Update on School Enrollment and Enrollment Projections
2010

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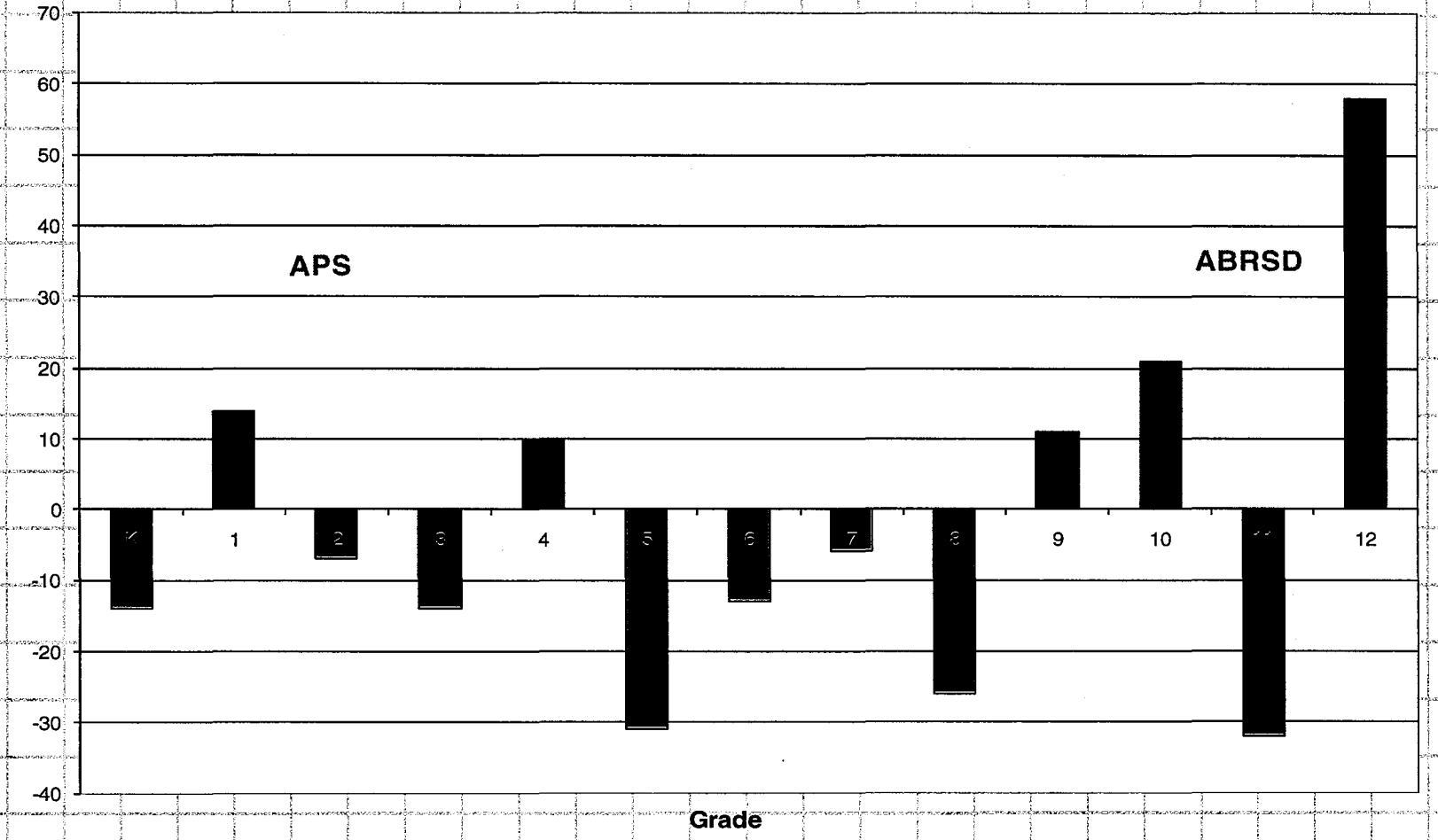
Change in Enrollment by Grade: APS and Region, 2010 vs. 2009



APS enrollment declined by 55 students from last year; Boxborough elementary down by 16 students

At Region, JHS decreased by 32 students and at HS increased by 55 students

Net decline overall in enrollment = (48)

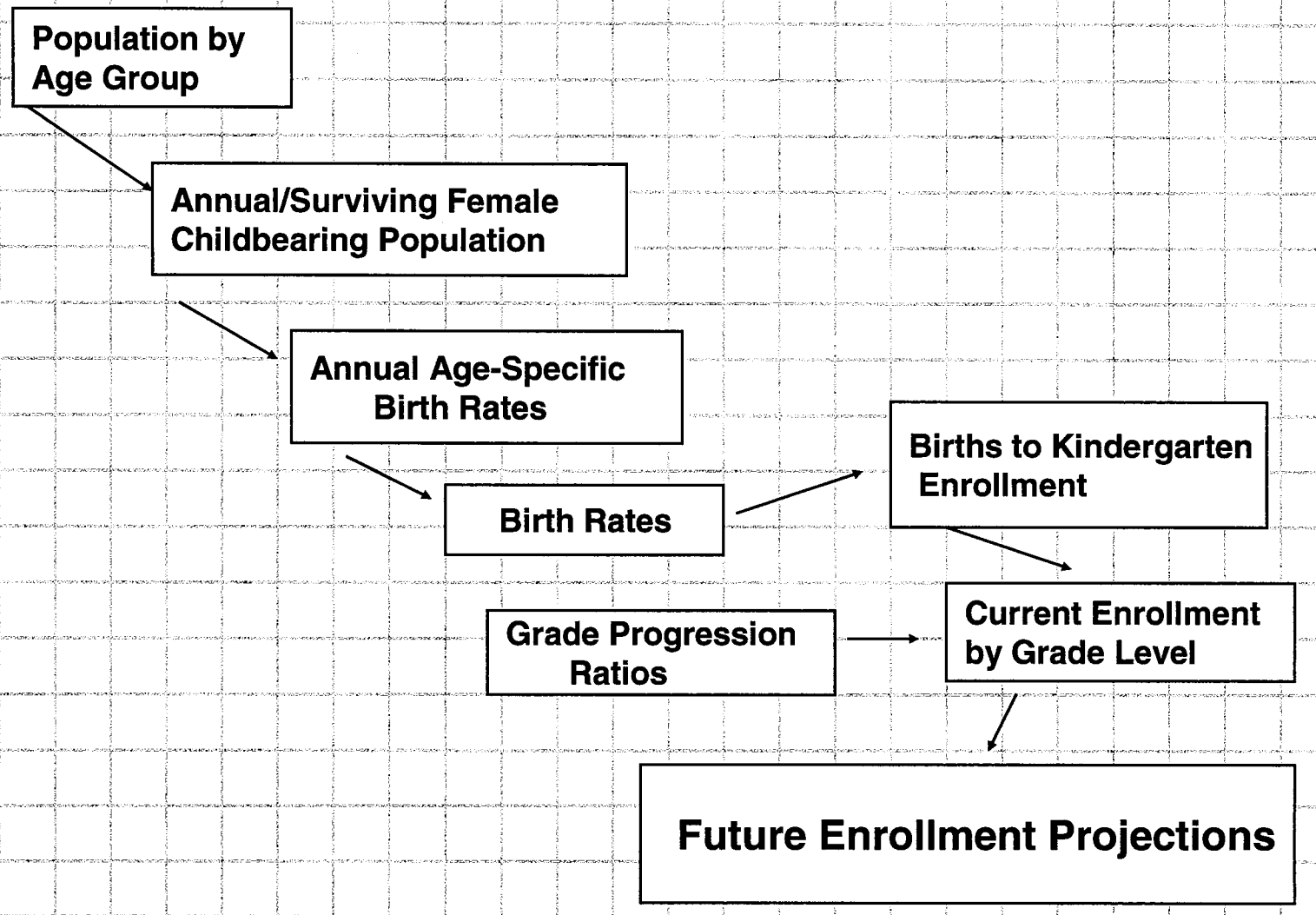
Enrollment Projections

- Determinants of enrollment:
  - population changes
  - birth rates
  - in/out migration
  - retention rates
  - household size
  - new home construction
  - economic conditions
  - school policies
- Using the model developed for MSBA
  - Slight change in the kindergarten ratio

What is the Cohort Survival Method

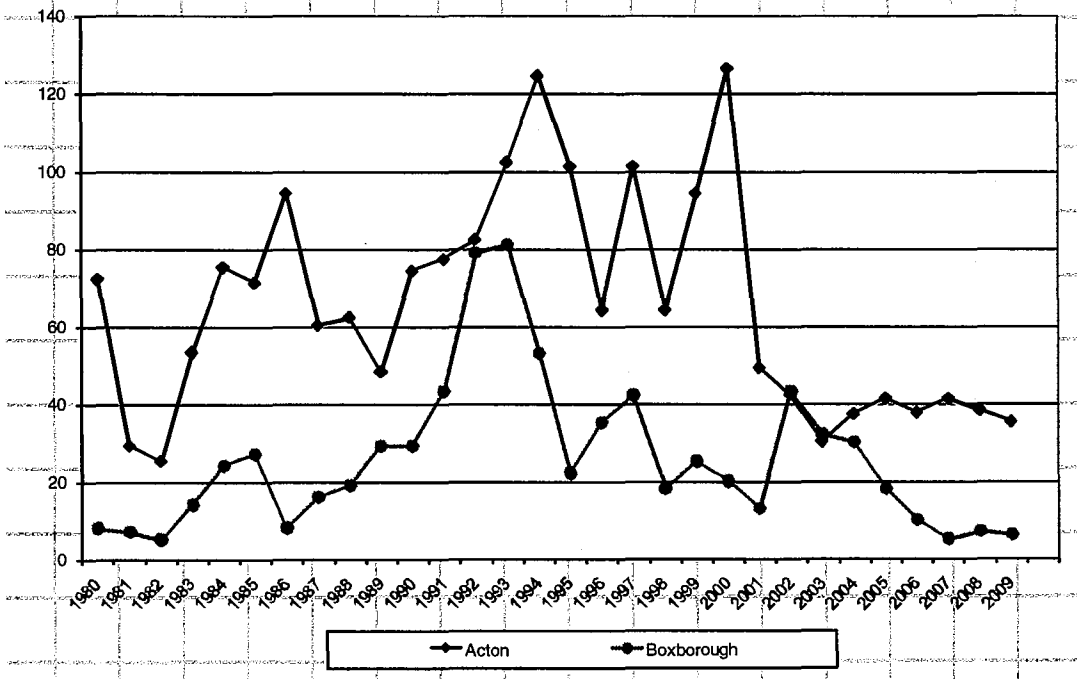
- Computes the ratio of children in one grade compared to the number who "survive" to the next grade
  - Starting point is birth to kindergarten ratio
    - based on relationship between kindergarten enrollments and live births five years earlier
  - Grade progression ratios follow the number of children who advance from one grade to the next
  - Relies on birth data and birth projections ("birth model")
  - Captures effects of net migration, population changes, retention rates, housing trends
    - Assumes history is a reasonable predictor of the future

Use of the Cohort Survival Method



Building Permits by Town

SF Building Permits:



- Number of single family permits in Acton has been declining for the last several years
- Boxborough housing permits have been declining since 2002

* 2006 is extrapolated based on 18 months

Other Development Considerations
Chapter 40B Developments

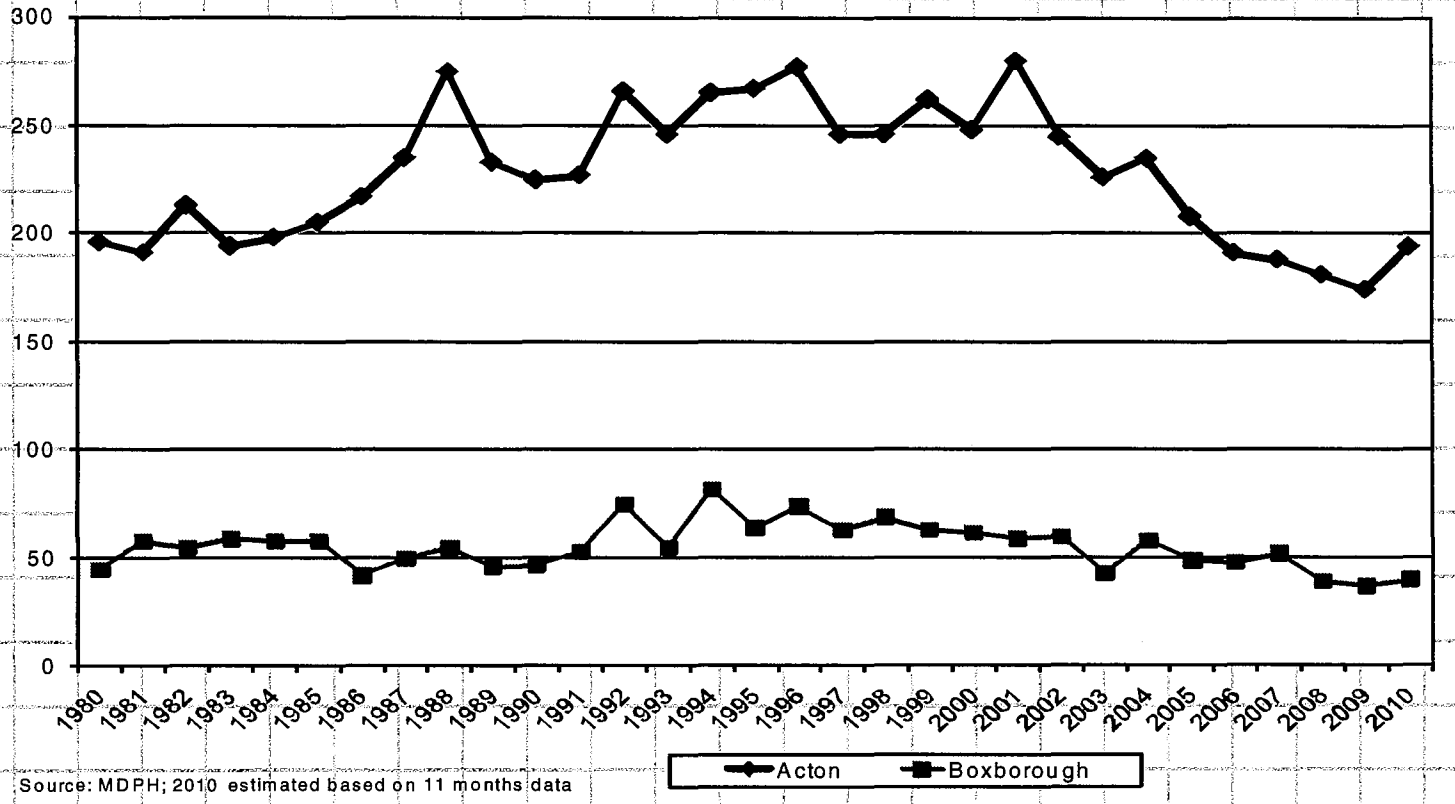
- Examined planned developments, including Chapter 40B projects
  - Researched many 40B projects in Massachusetts, including Acton
  - Market units add very few students
  - Rental units add fewer students, especially 1 or 2 br units
  - Affordable units add more, but still far below SF homes
- Average "multiplier" is about 0.4 per unit based on Acton experience
  - A 20 unit 40B adds 8 school age children on average
- Chapter 40B projects <u>DO NOT</u> add large number of school-age children

Other Development Considerations Single Family Housing

- Surveyed several recent and older developments in town
  - Robbins Mill, Marshall Path, Acor Park, Squirrel Hill, Lexington Dr. , Patroits Hill
- The average student multiplier is 1.2 per home
- Will complete a more comprehensive survey later this year
- Consistent with grade to grade ratios
- Housing turnover has slowed in last 8 years
  - Older neighborhoods show lower ratios than newer neighborhoods

Births in Acton and Boxborough

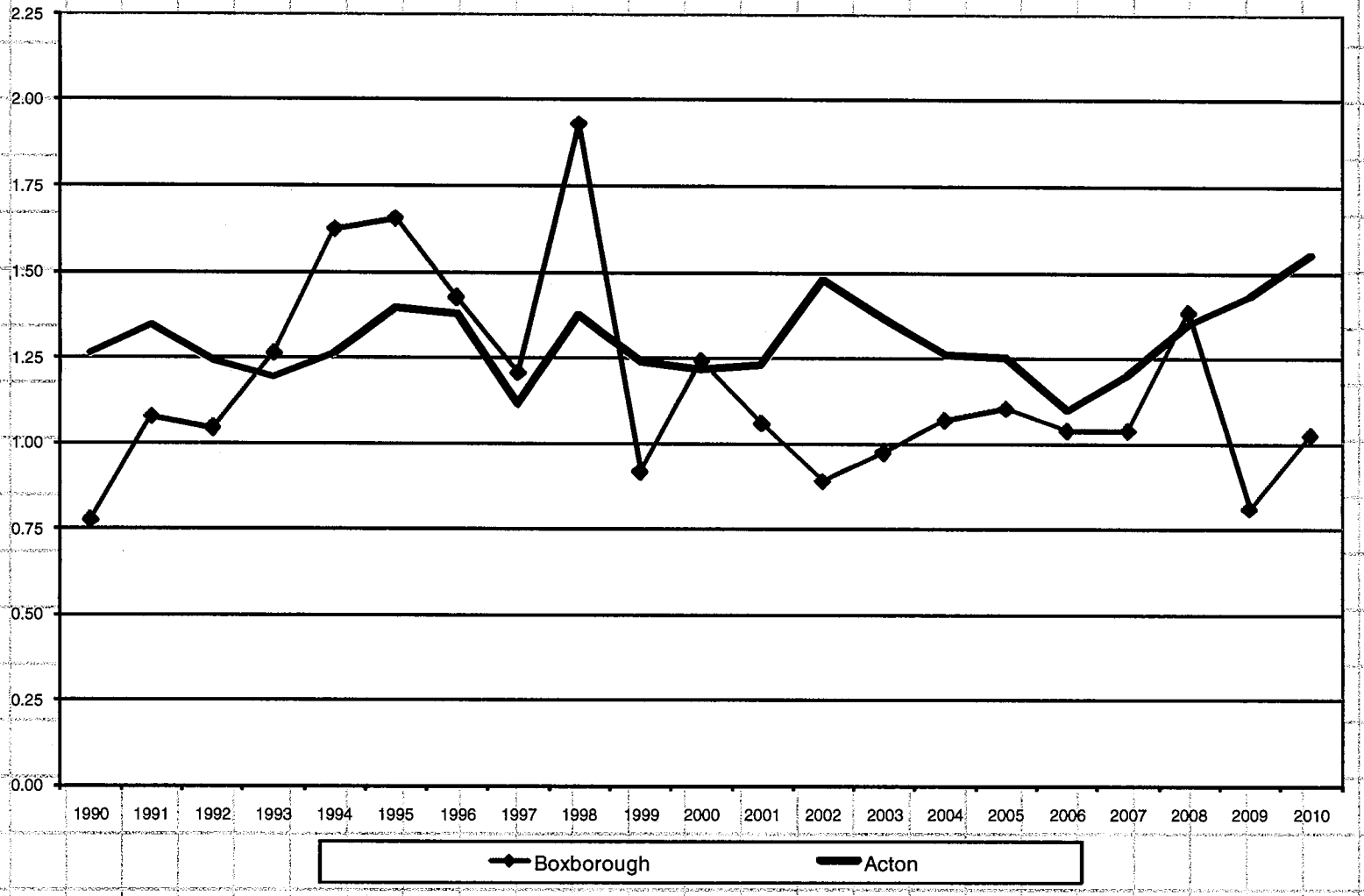
1980-2010



Source: MDPH; 2010 estimated based on 11 months data

- Acton and Boxborough births declining since 2002; slight uptick in 2010 in Acton
- Reflects larger demographic trend, lower turnover rates

Comparison of Birth to Kindergarten Ratios



Steady recent increase in birth to K ratio in Acton; volatile in Boxborough

Enrollment Projections

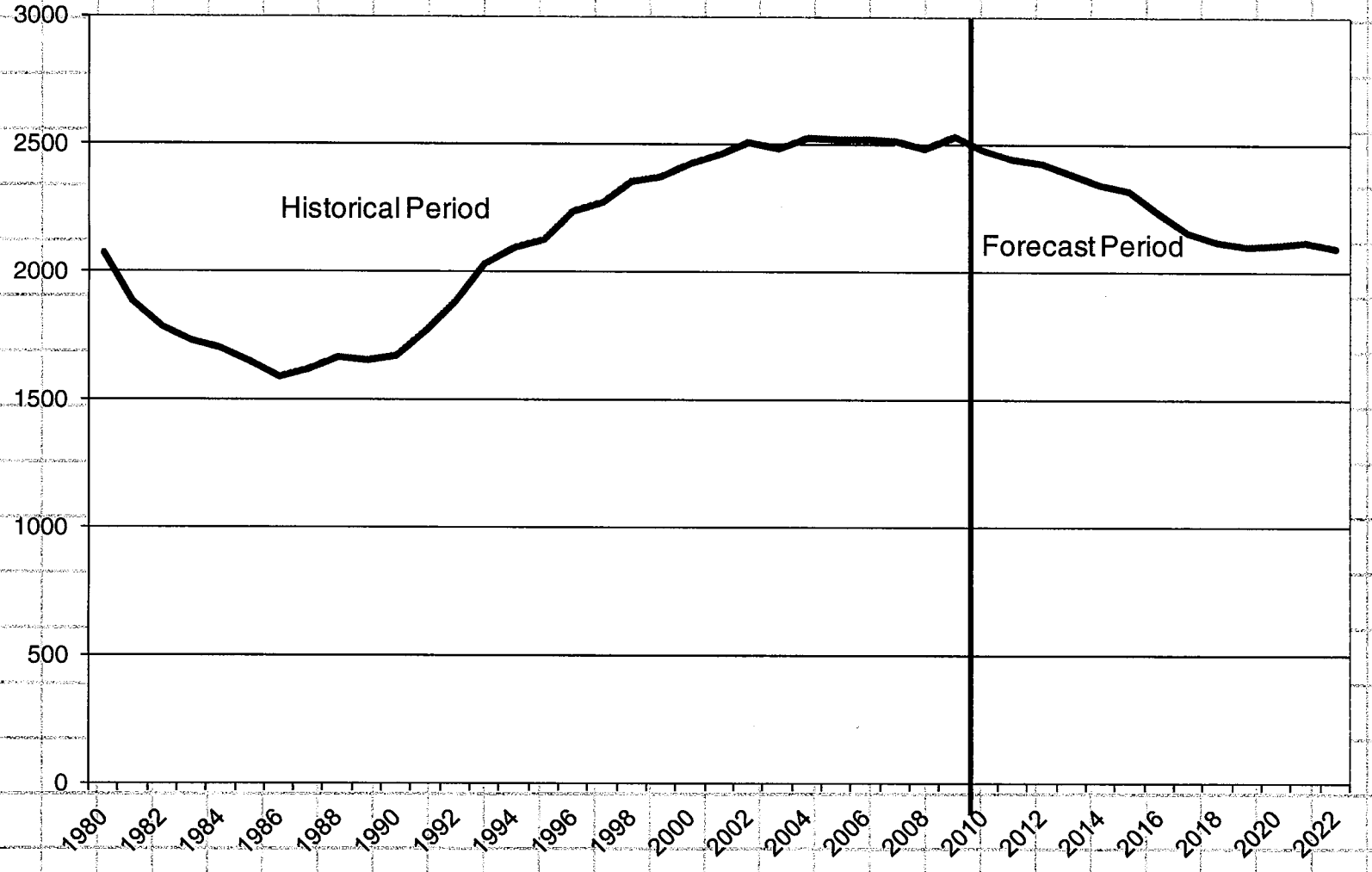
- Projections developed using “standard” model (excludes “choice”)
- Adjusted kindergarten projection to reflect recent trends
  - Only difference from MSBA model
- Grade to grade ratios are extremely stable
- Residential development clearly on the wane in both towns
- Turnover has also slowed
- Decline in enrollment may be greater than that projected

Enrollment Projections

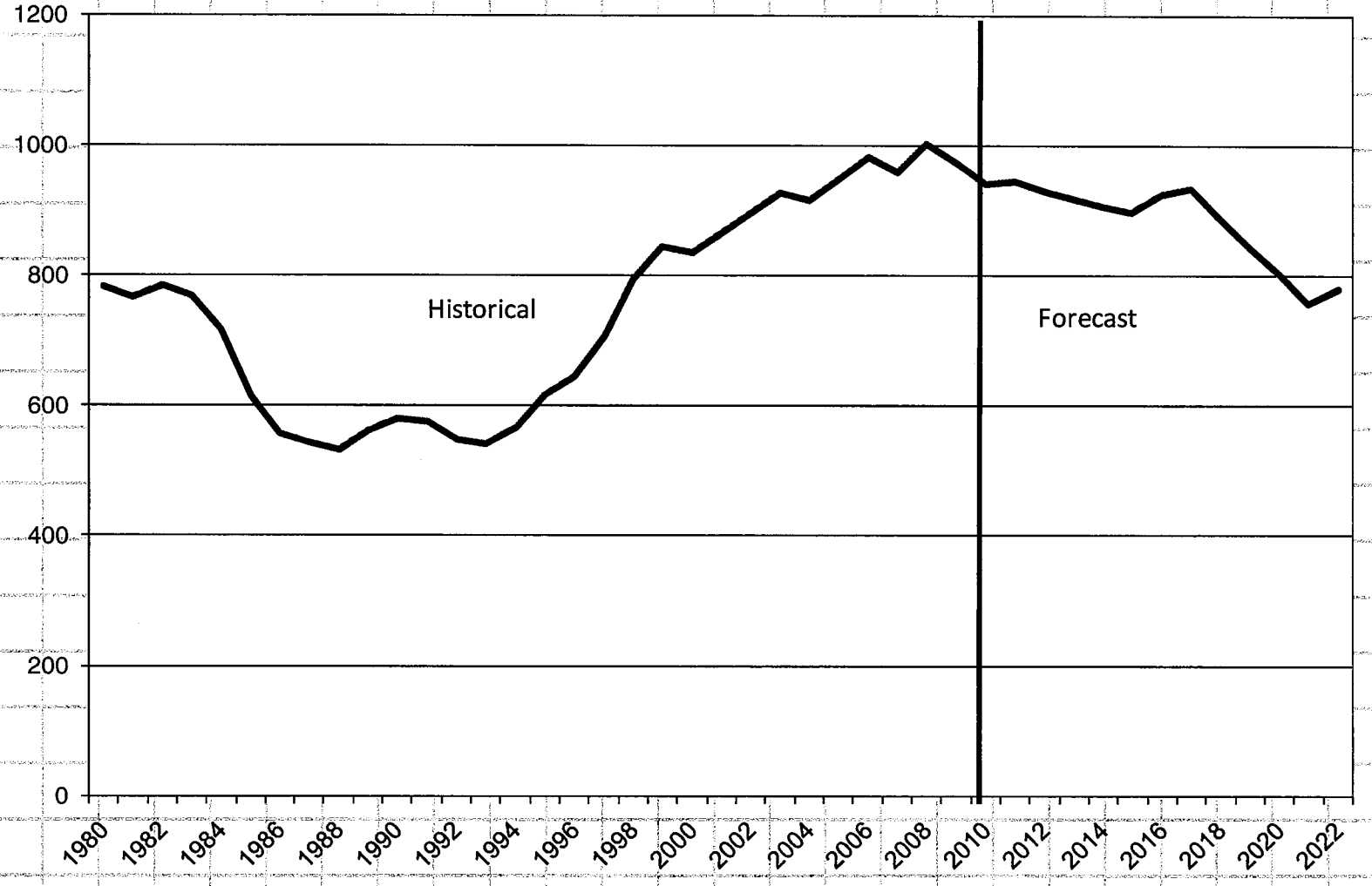
- Declines in births and in-migration lead to decrease in enrollment over the next decade
  - APS drops gradually; big drops in 2016 and 2017 but based on birth projection rather than actual births
  - JHS drops starting in 2012 but levels off until 2018
  - SHS at peak this year; decline starts next year
- Total Acton enrollment drops 210 students over next five years (4.4%)
- Boxborough enrollment drops 20% over same period

Acton Public Schools Enrollment

Kindergarten through 6

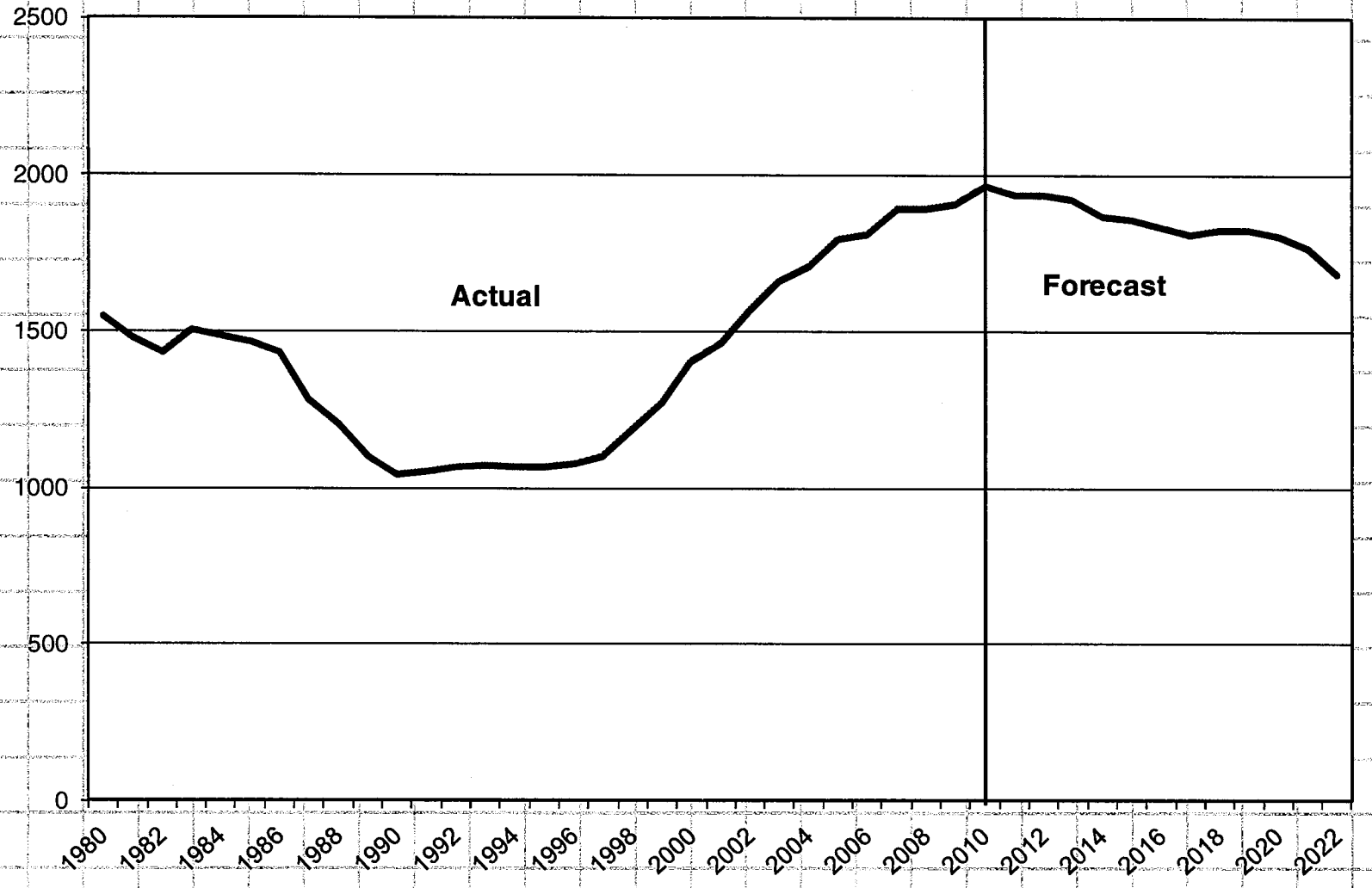


Junior High Enrollment



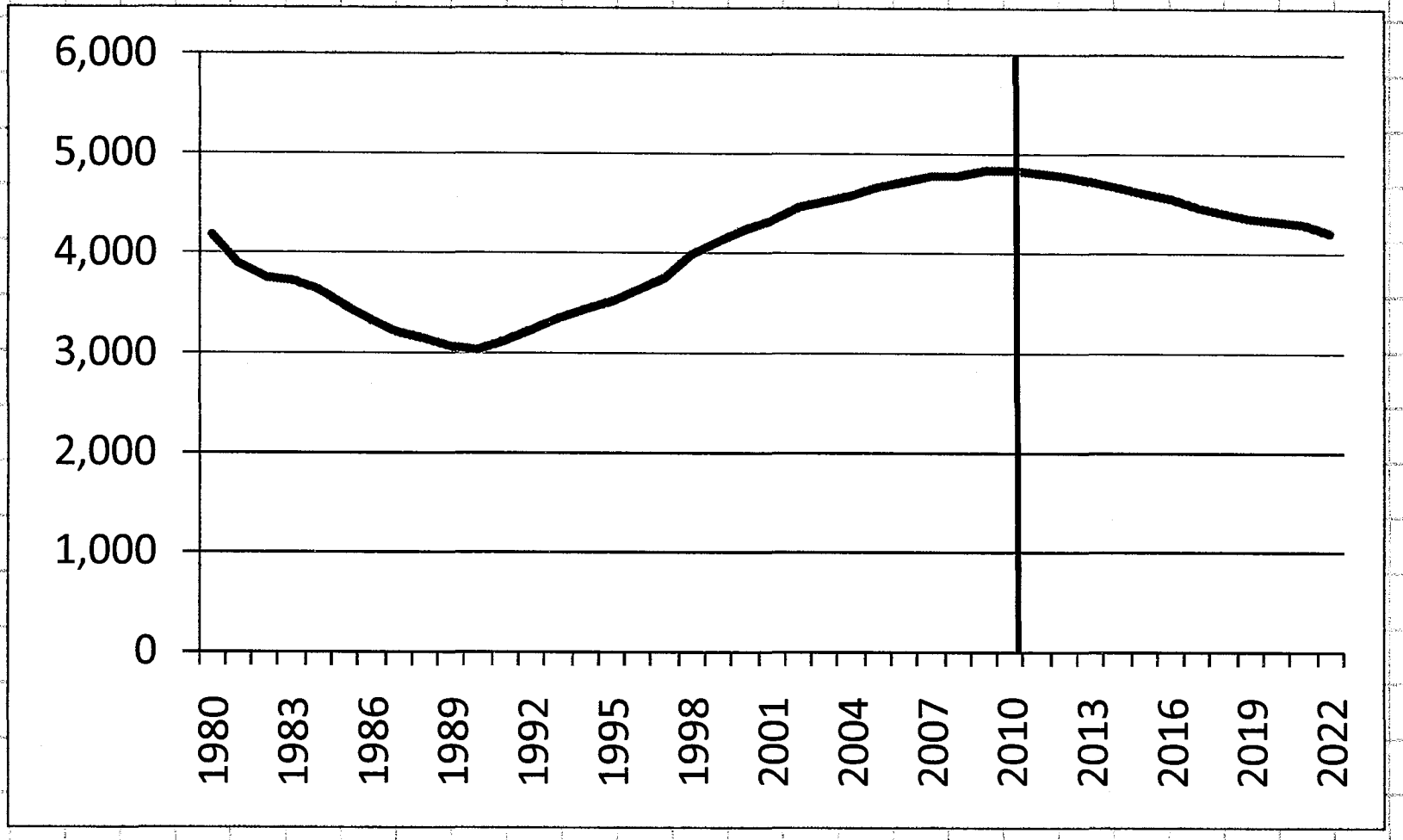
Excludes choice

ABRHS Enrollment



Excludes choice

Acton Total Enrollment



Excludes choice