Recent Growth in Alexandria’s School Enrollment: The New Normal?

ACPS & City of Alexandria
This Summary

- Recent and historic enrollment
- Preliminary analysis of causes of recent spurt
- Additional analysis for new long range enrollment forecasts
- Long-Range Educational Facilities Plan
  - An 18-month consultant-assisted program to evaluate existing facilities and estimate future needs
  - Goal: Consensus on magnitude and character of the challenge and potential solutions
Enrollment up 3,100 since 2006

- What’s happening now:
  - From a 7-year low in 2006, ACPS enrollment has increased by over 3,100 students (31%).
  - Most growth so far: elementary schools (+41%, or 69% of all growth in enrollment.)
  - Middle schools seeing increases now
  - High school impacts expected in 2017

- Also happening in Arlington, Fairfax and Montgomery Counties
Examining enrollment growth

Questions:
- Will these years of growth be followed by years of declining enrollment, as has happened in the past?
- Or is this a “new normal” in which growth continues for an extended period?

To answer:
- Examine sources and characteristics of recent growth
- Put growth into context (long term, regional)
- Study factors/trends that could spur or limit enrollment growth
School enrollment and population since 1960

ACPS K-12 School Enrollment and Population Since 1960

- Enrollment
- Population

Calendar Year

Learning to Live • Loving to Learn

Alexandria City Public Schools
School enrollment, compared to population, was declining for 35+ years – until 2007

APCS K-12 Students Per 1,000 People Since 1960

80 Students per 1,000

Calendar Year
Estimating future enrollment

- Births, and share of births that become kindergarten students five years later (kindergarten capture)
- Share of students moving from one grade to the next in each grade (cohort survival)
- Development (student generation rates for housing)

Affected by

- Suitability/desirability of Alexandria for families with children
- Economics (Jobs, housing market)
- New development and redevelopment
- School reputation and alternatives
Alexandria’s age profile

Percent of Population by Single Years of Age
Alexandria 2000 and 2010 Census with United States 2010

- Alexandria 2000
- Alexandria 2010
- U.S. 2010

Episcopal High School effect
Factors affecting the size of Alexandria’s school-age population

- Low household size
- More single person households
- Low percentage of single family homes
More than half of Alexandria’s housing stock has 4 rooms or less
Several factors reduced families ability to move out of the City beginning in 2007

- Home sales fell
- Unemployment rate rose
- Gas prices rose
12.1% of Alexandria’s children enrolled in school attend private school

American Community Survey 2006-2010 5-year average data, corrected for residential high school population for Alexandria only.
The number of births in the city is going up, as is kindergarten enrollment.
Our “kindergarten capture” rate has been increasing. Has it peaked?

What percentage of the children born in Alexandria attend Alexandria kindergarten 5 years later?

- Kindergarten Capture Rate

What percentage of the children born in Alexandria attend Alexandria kindergarten 5 years later?

Pre-2008, a little over half of the children born in Alexandria were enrolled in kindergarten 5 years later. By 2012, it had grown to two thirds, but fell back to 58% in 2013.
More students are continuing on to the next grade

What is a “Cohort Survival” rate? It tracks the number of students continuing from one grade to the next. Example:

<table>
<thead>
<tr>
<th>Grade</th>
<th>2010</th>
<th>2011</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>K</td>
<td>118</td>
<td>121</td>
<td>+4.6%</td>
</tr>
<tr>
<td>1</td>
<td>110</td>
<td>116</td>
<td>+4.0%</td>
</tr>
<tr>
<td>Cohort Survival from K to 1st</td>
<td>98%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Average Cohort Survival</th>
<th>Elem.</th>
<th>Middle</th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre 2007</td>
<td>93.2%</td>
<td>93.5%</td>
<td>95.1%</td>
</tr>
<tr>
<td>Post 2007</td>
<td>97.8%</td>
<td>97.6%</td>
<td>99.8%</td>
</tr>
<tr>
<td>Difference</td>
<td>+4.6%</td>
<td>+4.0%</td>
<td>+4.7%</td>
</tr>
</tbody>
</table>

Since 2007, the cohort survival rate has increased at ALL levels.
Growth in student enrollment is from existing housing

Concentrations of students new to the system for the 2012-2013 school year
Growth in enrollment is from single-family and gardens, but not mid- and high-rise

ACPS students per 100 housing units

- Detached
- Townhouse/Duplex
- Garden Apartments
- Mid Rise Apartments
- High Rise Apartments

08–09 Sch Yr vs 11–12 Sch Yr
Impact of future development

Forecasts include all planned and approved development as well as estimates of infill development and long-term potential.
To estimate students from new development, we will apply the student generation rates for housing built in the past 30 years.
## Impact of future development

Students estimated from planned development and redevelopment, 2010-2020

<table>
<thead>
<tr>
<th>Type of Housing</th>
<th>2010-15</th>
<th>2015-20</th>
</tr>
</thead>
<tbody>
<tr>
<td>Townhouse</td>
<td>74</td>
<td>22</td>
</tr>
<tr>
<td>Garden apartment</td>
<td>-63</td>
<td>-274</td>
</tr>
<tr>
<td>Mid-rise apartment</td>
<td>103</td>
<td>85</td>
</tr>
<tr>
<td>High-rise apartment</td>
<td>-4</td>
<td>40</td>
</tr>
<tr>
<td>Total</td>
<td>110</td>
<td>-127</td>
</tr>
</tbody>
</table>
Summary of key trends

• The latest data for key indicators are continuing to show growth
  • More children being born in Alexandria, but the increase is moderating
  • The share of children born in Alexandria entering kindergarten five years later fell in 2013 for the first time since 2009
  • More of them staying in Alexandria schools after kindergarten...through high school.
Long-Term Forecast

Long-Term Enrollment Forecast and Alternate Scenarios

- Sustained Growth, High Enrollment Growth
- Recommended Planning Forecast. Birth Rate Constant 5 Years
- ACPS Mid-Term Projection
- Sustained Growth, Moderate Enrollment Growth
- Enrollment Through 2013

100 ACPS Students per 1,000 people
Reality Check: Students per 1000 people

APCS K-12 Students Per 1,000 People Since 1960 With Forecast Scenarios

Students per 1,000 People

Calendar Year


Sustained Growth, High Enrollment Growth
Sustained Growth, Recommended Long-Term Enrollment Forecast
Sustained Growth, Moderate Enrollment Growth

80 Students per 1,000 People
Small Area Analysis

Change in Number of Students by School Level, 2006-2013

- Enrollment decreased, or increased less than citywide rate
  -50% to -25%
  -25% to no change
  no change to +30%

- Enrollment increased at citywide rate or more
  +30% to +50% (citywide +30%)
  +50% to +100%
  +100% or more

No students
Without action, forecast results in classroom deficits in all areas of the City

<table>
<thead>
<tr>
<th>Fiscal Year</th>
<th>Central</th>
<th>East</th>
<th>West</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY14</td>
<td>(2.5)</td>
<td>8</td>
<td>(1.5)</td>
</tr>
<tr>
<td>FY15</td>
<td>(2.5)</td>
<td>1.5</td>
<td>(6.0)</td>
</tr>
<tr>
<td>FY16</td>
<td>(4.0)</td>
<td>(8.0)</td>
<td>(11.0)</td>
</tr>
<tr>
<td>FY17</td>
<td>(7.0)</td>
<td>(13.5)</td>
<td>(19.0)</td>
</tr>
<tr>
<td>FY18</td>
<td>(20.0)</td>
<td>(27.0)</td>
<td>(41.0)</td>
</tr>
<tr>
<td>FY19</td>
<td>(23.5)</td>
<td>(33.5)</td>
<td>(53.0)</td>
</tr>
</tbody>
</table>

Table shows number of classrooms needed to accommodate forecast growth. Does not include possible capacity from construction projects (funded or proposed), class size changes, or other initiatives.

- Central: C. Barrett, D. MacArthur, G. Mason
- East: C. Kelly, J.-Houston, L.-Crouch, M. Maury, Mt. Vernon
Capacity Projects– FY14

- Capacity Projects Approved for FY2014 (began July 1, 2013)
  - James K. Polk – Second Story Modular Classrooms (4.5)
  - Patrick Henry – New/Expanded building (A/E begins in FY14, will determine classrooms and core facilities to be provided)
  - Charles Barrett – Second Story Modular Classrooms (4), parking lot expansion
  - George Mason – Expand cafeteria
  - Matthew Maury – Additional Classrooms (2)
  - Douglas MacArthur – Additional Classroom (1), cafeteria expansion
Capacity Projects—ACPS identified potential for FY15 and beyond

- Additional Classrooms
  - George Mason – Additional classrooms FY15
  - James K. Polk - Additional wing FY15
  - Patrick Henry – Per analysis FY14, avail FY 16, FY17
  - T.C. Minnie Howard- Expansion FY17

- Core Space Expansion
  - Charles Barrett – Cafeteria Expansion FY15
  - Matthew Maury – Parking lot expansion FY15

- New Facility
  - New School, Site TBD FY16
  - Cora Kelly- New Building FY18
<table>
<thead>
<tr>
<th>Predictors: affect on enrollment can be quantified and forecast</th>
<th>Future Kindergarten Capture Rate</th>
<th>Future Cohort Survival Rate</th>
<th>Student Generation Rates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Housing stock - affordability</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Job growth</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Birth rates</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Housing stock - age of unit</td>
<td>X</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Net migration - who is moving?</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Public school participation rate</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Household profiles: income, race/ethnicity, country of origin</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Historic cohort survival rate</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Housing stock - size and type of unit</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Influencers: can boost or depress enrollment but difficult to quantify or forecast</td>
<td>Future Kindergarten Capture Rate</td>
<td>Future Cohort Survival Rate</td>
<td>Student Generation Rates</td>
</tr>
<tr>
<td>New school buildings/facilities</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Reputation</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Programmatic initiatives</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Availability of alternatives to Alexandria public schools</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>
Long Range Educational Facilities Plan

- 19 member Work Group jointly created by Superintendent and City Manager
- 15-18 months timeline
- Opportunities for Input
  - Quarterly work group meetings
  - Subcommittees (enrollment, facilities, education specifications)
  - Open public meetings at key points in the process
  - Specific discussions with subject matter experts
Long Range Educational Facilities Plan

Joint City Council/ACPS Subcommittee
(4 members)

LREFP Work Group
Explores the major issues that will impact public school facilities over the long term and guides staff in the development of a draft Long-Range Educational Facilities Plan for consideration by the School Board and City Council.

Sub Committees
- Enrollment Forecasts / Demographics
  Establishing sustainable short and long-term enrollment forecast program
- Facility Capacity Needs Analysis
  Understanding current conditions and needs of the existing facilities
- Educational Specifications / School of the Future
  Planning for our future and matching of facilities to our students and our vision.

Joint Long-Range Educational Facilities Plan
To improve facilities planning, accommodate the growing student population, and enhance educational programs and services.
For more information and to stay in touch...

Planning & Zoning

Long Range Educational Facilities Plan

The City of Alexandria and the Alexandria City Public School System (ACPS) are jointly developing a work program for a Long Range Educational Facilities Plan to improve facilities planning, accommodate the growing student population, and enhance educational programs and services.

As part of the program, a 19 member work group was established and is comprised of members from the community, ACPS School Board, City Council, Campaigna Center, and the PTA Council, supported by ACPS and City staff. The workgroup meets on a regular basis, generally quarterly, to explore the major issues that will impact public school facilities over the long term and to guide staff in the development of a draft Long Range Educational Facilities Plan for consideration by the School Board and City Council.

The public is invited to all meetings associated with the project and is encouraged to stay informed about upcoming meetings through eNews.

- Work Group Members
- Joint COA/ACPS Work Program
- LREFP Work Program Supplement
- LREFP Update - October 15, 2012

Please visit the links below for information presented during previous work group and subcommittee meetings.

For more information, please contact Laurel Hamming, Facilities Planner & GIS Specialist, ACPS, 703/461-4168 or Karl Mortz, Deputy Director, Planning and Zoning, City of Alexandria, 703/746-3904.

www.alexandriava.gov/planning
Questions