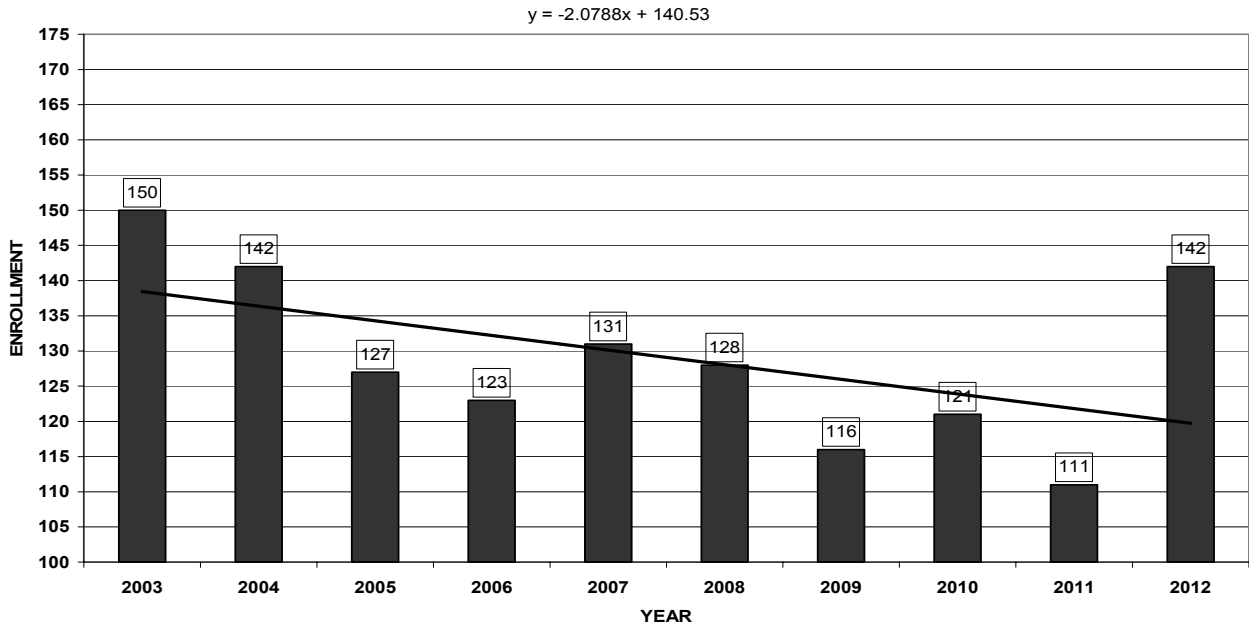
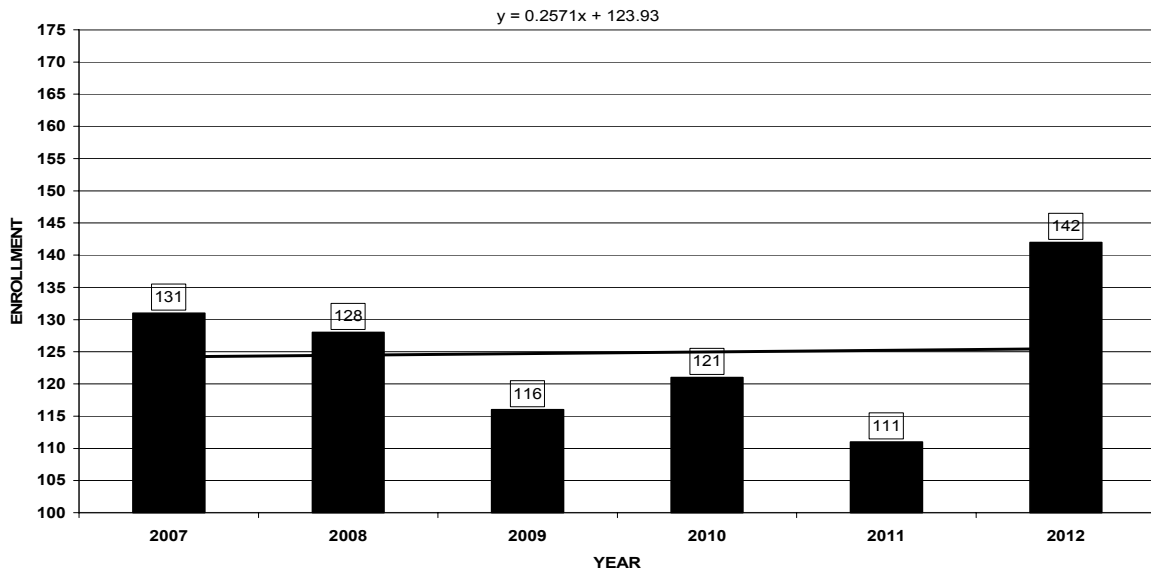


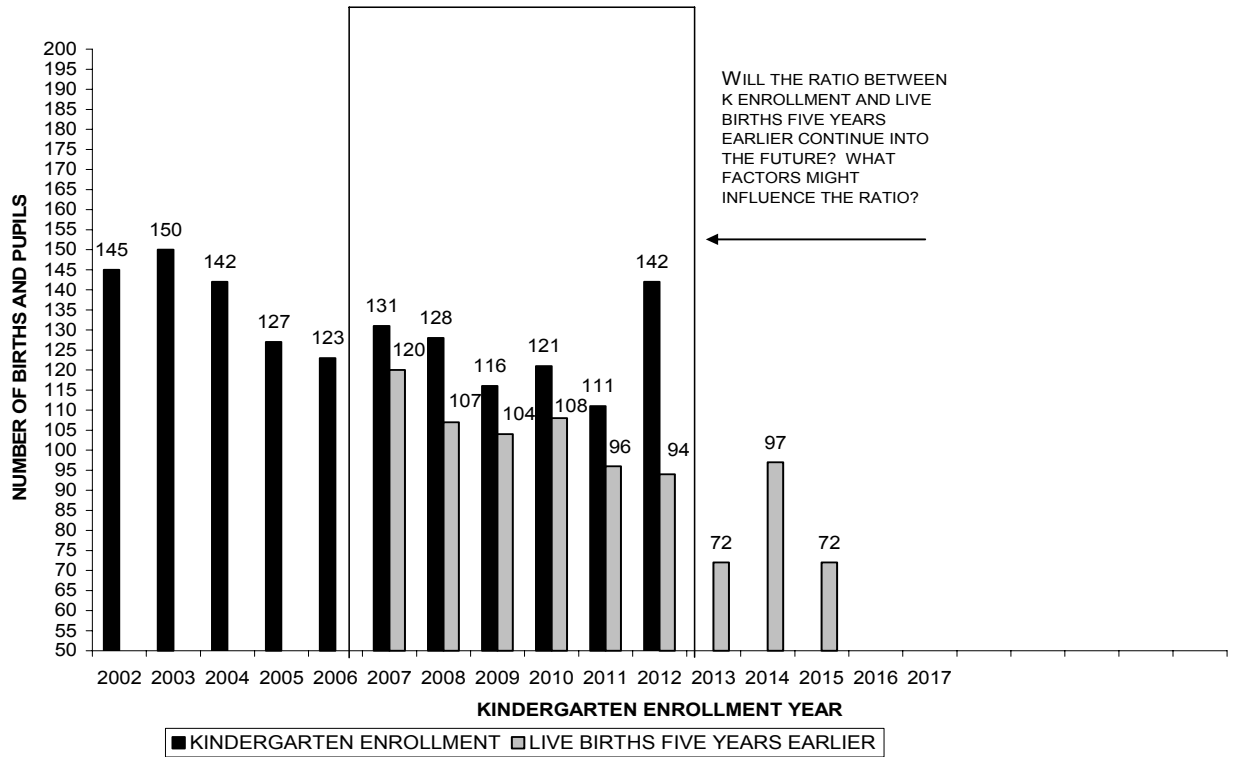
Figure Five charts the Irvington School District kindergarten enrollment from 2007 through 2012. A similar decreasing pattern of enrollments continues over the past six school years (slope -.25). Will the pattern of ten years of slowly decreasing kindergarten enrollment in the Irvington continue into the future? Will the stable rate of kindergarten enrollment since 2007 continue into the future?

FIGURE FIVE: IRVINGTON UFSD KINDERGARTEN ENROLLMENT 2007-2012



One way to suggest possible answers to the questions is to compare the pattern of kindergarten enrollments at Irvington with the documented live births recorded for the Irvington School District enrollment area five years earlier each kindergarten enrollment year. The **Figure Six** below illustrates the pattern of kindergarten enrollments and the pattern of live births five years earlier.

FIGURE SIX: PATTERN OF KINDERGARTEN ENROLLMENT AND THE PATTERN OF LIVE BIRTHS FIVE YEARS EARLIER IN THE IRVINGTON SCHOOL DISTRICT



In 2007 there were 131 Irvington kindergarten enrollees. Five years earlier in 2002 there were 120 live births recorded for the school district enrollment area. A limitation to the analysis is that accurate, geocoded, annual live birth data for the school does not exist before 2002.

Therefore, comparing kindergarten enrollment numbers with births five years earlier in the district can only reliably be done for six years; 2007, 2008, 2009, 2010, 2011 and 2012. Given the kindergarten-live-birth ratios for 2007-2012, can the pattern of those ratios suggest what might be the kindergarten enrollments in years 2013 through 2017?

The live birth data officially recorded by the NYS Health Department for Westchester County, the towns that make up the Irvington School District, and for the school district enrollment area

do provide a documented population factor that can be charted and statistically used to forecast estimated future kindergarten enrollments in the school district. There are no data to identify specific kindergarten enrollments from 2007 through 2012 of children not born in the enrollment area served by Irvington and are from families who moved to the school district. Similarly, there are no data to determine specifically how many children born in the school district enrollment area in the years 2002-2007 moved from the area and, therefore, did not enroll in Irvington kindergarten classes for each year from 2007 through 2012. The study initially assumes that the migration of students both into and out of the towns and the district will continue in a similar manner as it has during the years since 2002.

The *base cohort* enrollment projection calculations of the study assume the live birth trends and kindergarten trends described above will continue in the same pattern into the future.

KINDERGARTEN ENROLLMENT FORECASTS

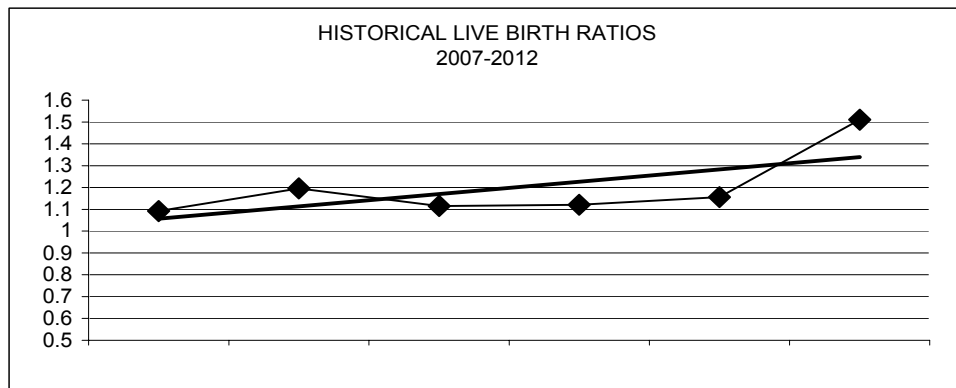
Estimating future kindergarten enrollments is the most speculative aspect of projecting K-12 enrollments. However, analyzing historical annual kindergarten enrollments in concert with historical annual live birth data and patterns do reveal a set of defendable estimates of future kindergarten enrollments. These estimated future kindergarten enrollments then can be included in the base cohort survival statistic application to project future K-12 enrollments.

In order to forecast future kindergarten enrollments, *Table 3* of the study first compares the Irvington kindergarten annual enrollments from 2007 to 2012 to the annual live births in the school district from 2002 to 2007. Ratios are calculated to determine the annual historical pattern of kindergarten enrollment in the Irvington School District compared to all the children born five years earlier in the catchment area served by the school district. The mathematical comparison of each annual kindergarten enrollment with the total live births five years earlier in the Irvington enrollment area results in a set of ratios. For example, in 2009 there were 116 students enrolled in the kindergarten class. In 2004, there were 104 live births in the enrollment area of the school district. A ratio of 1.115385 results from comparing the 2009 kindergarten enrollment of 116 students with the 104 total live births five years earlier. That is, about 111% of the year 2004 live births in the Irvington enrollment area became Irvington kindergartners in 2009. From 2002 through 2007 there were 629 births in the Irvington enrollment area. From 2007 through 2012

there were 749 kindergarten enrollments. The live-birth-kindergarten ratio for this six year period is 1.190779. That is, there were about 19% more children who enrolled as kindergarteners at Irvington from 2007-2012 than were born in the district from 2002 to 2007. The mean ratio is 1.198429. The median is 1.13831. The annual live-birth-kindergarten ratios are subject to at least four variables: one, the number of live births resident in the district; two, the number of preschoolers born in the district who move from the district and do not enroll at Irvington; three, the number of pre-schoolers who move to the district and enroll in the district for kindergarten; and four, the number of preschoolers born in the district or move to the district who do not attend public school for kindergarten. The Irvington six-year live-birth-kindergarten ratio pattern history suggests that the geographic area served by the school district has attracted families with preschoolers to move to the district.

TABLE 3
RATIOS OF KINDERGARTEN ENROLLMENTS (2007-2012)
OF THE IRVINGTON SCHOOL DISTRICT
AND LIVE BIRTHS FIVE YEARS EARLIER (2002-2007)
IN THE ENROLLMENT AREA
OF THE DISTRICT

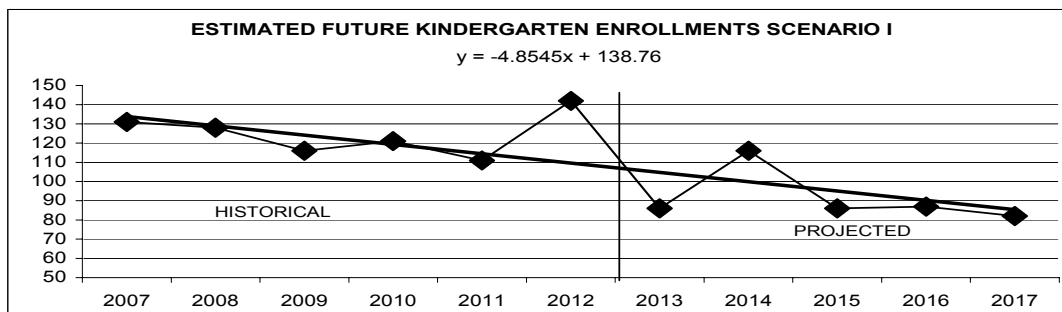
COMPARISON YEARS	K ENROLL	LIVE BIRTHS ENROLLMENT AREA	KIND/ BIRTHS RATIO
2007 K STUDENTS TO 2002 BIRTHS	131	120	1.091667
2008 K STUDENTS TO 2003 BIRTHS	128	107	1.196262
2009 K STUDENTS TO 2004 BIRTHS	116	104	1.115385
2010 K STUDENTS TO 2005 BIRTHS	121	108	1.12037
2011 K STUDENTS TO 2006 BIRTHS	111	96	1.15625
2012 K STUDENTS TO 2007 BIRTHS	142	94	1.510638



The historical kindergarten enrollments of the Irvington School District and historical live birth data are analyzed three ways. The three analyses form the basis for three kindergarten enrollment forecasts. The three kindergarten forecasts are used to develop Low, Mid, and a High K-12 enrollment projection calculations. One forecast (*Table 4*) of future kindergarten enrollments assumes that the live births in the school district enrollment area will continue in the same pattern as it has for the past nine years since 2002. It also assumes that the overall kindergarten enrollment to live birth ratio for the years 2007 through 2012 (1.190779) is an historically based ratio that is possible to expect in the future. Forecast scenario one is the basis for the low range enrollment projection calculations with a view of five years into the future.

TABLE 4
PROJECTED IRVINGTON 2013-2022 KINDERGARTEN ENROLLMENTS BASED UPON
(A) THE EXPONENTIAL TREND ANALYSIS OF THE NINE YEAR HISTORICAL
PATTERN OF ENROLLMENT AREA LIVE BIRTHS FROM 2002 THROUGH 2010, AND
(B) THE RATIO DERIVED FROM TOTAL ENROLLMENT AREA LIVE BIRTHS ('02-'07)
AND TOTAL DISTRICT KINDERGARTEN ENROLLMENT
('07-'12)

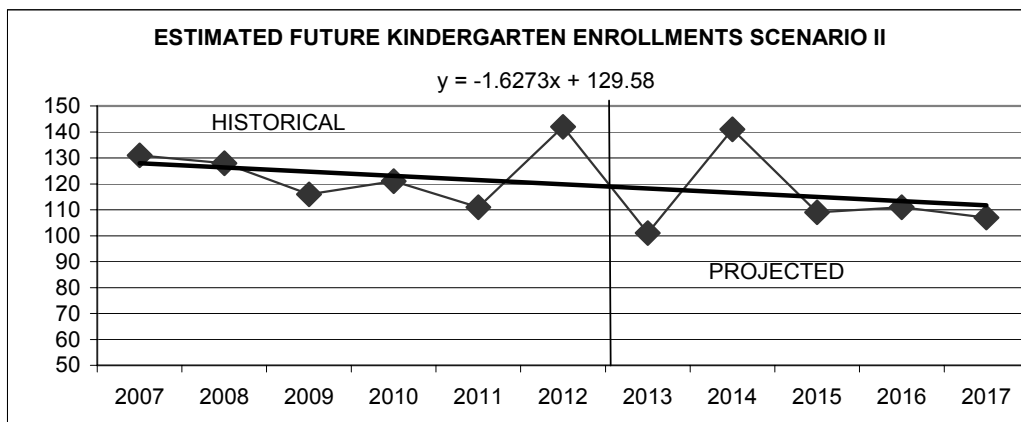
YEAR	PROJECTED K-ENROLL.	YEAR	LIVE BIRTHS ENROLL. AREA	K-ENROLL TO LIVE BIRTH RATIO '07-'11
2013	86	2008	72	1.190779
2014	116	2009	97	1.190779
2015	86	2010	72	1.190779
PROJECTED LIVE BIRTHS				
2016	87	2011	73	1.190779
2017	82	2012	69	1.190779
2018	79	2013	66	1.190779
2019	74	2014	62	1.190779
2020	70	2015	59	1.190779
2021	67	2016	56	1.190779
2022	63	2017	53	1.190779



A second forecast of estimated future kindergarten enrollments (*Table 5*) assumes that the live births in the school district enrollment area will continue in the same pattern as it has for the past six years since 2005. It also assumes that the pattern of the live-birth-to-kindergarten ratios for the years 2007-2012 will continue into the future. Forecast scenario two is the basis for the mid range enrollment projection calculations with a view of five years into the future.

TABLE 5
PROJECTED IRVINGTON 2013-2022 KINDERGARTEN ENROLLMENTS BASED UPON (A) THE EXPONENTIAL TREND ANALYSIS OF THE SIX YEAR HISTORICAL PATTERN OF ENROLLMENT AREA LIVE BIRTHS FROM 2005 THROUGH 2010, AND (B) THE EXPONENTIAL TREND ANALYSIS OF THE KINDERGARTEN-TO-LIVE-BIRTH RATIOS FOR THE SCHOOL YEARS 2007-2012

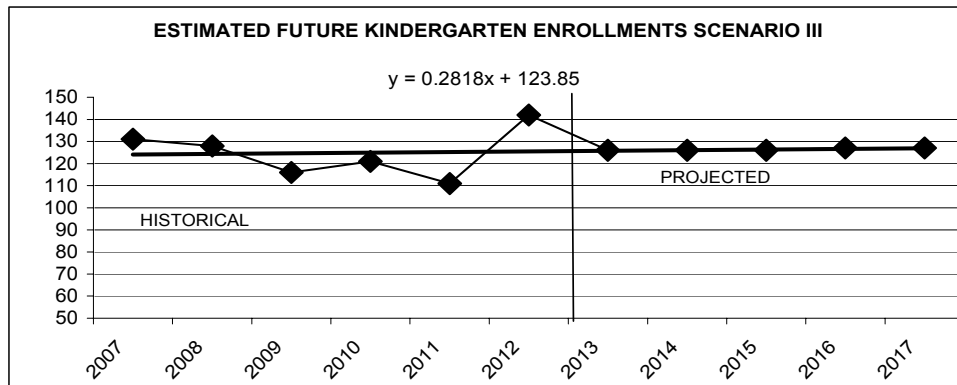
YEAR	PROJECTED K-ENROLL.	YEAR	LIVE BIRTHS ENROLL. AREA	EST. K-ENROLL TO LIVE BIRTH RATIO
2013	101	2008	72	1.396409
2014	141	2009	97	1.452975
2015	109	2010	72	1.509541
PROJECTED LIVE BIRTHS				
2016	111	2011	71	1.566107
2017	107	2012	66	1.622673
2018	104	2013	62	1.679239
2019	101	2014	58	1.735805
2020	99	2015	55	1.792371
2021	94	2016	51	1.848937
2022	91	2017	48	1.905503



A third forecast of kindergarten enrollments assumes that future kindergarten enrollments will follow the pattern of kindergarten enrollments from 2007 through 2012 without reference to live birth trends or kindergarten-to-live-birth ratio patterns (*Table 6*). Forecast scenario three is the basis for the high range enrollment projection calculations with a view of five years into the future.

TABLE 6
PROJECTED IRVINGTON SCHOOL DISTRICT
2013-2022 KINDERGARTEN ENROLLMENTS
BASED UPON AN EXPONENTIAL TREND ANALYSIS
OF THE HISTORICAL PATTERN OF KINDERGARTEN ENROLLMENT
DATA FOR THE PAST SIX YEARS 2007-2012

YEAR	PROJECTED K-ENROLL.	YEAR	LIVE BIRTHS ENROLL. AREA	EST. K-ENROLL TO ENROLL. AREA LIVE BIRTH RATIO
2013	126	2008	72	1.75
2014	126	2009	97	1.298969
2015	126	2010	72	1.75
PROJECTED LIVE BIRTHS				
2016	127	2011		
2017	127	2012		
2018	127	2013		
2019	127	2014		
2020	128	2015		
2021	128	2016		
2022	128	2016		



BASELINE K-12 ENROLLMENT PROJECTIONS

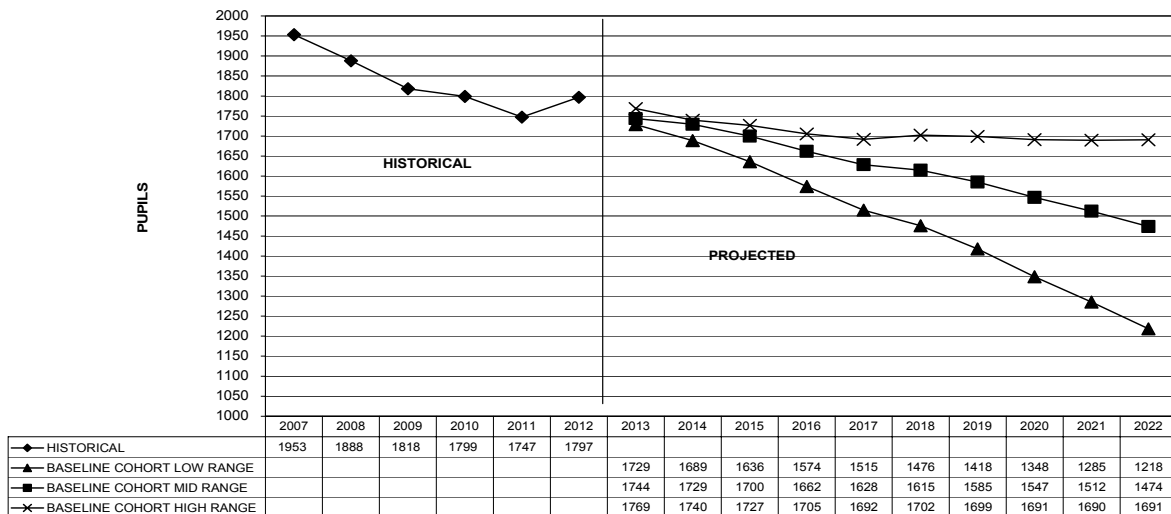
Tables 7A, B, and C in the *Figures, Tables, Charts Attachment* present Low, Mid, and High range K-12 enrollment projections calculated using the cohort survival statistic. Each calculation

is based on historical K-12 enrollments as reported by the school district for each of the school years 2007-2008 through 2012-2013. The historical enrollment data are used to calculate ‘percentage of survival’ ratios for each grade level K-12. The ratios quantify the rate of change in number of students in a particular grade level compared to the number of students in the next higher grade level in the following year. The ‘survival ratios’ are averaged for each grade level from 2007-2008 through 2012-2013. The six-year average ratios for each grade level are used to calculate estimated future grade 1-12 enrollments through 2022-23. As noted earlier in the study, the best tools for planning are the enrollment projections for grades K-6 over the next five years; for grades 7-8 over the next eight years; and for grades 9-12 over the next ten years.

The Base Cohort Enrollment Projections Summary in the Attachment lists the K-3, 4-5, 6-8 and 9-12 base cohort enrollment projections for the years 2013-2014 through 2022-2023 applying the cohort survival statistic and the three forecast scenarios to estimate future kindergarten enrollments.

The chart below illustrates the K-12 enrollment projections resulting from the assumptions that underlie the baseline cohort low, mid, and high scenarios.

GRADES K-12 ESTIMATED BASELINE COHORT ENROLLMENT PROJECTIONS 2013-2022



DISTRICT ENROLLMENT AND HOME-SCHOOL/NON-PUBLIC ENROLLMENT

There are no pending applications for new charter schools in the Irvington region. There are no reports of private schools opening or closing within the Irvington School District. Our Lady of

Victory in Dobbs Ferry closed after the school year 2009-2010 and the Immaculate Conception School in Irvington closed after the 2007-2008 school year. The district reports that an average of about four district resident pupils are home schooled annually.

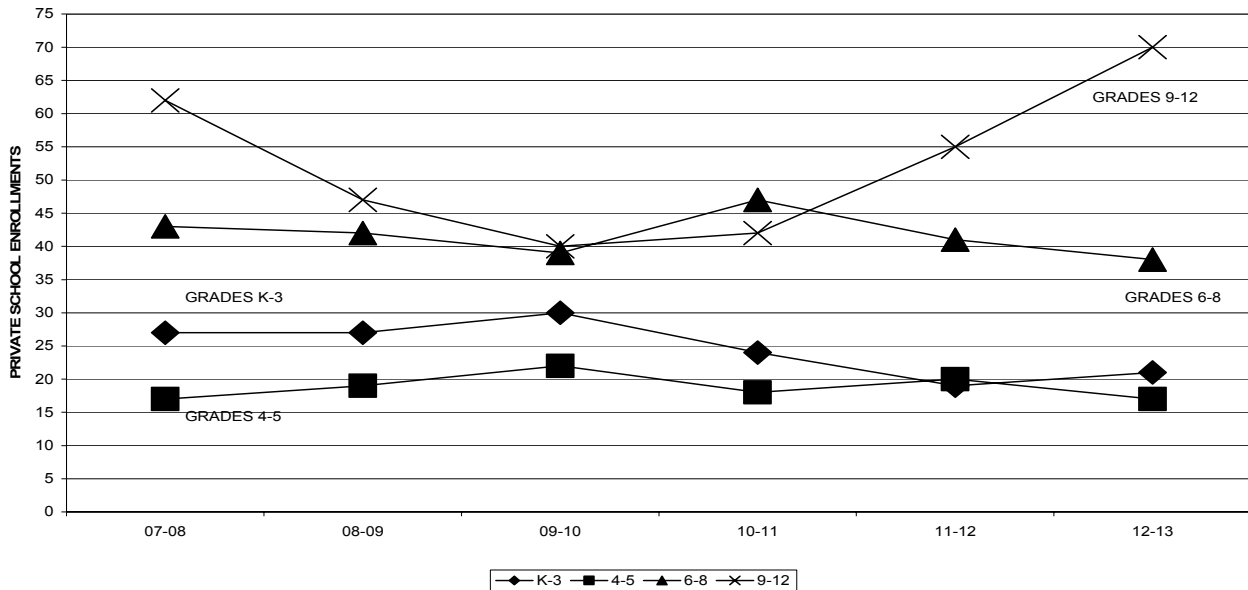
The district reports the following historical private school enrollment data for the school years 2006-2007 through 2012-2013. There are currently 22 private schools that serve Irvington school aged residents whose families choose a non-public setting.

	2007-2008	2008-2009	2009-2010	2010-2011	2011-2012	2012-2013	Mean	Median
Private School Enrollment Grades K-3	27	27	30	24	19	21	24.7	25.5
Public School Enrollment Grades K-3	529	517	489	496	471	509	501.8	502.5
<i>Private School Enrollment as a Percentage of Public School Enrollment</i>	5.1%	5.2%	6.1%	4.8%	4.0%	4.1%	4.9%	5.0%
Private School Enrollment Grades 4-5	17	19	22	18	20	17	18.8	18.5
Public School Enrollment Grades 4-5	303	290	251	247	261	271	270.5	266
<i>Private School Enrollment as a Percentage of Public School Enrollment</i>	5.6%	6.6%	8.8%	7.3%	7.7%	6.3%	7.0%	7.0%
Private School Enrollment Grades 6-8	43	42	39	47	41	38	41.7	41.5
Public School Enrollment Grades 6-8	500	475	471	434	425	414	453.2	452.5
<i>Private School Enrollment as a Percentage of Public School Enrollment</i>	8.6%	8.6%	8.6%	8.6%	8.6%	8.6%	8.6%	8.6%
Private School Enrollment Grades 9-12	62	47	40	42	55	70	52.7	51
Public School Enrollment Grades 9-12	621	606	607	622	590	603	608.2	606.5
<i>Private School Enrollment as a Percentage of Public School Enrollment</i>	10.0%	7.8%	6.6%	6.8%	9.3%	11.6%	8.7%	8.4%
Total Non-public school Enrollment K-12	139	135	131	131	135	146	136.2	135
Total K-12 Enrollment Irvington	1953	1888	1818	1799	1747	1797	1833.7	1808.5
<i>Private School Enrollment as a Percentage of Public School Enrollment</i>	7.1%	7.2%	7.2%	7.3%	7.7%	8.1%	7.4%	7.5%

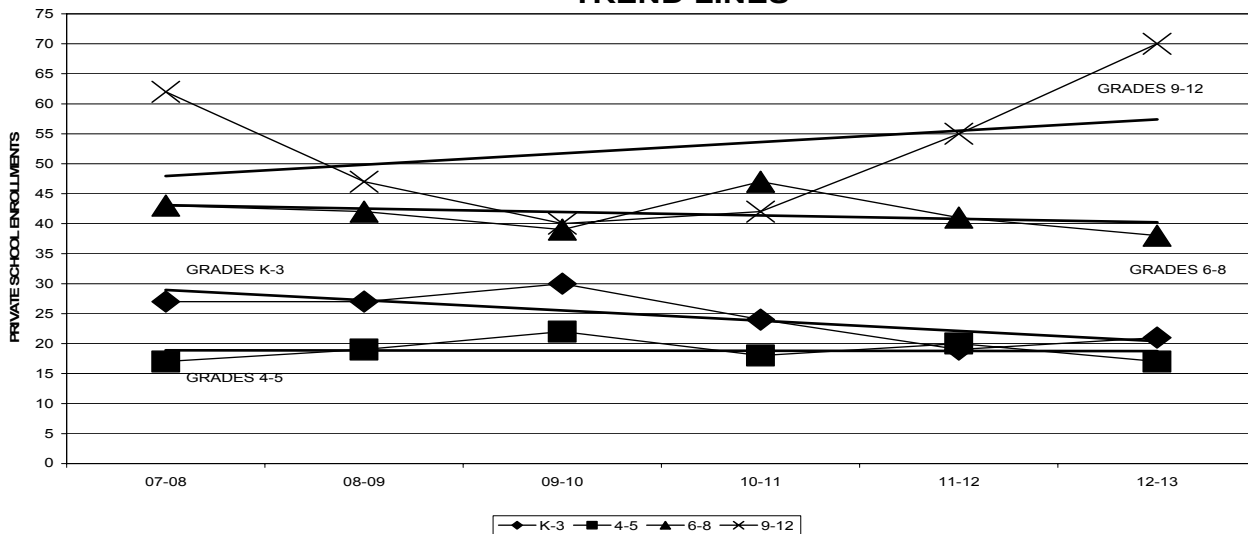
The chart of below illustrates the historical pattern of private school enrollments. The 2009-2010 school seems to be a pivot point in that private enrollments of Irvington resident pupils in

private school increases for grades 9-12 and continues to do so through 2012-2013; grades 6-8 private school enrollments increase slightly for one year and then return to 2009-2010 levels over the next two years; grades K-3 private school enrollments begin to decline and rebound slightly in 2012-2013, but are below the number in 2009-2010; and grades 4-5 private school enrollments slightly begin to decrease after 2010-2011, then remain 'stable' through 2012-2013.

HISTORICAL PATTERN OF PRIVATE SCHOOL ENROLLMENTS FROM 2007 TO 2012 GRADES K-12



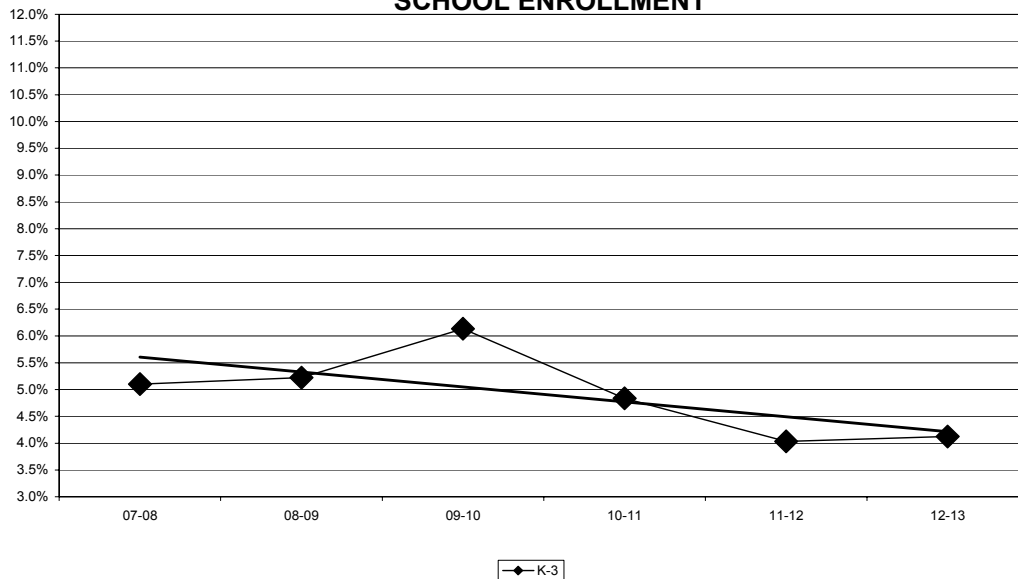
HISTORICAL PATTERN OF PRIVATE SCHOOL ENROLLMENTS FROM 2007 TO 2012 GRADES K-12 TREND LINES



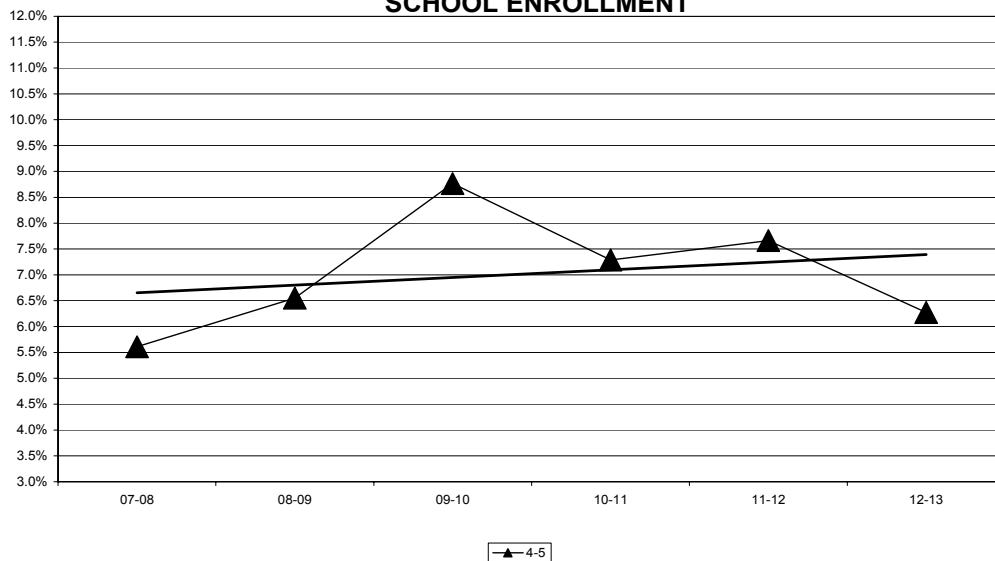
Grades K-3: decreasing trend line; Grades 4-5: 'stable' trend line; Grades 6-8 'stable' trend line; Grades 9-12: increasing trend line

The charts below illustrate the patterns of private school enrollments since 2007 as a percentage of public school enrollments. The total annual public school enrollments have decreased. Has the propensity of the Irvington resident pupils to enroll in private schools increased or decreased compared to the numbers of resident pupils who do enroll in public school? The charts below suggest that: the propensity for private school enrollment for grades K-3 is decreasing since 2007-2008; slightly increasing for grades 4-5; stable for grades 6-8; and increasing for grades 9-12.

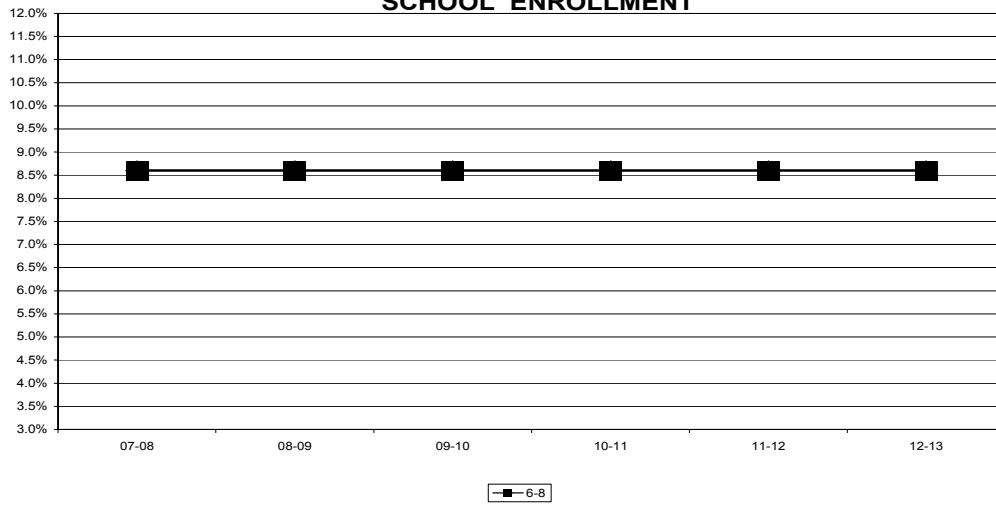
HISTORICAL PATTERN OF PRIVATE SCHOOL ENROLLMENTS FROM 2007 TO 2012 GRADES K-3 AS A PERCENTAGE OF PUBLIC SCHOOL ENROLLMENT



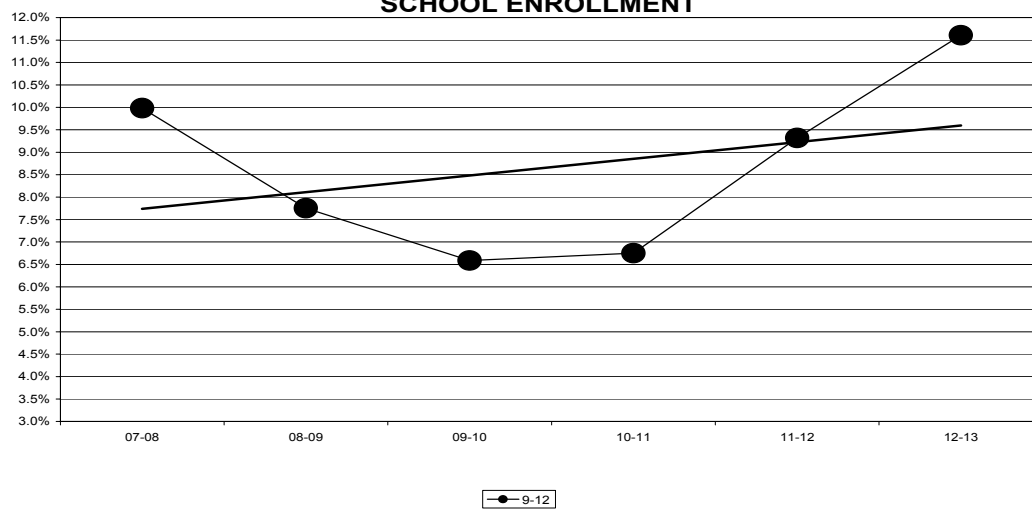
HISTORICAL PATTERN OF PRIVATE SCHOOL ENROLLMENTS FROM 2007 TO 2012 GRADES 4-5 AS A PERCENTAGE OF PUBLIC SCHOOL ENROLLMENT



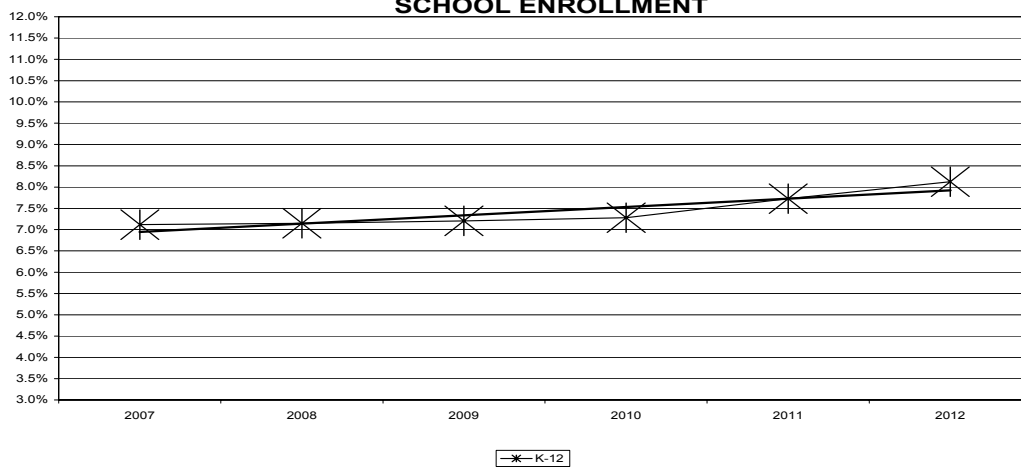
**HISTORICAL PATTERN OF PRIVATE SCHOOL ENROLLMENTS
FROM 2007 TO 2012 GRADES 6-8 AS A PERCENTATE OF PUBLIC
SCHOOL ENROLLMENT**



**HISTORICAL PATTERN OF PRIVATE SCHOOL ENROLLMENTS
FROM 2007 TO 2012 GRADES 9-12 AS A PERCENTAGE OF PUBLIC
SCHOOL ENROLLMENT**



**HISTORICAL PATTERN OF PRIVATE SCHOOL ENROLLMENTS
FROM 2007 TO 2012 GRADES K-12 AS A PERCENTAGE OF PUBLIC
SCHOOL ENROLLMENT**



One inference from the data is that based on patterns since 2007-2008, Irvington can expect the same or lower rate of resident pupils who enroll in private school for grades K-8 over the next five years. However, Irvington should expect an increasing share of the resident grade 9-12 pupils choosing private school enrollment over the next five years.

It is assumed that the private school and home school enrollment data listed above have already been incorporated into the pattern of historical public school enrollments since 2007. No changes, at this time, are made to the baseline enrollment projection calculations because of the pattern of private school enrollments projected for the future. The district may wish to take a conservative approach in looking at future enrollment of new school-aged population generated by any future estimated influence of the family residence market in the district. A conservative assumption based on the pattern of private/home schooled enrollment since 2007 is that about 7.4% to 8% of any new school-aged population expected or estimated to move to the district will attend non-public schools instead of the public school system.

The ongoing attention by the district to track the private school, home school, and charter school enrollment data enables the district to analyze the possible influence of non-public enrollments on future enrollment projections. It is suggested that efforts be given to contact families of K-12 pupils who have chosen to enroll their children in other schools or practice home-schooling. The charts of historical patterns of private school enrollment suggest two Learning about the reasons for their non-district enrollment decisions may help the district choose various initiatives, if appropriate. Such information may be an added asset as the district along with other agencies and businesses of the district prepare welcoming information for new residents. A communication/information strategy with current private school families may encourage public school enrollment and parent comfort about switching children from a private school experience to the opportunities of instruction offered by Irvington as a public school. Such a strategy of communication and information also strengthens relationships with all taxpayers of the district regardless of where their children are enrolled.

ENROLLED TUITION STUDENTS

Other districts tuition pupils with special needs to the Irvington School District for service. The historical enrollments for the district used in the study *include* these enrollments and, therefore, the estimated enrollment projections assume that such non-resident enrollment will continue into the future.

2007-2008	2008-2009	2009-2010	2010-2011	2011-2012	2012-2013
13	5	7	10	13	12

SNAPSHOT OF SCHOOL DISTRICT DEMOGRAPHICS

The boundaries of the Irvington Union Free School District include 4.94 square miles. Listed below are demographics about the school district that may be helpful in the short-range and long-range planning discussions of the district. The data are from the **American Community Survey 5-year estimates** specific to the Irvington UFSD geographic service area.

DEMOGRAPHIC CHARACTERISTIC	AC Survey 2006-2011	
Total Population	9375	
Median age	41.7	
Under 5	7.8%	
5 to 9	6.9%	22.8%
10 to 14	9.5%	
15 to 19	6.4%	
20 to 44	26%	Prime childbearing years
45 to 64	31.7%	
65 to 84	9.7%	
85 and over	2%	
Households		
Total Households	3428	Current public school enrollment of 1797; .52 pupils per household
Family Households	2440	71.2% of all households; Current public school enrollment of 1797; .74 pupils per family household
Family households with own children under 18 years	1511	44.1% of all households; Current public school enrollment of 1797; 1.19 pupils per family households with children under 18
Non-family households	988	28.8% of the total households
Householder living alone	854	24.9% of the total households
Householder living alone 65 years and older	407	11.9% of the total households
All of households with one or more people under 18 years	44.3%	
All of households with one or more people under 65 years and older	24.7%	
Average household size	2.73	

DEMOGRAPHIC CHARACTERISTIC	AC Survey 2006-2011	
Average family size	3.34	
% high school graduate or higher	98.4%	
% bachelor's degree or higher	63.6%	
Residence 1 year ago; same house	86.2%	
Total housing units	3476	
1 unit attached and detached	2008	
2 units	226	
3 or 4 units	404	
5 to 9 units	413	
10 to 19 units	142	
20 or more units	283	
Total housing units built 2005 or later	24	New residential contract is not a prime factor in adding new population the district.
% of householders moved into household unit since 2005	26.8%	Rate of household change either within the district or by new residents moving to the district is about 5% per year
Housing units with 3 or more bedrooms	60.8%	Majority of existing housing inventory has primary characteristic for family with children households
Owner occupied	75.9%	
Renter occupied	24.1%	
Average size of owner occupied unit	2.83	
Average size of renter occupied unit	2.44	
Percentage of owner occupied units with a value of \$500,000 to \$999,999	54.7%	
Occupation of population 16 years and over: Management, business, science, and arts occupations	64.5%	
Sales and office occupations	20.8%	
Median household income	\$116,750	
Mean household income	\$180,629	
Median family income	\$160,595	
Mean family income	\$216,993	
Median non-family income	\$55,813	
Mean non-family income	\$88,142	

Some example discussion questions for Irvington as it plans for the future based on the Census data might include:

- About 26% of the school district population is at child-bearing age. What are some possible impacts on the school district if the population transitions to include a smaller child-bearing aged cohort? A larger child-bearing cohort? Short Term?

Long term? What changes in the housing market might influence the child-bearing age cohort in the school district? About 60.8% of all housing units in Irvington have at least 3 bedrooms? What are the possible impacts on the school district if *existing* family-sized homes and/or rental units turnover at a slow rate? At a fast rate?

- The estimated median age of the district is 41.7 years which is approaching the upper range of what is considered prime child-bearing years. What are some possible impacts on the school district if the housing market does not encourage residents in their prime childbearing years to move to the district? What are some possible impacts on the school district if the median age of residents continues to increase?
- The share of total households in Irvington with one or more persons 65 years or older is about 25 out of a 100 compared to about 44 out of 100 of district households with members under 18. What do these data suggest about community programs offered and communication efforts with these households in the school district?
- Are there any noticeable dichotomies of opinions about the school district by the 44 out of 100 households with children under 18 and the 56 out of 100 households with no children under 18?
- The median household income is about 27% less than the median family income in the Irvington School District. Has this disparity caused a noticeable difference in expectations for education by segments of the community? If not, what communication or program efforts by the district have proven successful in nurturing support?

THE HOUSING MARKET

Ms. Patricia Ann Flood of Houlihan and Lawrence Realty and Ms. Dalia Valdes of JBF Sotheby's International Realty were interviewed in mid-December to gain an understanding of the current residential market and its possible prospects for the future. The time and willingness of Ms. Flood and Ms. Valdes to share their expertise, information, and local market knowledge are appreciated and are valuable assets to the study and to the Irvington Union Free School District.

In the separate interviews both Ms. Flood and Ms. Valdes noted that the quality of public school education available at Irvington UFSD is an asset to the marketing of residential housing. Both explained that often potential residential buyers with children are focused on private school experiences for their children and not necessarily for each of their children. Generally, potential Irvington housing buyers with children make private school-public school decisions for each child based on a particular child's needs and academic skill sets. The perception of quality of the Irvington schools is valued by parents who choose a public school experience *and* by parents

who choose a private school experience for their children. The realtors explain that the quality of Irvington schools is important for parents who initially decide on a private school experience for a child because they know that if the private school experience ‘does not work out’ the child will receive a ‘suitable’ education at Irvington.

In the past two years, both realtors shared that there has been an upturn of buyers from the city. Generally, the buyers are younger families with pre-school children or are ‘older’ families with children about to go into middle school. Many often express ‘safety concerns’ and ‘tired of the city’ as some reasons for house hunting in Irvington. The housing available in the Irvington school district is considered affordable in that large homes are available at ‘lower’ cost points, and the taxes ‘are the same as those in Rye, Scarsdale, and Bronxville’; and the Irvington schools ‘provide similar quality’. There is also a set of potential home buyers who rent for a year and then decide to purchase in the Irvington school district.

There has been ‘little trading up’ to larger homes by existing Irvington residents. Often, this is due to the disconnect between the perception of the value of an existing home by the current owners and the reality of market value. This has resulted in a lower inventory of existing homes for sale. In the next year, even though housing prices will likely remain stable, both suggest more homes will go on the market. There is some availability of newly constructed residential units. For example, there are a few available at a beginning threshold of \$4 million. Ms. Flood explained that ‘only so many homes can be built’. For example, the village has clear codes that define how many units, required lot sizes, and how many square feet of construction is allowed per unit/lot.

Ms. Flood of Houlihan and Lawrence Realty graciously provided the following data about the housing market in the Irvington UFSD for 2012. Out of the 3476 existing housing units in the Irvington school district, 160 or about 4.6% were sold in 2012.

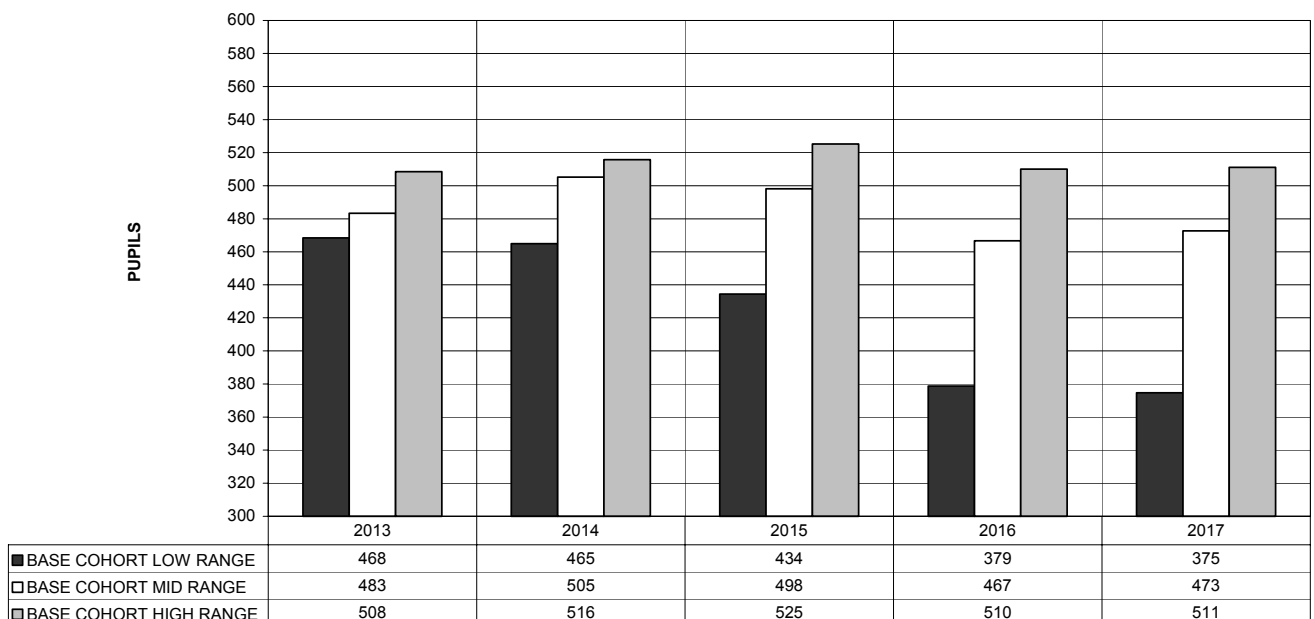
Total Units Sold in 2012	Average Sales Price	Average Days on the Market	Average Relationship between List Price and Final Sales Price	Median Sales Price
160	\$534,325	171	95.86%	\$500,000

Since there are no data to suggest major new residential development will occur within the next five years in the school district, the study does not adjust the baseline cohort enrollment projections based on potential influence of *new* residential construction within the school district. The study assumes the market of existing residential homes will continue in a similar pattern as that described by the two local realtors.

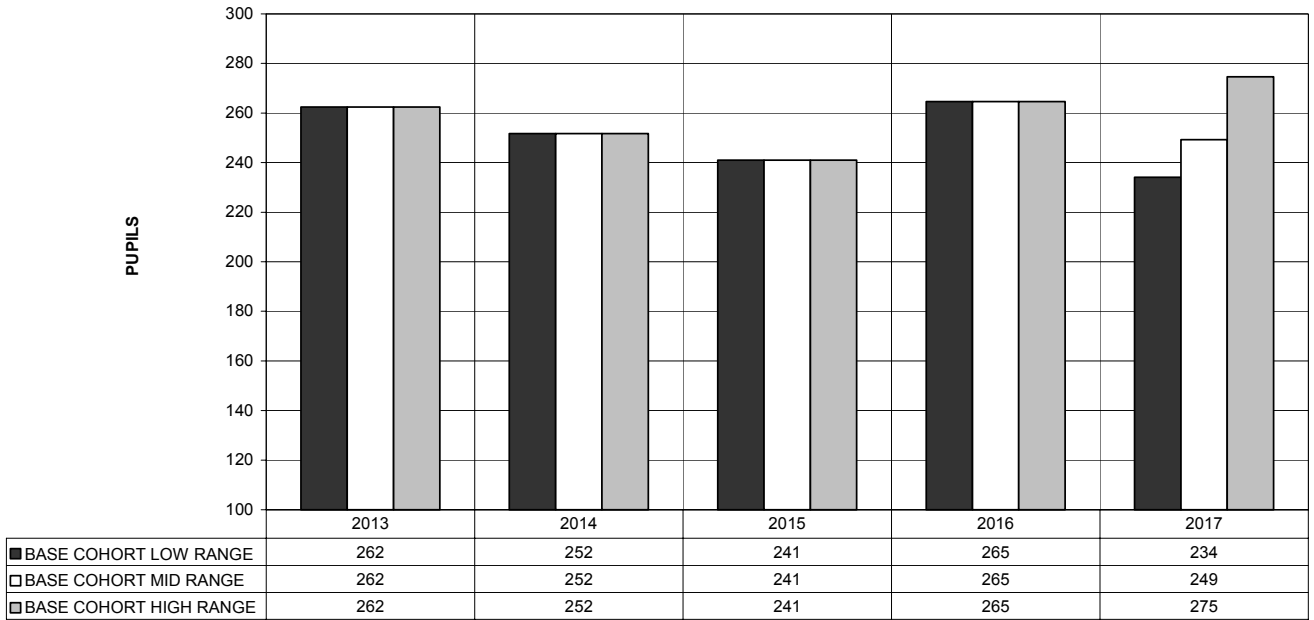
SUMMARY OF K-12 ENROLLMENT PROJECTION DATA CALCULATIONS

The charts that follow summarize the enrollment projection calculations through 2022-2023 undertaken in this study. The estimates are based on the application of the cohort survival statistic and annual total live birth analysis to project potential kindergarten enrollments in the future. The enrollment estimates are projections and not predictions. All enrollment projections for years further in the future (plus five years) have inherent uncertainties because the assumptions on which they are based can be affected by changes in human behavior, by the economy, or by other events. The projections do offer a starting point for analyzing and understanding the elements of future school district demographic change.

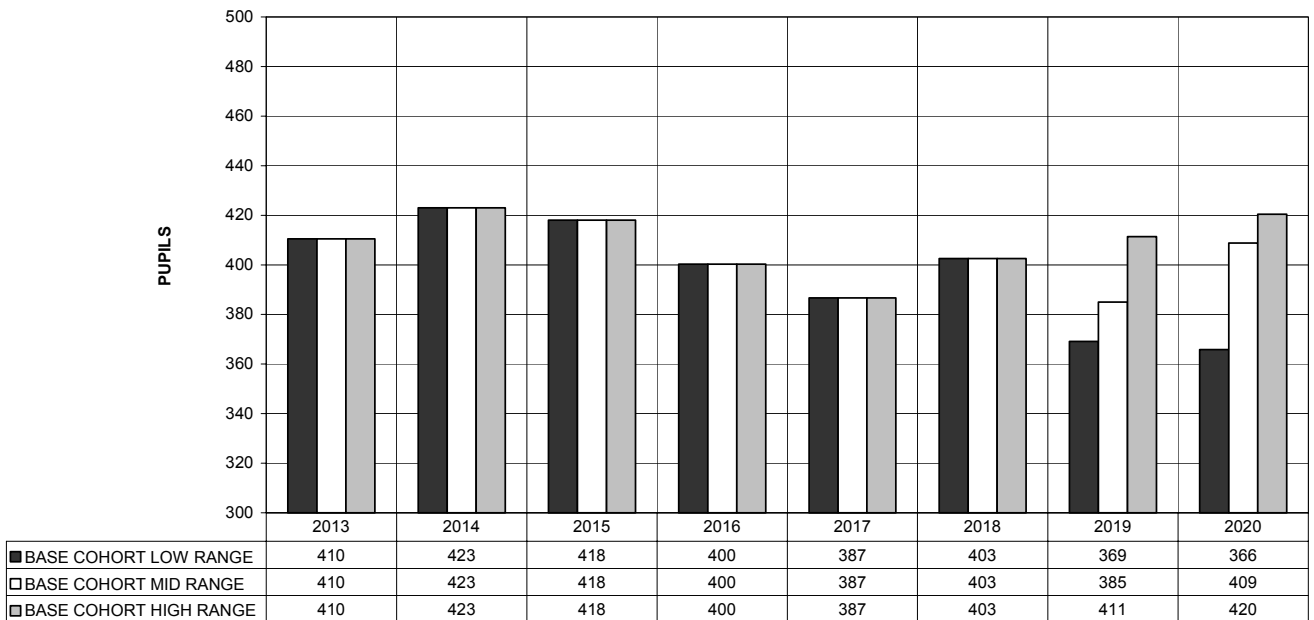
GRADES K-3 ESTIMATED ENROLLMENT SCENARIOS 2013-2017



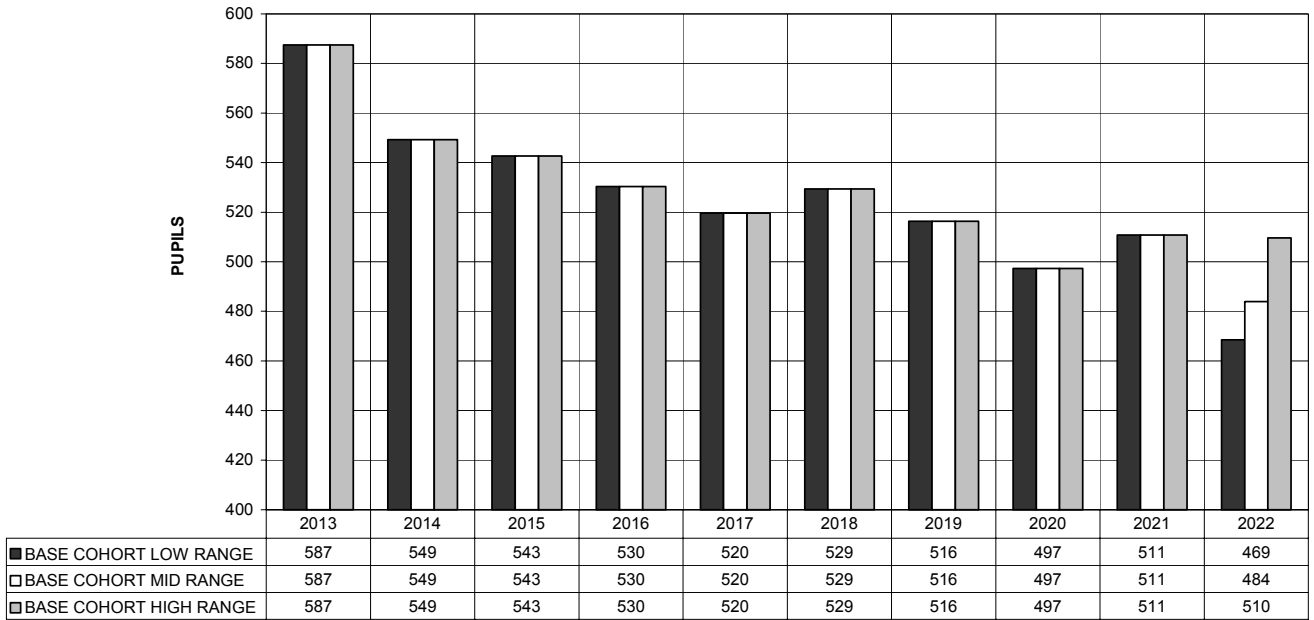
GRADES 4-5 ESTIMATED ENROLLMENT SCENARIOS 2013-2017



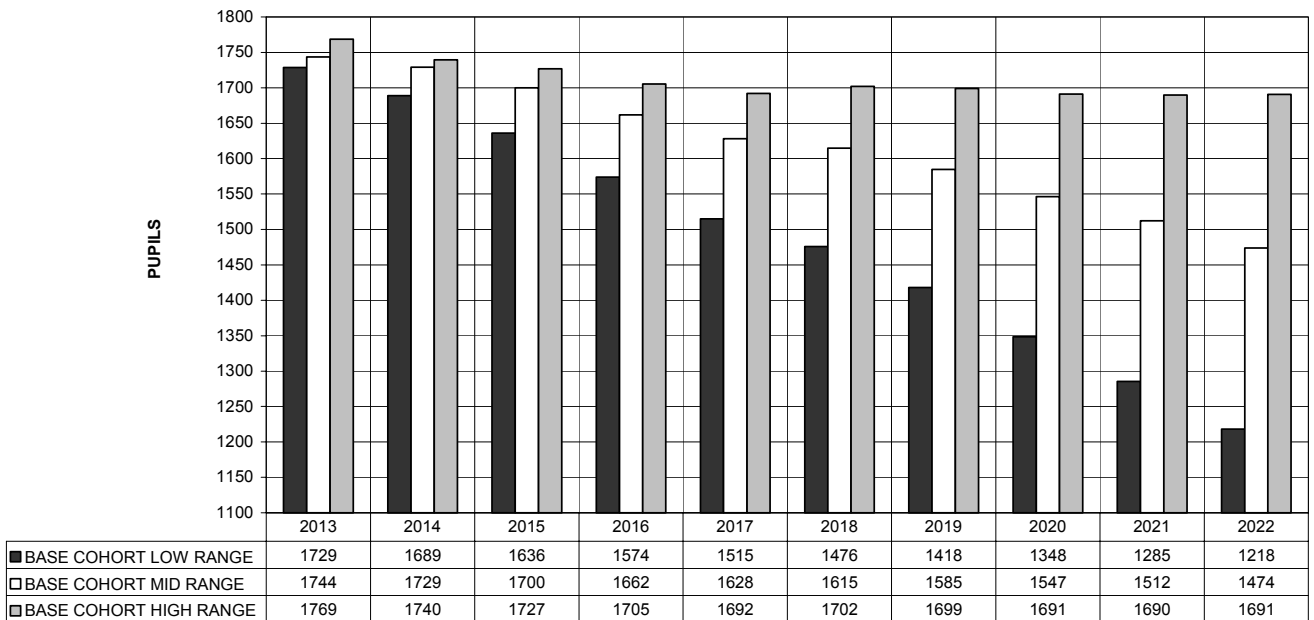
GRADES 6-8 ESTIMATED ENROLLMENT SCENARIOS 2013-2020



GRADES 9-12 ESTIMATED ENROLLMENT SCENARIOS 2013-2022



GRADES K-12 ESTIMATED ENROLLMENT SCENARIOS 2013-2022



The table below is a helpful resource as the district undertakes its ongoing short and long-range planning efforts regarding its vision for the educational program to be delivered and the use of the school building assets of the district. The highlighted estimates follow SED planning guidelines with regard to applying enrollment projections to anticipated space needs in the future. Commissioner’s Regulation 155.1 requires districts to match facility planning with the estimated grades K-5 (6) enrollment five years into the future; grades (6) 7-8 enrollment eight years into the future; and estimated grades 9-12 enrollment ten years into the future. In summary, the six projections suggest that:

Base Cohort Projections

- **Grades K-5 enrollment** may likely decline between 30 and 50 pupils over the next five years; or at best stays stable.
- **Grades 6-8 enrollment** may likely decline by about 30 to 40 pupils over the next eight years; or at best stays stable.
- **Grades 9-12 enrollment** may likely decline up to about 100 pupils over the next 10 years.
- The total **grades K-12 enrollment** may likely decline by about 100 to 160 pupils over the next five years; decline by about 100 to 170 pupils over the next eight years; and decline by about 100 to 200 pupils over the next ten years.

Baseline linear cohort survival statistic calculations based on live birth trends and historical enrollment from 2006-2007 to the present:

Calculation	Year	Grades K-3	Grades 4-5	Grades 6-8	Grades 9-12	Total Grades K-12
CURRENT ENROLLMENT	2012-2013	509	271	414	603	1797
Baseline Cohort Low Range	2017-2018	375	234			1515
	2020-2021			366		1348
	2022-2023				497	1218
Baseline Cohort Mid Range	2017-2018	473	249			1628
	2020-2021			409		1615
	2022-2023				497	1585
Baseline Cohort High Range	2017-2018	511	275			1692
	2020-2021			420		1702
	2022-2023				497	1699

CAUTIONS CONCERNING ENROLLMENT PROJECTION ESTIMATES

All enrollment projections for years further in the future (plus five years) have inherent uncertainties because the assumptions on which they are based can be affected by changes in human behavior, by the economy, or by other events. Key factors of population change relating to school enrollments are often interrelated and can multiply as one or more factors unexpectedly change or change significantly from their status at the time of this study. Future enrollments are positively affected by:

- Added births in the district and the resulting added kindergarten enrollments.
- The reductions in private school/home school/charter school enrollments
- The increase in the enrollment retention of students through grade 12 as completers of a diploma program.
- A robust employment market that can attract new residents with children and/or who are at childbearing age.
- A robust housing market that can attract new residents with children and/ or who are at childbearing age.
- Increased enrollment of tuitioned students from other school districts.

Similarly, future enrollment projections can be negatively affected by the antitheses of the same variables. Therefore, the enrollment projection estimates should be revisited and updated yearly if there are any major changes in: the assumptions that base the methodology of this study; the annual live birth data for the district; major shifts in the housing market and employment market opportunities from what has been expected; changes in the educational program offered; and/or changes in the non-public school, charter school, or out of school district enrollments by Irvington School District residents; or major immediate changes to the numbers of pupils tuitioned from other school districts.

The *Enrollment Projection Calculations* provide sets of estimates about future K-12 enrollments ranging from ‘low’ to ‘high’ based on defined assumptions and historical patterns of population and enrollment data. It is suggested that the Board of Education and the school district leadership team discuss the projection scenarios and come to consensus with the community about what the *school district and the community* believe about the local future—will the “glass be filled, half filled or half empty?” with regard to such items as increased numbers of pupils completing graduation, new residential construction, new population to the district, and increased jobs within commuting distance of the district.

ATTACHMENT:

**FIGURES,
TABLES,
CHARTS**

**TABLE 7-A: LOW RANGE BASELINE COHORT SURVIVAL STATISTIC ENROLLMENT PROJECTIONS GRADES K-12
IRVINGTON UFSD**

YEAR	KNDG	R	1ST	R	2ND	R	3RD	R	4TH	R	5TH	R	6TH	R	7TH	R	8TH	R	9TH	R	10TH	R	11TH	R	12TH	TOTAL
07-08	131		126		130		142		153		150		168		171		161		163		140		155		163	1953
08-09	128	1.05	138	1.00	126	0.96	125	0.96	137	1.00	153	0.98	147	0.98	165	0.95	163	0.94	151	0.95	155	1.01	141	1.03	159	1888
09-10	116	0.99	127	0.93	128	0.94	118	0.94	117	0.98	134	1.00	153	1.08	159	0.96	159	1.00	163	0.99	150	0.99	153	1.00	141	1818
10-11	121	1.04	121	0.98	124	1.02	130	1.10	130	1.00	117	1.03	138	1.04	159	0.86	137	0.99	157	0.99	162	0.98	147	1.02	156	1799
11-12	111	0.94	114	1.00	121	1.01	125	0.98	128	1.02	133	1.06	124	1.06	146	0.97	155	1.01	138	0.97	153	0.96	156	0.97	143	1747
12-13	142	1.07	119	1.05	120	1.06	128	1.05	131	1.09	140	1.05	139	1.04	129	1.00	146	0.98	152	1.01	140	1.01	155	1.00	156	1797

Average Ratio	1.021		0.991		0.996		1.007		1.019		1.023		1.040		0.951		0.983		0.985		0.990		1.004	
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13-14	86		145		118		120		129		133		143		145		123		143		150		139		156	1729
14-15	116		88		144		117		120		131		137		149		137		121		141		148		139	1689
15-16	86		118		87		143		118		123		134		142		142		135		119		140		149	1636
16-17	87		88		117		87		144		121		125		140		135		139		133		118		140	1574
17-18	82		89		87		117		87		147		123		130		133		133		137		132		118	1515
18-19	79		84		88		87		118		89		150		128		124		131		131		136		132	1476
19-20	74		81		83		88		87		120		91		156		122		122		129		129		136	1418
20-21	70		76		80		83		88		89		123		95		149		120		120		127		130	1348
21-22	67		71		75		80		83		90		91		128		90		146		118		119		128	1285
22-23	63		68		71		75		80		85		92		95		121		88		144		117		119	1218

**TABLE 7-B: MID RANGE BASELINE COHORT SURVIVAL STATISTIC ENROLLMENT PROJECTIONS GRADES K-12
IRVINGTON UFSD**

YEAR	KNDG	R	1ST	R	2ND	R	3RD	R	4TH	R	5TH	R	6TH	R	7TH	R	8TH	R	9TH	R	10TH	R	11TH	R	12TH	TOTAL
07-08	131		126		130		142		153		150		168		171		161		163		140		155		163	1953
08-09	128	1.05	138	1.00	126	0.96	125	0.96	137	1.00	153	0.98	147	0.98	165	0.95	163	0.94	151	0.95	155	1.01	141	1.03	159	1888
09-10	116	0.99	127	0.93	128	0.94	118	0.94	117	0.98	134	1.00	153	1.08	159	0.96	159	1.00	163	0.99	150	0.99	153	1.00	141	1818
10-11	121	1.04	121	0.98	124	1.02	130	1.10	130	1.00	117	1.03	138	1.04	159	0.86	137	0.99	157	0.99	162	0.98	147	1.02	156	1799
11-12	111	0.94	114	1.00	121	1.01	125	0.98	128	1.02	133	1.06	124	1.06	146	0.97	155	1.01	138	0.97	153	0.96	156	0.97	143	1747
12-13	142	1.07	119	1.05	120	1.06	128	1.05	131	1.09	140	1.05	139	1.04	129	1.00	146	0.98	152	1.01	140	1.01	155	1.00	156	1797

Average Ratio	1.021		0.991		0.996		1.007		1.019		1.023		1.040		0.951		0.983		0.985		0.990		1.004	
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13-14	101		145		118		120		129		133		143		145		123		143		150		139		156	1744
14-15	141		103		144		117		120		131		137		149		137		121		141		148		139	1729
15-16	109		144		102		143		118		123		134		142		142		135		119		140		149	1700
16-17	111		111		143		102		144		121		125		140		135		139		133		118		140	1662
17-18	107		113		110		142		102		147		123		130		133		133		137		132		118	1628
18-19	104		109		112		110		143		104		150		128		124		131		131		136		132	1615
19-20	101		106		108		112		111		146		107		156		122		122		129		129		136	1585
20-21	99		103		105		108		113		113		149		111		149		120		120		127		130	1547
21-22	94		101		102		105		109		115		115		155		106		146		118		119		128	1512
22-23	91		96		100		102		106		111		117		120		147		104		144		117		119	1474

**TABLE 7-C: HIGH RANGE BASELINE COHORT SURVIVAL STATISTIC ENROLLMENT PROJECTIONS GRADES K-12
IRVINGTON UFSD**

YEAR	KNDG	R	1ST	R	2ND	R	3RD	R	4TH	R	5TH	R	6TH	R	7TH	R	8TH	R	9TH	R	10TH	R	11TH	R	12TH	TOTAL
07-08	131		126		130		142		153		150		168		171		161		163		140		155		163	1953
08-09	128	1.05	138	1.00	126	0.96	125	0.96	137	1.00	153	0.98	147	0.98	165	0.95	163	0.94	151	0.95	155	1.01	141	1.03	159	1888
09-10	116	0.99	127	0.93	128	0.94	118	0.94	117	0.98	134	1.00	153	1.08	159	0.96	159	1.00	163	0.99	150	0.99	153	1.00	141	1818
10-11	121	1.04	121	0.98	124	1.02	130	1.10	130	1.00	117	1.03	138	1.04	159	0.86	137	0.99	157	0.99	162	0.98	147	1.02	156	1799
11-12	111	0.94	114	1.00	121	1.01	125	0.98	128	1.02	133	1.06	124	1.06	146	0.97	155	1.01	138	0.97	153	0.96	156	0.97	143	1747
12-13	142	1.07	119	1.05	120	1.06	128	1.05	131	1.09	140	1.05	139	1.04	129	1.00	146	0.98	152	1.01	140	1.01	155	1.00	156	1797

Average Ratio	1.021	0.991	0.996	1.007	1.019	1.023	1.040	0.951	0.983	0.985	0.990	1.004
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13-14	126	145	118	120	129	133	143	145	123	143	150	139	156	1769
14-15	126	129	144	117	120	131	137	149	137	121	141	148	139	1740
15-16	126	129	127	143	118	123	134	142	142	135	119	140	149	1727
16-17	127	129	127	127	144	121	125	140	135	139	133	118	140	1705
17-18	127	130	127	127	128	147	123	130	133	133	137	132	118	1692
18-19	127	130	128	127	128	130	150	128	124	131	131	136	132	1702
19-20	127	130	128	128	128	130	133	156	122	122	129	129	136	1699
20-21	128	130	128	128	129	130	133	139	149	120	120	127	130	1691
21-22	128	131	128	128	129	131	133	139	132	146	118	119	128	1690
22-23	128	131	130	128	129	131	134	139	132	130	144	117	119	1691

**BASE COHORT ENROLLMENT PROJECTIONS SUMMARY FOR
IRVINGTON UFSD**

YEAR	LOW RANGE PROJECTION			MID RANGE PROJECTION			HIGH RANGE PROJECTION		
	K-6	7-12	TOTAL K-12	K-6	7-12	TOTAL K-12	K-6	7-12	TOTAL K-12
2013	874	855	1729	889	855	1744	914	855	1769
2014	853	836	1689	893	836	1729	904	836	1740
2015	810	826	1636	873	826	1700	900	826	1727
2016	769	805	1574	857	805	1662	900	805	1705
2017	732	783	1515	845	783	1628	909	783	1692
2018	694	782	1476	833	782	1615	920	782	1702
2019	623	795	1418	790	795	1585	904	795	1699
2020	608	740	1348	790	757	1547	906	784	1691
2021	557	728	1285	741	772	1512	909	781	1690
2022	534	684	1218	722	751	1474	911	780	1691

YEAR	LOW RANGE PROJECTION					MID RANGE PROJECTION					HIGH RANGE PROJECTION				
	K-3	4-5	6-8	9-12	K-12	K-3	4-5	6-8	9-12	K-12	K-3	4-5	6-8	9-12	K-12
2013	468	262	410	587	1729	483	262	410	587	1744	508	262	410	587	1769
2014	465	252	423	549	1689	505	252	423	549	1729	516	252	423	549	1740
2015	434	241	418	543	1636	498	241	418	543	1700	525	241	418	543	1727
2016	379	265	400	530	1574	467	265	400	530	1662	510	265	400	530	1705
2017	375	234	387	520	1515	473	249	387	520	1628	511	275	387	520	1692
2018	337	207	403	529	1476	435	247	403	529	1615	512	258	403	529	1702
2019	325	207	369	516	1418	427	256	385	516	1585	513	258	411	516	1699
2020	308	177	366	497	1348	415	225	409	497	1547	514	259	420	497	1691
2021	293	173	309	511	1285	402	223	376	511	1512	515	260	404	511	1690
2022	277	165	308	469	1218	389	216	385	484	1474	516	260	405	510	1691

YEAR	LOW RANGE PROJECTION							MID RANGE PROJECTION							HIGH RANGE PROJECTION						
	K-4	K-2	3-6	5-6	7-8	5		K-4	K-2	3-6	5-6	7-8	5		K-4	K-2	3-6	5-6	7-8	5	
2013	597	349	525	277	267	133		612	364	525	277	267	133		637	389	525	277	267	133	
2014	585	347	506	268	286	131		626	388	506	268	286	131		636	398	506	268	286	131	
2015	553	291	518	257	284	123		616	355	518	257	284	123		643	382	518	257	284	123	
2016	523	292	477	246	275	121		611	365	492	246	275	121		654	383	517	246	275	121	
2017	462	258	474	270	263	147		575	331	515	270	263	147		639	384	525	270	263	147	
2018	455	251	443	239	252	89		578	326	508	255	252	104		640	385	535	280	252	130	
2019	413	238	386	211	278	120		538	315	475	253	278	146		641	385	519	264	278	130	
2020	396	225	383	212	243	89		528	307	482	262	260	113		643	386	520	264	287	130	
2021	376	213	344	181	218	90		511	297	443	230	261	115		644	387	521	265	270	131	
2022	357	202	332	177	216	85		494	287	435	228	267	111		645	388	522	266	270	131	

APPENDIX C: EXAMPLE OF MODULAR MOVEABLE DOUBLE SERVING LINE FOR FOOD SERVICE

