Elementary Capacity Task Force

Community Workshop on Elementary Enrollment Trends and Forecasts

December 5, 2007
6:30pm – 8:30pm

Agenda

I. Define the problem

II. Review categories of solutions to address the problem

III. Review framework to evaluate solutions

IV. Present enrollment analysis

V. Present school capacity analysis

Define the Problem

There is a mismatch between elementary enrollment forecasts and current school capacity.

Forecasts show:

- **Two school areas – Ruby Bridges and Edison/Otis – are expected to increase in enrollment while their facilities are currently close to or at capacity.**
- **Remaining school areas are expected to decline in enrollment while their facilities are currently under capacity.**

Categories of Solutions

There is a mismatch between elementary enrollment forecasts and current school capacity.

Types of Solutions:

- Change boundaries
- Create magnet programs
- Divert overflow
- Increase capacity

Framework to Evaluate Solutions

There is a mismatch between elementary enrollment forecasts and current school capacity.

Types of Impact:

- **Facility impact**
- **Financial impact**
- **Program impact**

Enrollment Analyses

Shelley Lapkoff, Ph.D.

Jeanne Gobalet, Ph.D.

Lapkoff & Gobalet Demographic Research, Inc.

www.Demographers.com

5 Considerations when Defining "Enrollment"

1. We use attendance area residents, not enrollments

- For planning purposes, we analyze AUSD students living in each attendance area, regardless of which AUSD school they attend.
- Some students do not attend their neighborhood school but transfer to another area, either because of choice or because their neighborhood school was full. We count these students where they live, not where they attend school.
- Children not attending AUSD schools (such as private school students) are excluded.

2. Special Education (SDC) students are analyzed in a separate analysis, and are excluded here

- We exclude SDC students from our neighborhood analysis because SDC students require different facilities and may not attend their neighborhood schools. Our purpose here is to compare regular education students with regular education facilities.

Defining "Enrollment" (continued)

3. Students living on the attendance boundary line

- **Under current District policy, students who live on some of the boundaries between two schools have a choice where to attend. For example, students living on Central Avenue can choose to attend either Edison or Otis. We account for typical choices.**

4. Inter-district Transfers: students living outside Alameda

- **About 150 K-5 students attend AUSD who live outside the District's boundaries. District administrators have discretion regarding how many students to admit and where they attend school.**

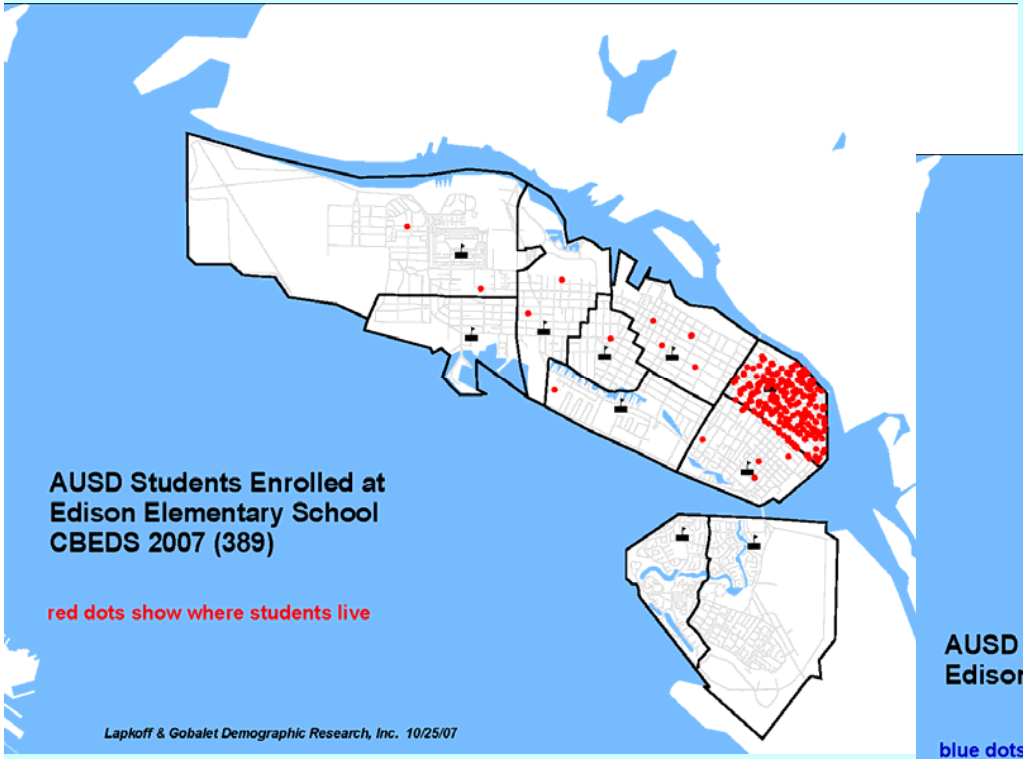
Defining "Enrollment" (continued)

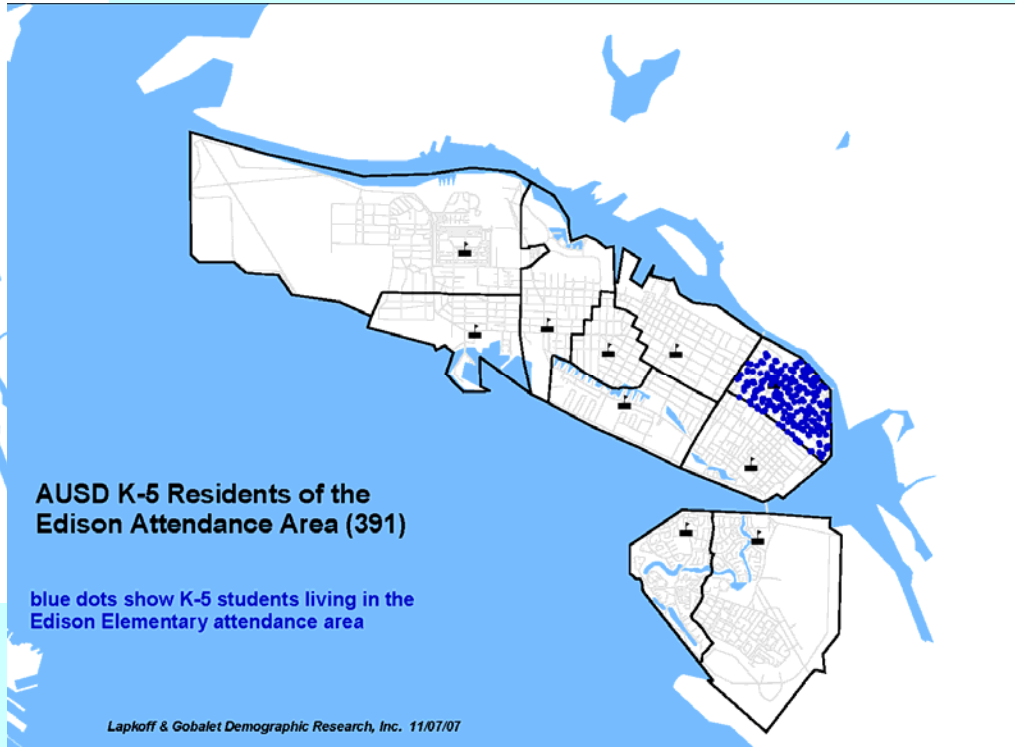
5. Forecasts versus current student body

- **The number of future residents of some attendance areas may differ from current residents because of new housing construction and turnover in houses and apartments.**
- **We have forecasted residents of each elementary attendance area. Note, however, that because the population base for each area is so small, these forecasts will not match actual future enrollments due to random variation and unforeseen factors. The forecasts serve only as a guide, for planning purposes.**

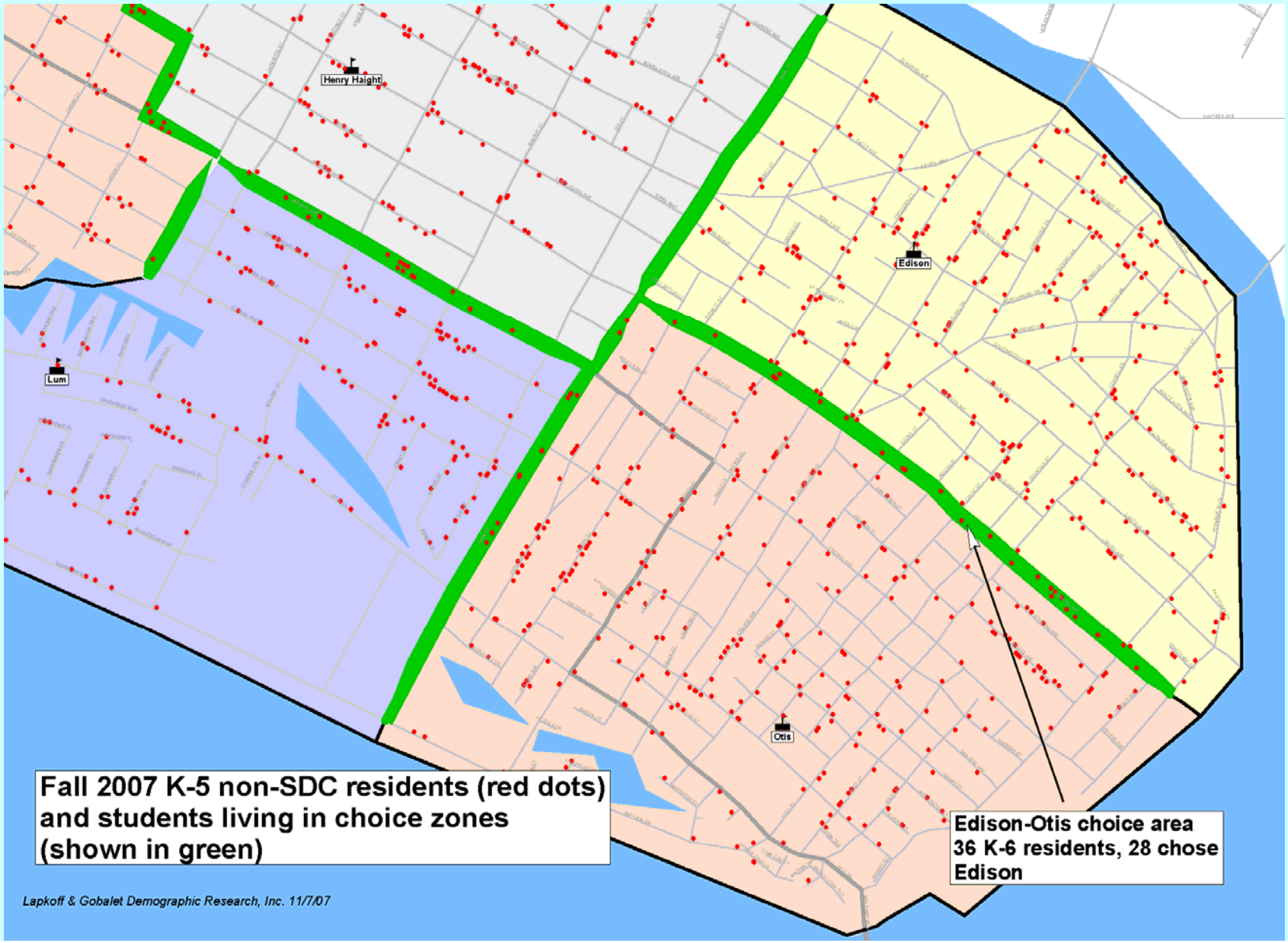
Our Enrollment Analyses Focus on Residents

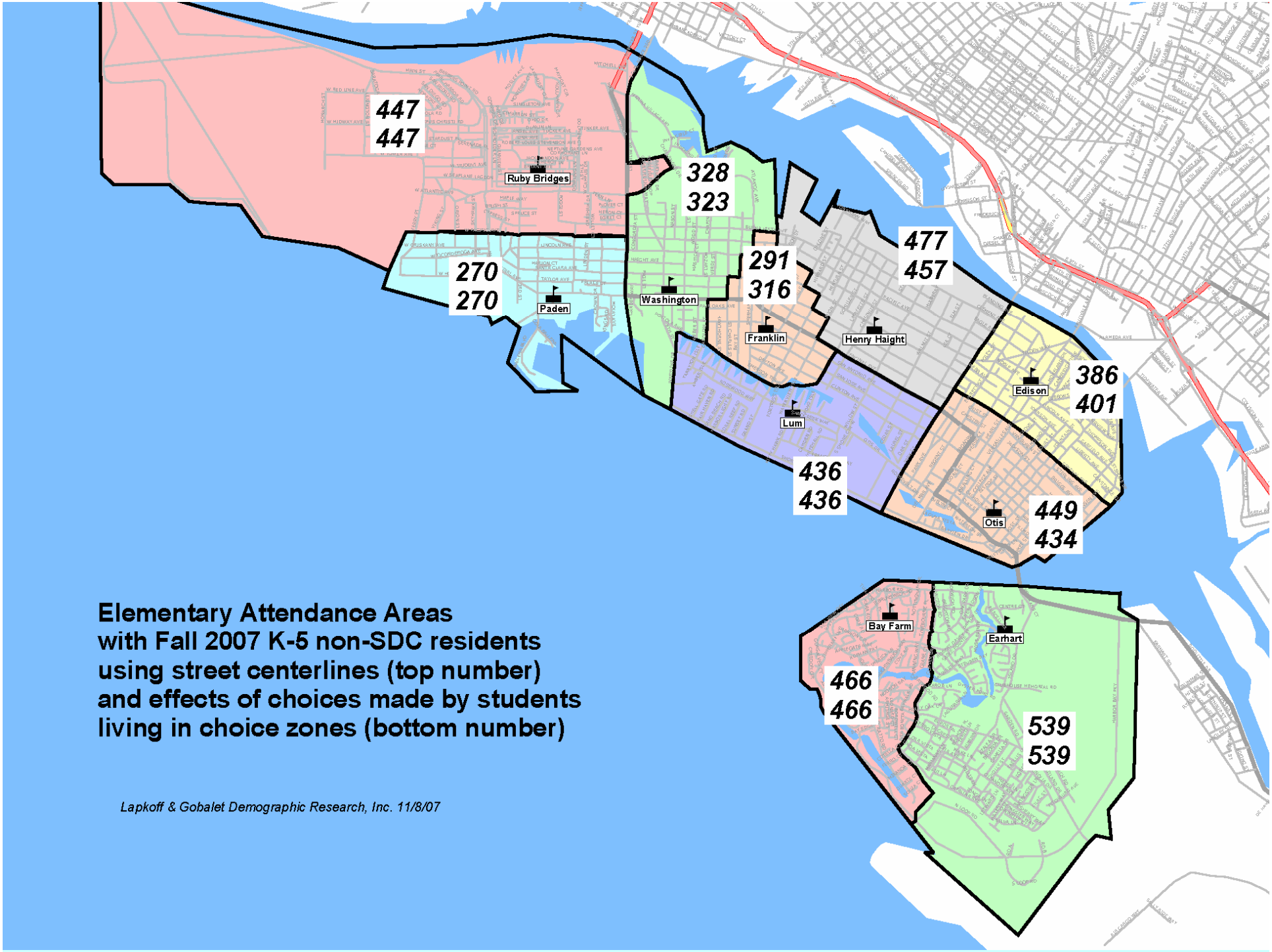
- **We have geocoded (electronically pin-mapped) AUSD students' residences from 1997 through 2007, and use this information to understand enrollment trends, overall and by subarea.**
- **We compare where students are enrolled with where they live.**





Understanding AUSD enrollment patterns is complicated by a variety of factors, including the need to consider the choice zone students:





Elementary Attendance Areas with Fall 2007 K-5 non-SDC residents using street centerlines (top number) and effects of choices made by students living in choice zones (bottom number)

Lapkoff & Gobalet Demographic Research, Inc. 11/8/07

Where students enroll versus where they live:

K to 5 Regular Education Students Only, Fall 2007

School of Residence	School Attending										
	Bay Farm	Earhart	Edison	Franklin	Haight	Lum	Otis	Paden	Ruby Bridges	Washington	Total Residents
Bay Farm	440	26									466
Earhart	26	489		1	3	11	4	3	2		539
Edison	6	5	341		3	2	10	2			369
Franklin	1	2	1	190	7	1	3	9	5	20	239
Haight	8	10	4	6	341	26	7	14	12	9	437
Lum	5	3		8	15	350	4	6	6	7	404
Otis	16	10	6		1	24	341	11	5	2	416
Paden Elementary					5	4		231	18	7	265
Ruby Bridges	1	4			4	8	4	33	372	20	446
Washington	3	4	1	8	17	15	1	16	32	215	312
Choice Areas											
Edison/Otis			28		1	1	6				36
Franklin/Haight				41	6	3	1	2	3	3	59
Franklin/Lum				1							1
Franklin/Washington				29						9	38
Haight/Lum					6	16					22
Haight/Otis							2	1			3
Lum/Otis					3	4	6		1	1	15
Lum/Washington		1			1	11					13
Paden/Washington								5		1	6
RubyBridges/Washington					1						1
Not AUSD	5	12	1	2	13	14	5	11	44	42	149
Total Enrollees	**511**	**566**	**382**	**286**	**427**	**490**	**394**	**344**	**500**	**336**	4,236

6th Grade Students Attending Bay Farm Elementary, Fall 2007

Bay Farm	28
Earhart	1
Edison	1
Otis	1
Not AUSD	1
Total	32

All 6th Grade Students *Living* in Bay Farm Elementary Attendance Area, Fall 2007

	School Attending					
	ACLC	Bay Farm	Chipman	Lincoln	Wood	Total
Bay Farm Elem 6th Graders	1	28	63	1	1	94

Summary - Enrollments Used to Compare to Facility Capacity

- **Use residents of each area, not actual school enrollments**
- **Use only regular education students**
- **Adjust for typical choices of students on the boundary of attendance areas**

Forecasting

- **Forecast by category of student**
  - Fall 2007 CBEDS non-SDC student residents
  - Students living on boundaries of the attendance areas
  - Expected students from future housing
    - Bayport +
    - Summer House Apartments
  - Growth from housing turnover in houses and apartments
  - Inter-district transfer students
- **Forecast results**
- **Forecast methodology**
- **Evaluation of last year's forecast**

Summary of Current & Forecasted Attendance Area Residents

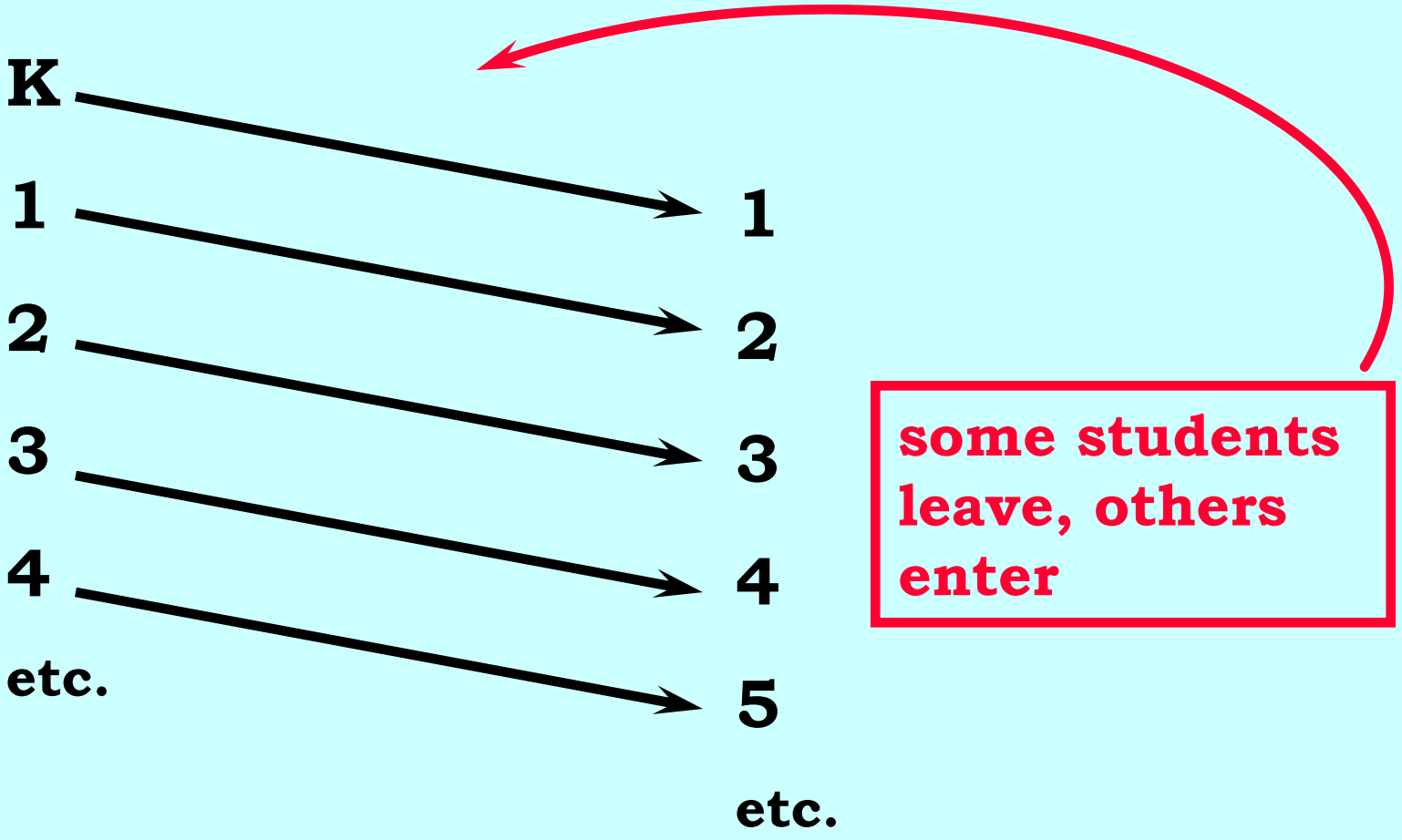
	Current Residents (center of street for choice areas)	Adjustment for Choice students	Estimated Students from New Housing within the next 5 years	Expected Growth in Existing Housing			Intra-district Transfer Students	Out-of-District Students	Total Expected Students		
				Low	Medium	High			Low	**Medium**	High
Bay Farm	**466**			-27	3	54	At the District's discretion	At the District's discretion	439	**469**	520
Earhart	**539**			-57	-4	38			482	**535**	577
Edison	**386**	15		40	73	105			441	**474**	506
Franklin	**291**	25		-18	13	46			298	**329**	362
Haight	**477**	-20		-110	-18	11			347	**439**	468
Lum	**436**			-10	32	69			426	**468**	505
Otis	**449**	-15		-3	25	60			431	**459**	494
Paden	**270**			0	22	43			270	**292**	313
Ruby Bridges	**447**		90	-15	23	60			522	**560**	597
Washington	**328**	-5		-76	-24	16			247	**299**	339
Out-of-District	**149**										
Total	**4238**	0					0	149	3903	**4323**	4681

Forecast Methodology

- **Cohort survival methodology used**
  - **CBEDS 2007 residents are "aged" and progressed to the next grade**
  - **Grade progression adjustments are applied**
    - **We studied historical grade progressions to decide what to use in the forecast model**
  - **New kindergarten classes are added**
    - **Usually based on historical trends in the area**
    - **The number of Alameda births has not changed much in the last several years (birth data for small areas like school attendance areas are not available)**
- **Add students from new housing**
- **Add students from outside the District**
- **Examples: Edison, Haight, and Ruby Bridges**

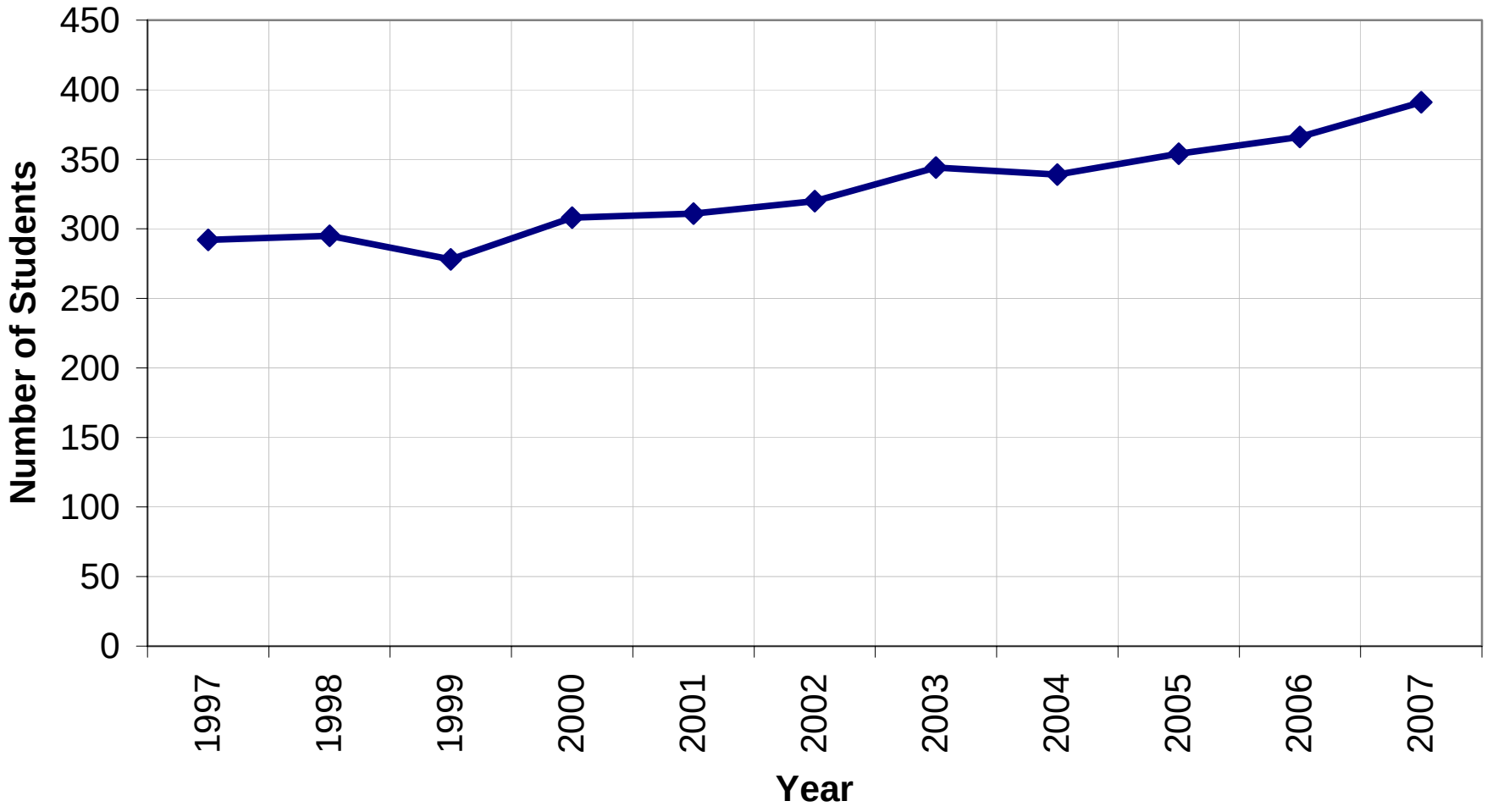
Grade Progressions

Start with today's students by grade, then advance the students one grade

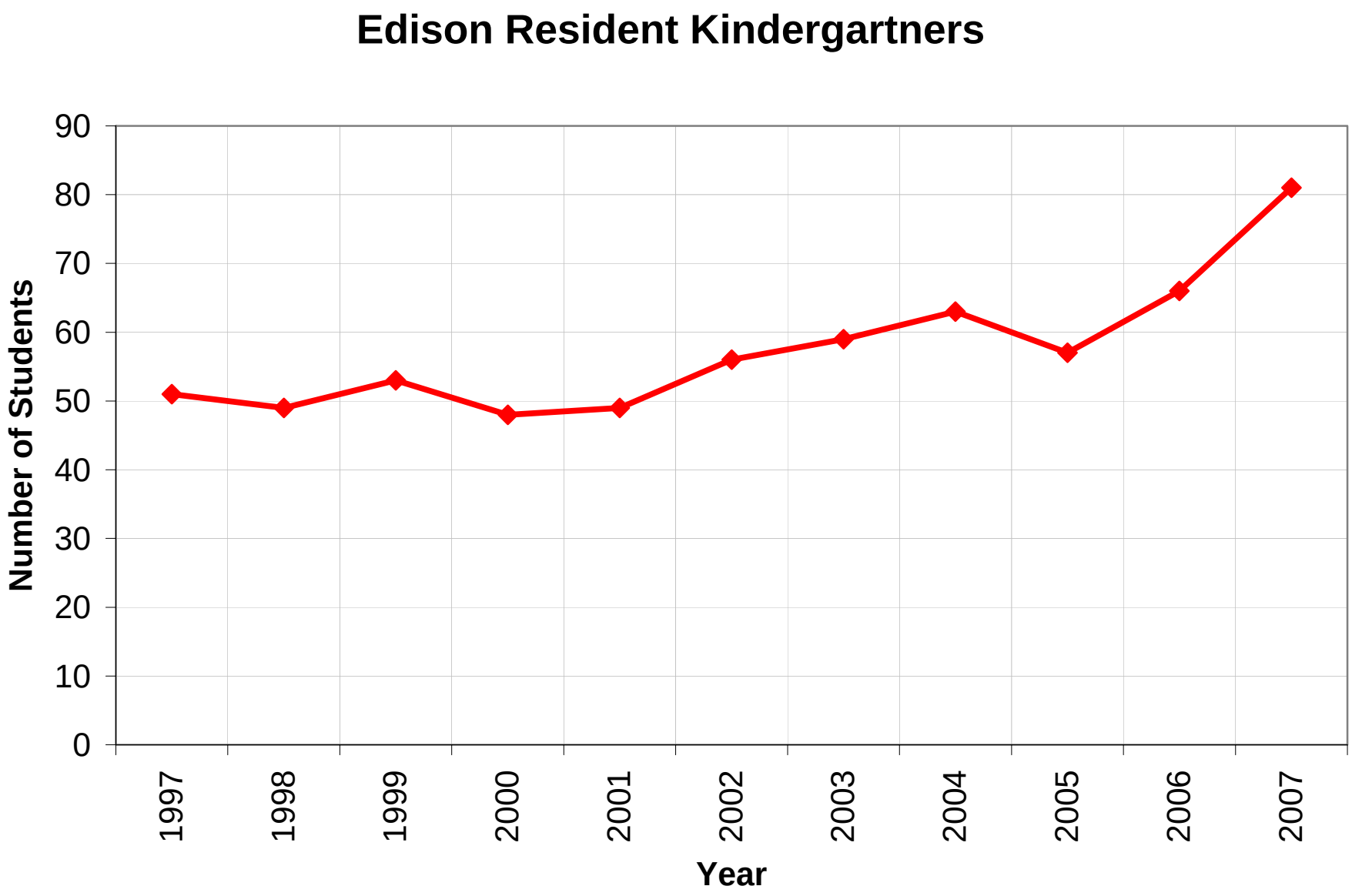


Edison Attendance Area Example

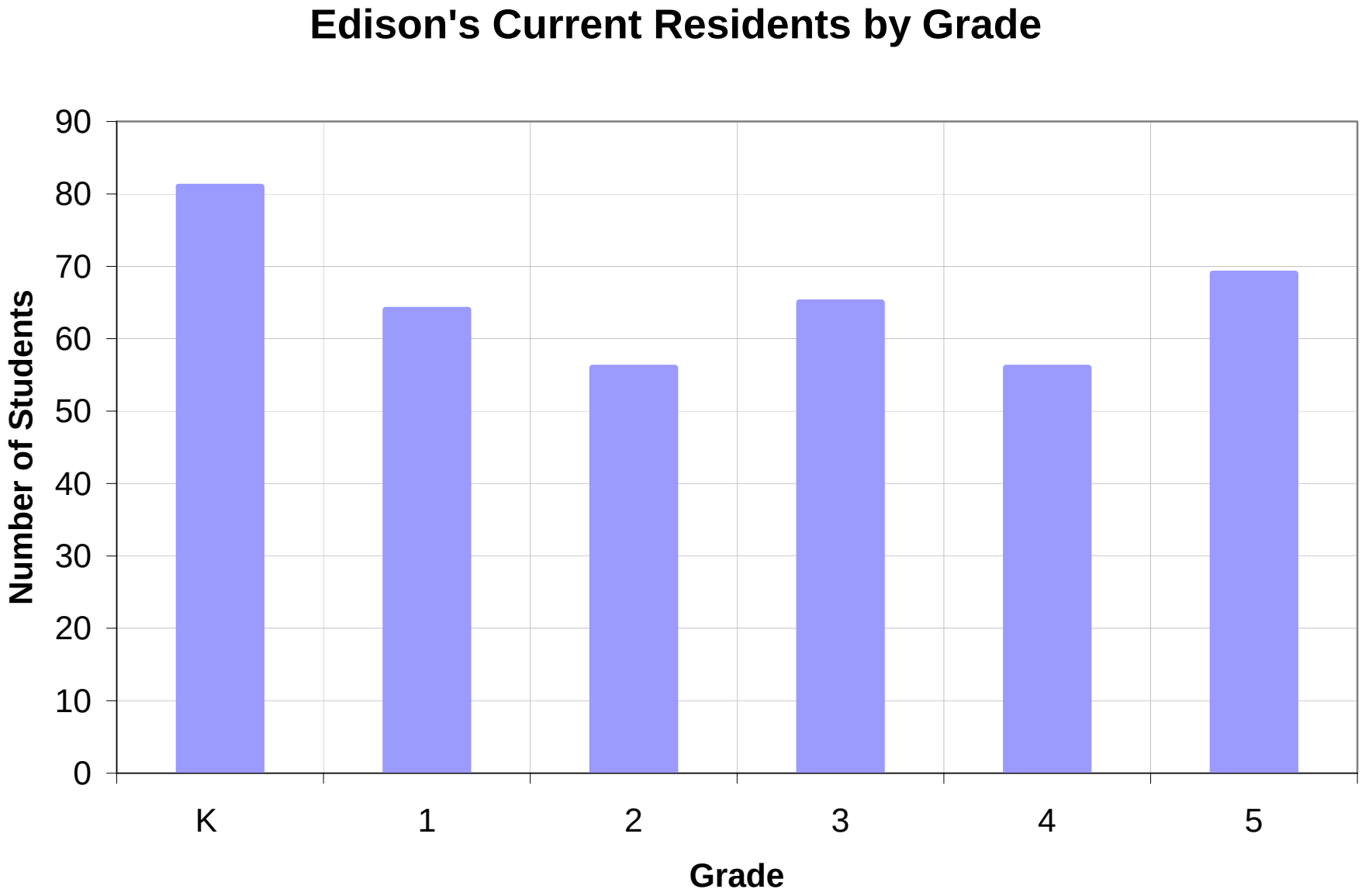
Edison Attendance Area K-5 Resident History, 1997-2007



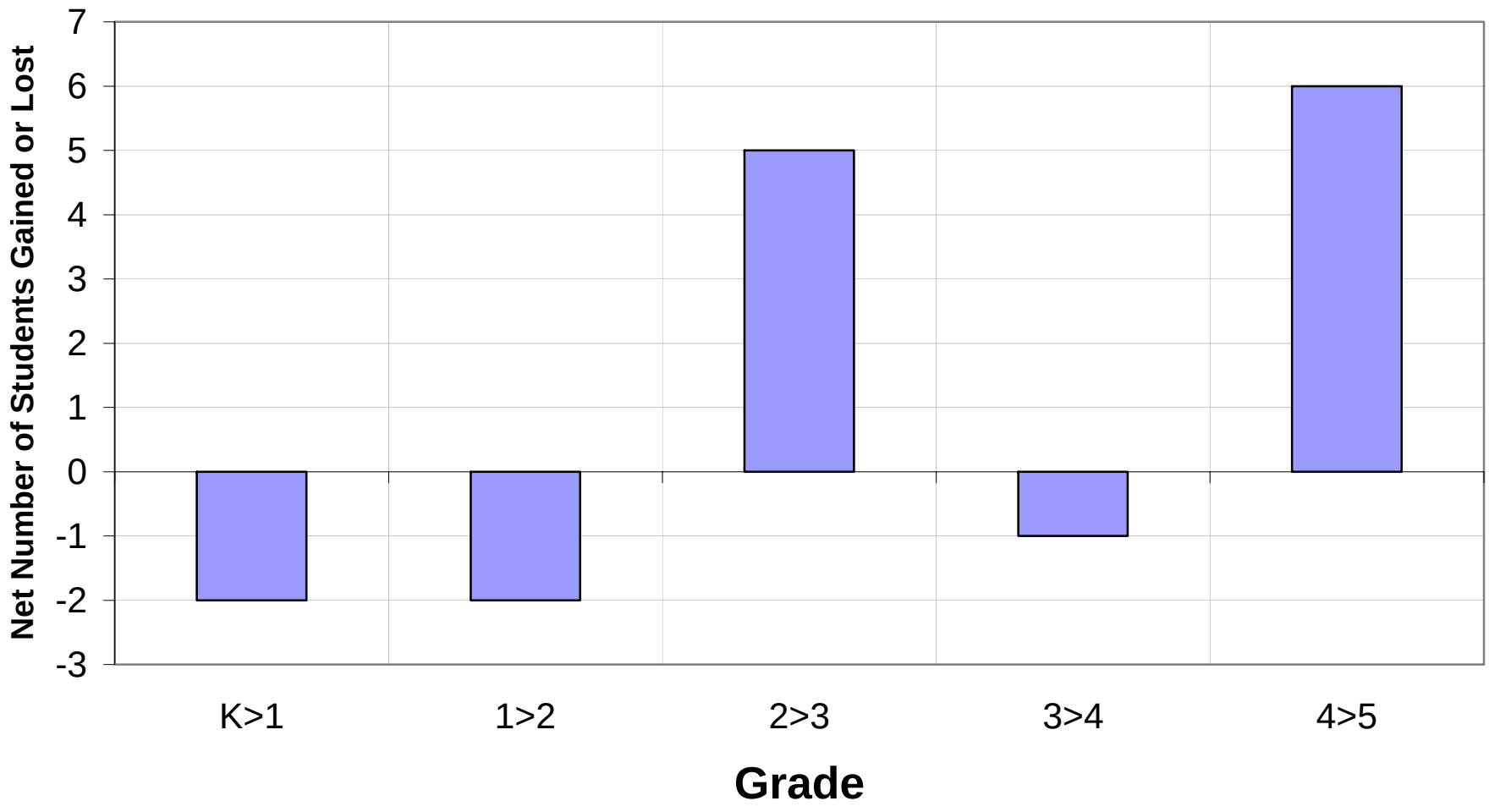
Edison Attendance Area Kindergarten Resident History



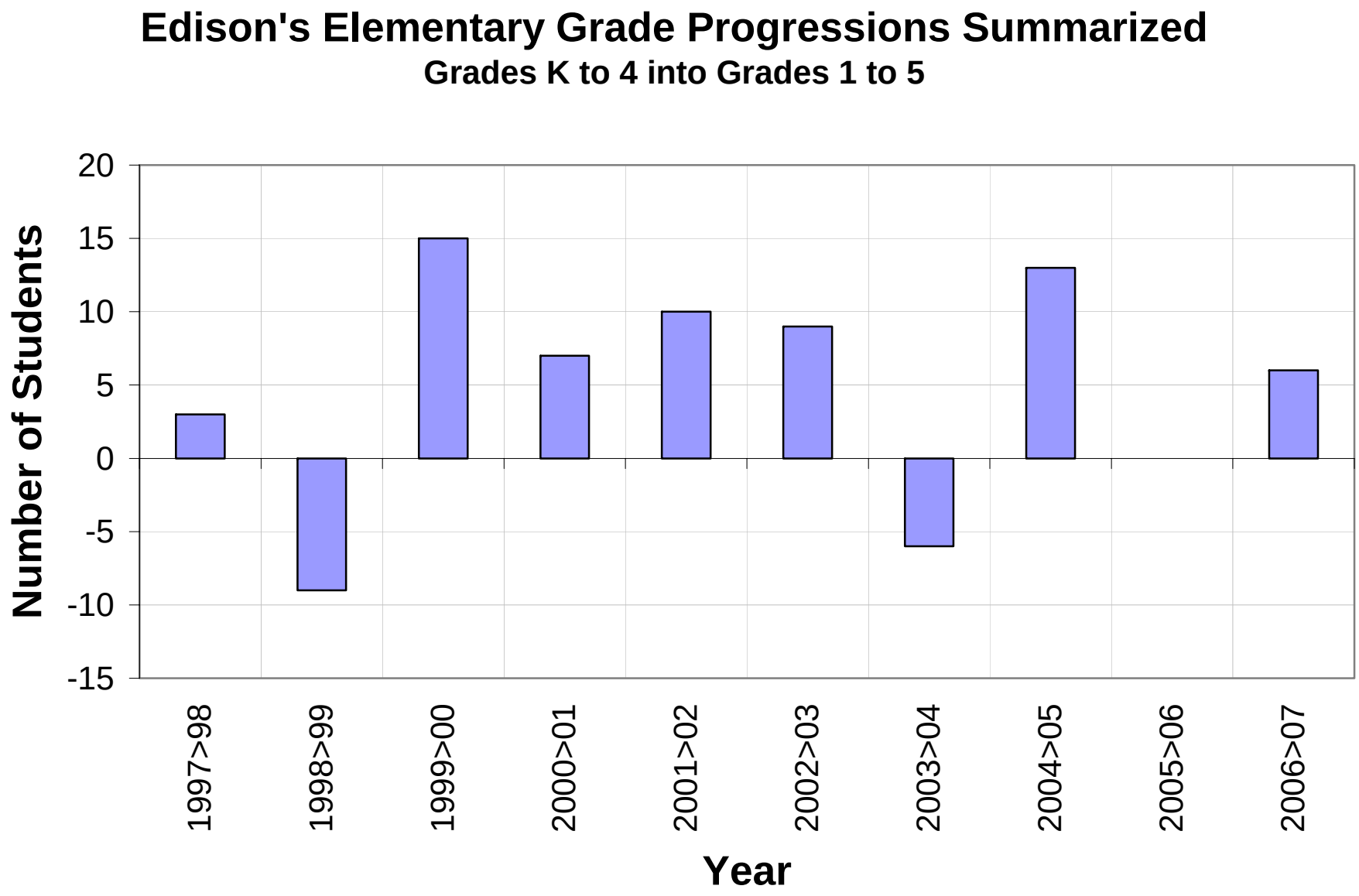
Edison Attendance Area K-5 Residents 2007



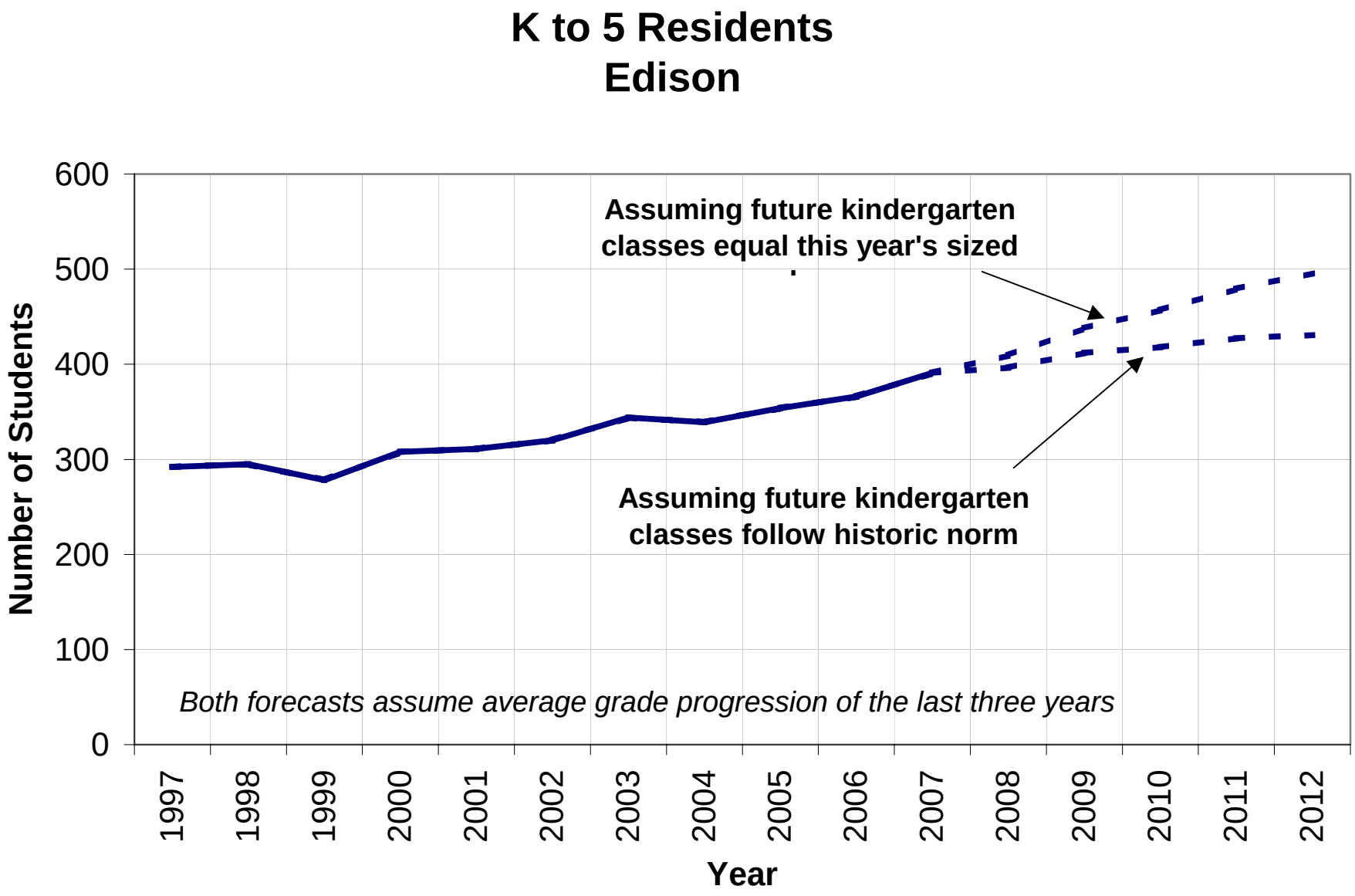
Edison Attendance Area K-5 Grade Progressions: most recent pattern



Edison Attendance Area K-5 Grade Progressions over time

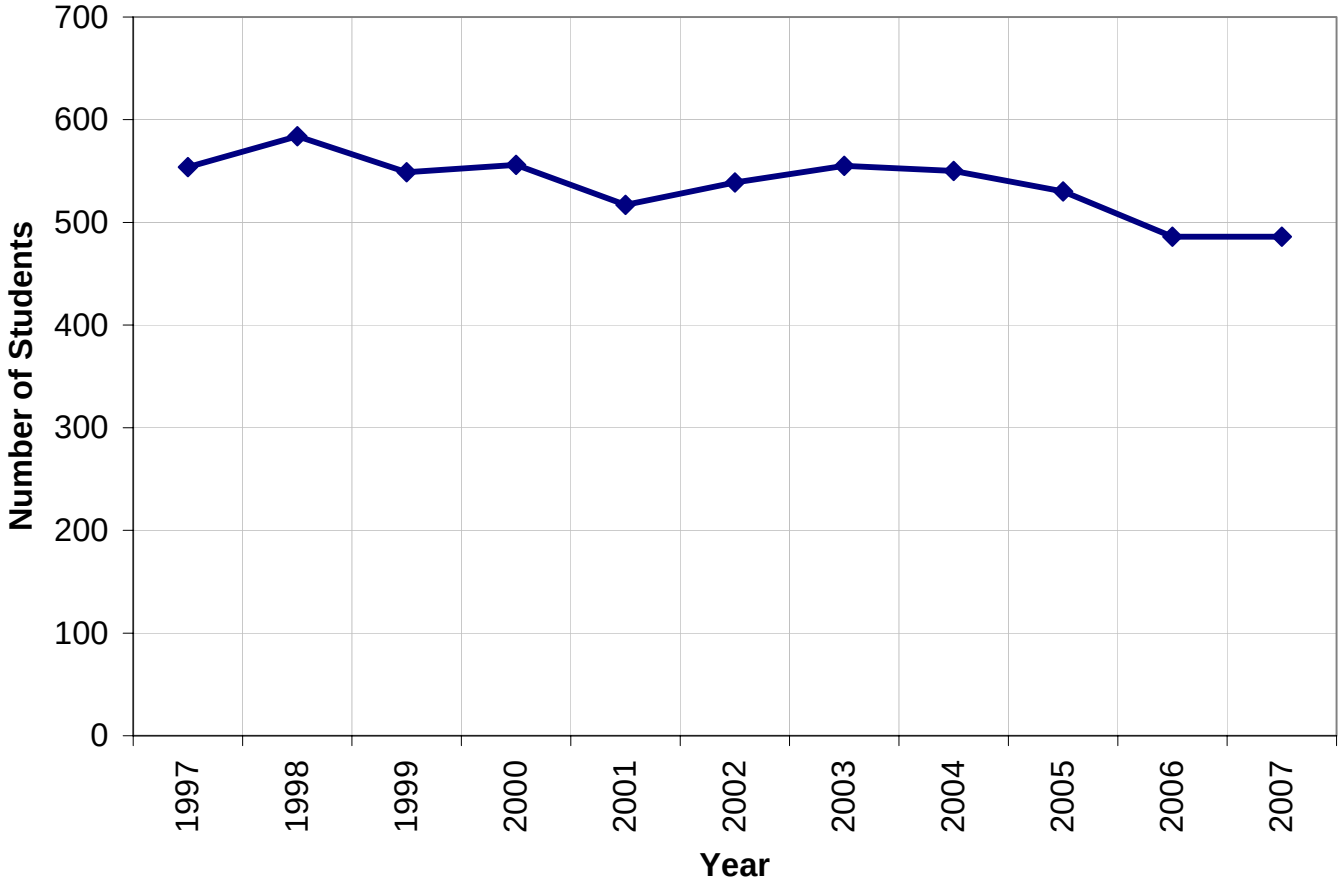


Edison Attendance Area K-5 Resident Forecast

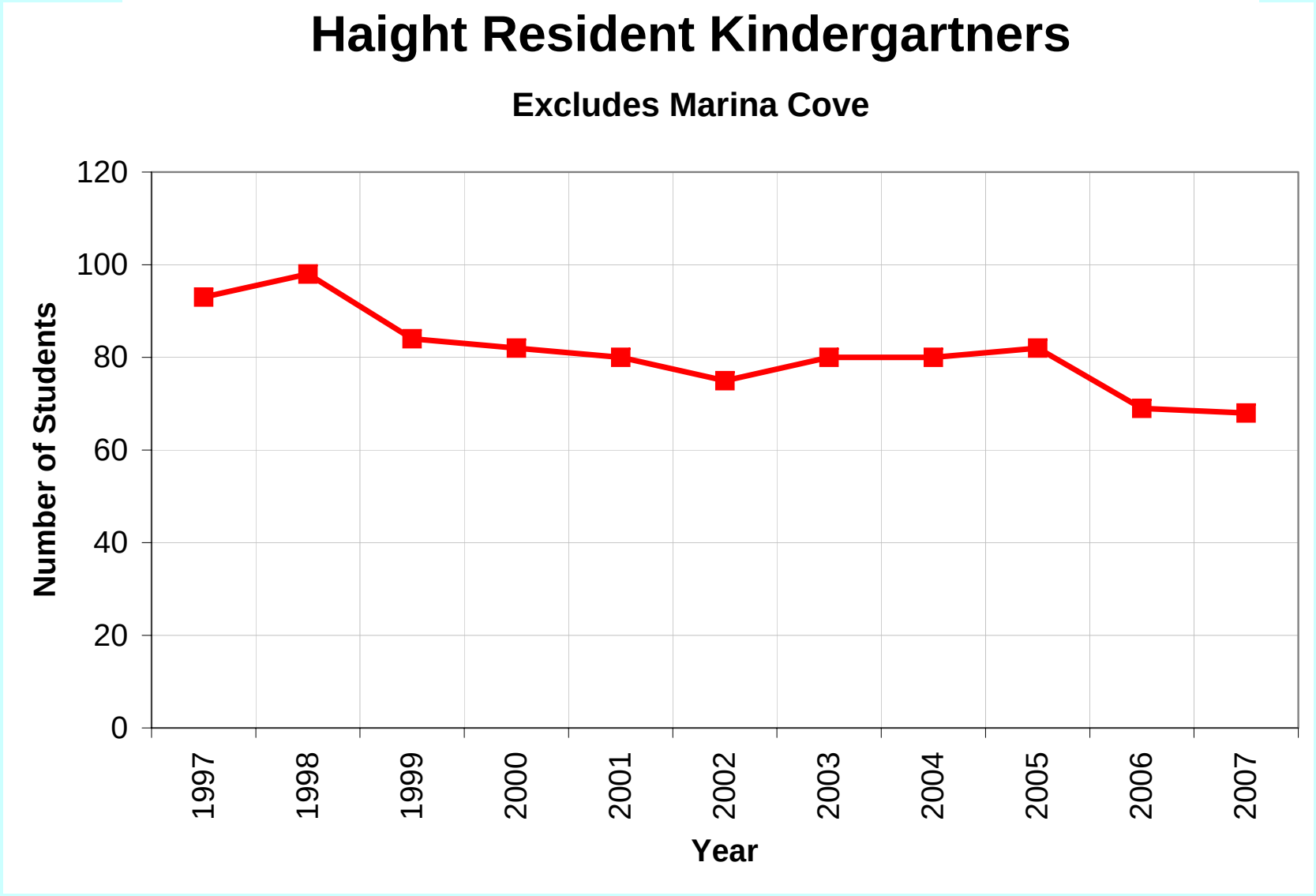


Haight Attendance Area Example

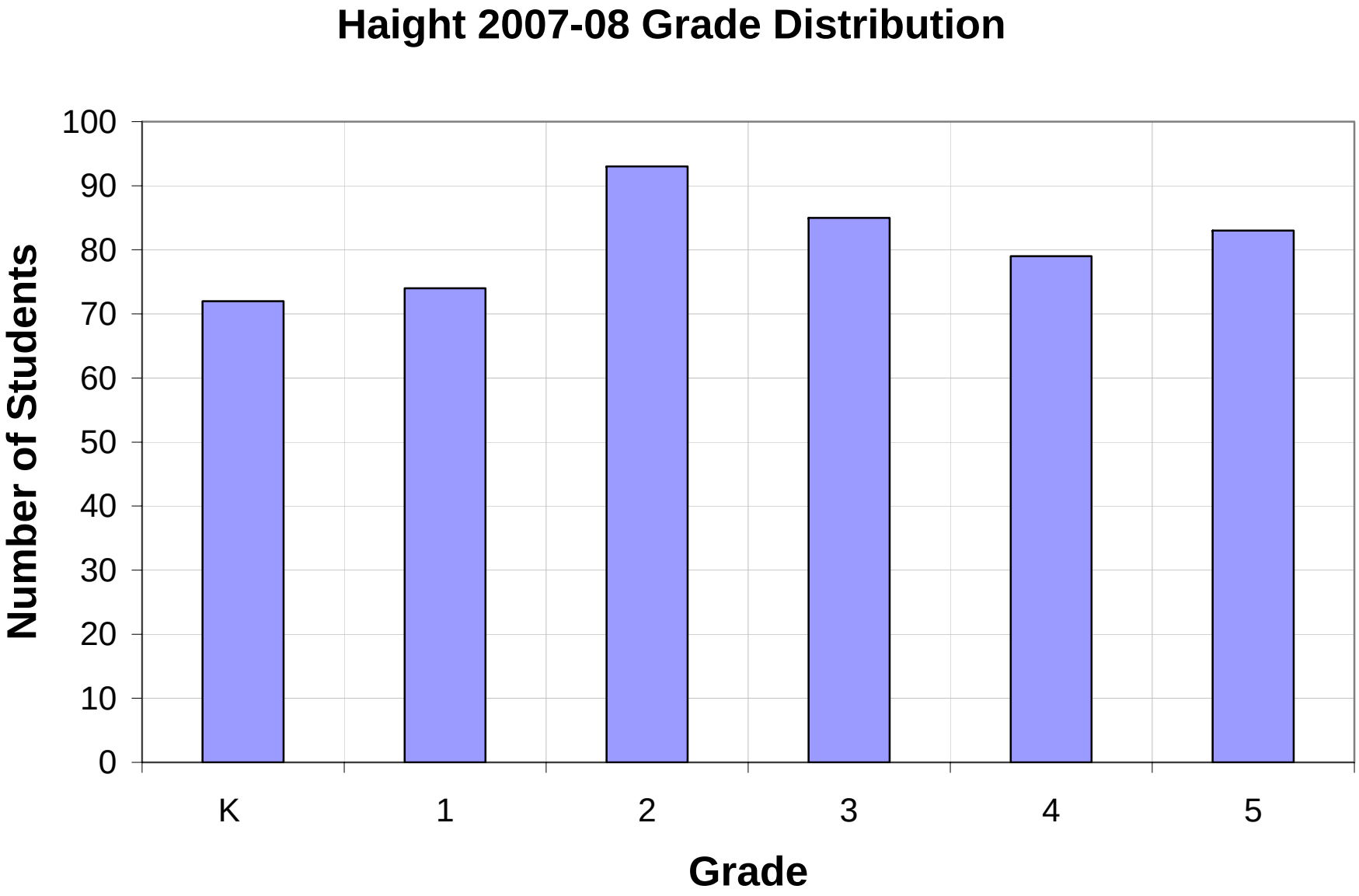
Haight Attendance Area K-5 Resident History, 1997-2007



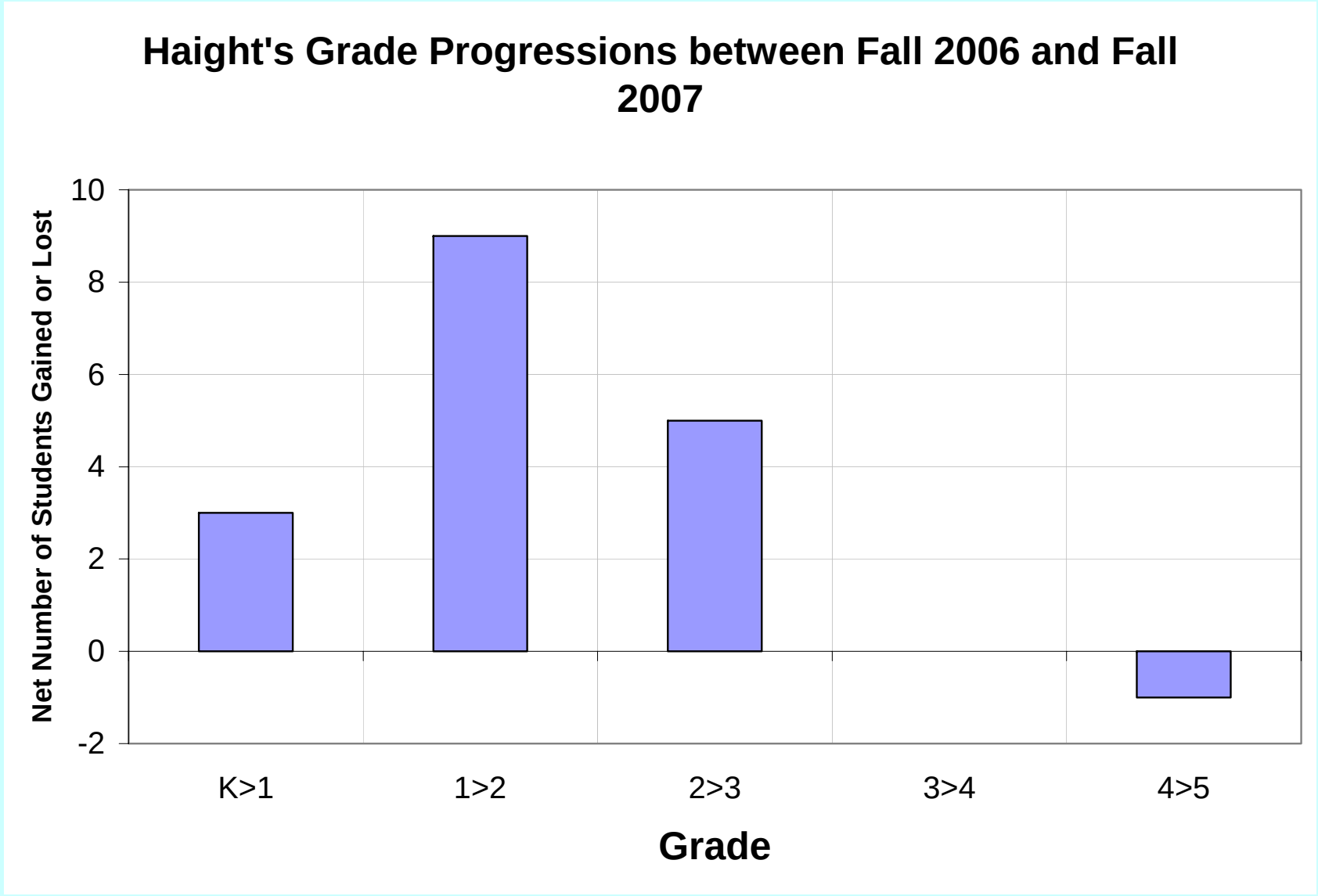
Haight Attendance Area Kindergarten Resident History



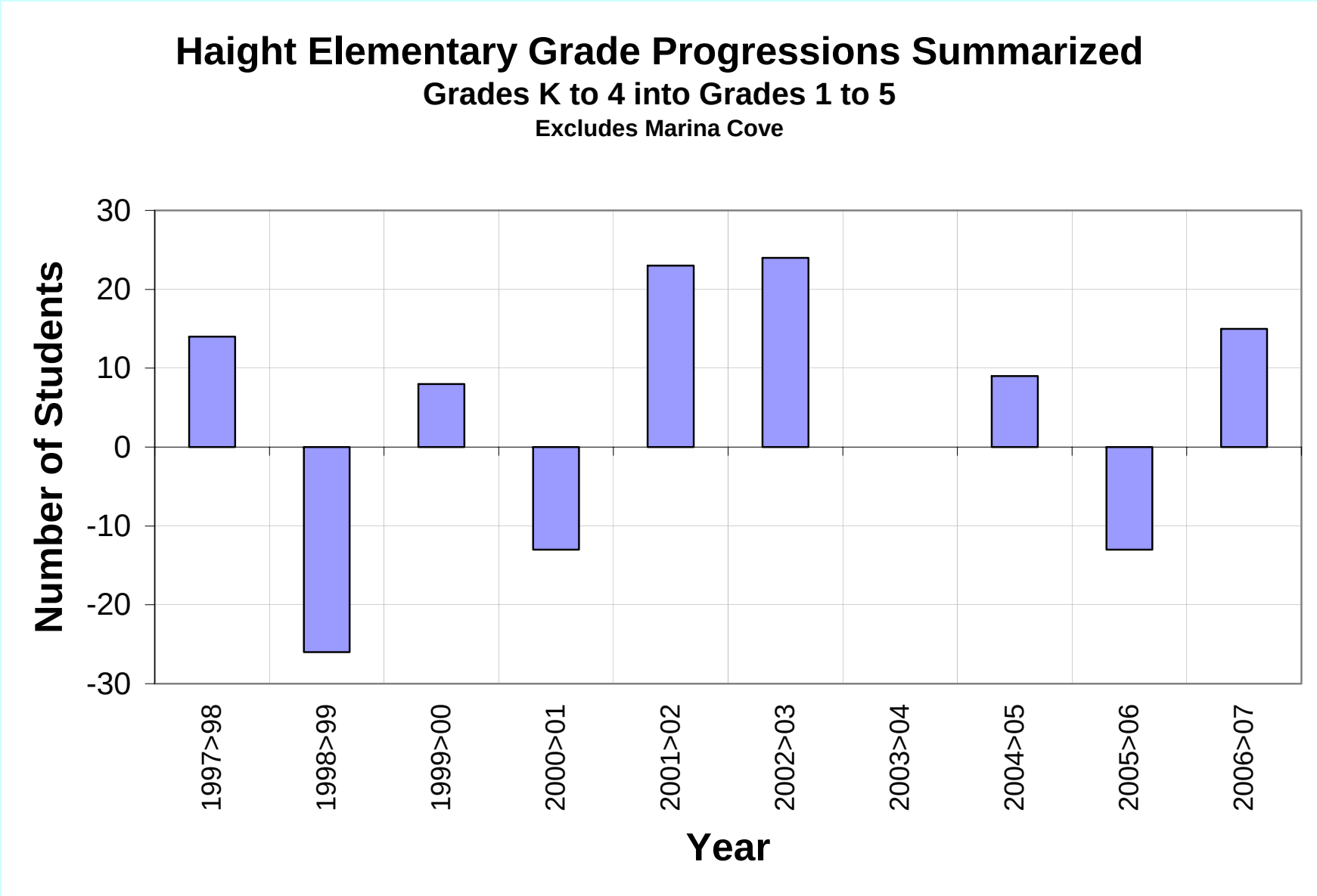
Haight Attendance Area K-5 Residents 2007



Haight Attendance Area K-5 Grade Progressions: most recent pattern



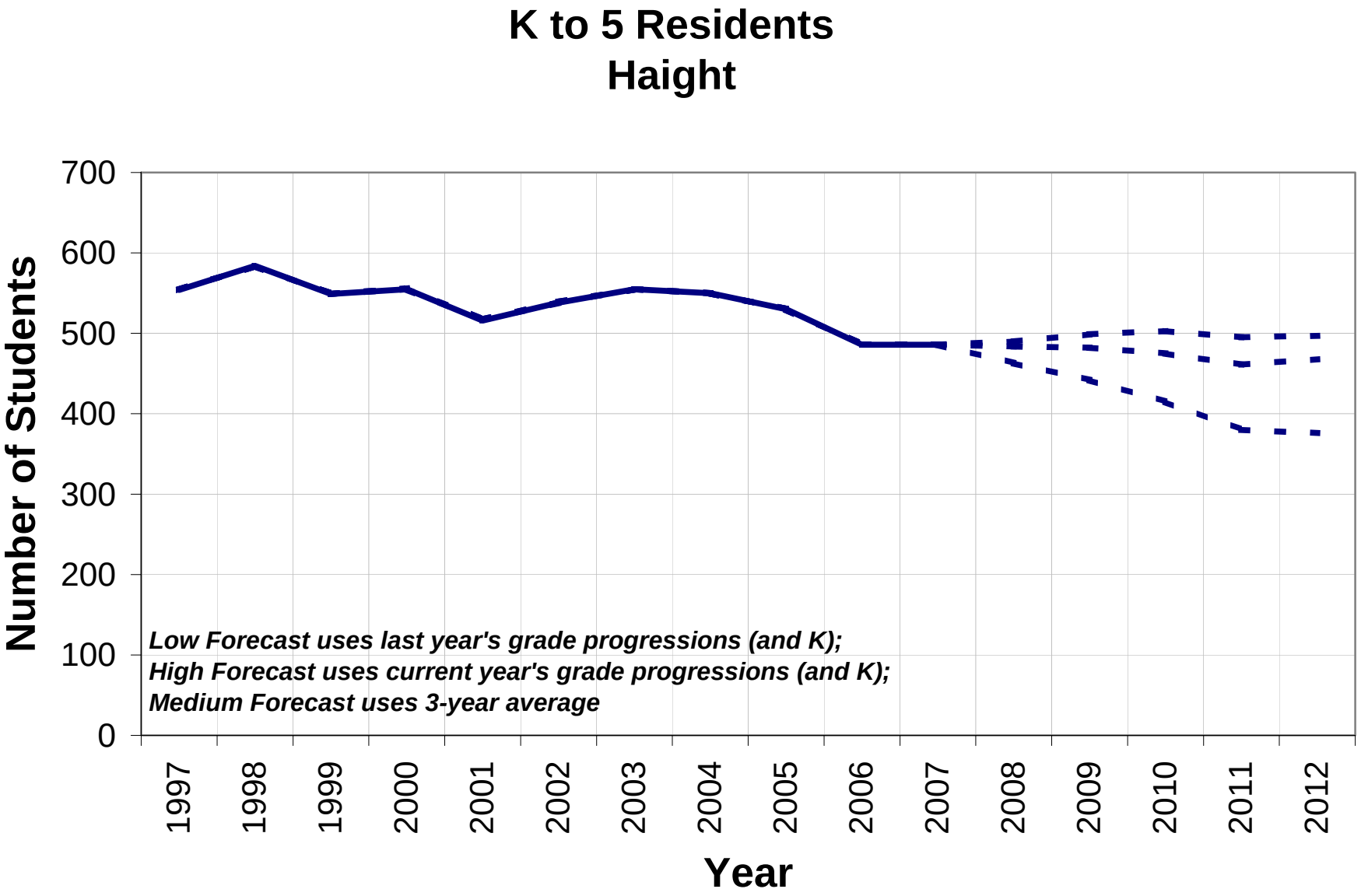
Haight Attendance Area K-5 Grade Progressions over time – *highly variable*



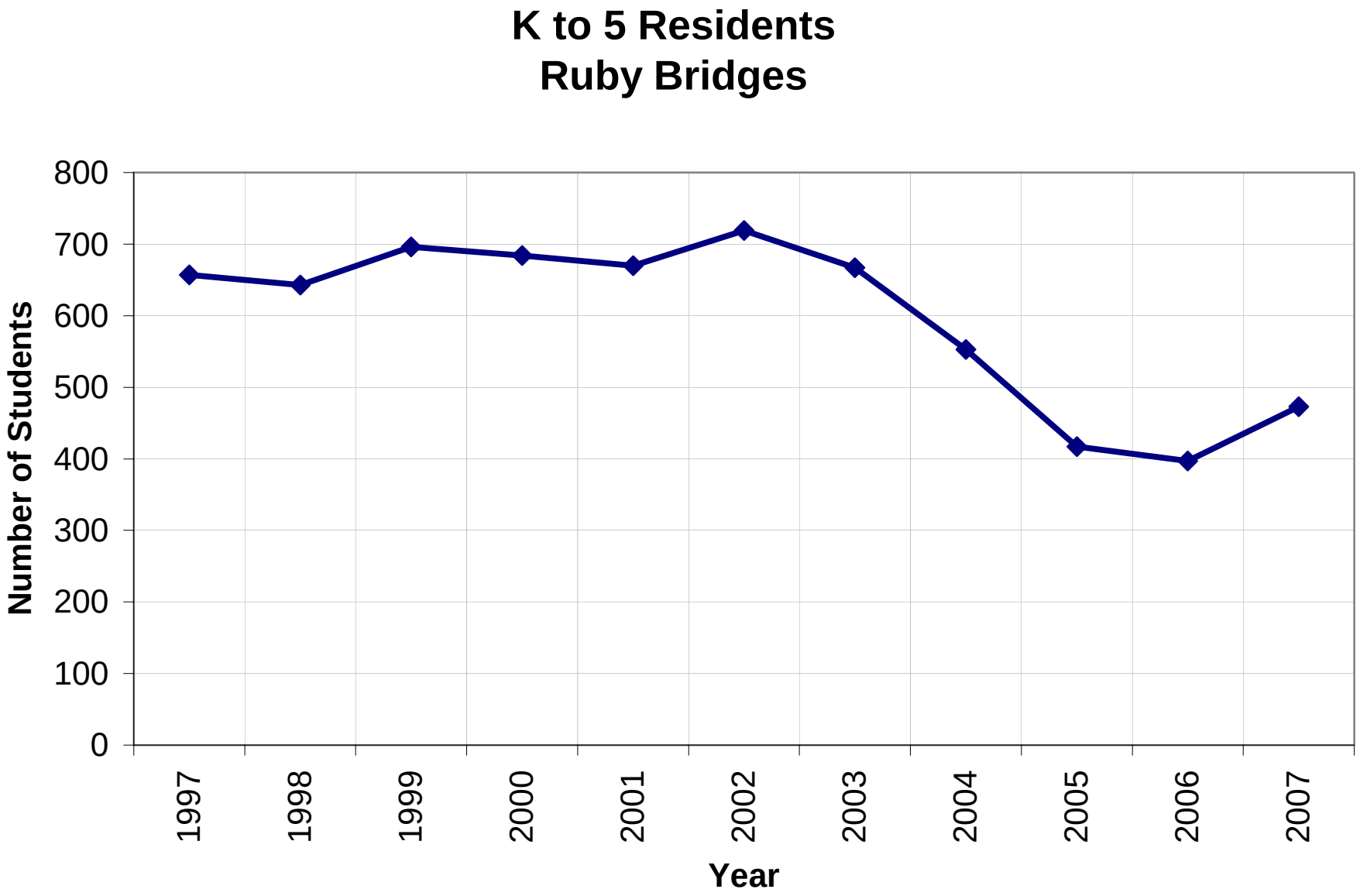
Students from new housing: Marina Cove

- **Separated from historical analysis, in order to not bias or inflate analysis**
- **Separately forecasted, then added to the overall forecast**
- **15 elementary students currently reside in Marina Cove; 24 are expected eventually**

Haight Attendance Area K-5 Resident Forecast



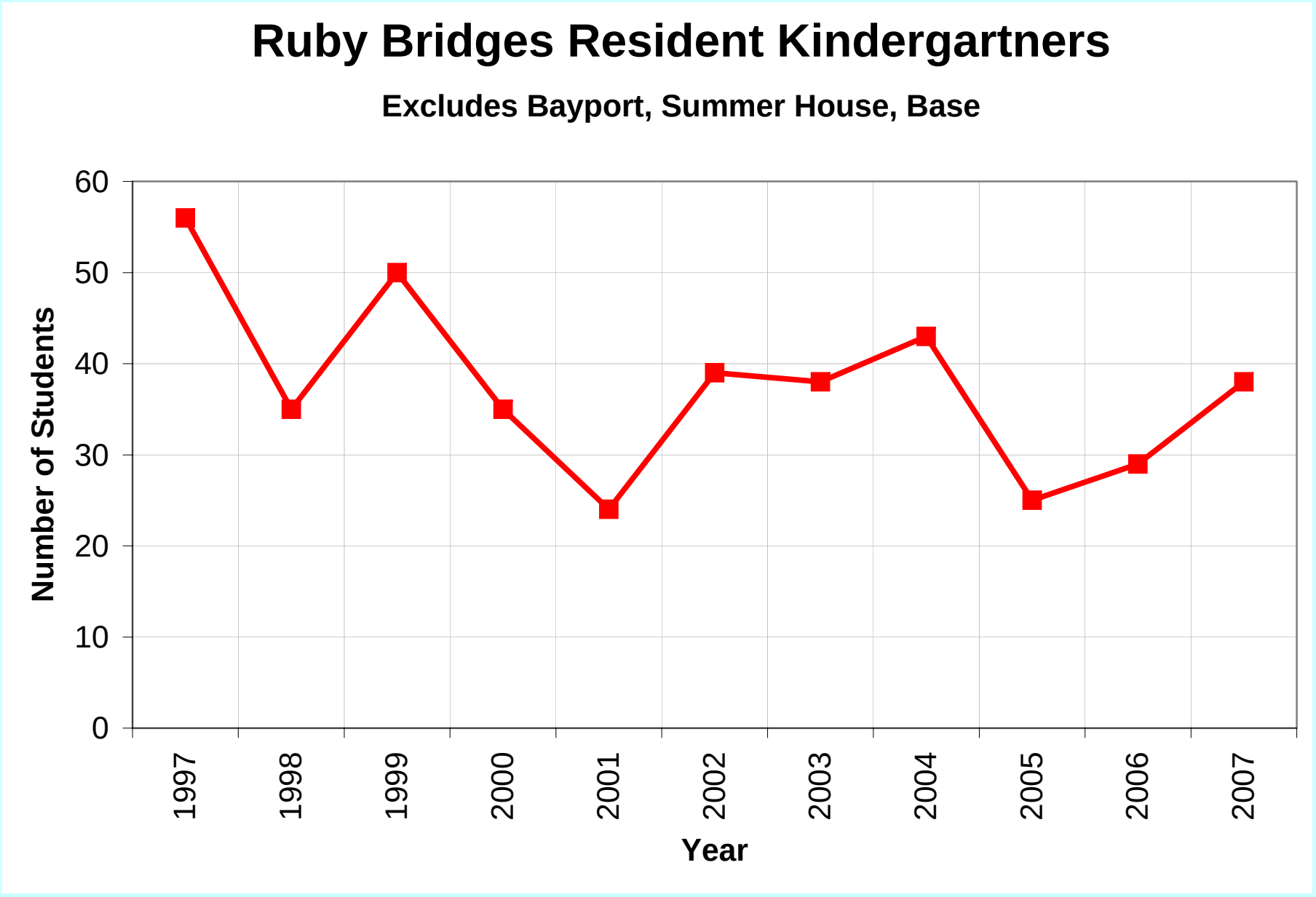
Ruby Bridges Attendance Area Example



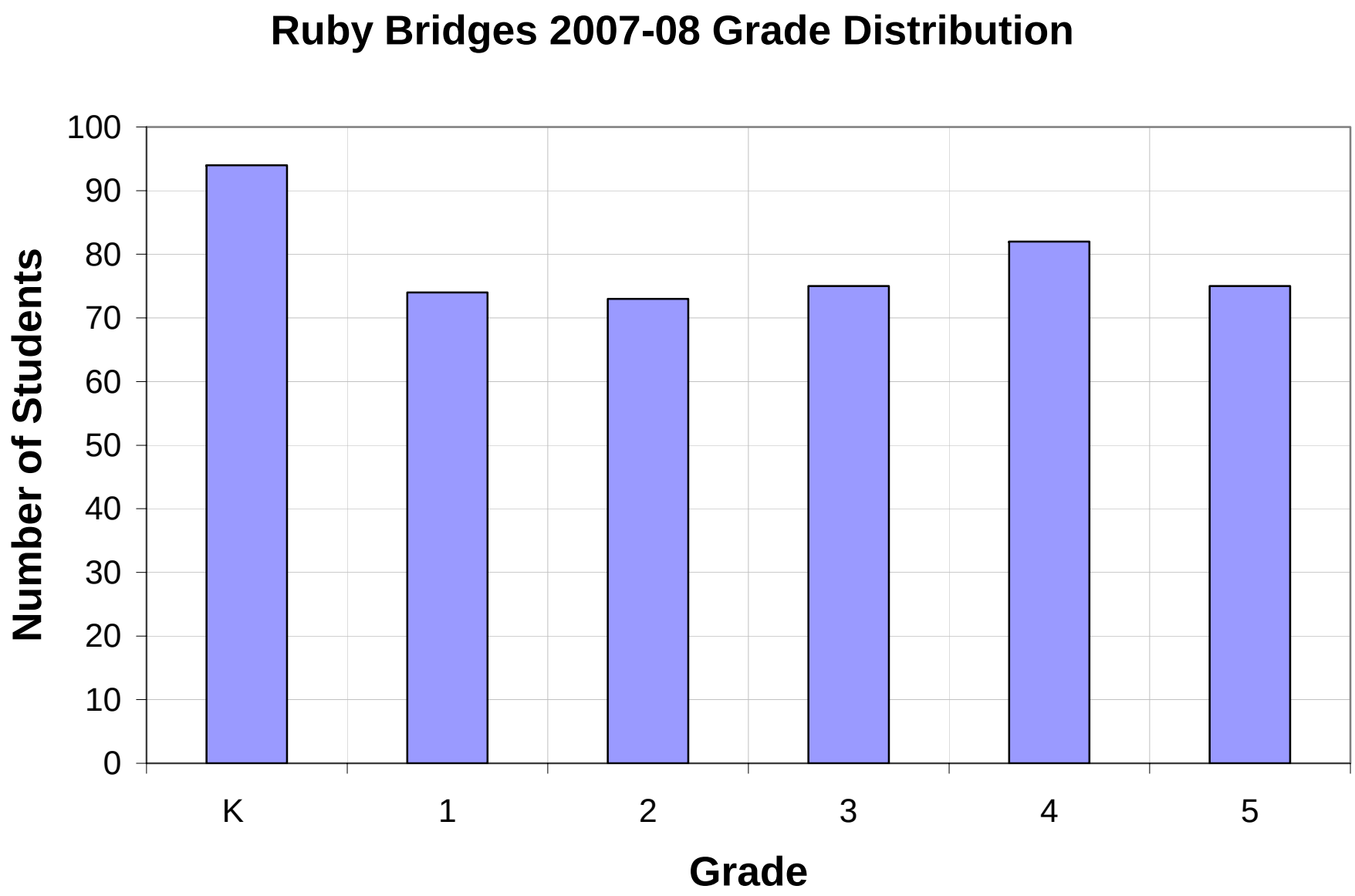
Enrollment Components of Ruby Bridges

- **Base enrollments**
- **Summer House (formerly Harbor Isle Apartments)**
- **Bayport +**
- **Residual – students in existing housing**
- **Long-term future housing growth (outside of forecast horizon)**

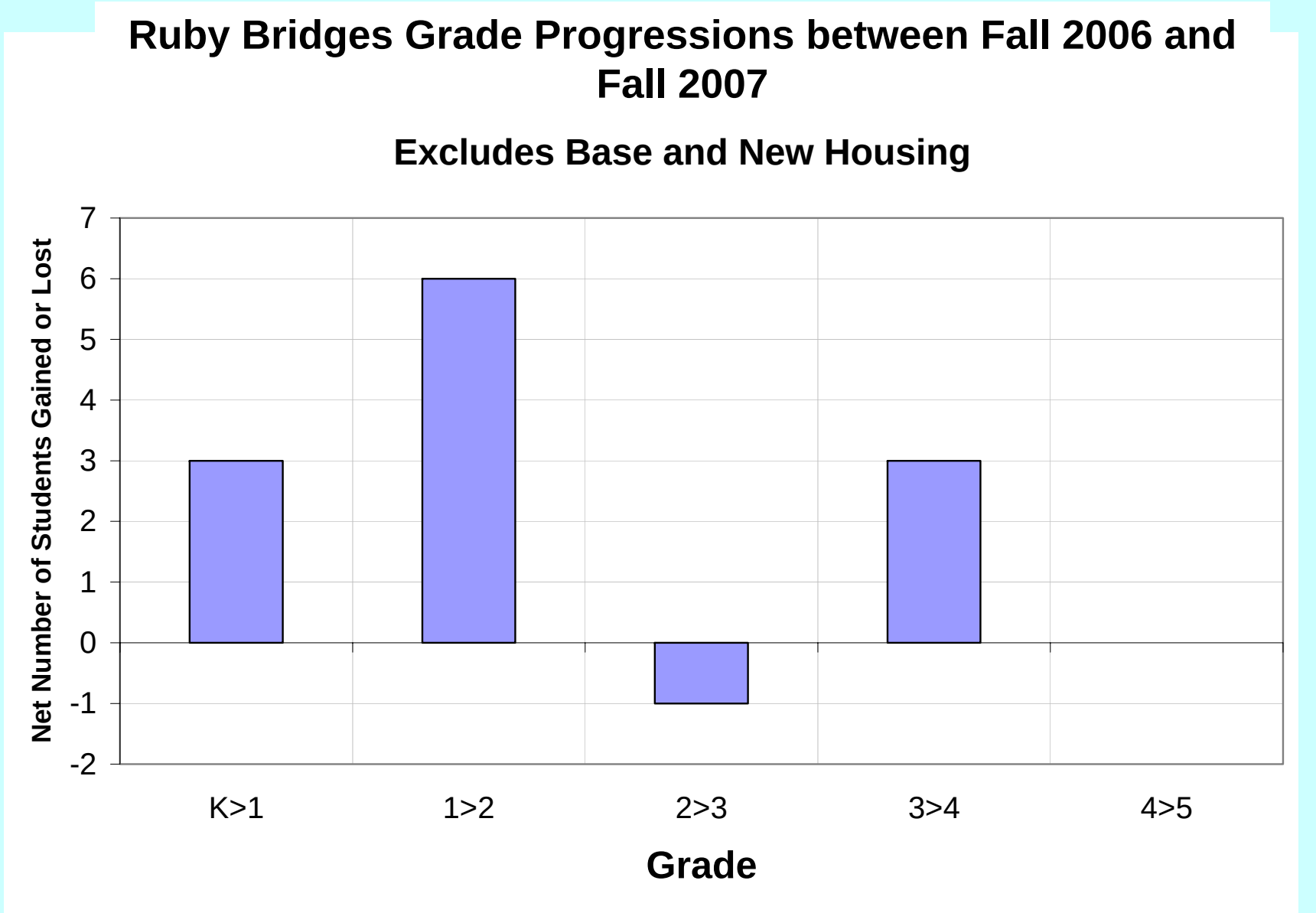
Ruby Bridges Attendance Area Kindergarten Resident History



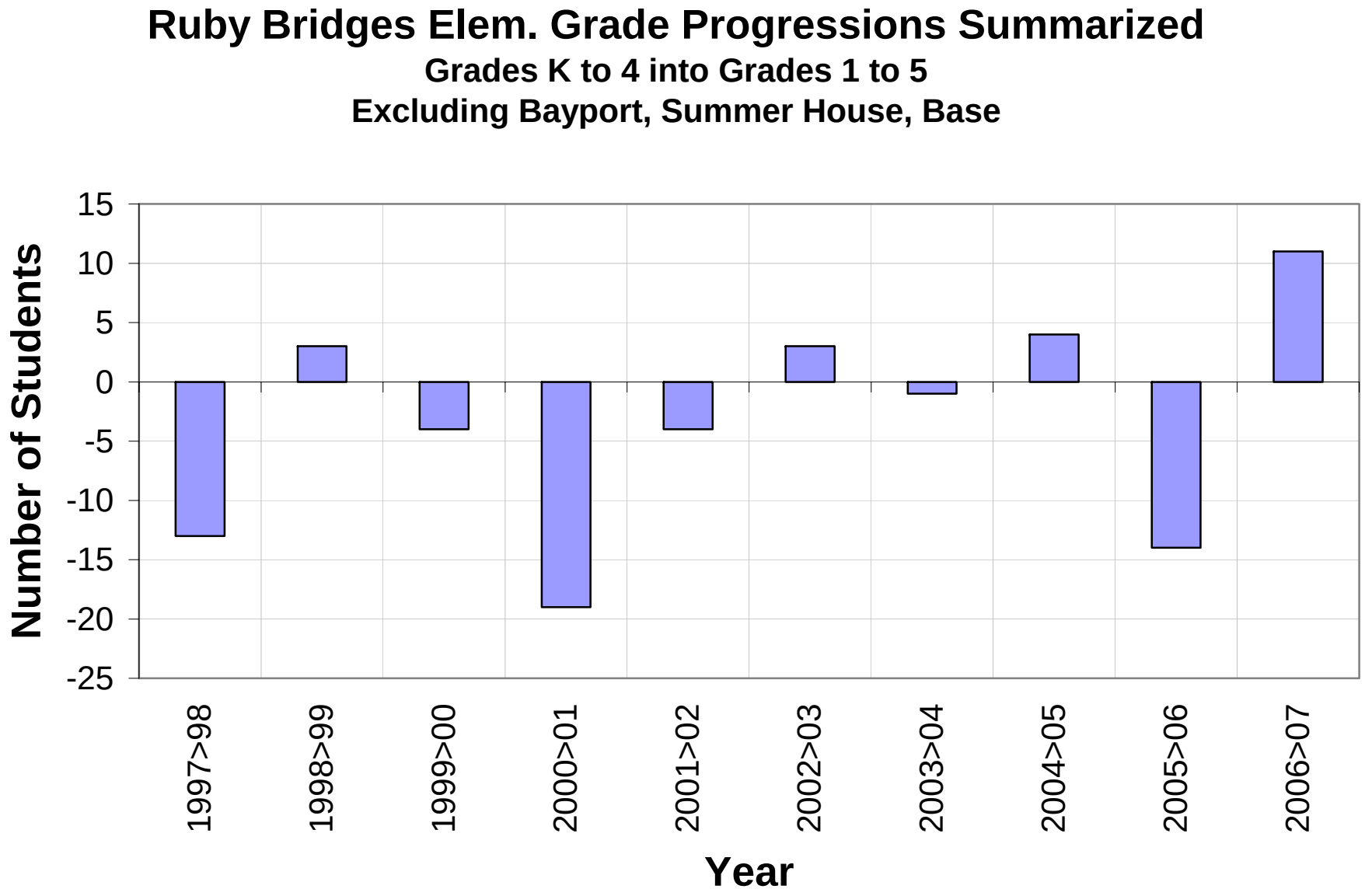
Ruby Bridges Attendance Area K-5 Residents 2007



Ruby Bridges Attendance Area K-5 Grade Progressions: most recent pattern



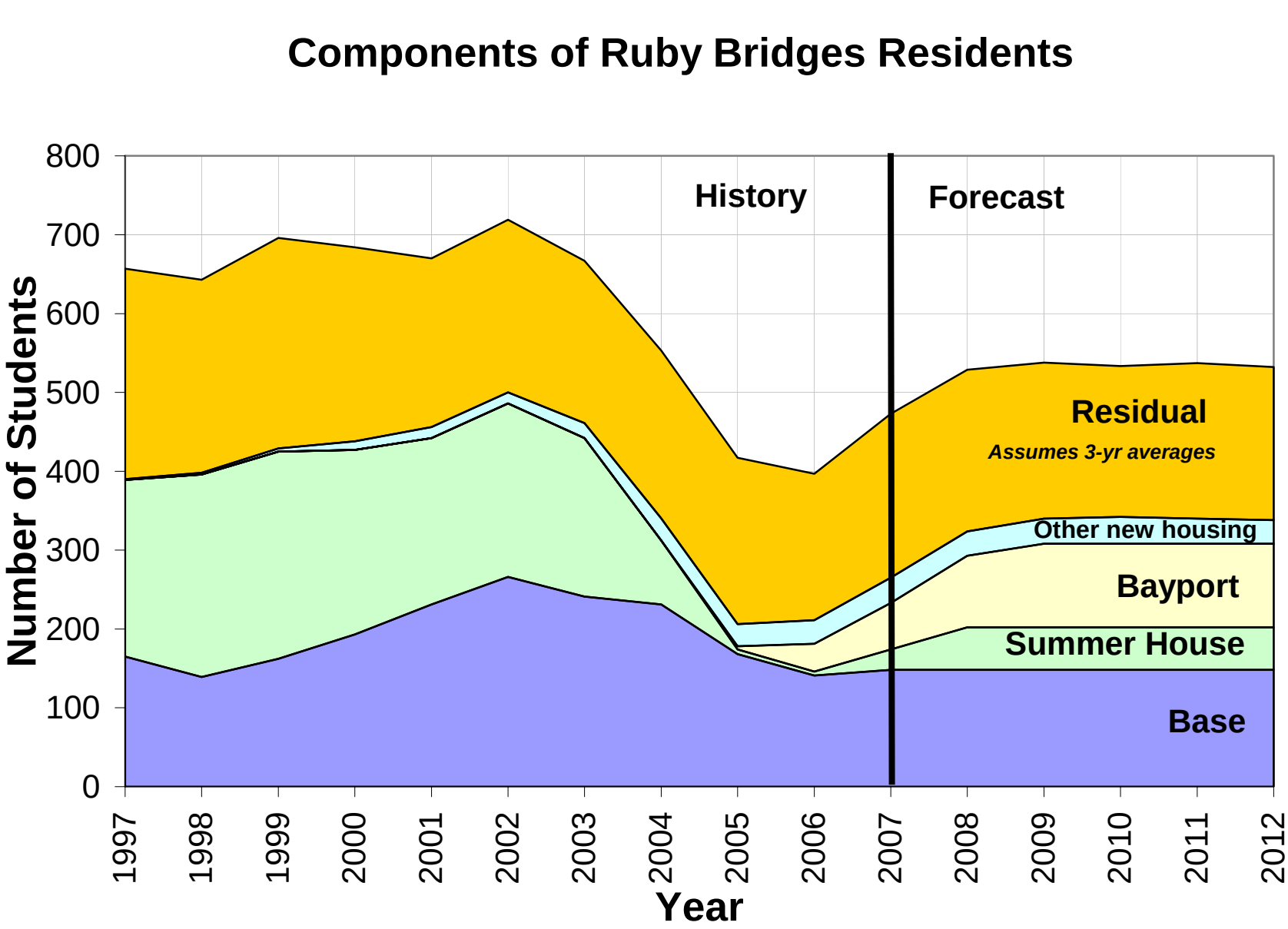
Ruby Bridges Attendance Area K-5 Grade Progressions over time



Bayport, Summer House, and Base

- **Base enrollments**
  - **Now expected to be fairly stable**
- **Summer House (formerly Harbor Isle Apts)**
  - **Currently contains 26 AUSD elementary students**
  - **About half occupied; 56 students are forecasted**
- **Bayport +**
  - **Bayport, The Landing at Bayport, and The Breakers at Bayport currently contain 59 elementary students.**
  - **The Breakers is completed, while Bayport and The Landing are 83% occupied. Also, a 39-unit low-income development will be built around 2009.**
  - **106 AUSD elementary students are forecasted. Forecast multiplies number of units by the expected "student yield."**
    - **Assumes .72 yield for the 39-unit low-income development; .25 yield at Bayport, .65 yield for The Breakers, and .81 for The Landing**

Ruby Bridges Attendance Area K-5 Resident Forecast



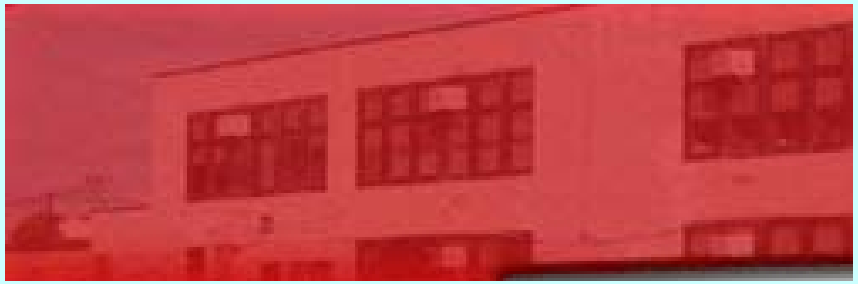
Ruby Bridges Forecast Range

- **Many components could vary from what we have assumed**
  - **Student yields at Bayport +**
  - **Base housing usage**
  - **Usual kindergarten and grade progression assumptions for existing housing**
    - **The large number of apartments in the area make enrollments especially variable, as apartment dwellers on average are more mobile than homeowners**
  - **Eventually, many more housing units are anticipated on the former Naval Base, but this is beyond our current forecast horizon**

Capacity Analyses

Luz T. Cázares

Chief Financial Officer



Defining School Capacity

A school's capacity is based on the number of classrooms and how they are used.

Classroom Use	Classroom Load
Regular Education	
Grades K-3	20
Grades 4-5	29
Special Day Class (SDC)	13
Miscellaneous Computer Labs, Day Care, Resource Specialist Program (RSP), Music/Science, and Other	0

Classrooms and Use

School	Regular Education			Special Day Class (SDC)	Miscellaneous
	K-3	4-5	Total		
Bay Farm	17	6	23	1	3
Earhart	20	6	26	3	4
Edison	13	4	17	1	2
Franklin	10	3	13	0	2
Haight	14	5	19	1	7
Lum	16	6	22	1	2
Otis	14	4	18	1	3
Paden	12	4	16	2	4
Ruby Bridges	18	5	23	2	4
Washington	12	4	16	2	8
Total	**146**	**47**	**193**	**14**	**39**

Reg Ed - Current Residents & Current Capacity

School	Current Residents	Capacity	Capacity Surplus/(Deficit)
Bay Farm	466	514	48
Earhart	539	574	35
Edison	401	376	(25)
Franklin	316	287	(29)
Haight	457	425	(32)
Lum	436	494	58
Otis	434	396	(38)
Paden	270	356	86
Ruby Bridges	447	505	58
Washington	323	356	33
Total	**4,089**	**4,283**	**194**
Out of District	149	-	(149)
Grand Total	**4,238**	**4,283**	**45**

Reg Ed - Forecasted Residents & Current Capacity

School	Forecasted Residents	Capacity	Capacity Surplus/(Deficit)
Bay Farm	469	514	45
Earhart	535	574	39
Edison	474	376	(98)
Franklin	329	287	(42)
Haight	439	425	(14)
Lum	468	494	26
Otis	459	396	(63)
Paden	292	356	64
Ruby Bridges	560	505	(55)
Washington	299	356	57
Total	**4,324**	**4,283**	**(41)**
Out of District	149	-	(149)
Grand Total	**4,473**	**4,283**	**(190)**

Classrooms and Use

	Miscellaneous			Additional Capacity		
School	Computer Lab	Day Care	Other	Low	Med	High
Edison	1	1	0	26	40	58
Haight	1	0	6	91	140	203
Ruby Bridges	1	2	1	52	80	116

Summary of Major Points

- There is a mismatch between elementary enrollment forecasts and current school capacity.
- There are four categories of solutions to address the problem.
  - Change boundaries
  - Create magnet programs
  - Divert overflow
  - Increase capacity
- The task force evaluates solutions by considering three types of impact.
  - Facility impact
  - Financial impact
  - Program impact

Next Steps

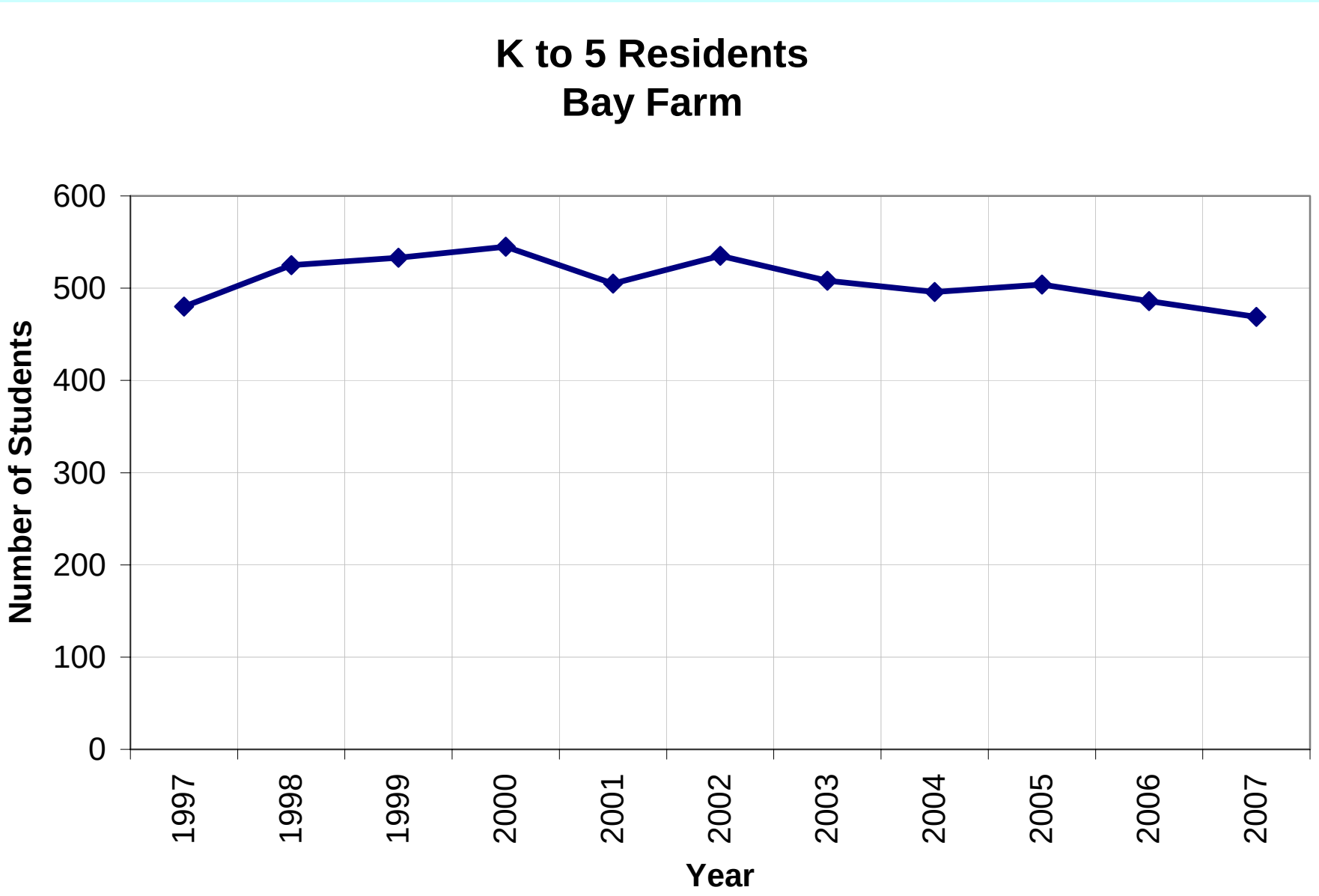
Elementary Capacity Task Force

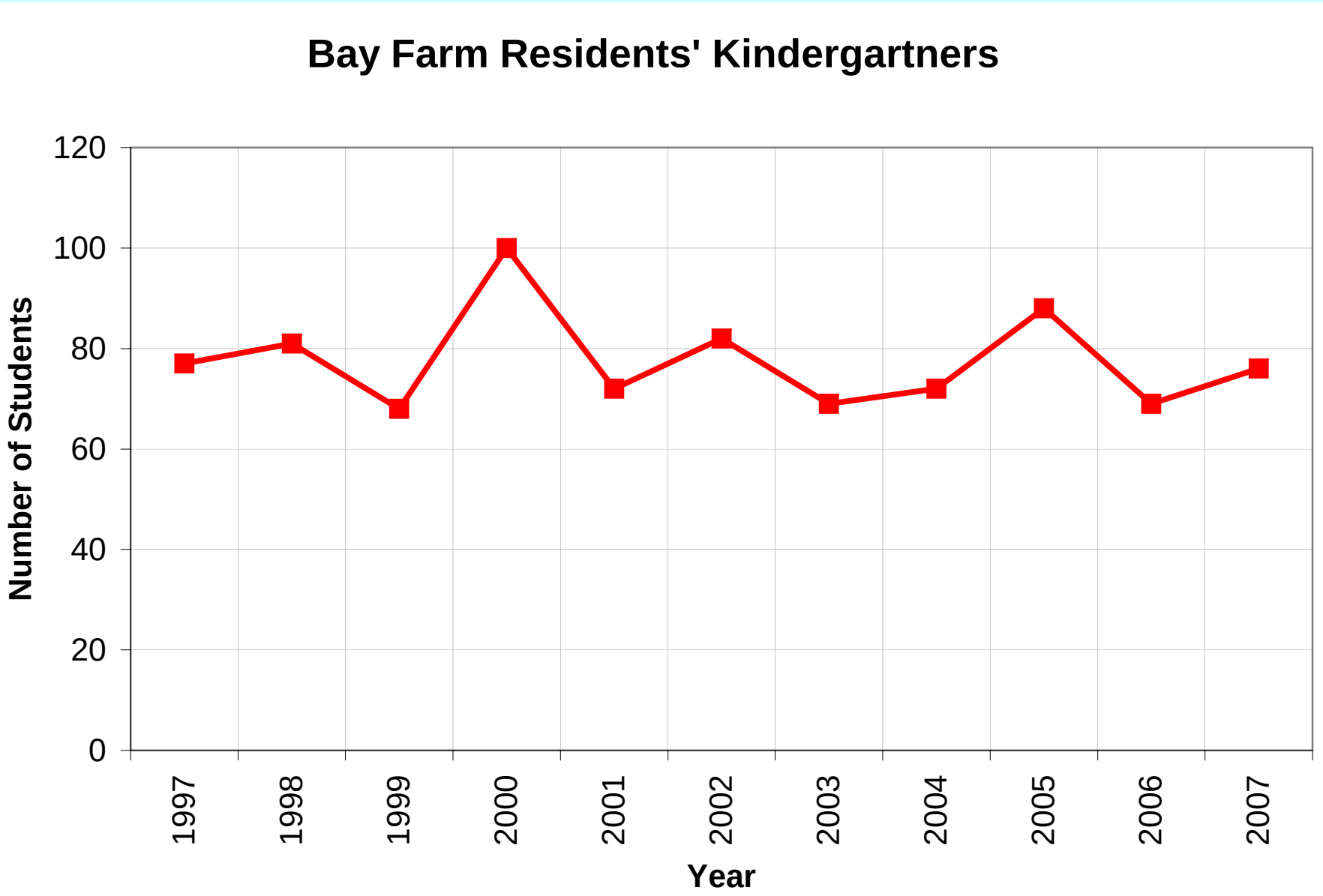
- Continues to meet on a weekly basis
- Presents options under development at Special Board of Education Workshop on December 12th at Paden Elementary School
- Superintendent's recommendations will be presented to the Board of Education in February at regularly scheduled meetings

Secondary Education Task Force

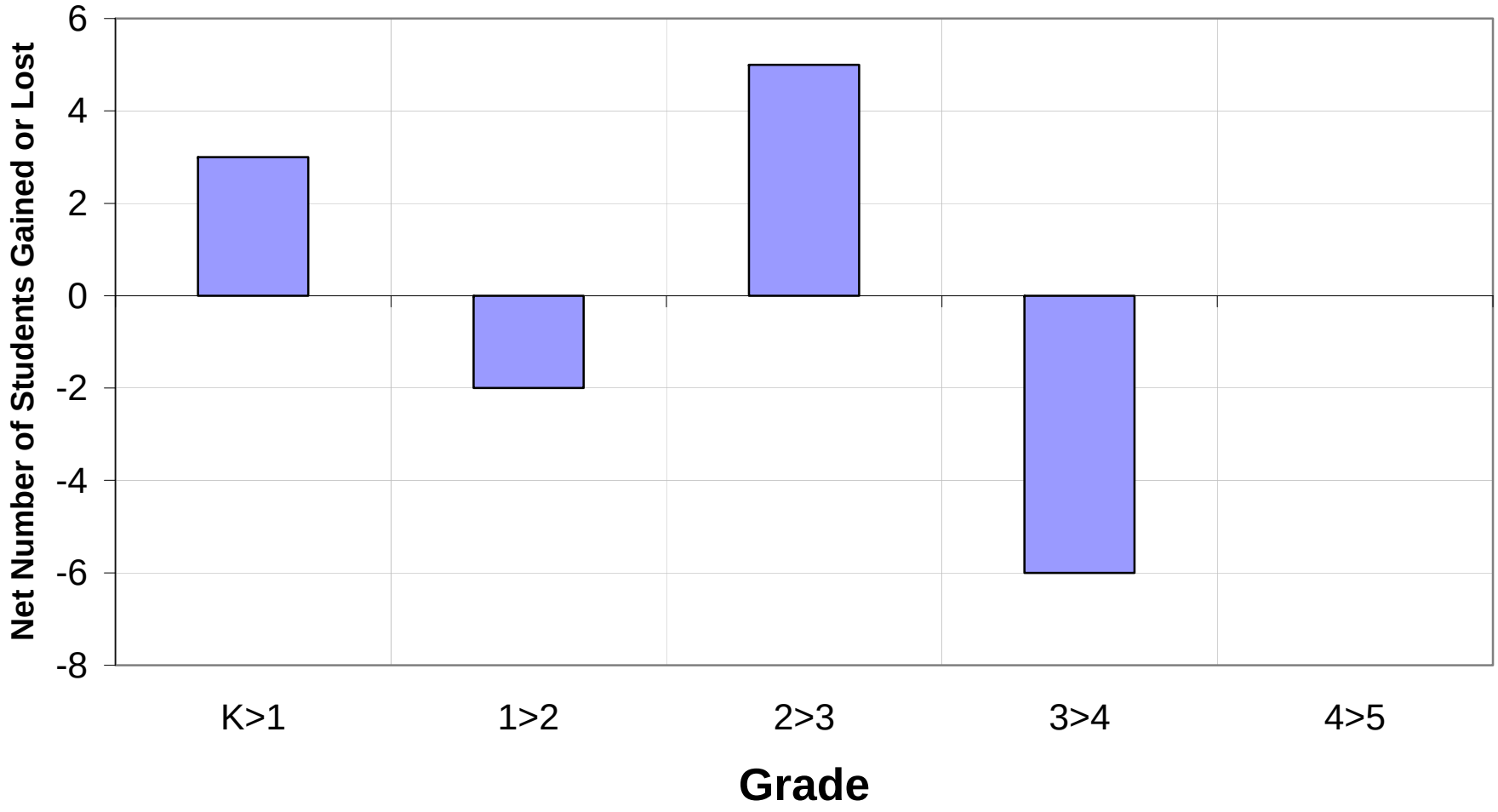
- Expands membership in January
- Presents initial options at Community workshop in March

Analyses of Other Elementary Attendance Areas


K to 5 Residents
Bay Farm
Number of Students
600
500
400
300
200
100
0
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
Year

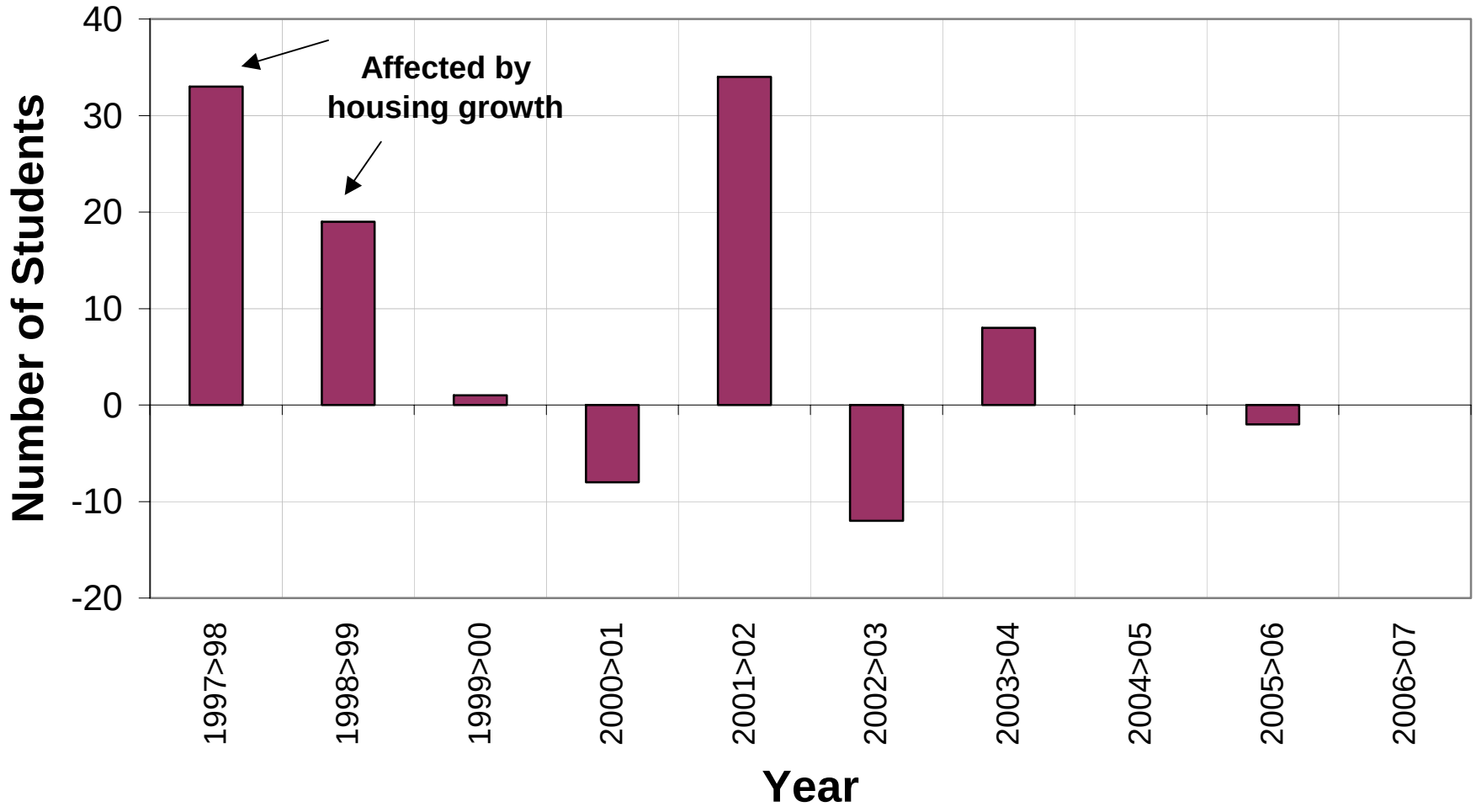

Bay Farm Residents' Kindergartners
Number of Students
120
100
80
60
40
20
0
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
Year

Bay Farm's Grade Progressions between Fall 2006 and Fall 2007



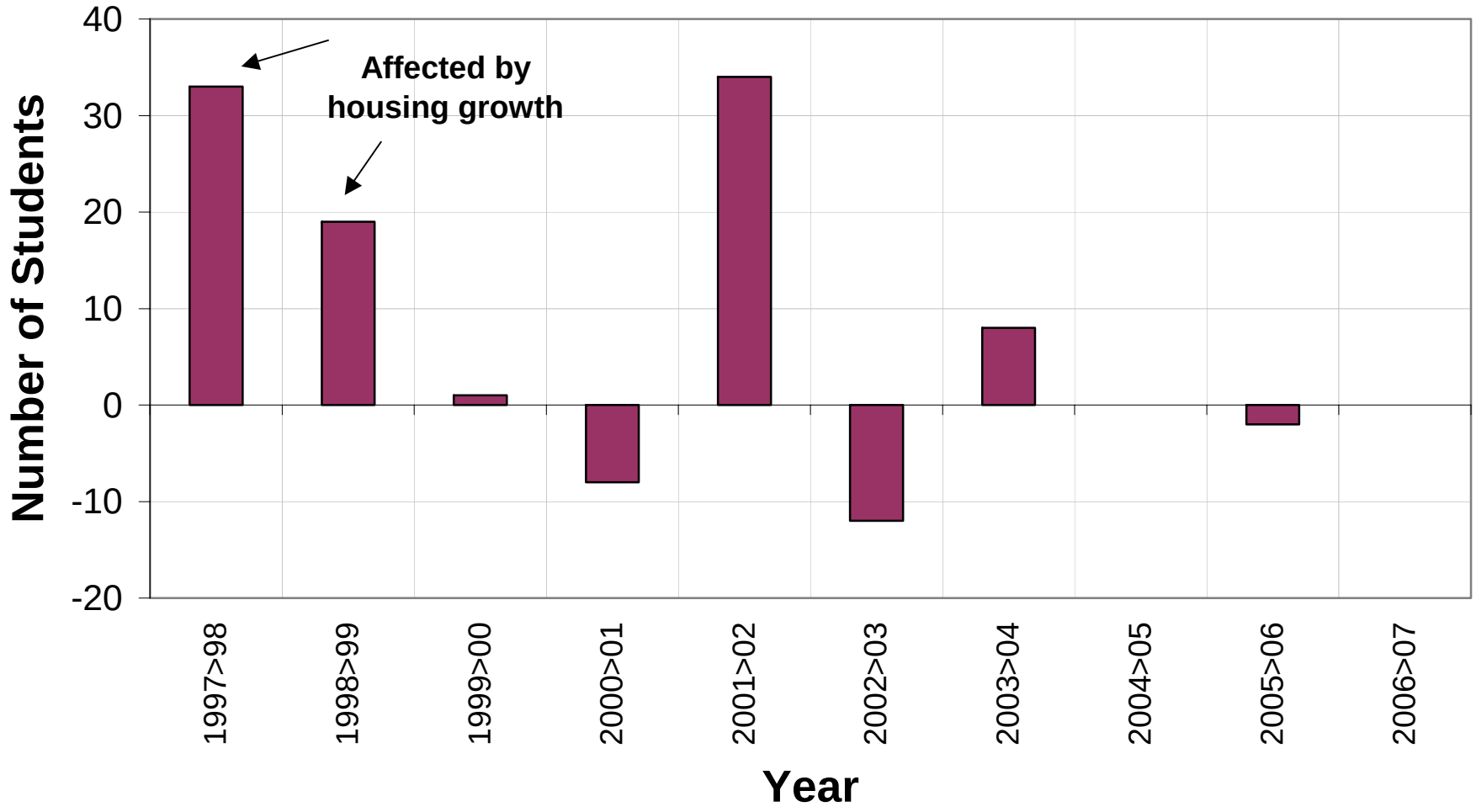
Bay Farm Elementary Grade Progressions Summarized

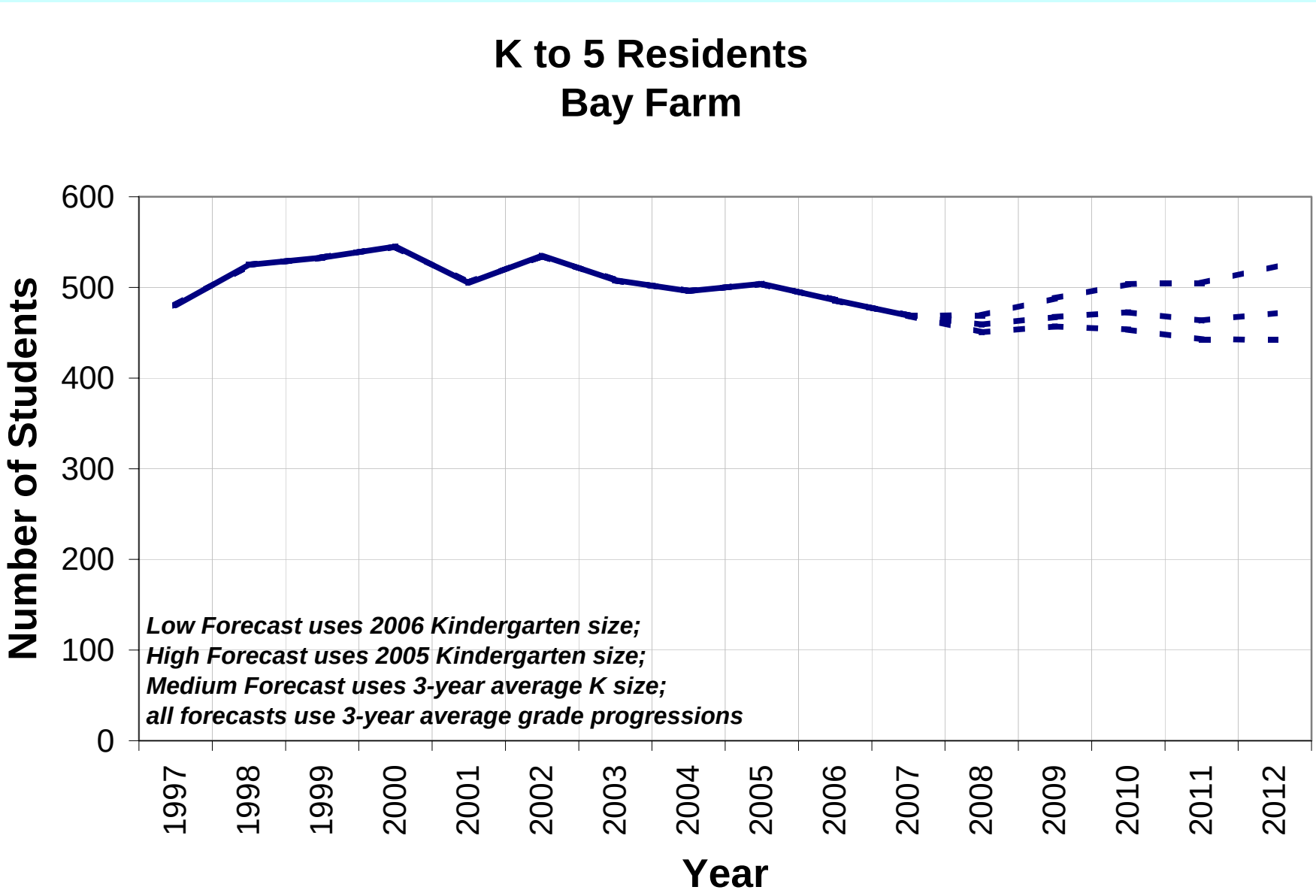
Grades K to 4 into Grades 1 to 5

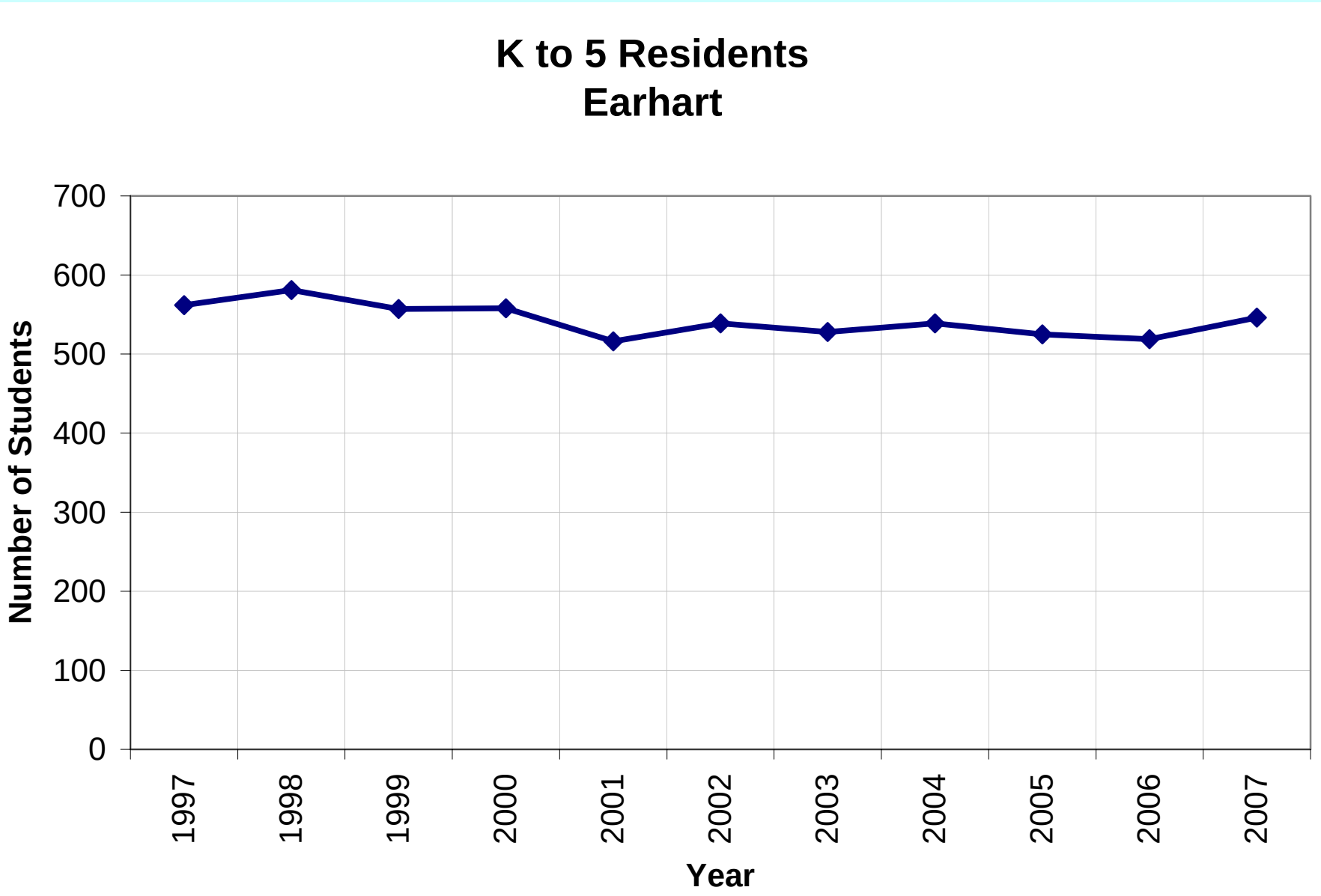


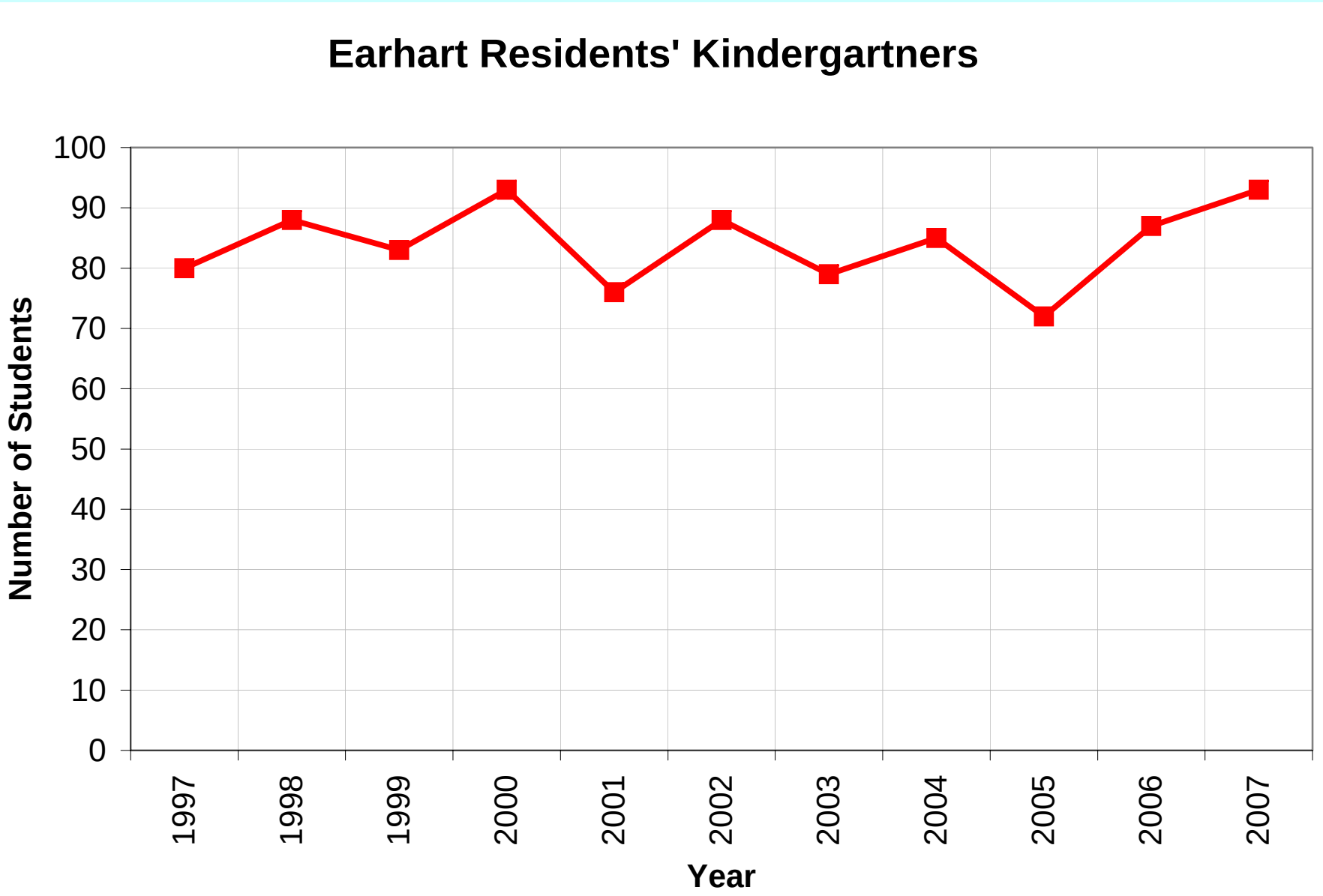
Bay Farm Elementary Grade Progressions Summarized

Grades K to 4 into Grades 1 to 5

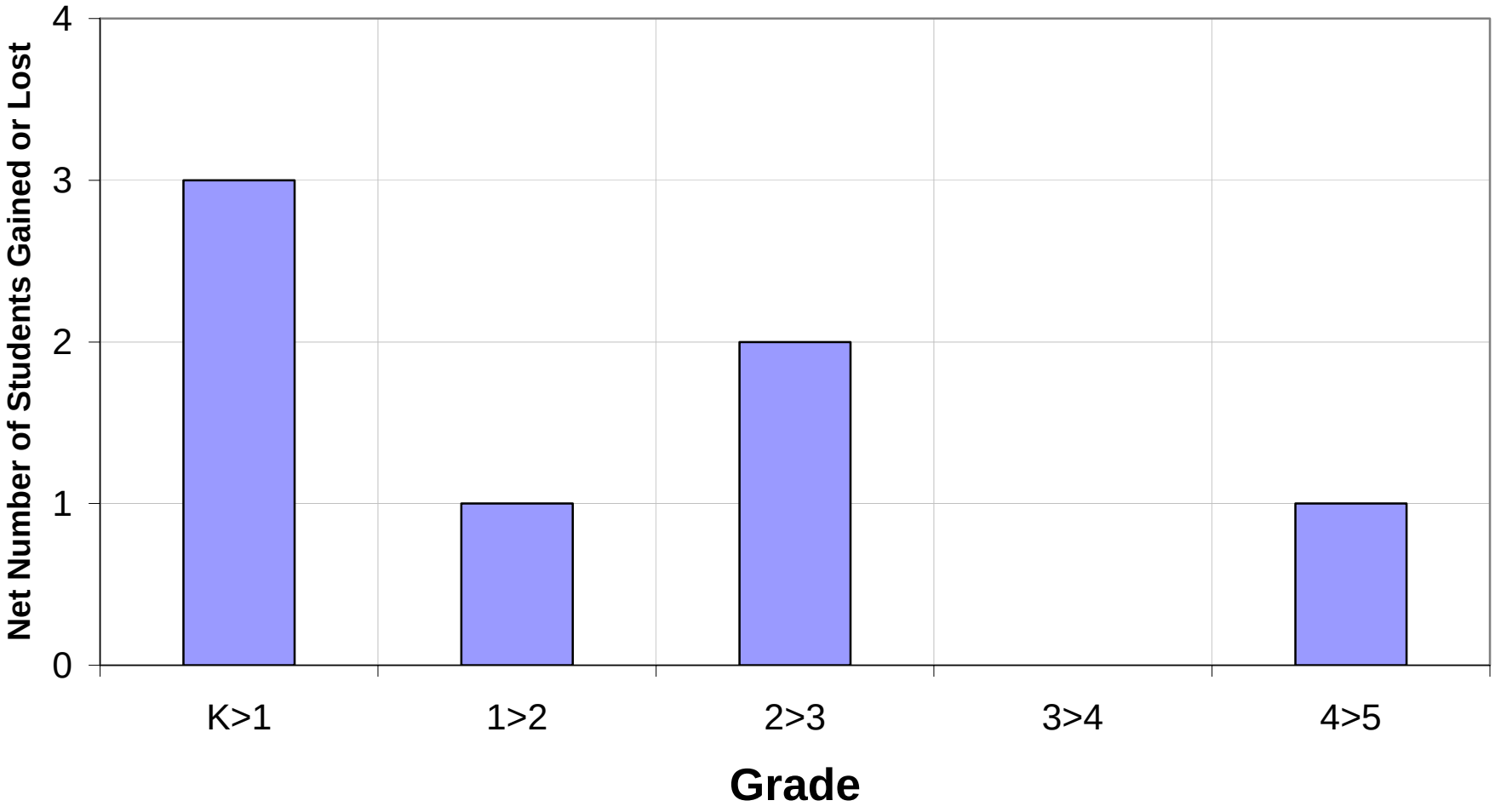



K to 5 Residents
Bay Farm
Number of Students
600
500
400
300
200
100
0
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
Year
Low Forecast uses 2006 Kindergarten size;
High Forecast uses 2005 Kindergarten size;
Medium Forecast uses 3-year average K size;
all forecasts use 3-year average grade progressions


K to 5 Residents
Earhart
Number of Students
700
600
500
400
300
200
100
0
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
Year


Earhart Residents' Kindergartners
Number of Students
100
90
80
70
60
50
40
30
20
10
0
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
Year

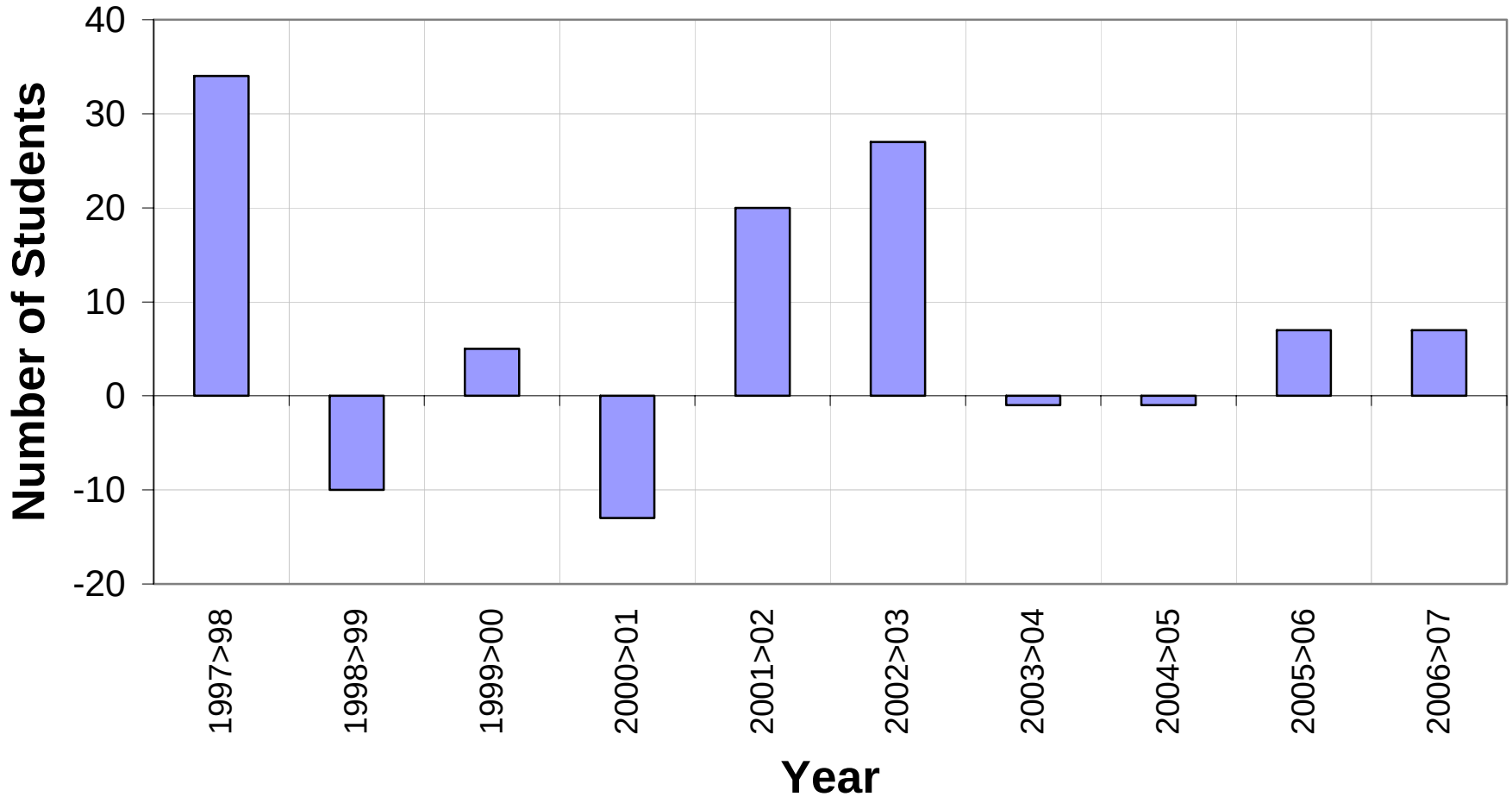
Earhart's Grade Progressions between Fall 2006 and Fall 2007

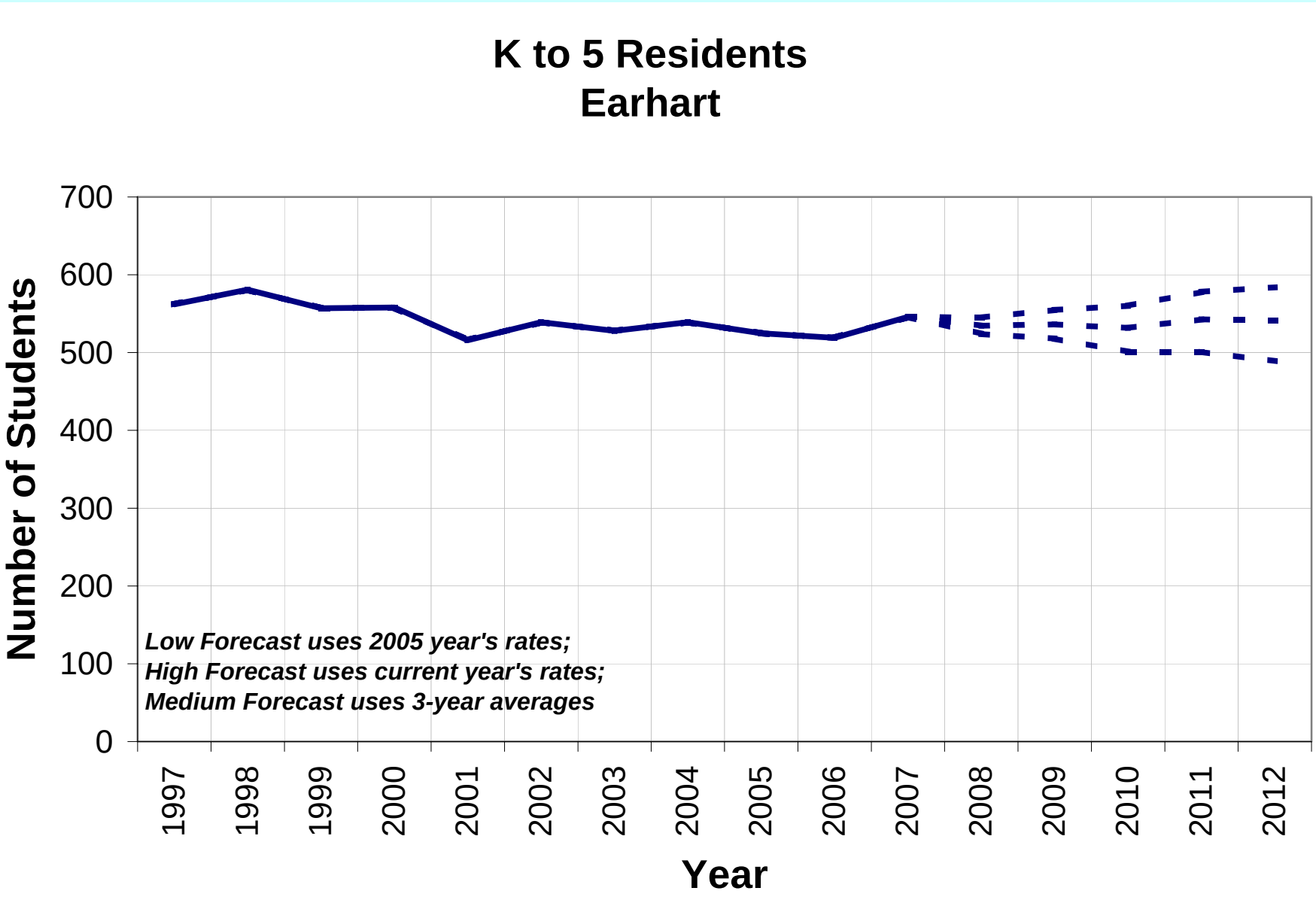


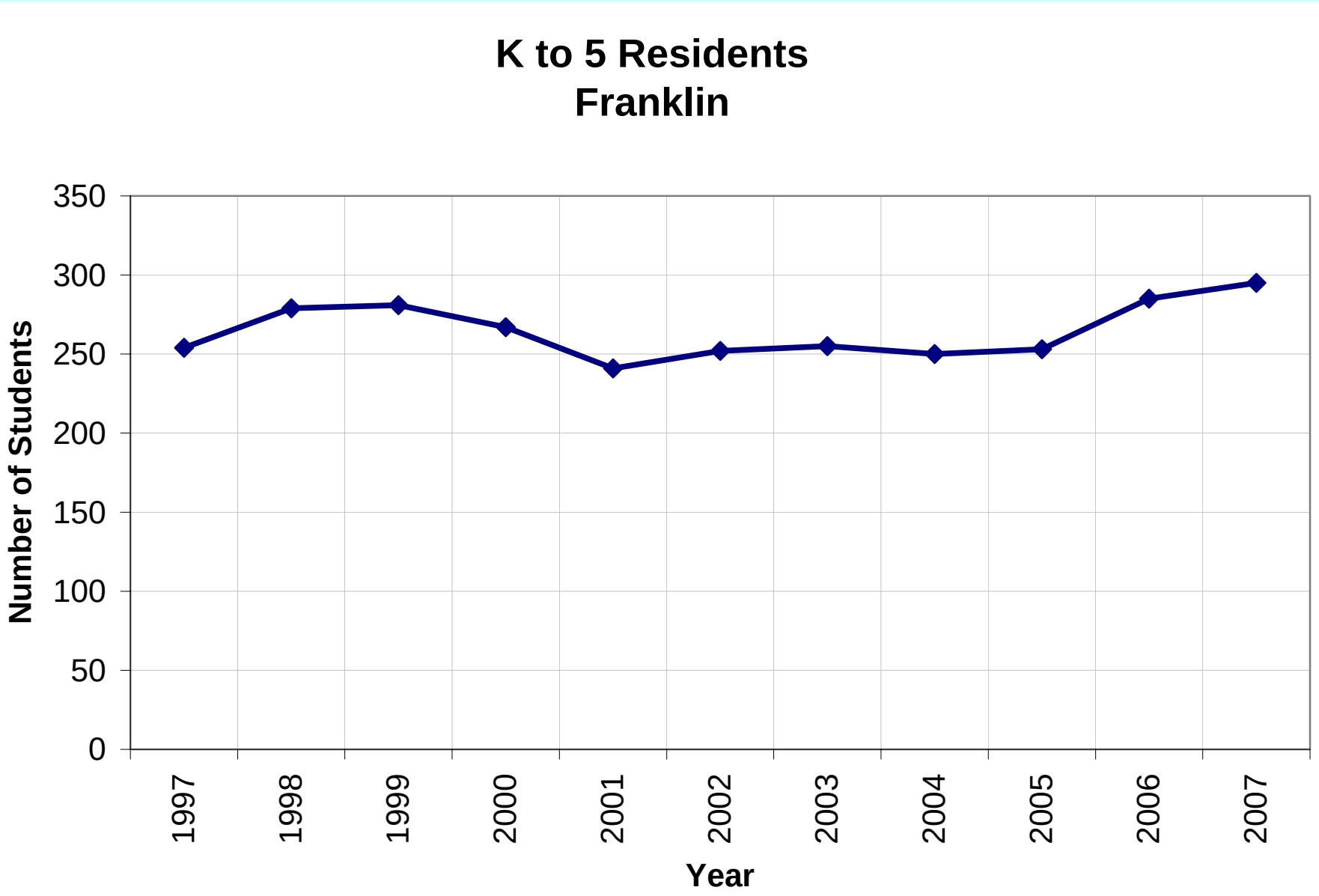
Earhart Elementary Grade Progressions Summarized

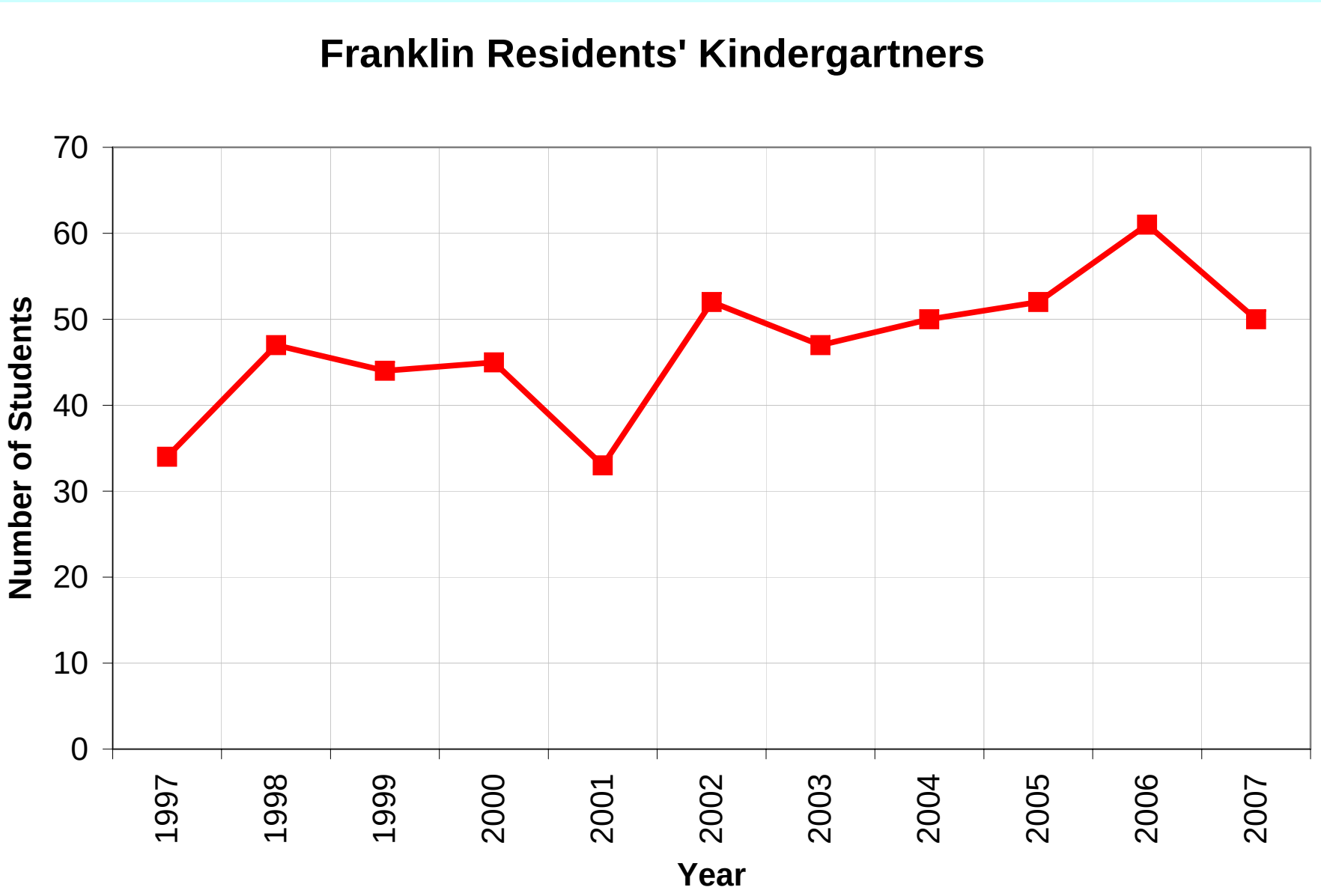
Grades K to 4 into Grades 1 to 5

Hillery Way effect taken out

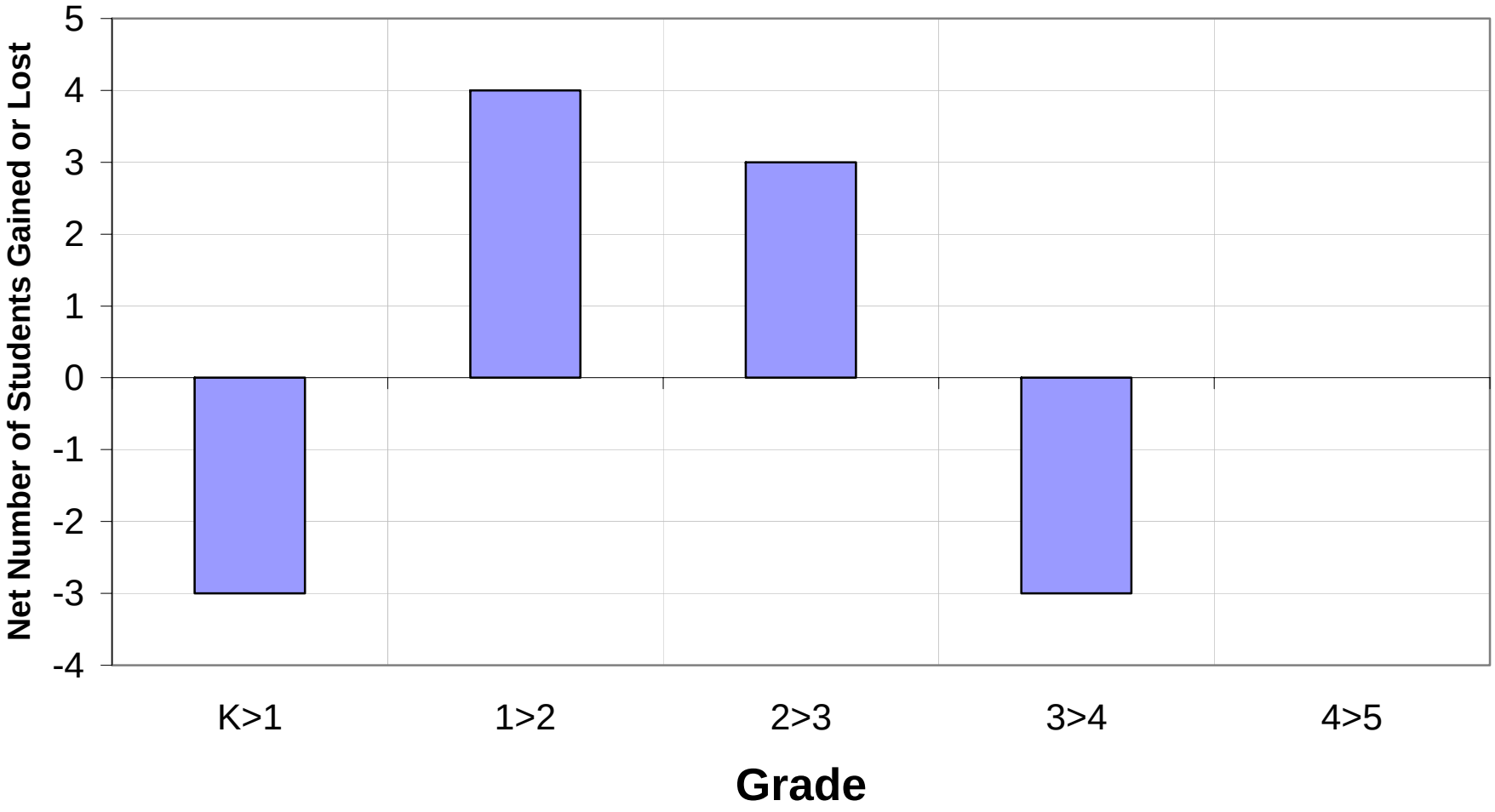



K to 5 Residents
Earhart
Number of Students
700
600
500
400
300
200
100
0
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
Year
Low Forecast uses 2005 year's rates;
High Forecast uses current year's rates;
Medium Forecast uses 3-year averages


K to 5 Residents
Franklin
Number of Students
350
300
250
200
150
100
50
0
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
Year

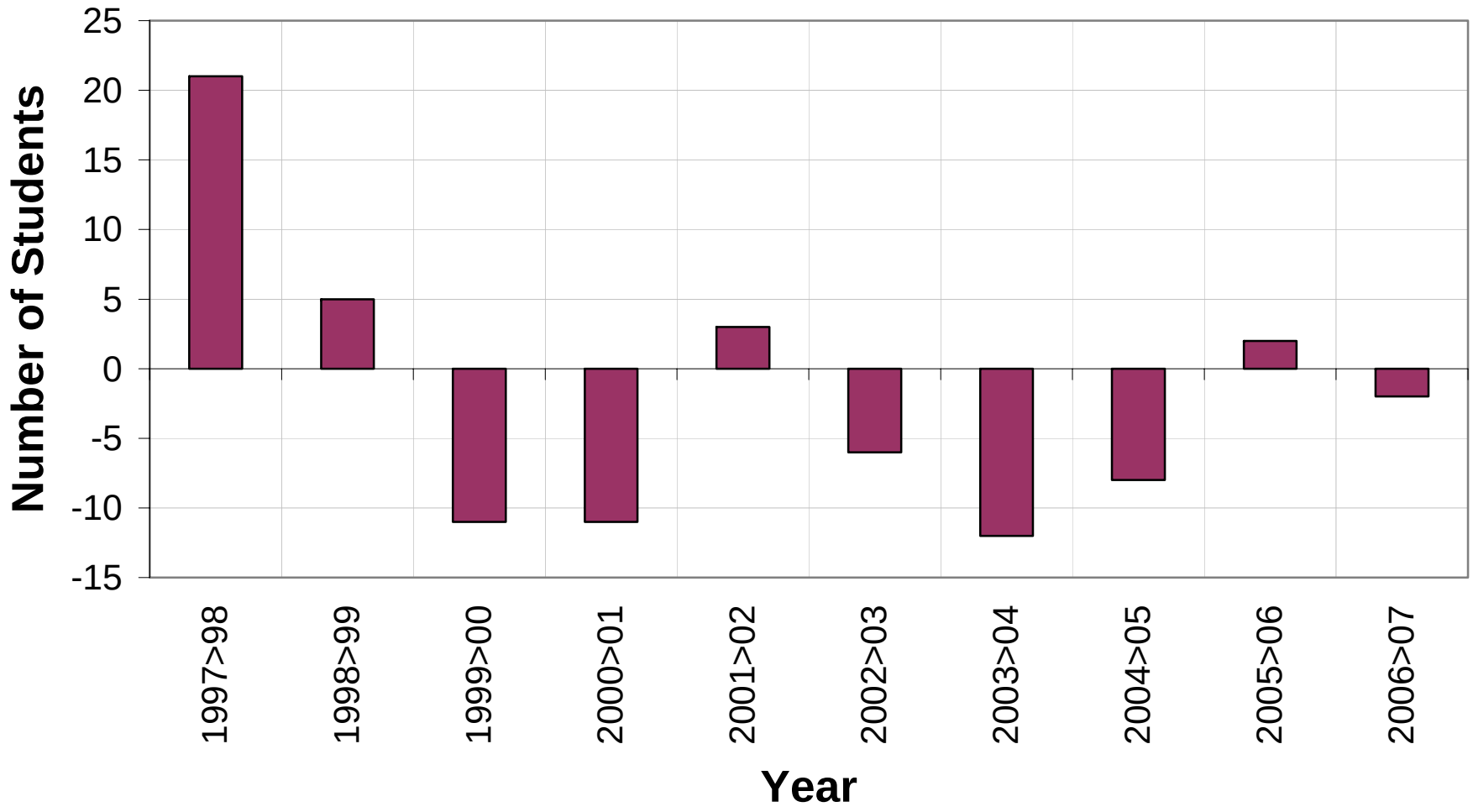

Franklin Residents' Kindergartners
Number of Students
70
60
50
40
30
20
10
0
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
Year

Franklin's Grade Progressions between Fall 2006 and Fall 2007

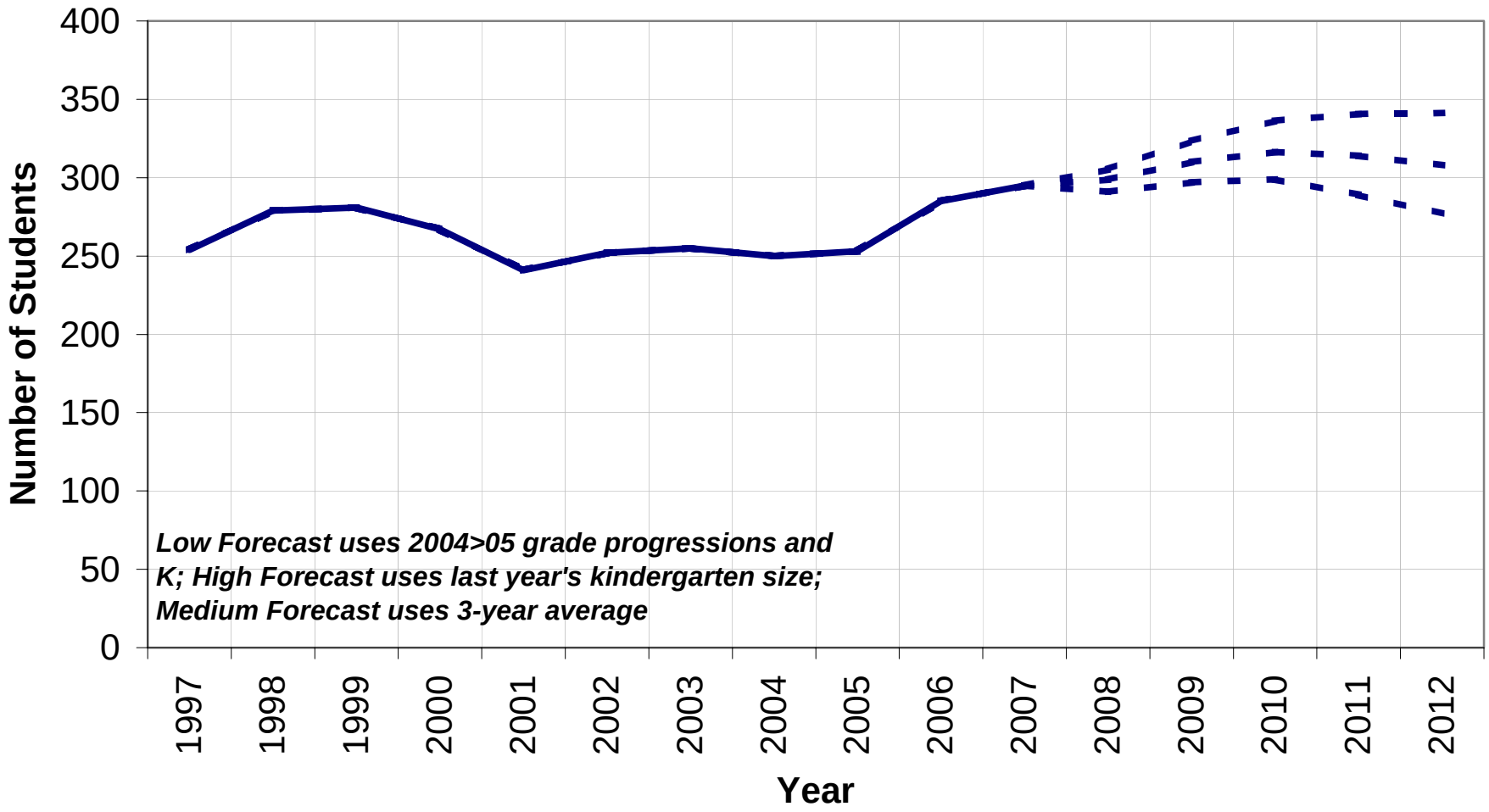


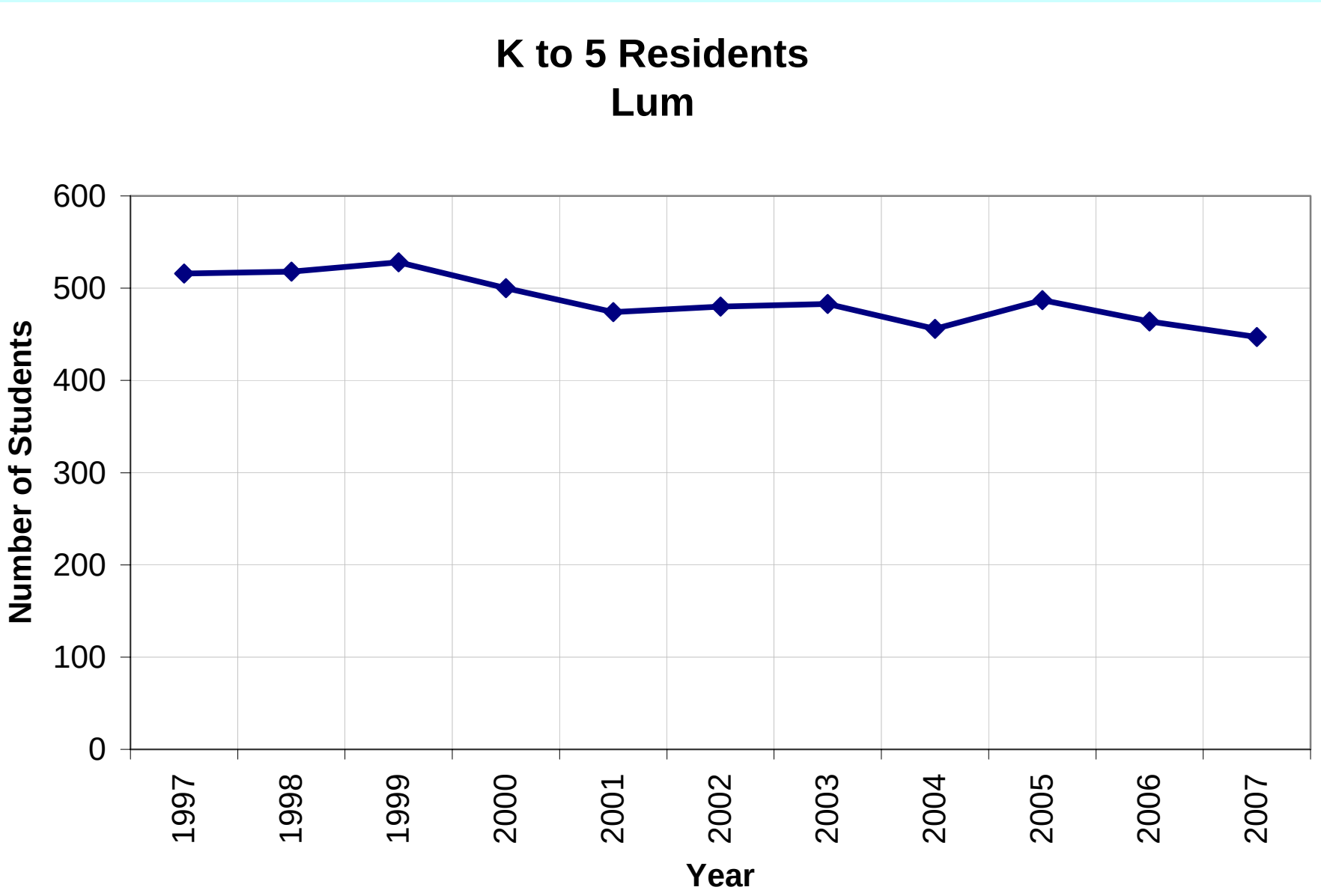
Franklin Elem. Grade Progressions Summarized

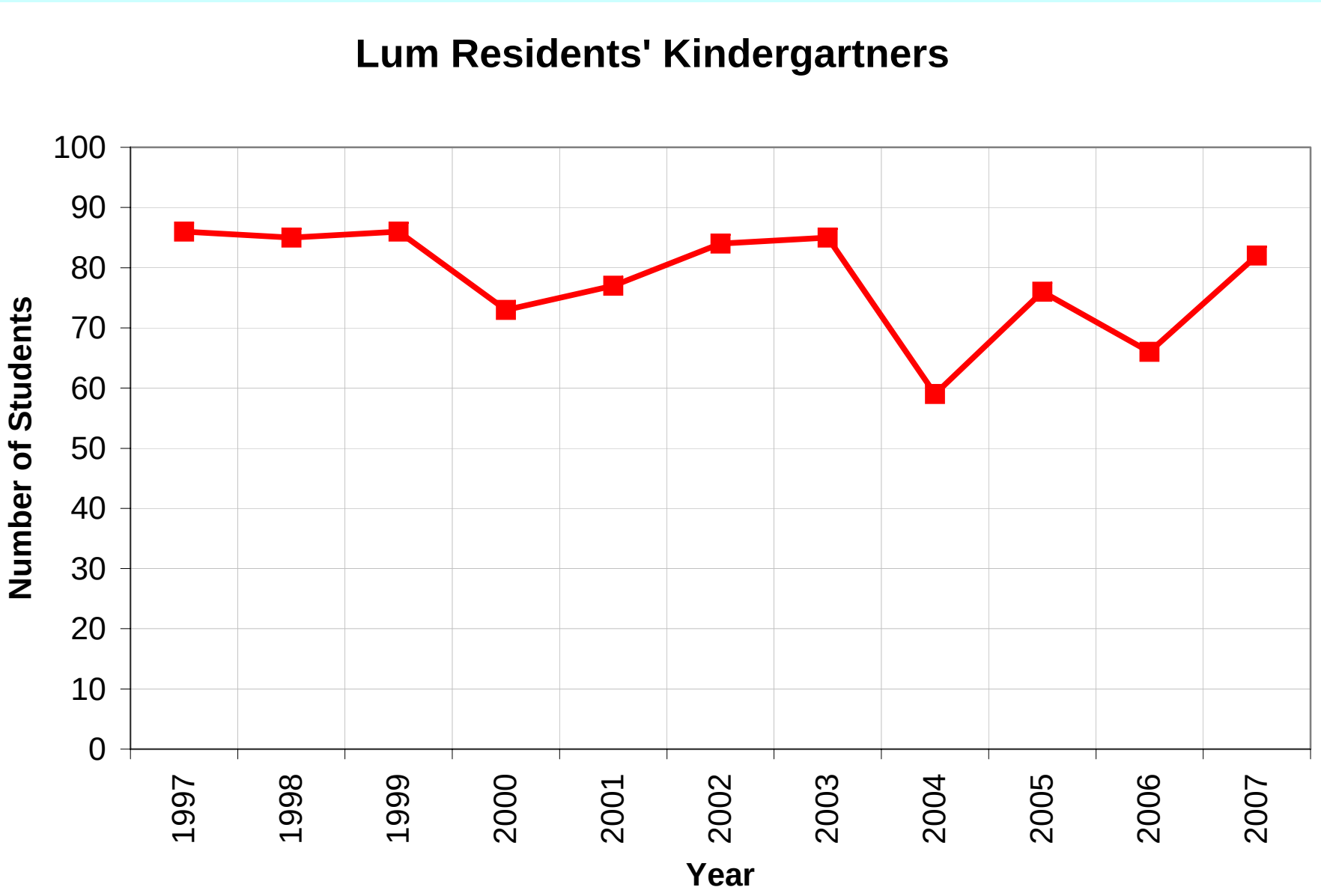
Grades K to 4 into Grades 1 to 5

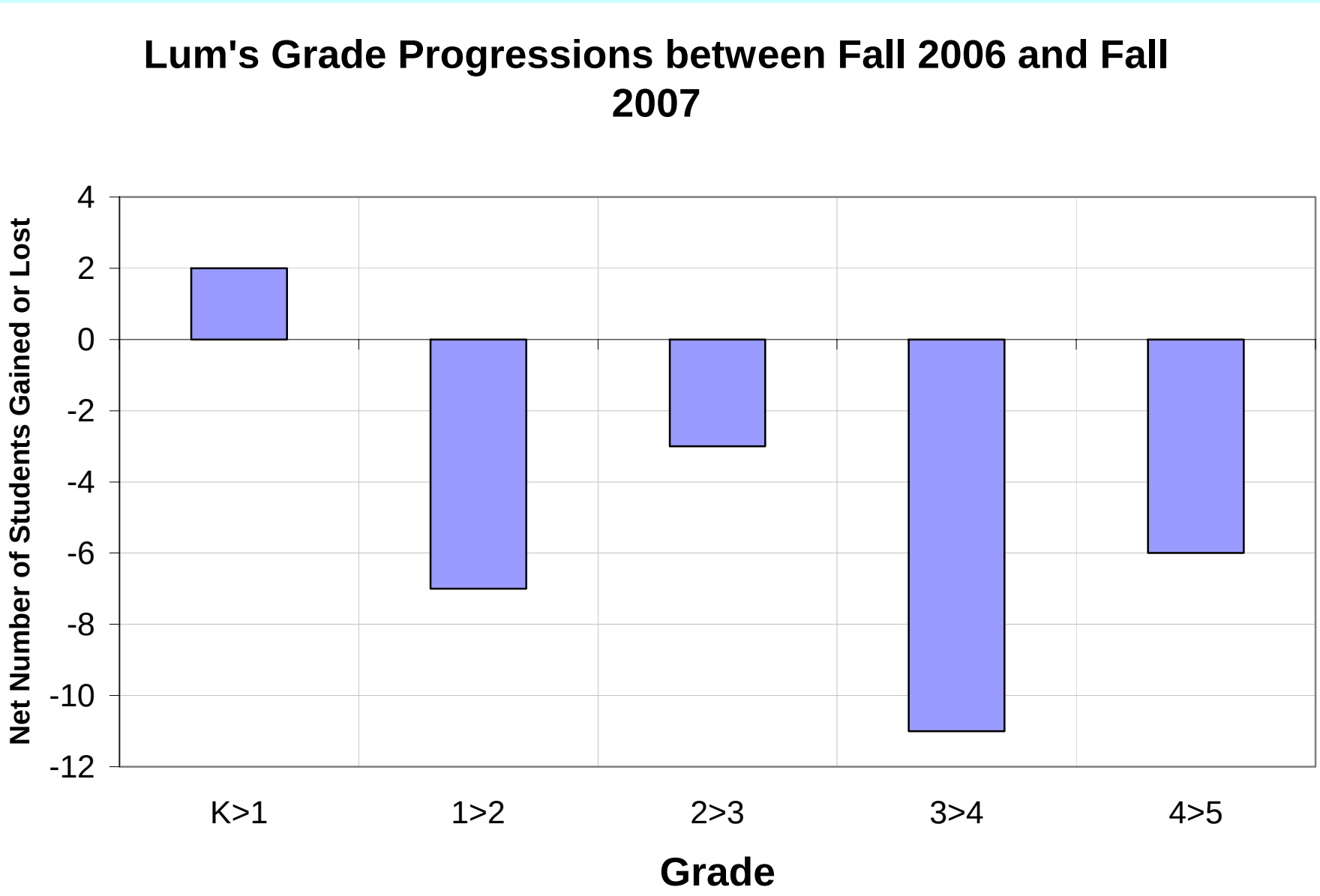


K to 5 Residents
Franklin



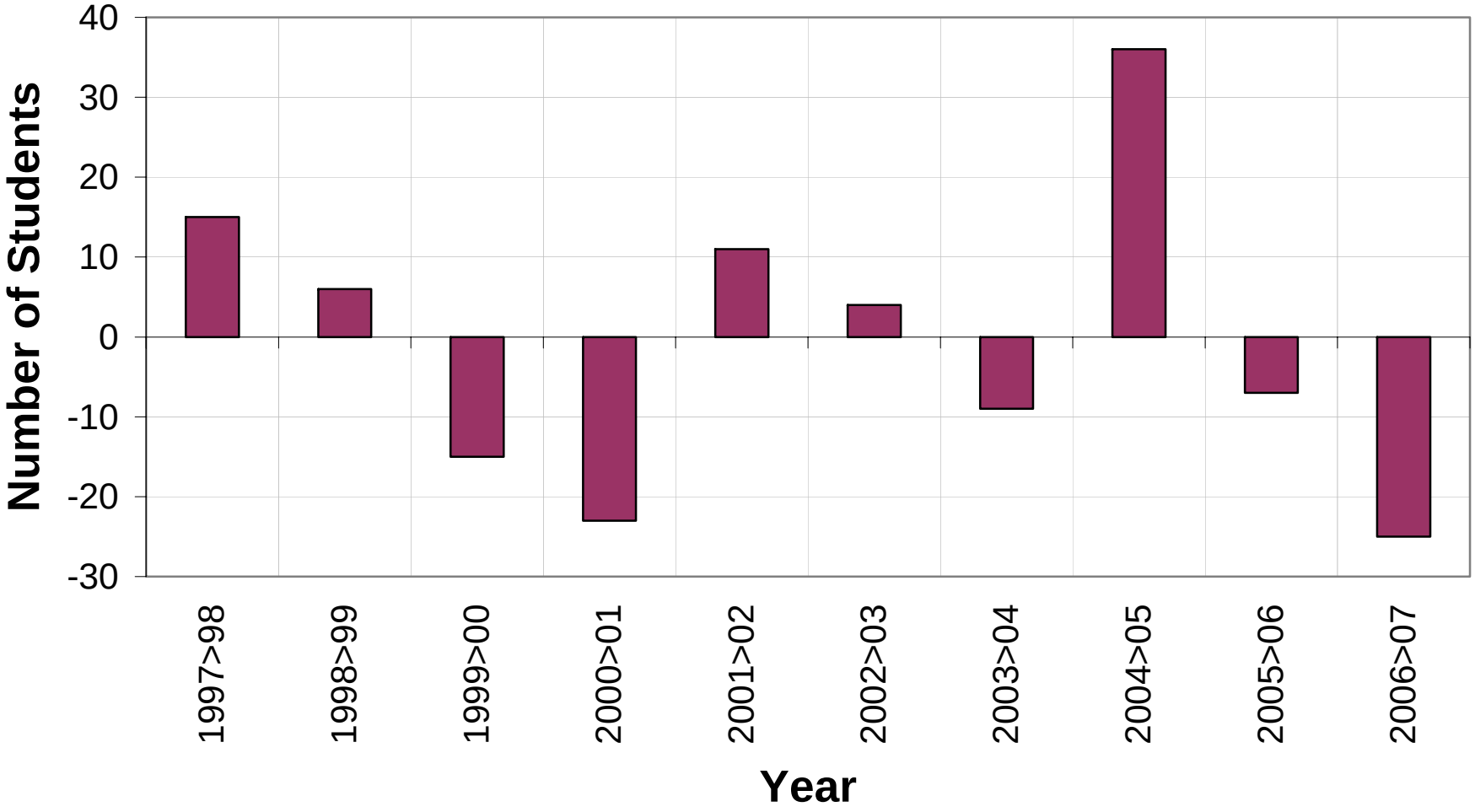

K to 5 Residents
Lum
Number of Students
600
500
400
300
200
100
0
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
Year


Lum Residents' Kindergartners
Number of Students
100
90
80
70
60
50
40
30
20
10
0
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
Year

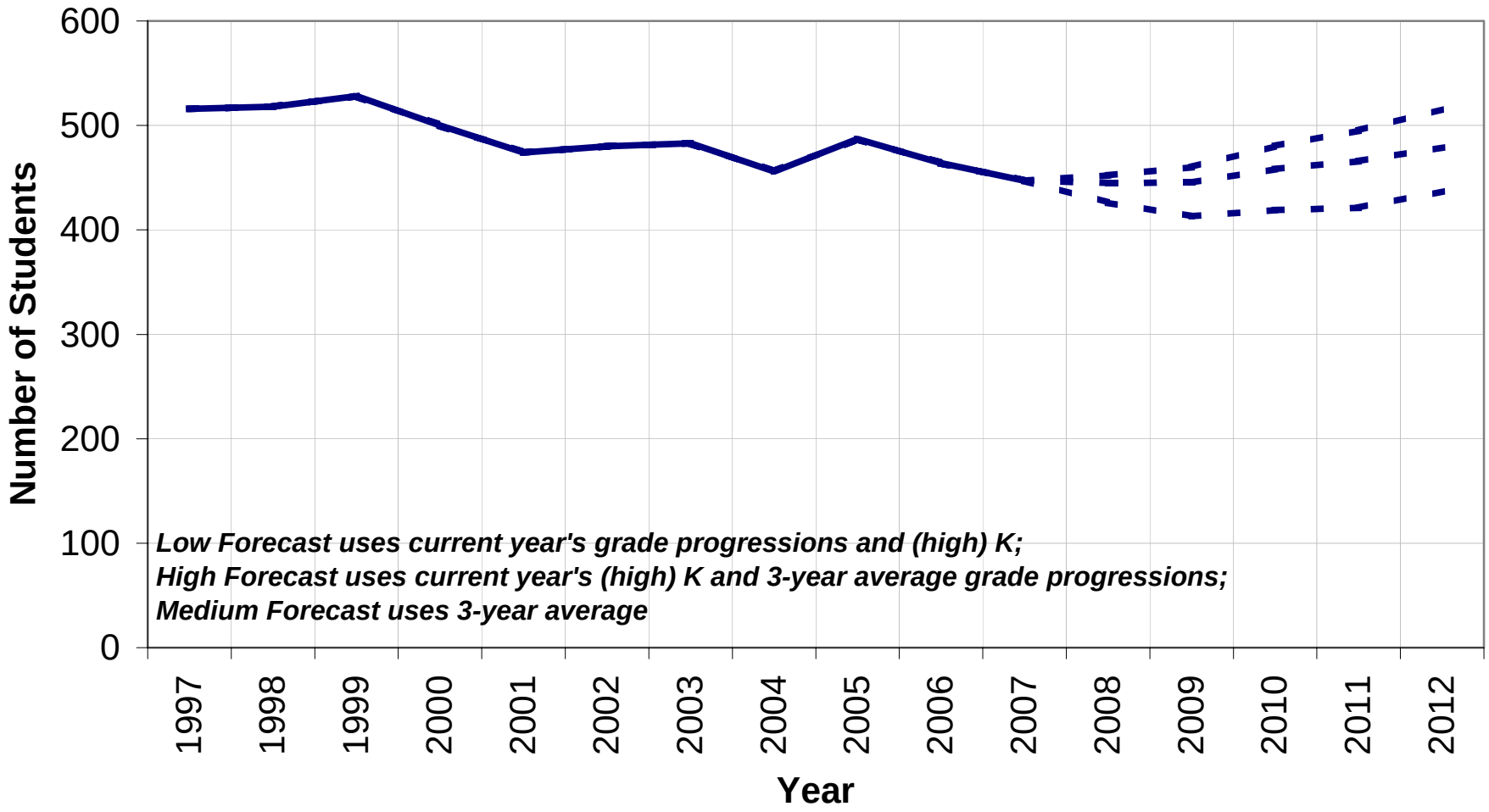

Lum's Grade Progressions between Fall 2006 and Fall 2007
Net Number of Students Gained or Lost
4
2
0
-2
-4
-6
-8
-10
-12
K>1
1>2
2>3
3>4
4>5
Grade

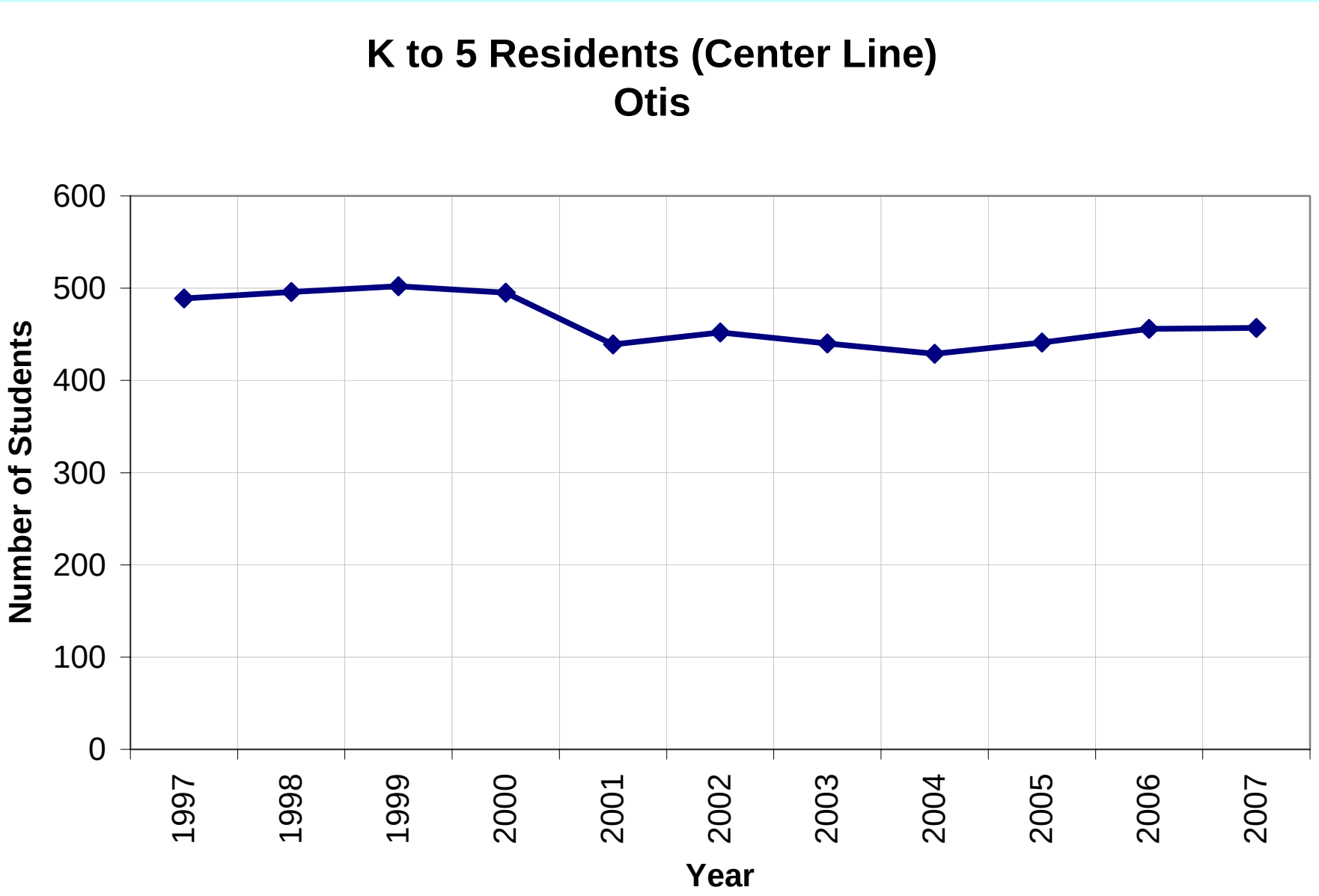
Lum Elementary Grade Progressions Summarized

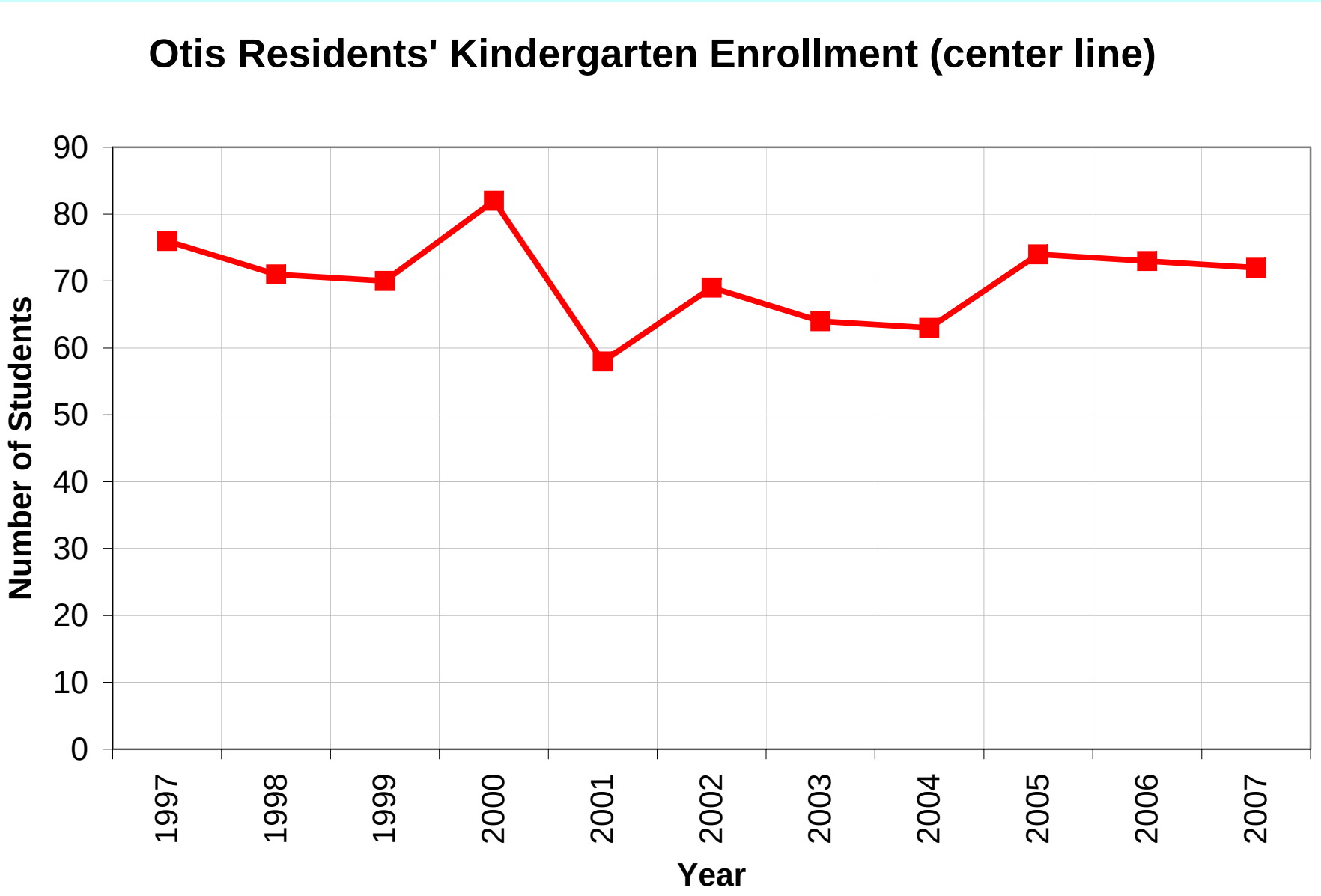
Grades K to 4 into Grades 1 to 5



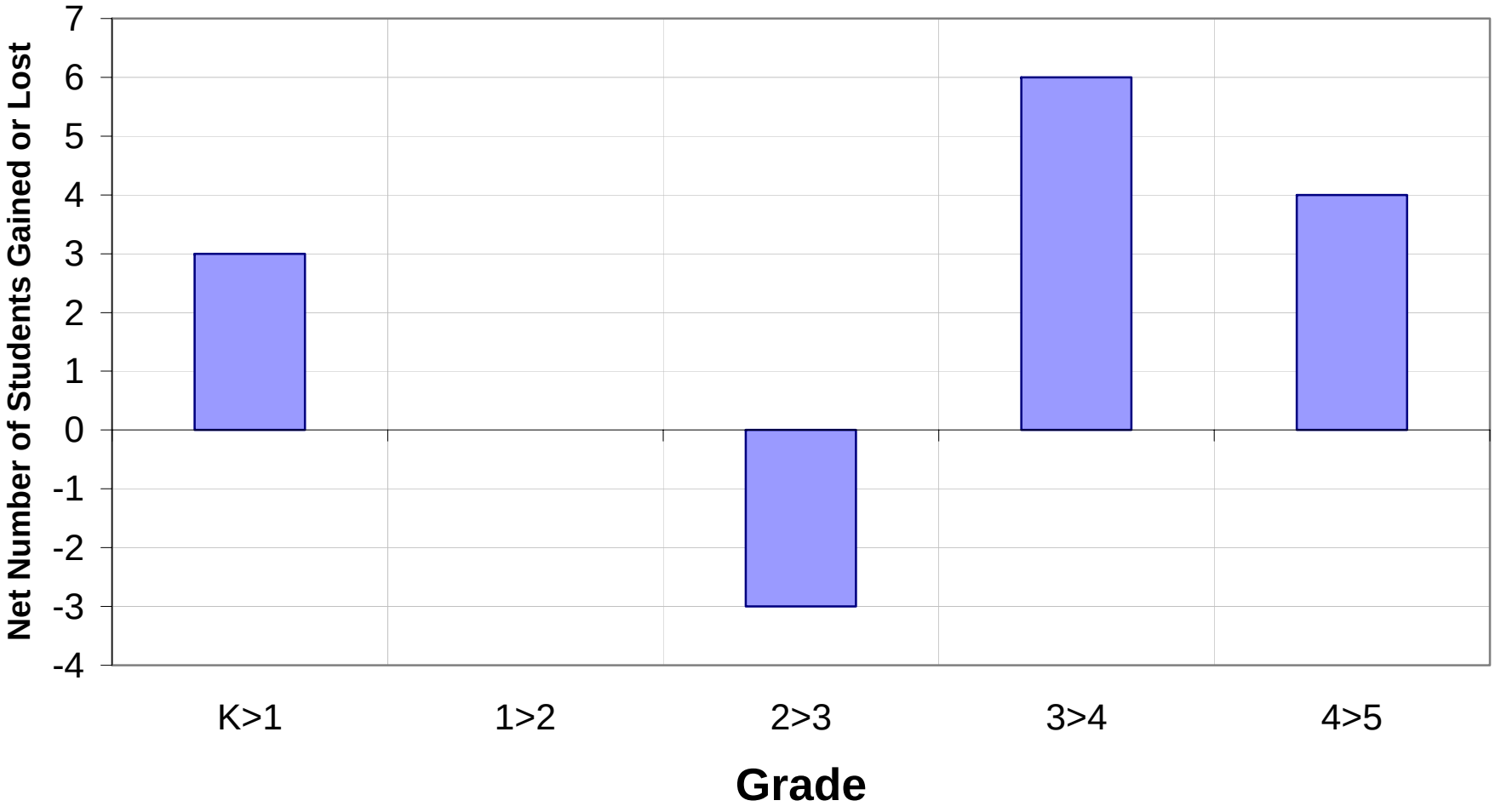
K to 5 Residents
Lum

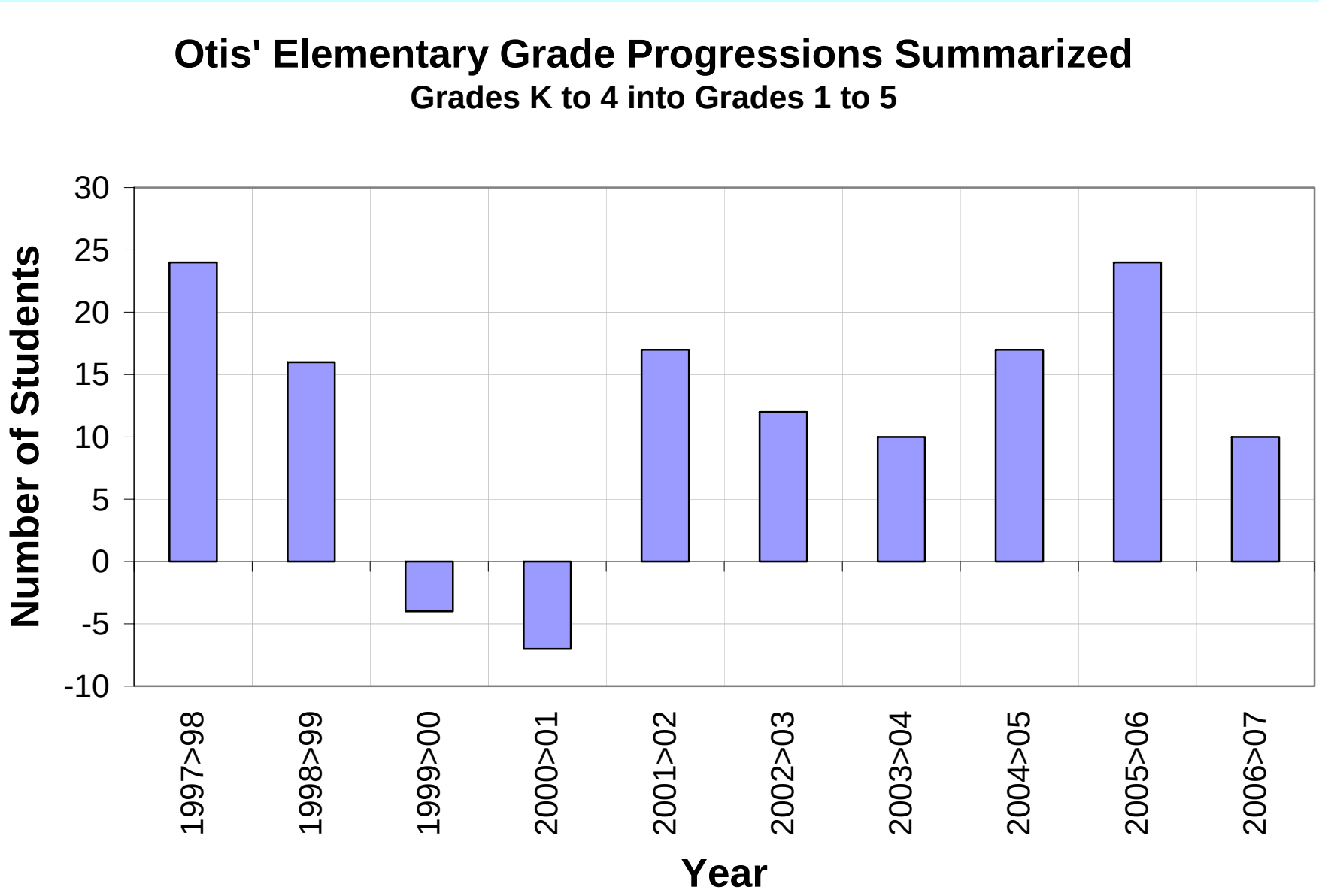


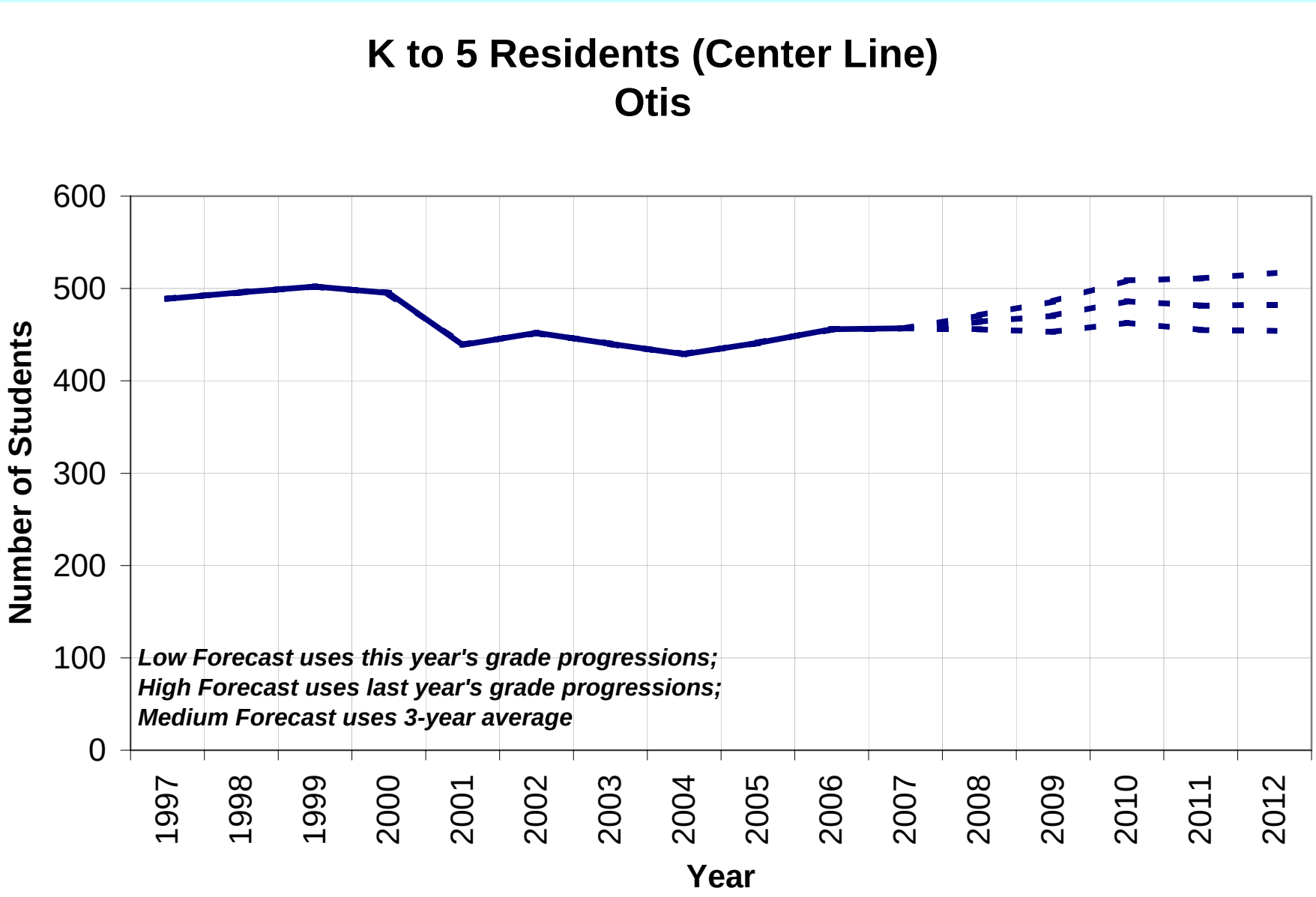

K to 5 Residents (Center Line)
Otis
Number of Students
600
500
400
300
200
100
0
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
Year

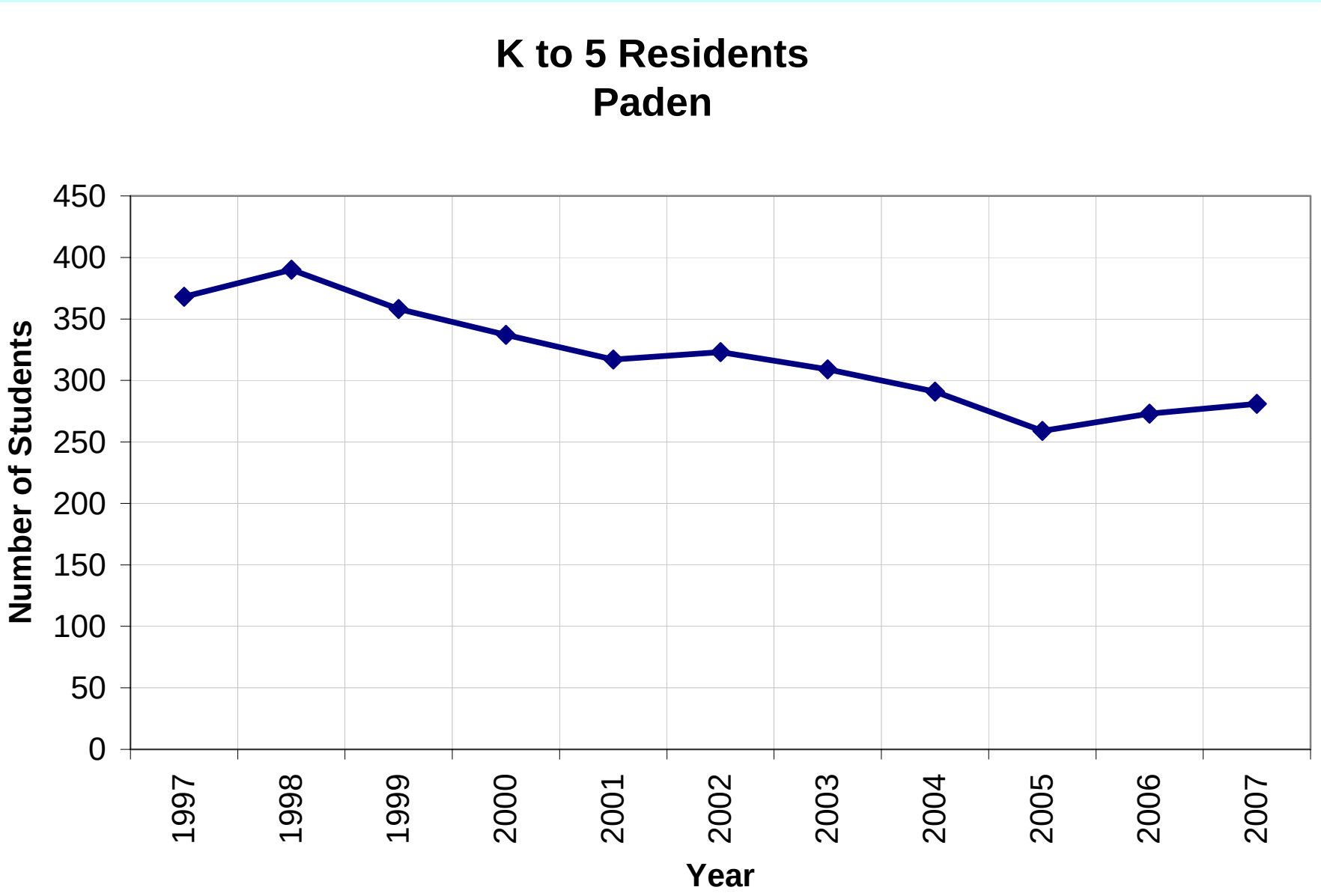

Otis Residents' Kindergarten Enrollment (center line)
Number of Students
90
80
70
60
50
40
30
20
10
0
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
Year

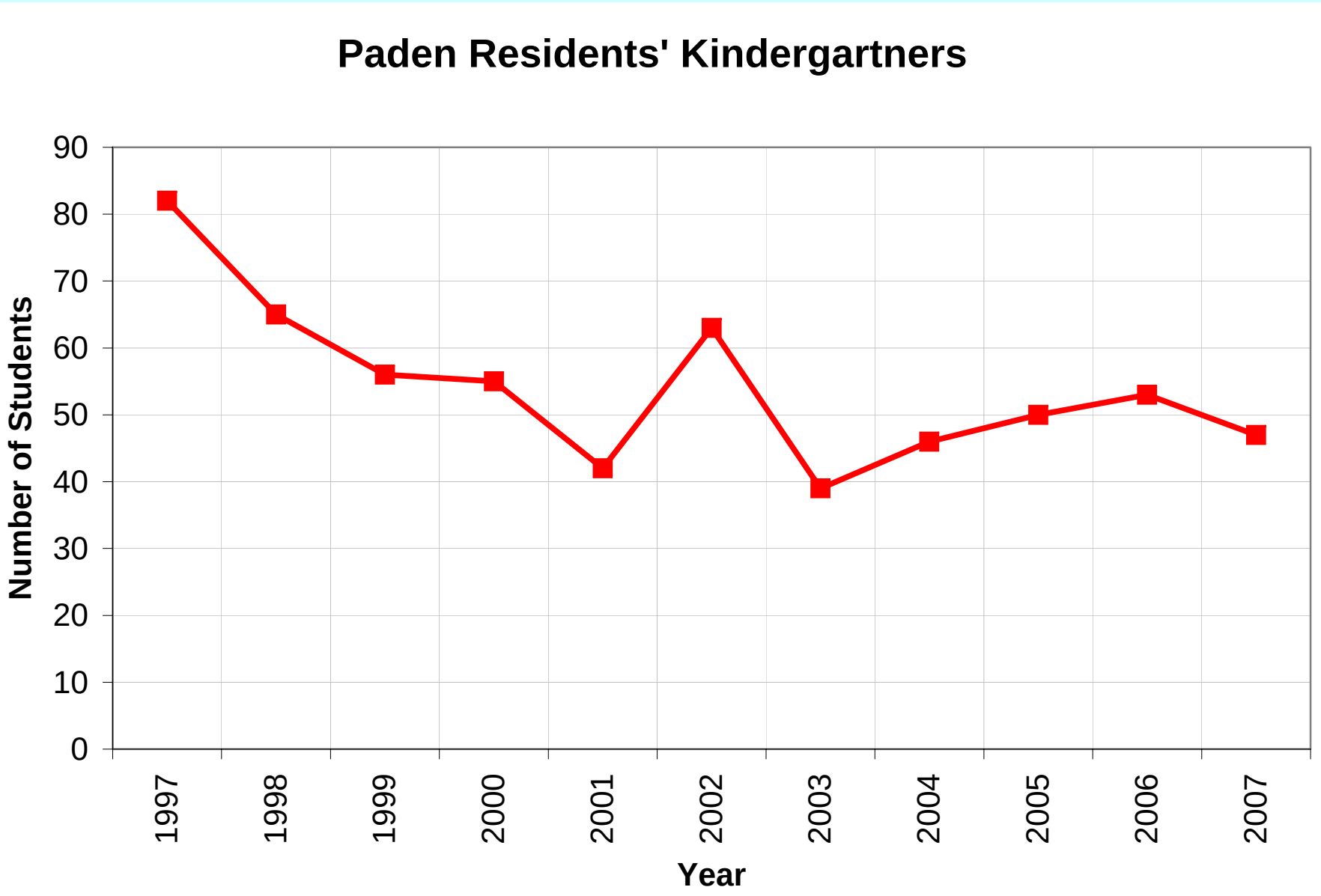
Otis' Grade Progressions between Fall 2006 and Fall 2007

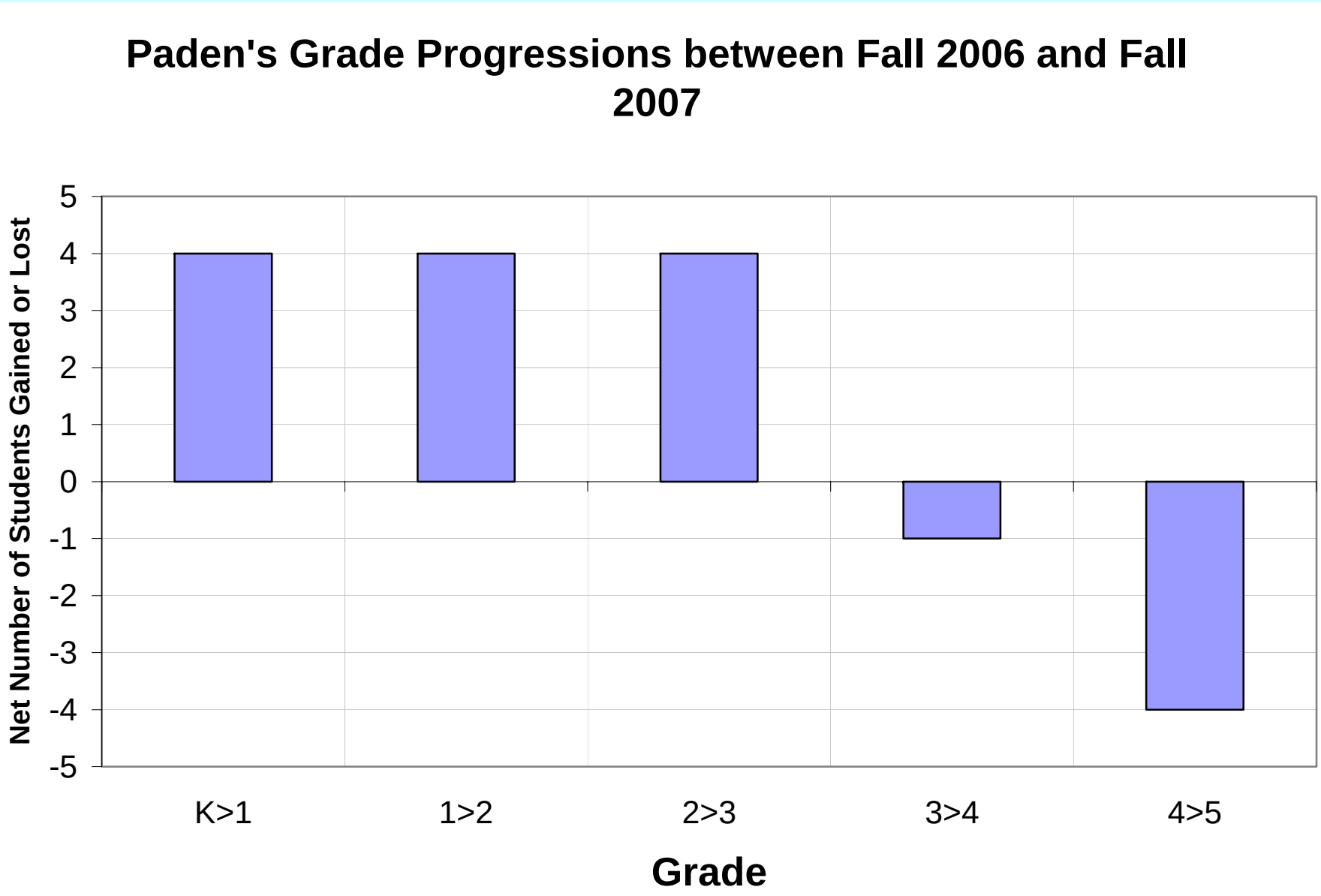



Otis' Elementary Grade Progressions Summarized
Grades K to 4 into Grades 1 to 5
Number of Students
30
25
20
15
10
5
0
-5
-10
1997>98
1998>99
1999>00
2000>01
2001>02
2002>03
2003>04
2004>05
2005>06
2006>07
Year


K to 5 Residents (Center Line)
Otis
Number of Students
600
500
400
300
200
100
0
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
Year
Low Forecast uses this year's grade progressions;
High Forecast uses last year's grade progressions;
Medium Forecast uses 3-year average

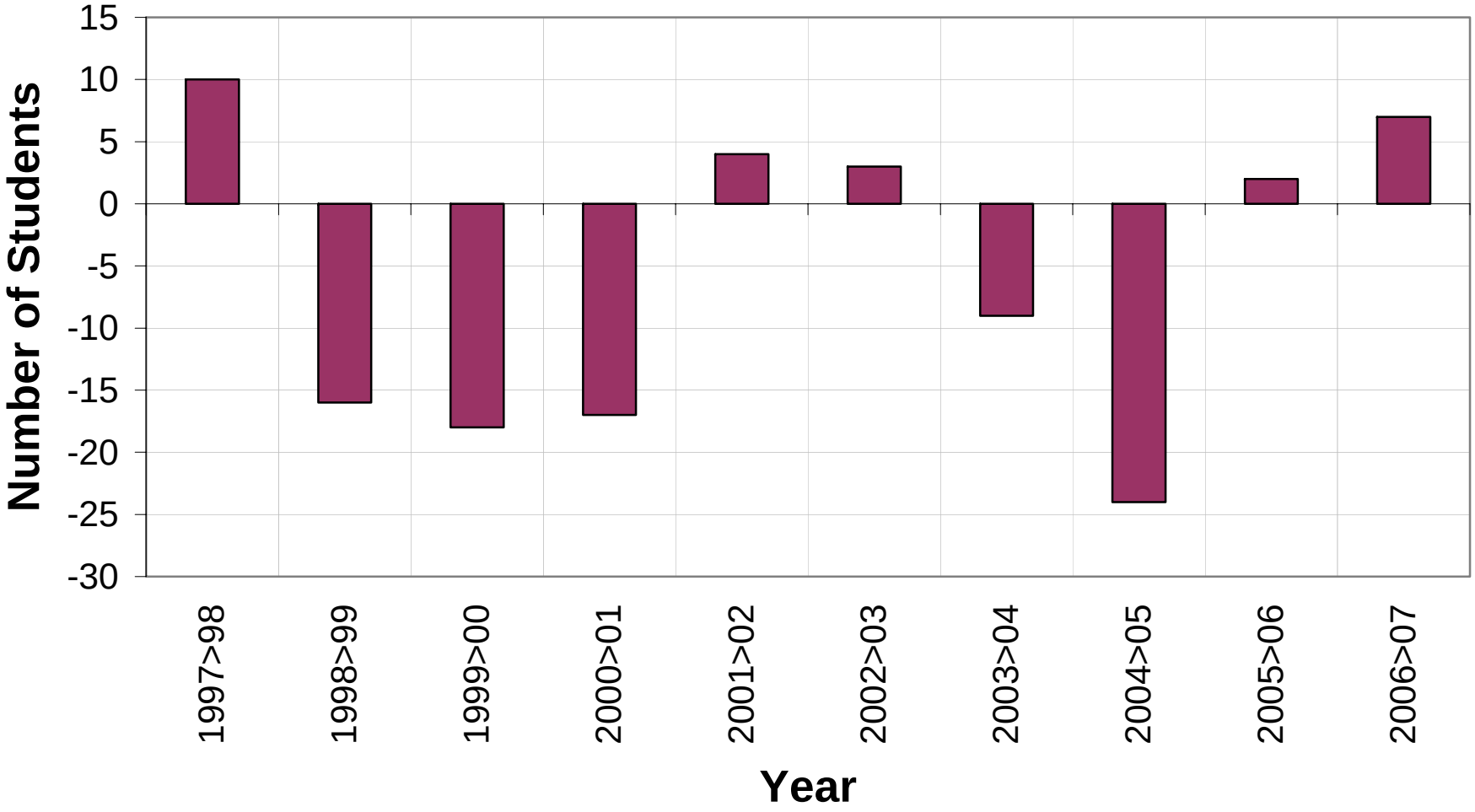

K to 5 Residents
Paden
Number of Students
450
400
350
300
250
200
150
100
50
0
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
Year


Paden Residents' Kindergartners
Number of Students
90
80
70
60
50
40
30
20
10
0
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
Year

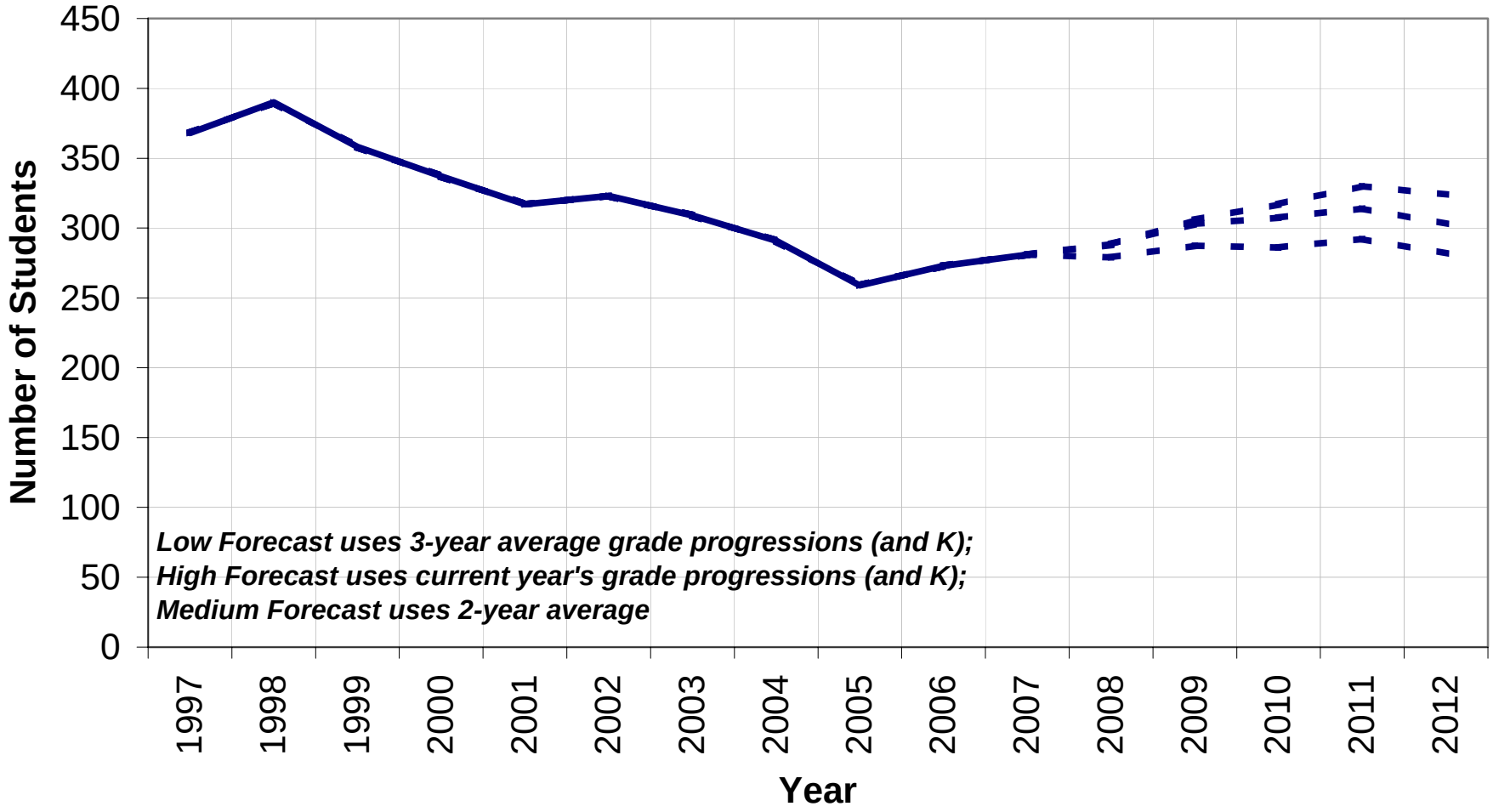

Paden's Grade Progressions between Fall 2006 and Fall 2007
Net Number of Students Gained or Lost
5
4
3
2
1
0
-1
-2
-3
-4
-5
K>1
1>2
2>3
3>4
4>5
Grade

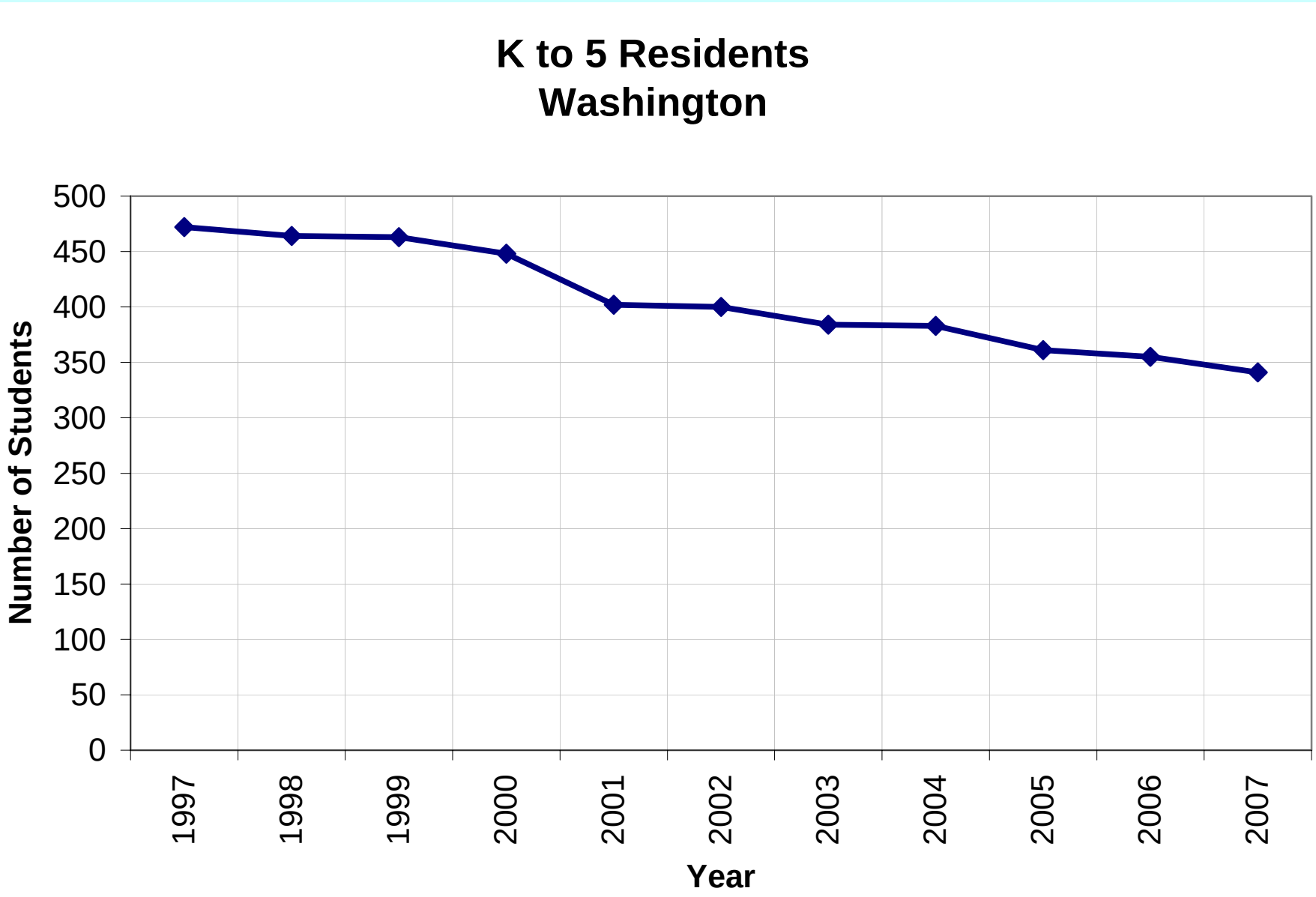
Paden Elementary Grade Progressions Summarized

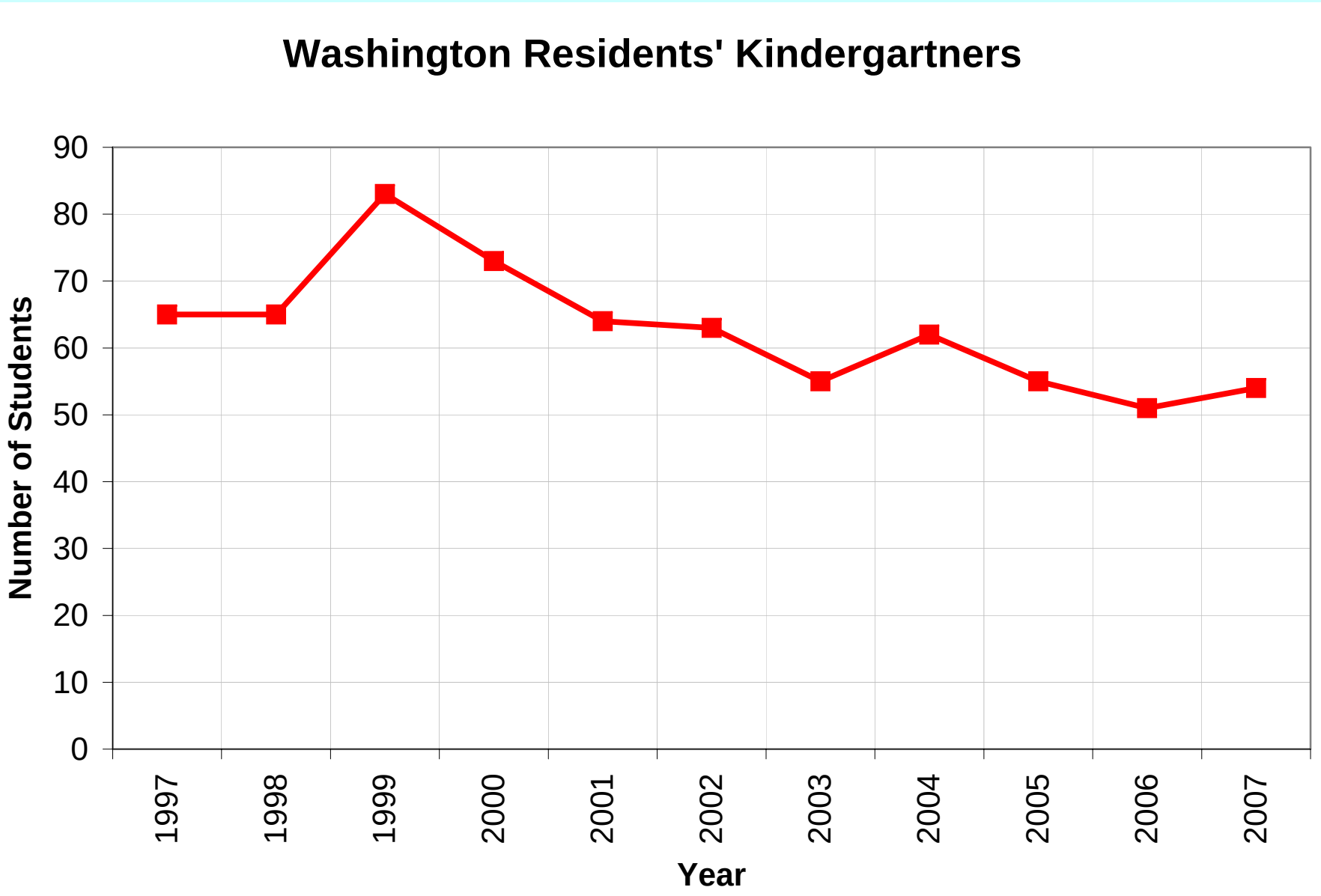
Grades K to 4 into Grades 1 to 5

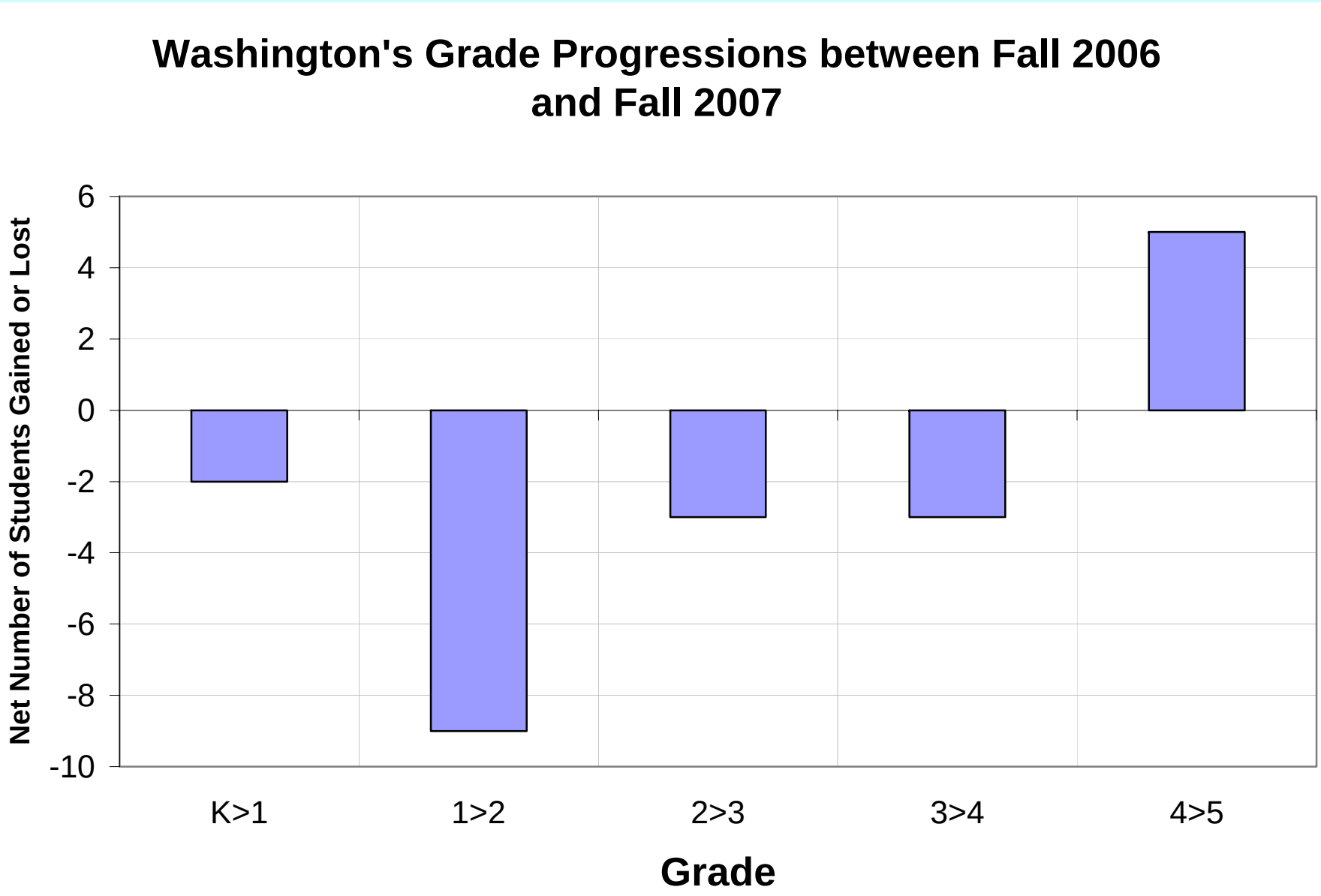


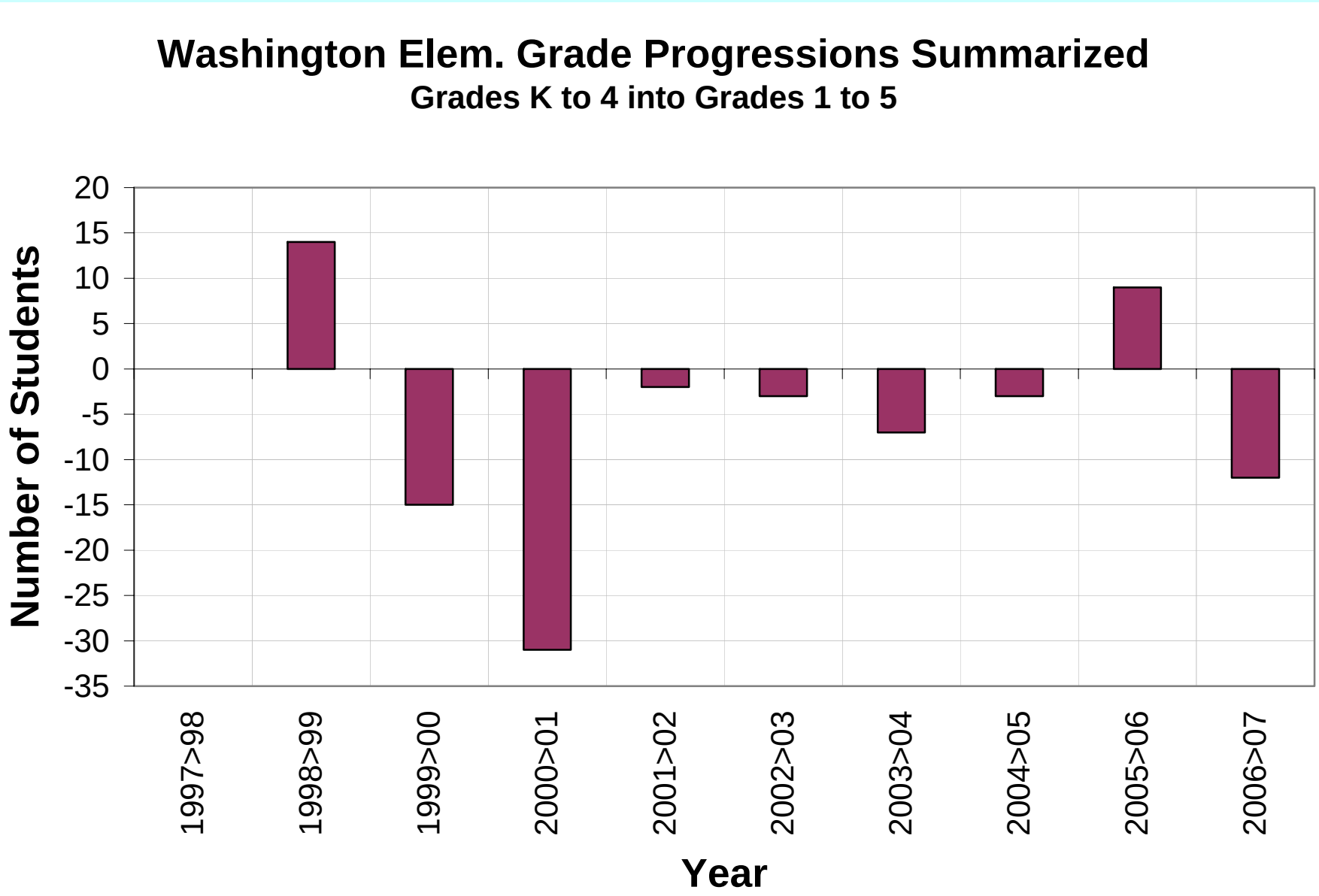
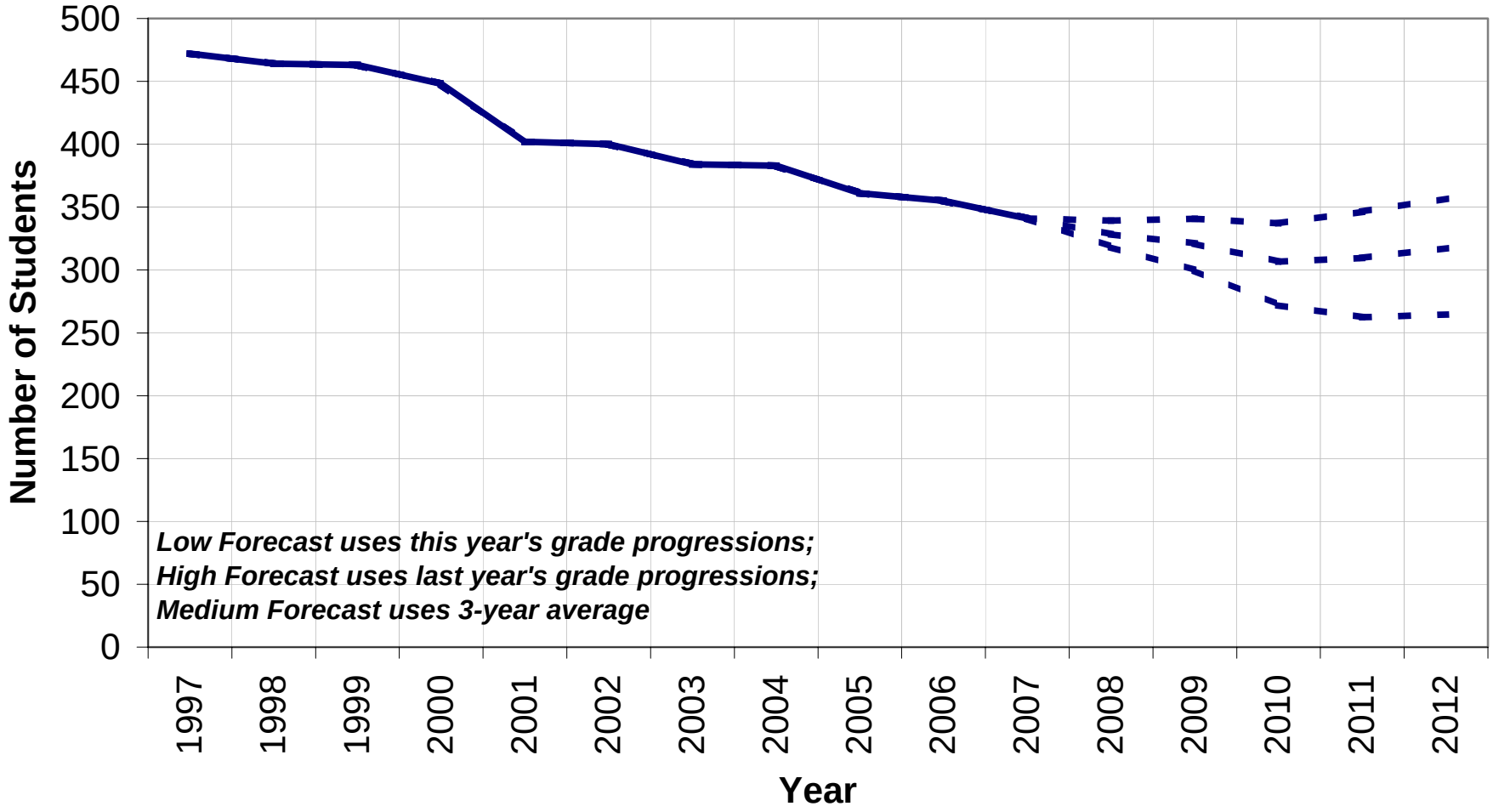
K to 5 Residents
Paden




K to 5 Residents
Washington
Number of Students
500
450
400
350
300
250
200
150
100
50
0
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
Year


Washington Residents' Kindergartners
Number of Students
90
80
70
60
50
40
30
20
10
0
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
Year


Washington's Grade Progressions between Fall 2006 and Fall 2007
Net Number of Students Gained or Lost
6
4
2
0
-2
-4
-6
-8
-10
K>1
1>2
2>3
3>4
4>5
Grade


Washington Elem. Grade Progressions Summarized
Grades K to 4 into Grades 1 to 5
Number of Students
20
15
10
5
0
-5
-10
-15
-20
-25
-30
-35
1997>98
1998>99
1999>00
2000>01
2001>02
2002>03
2003>04
2004>05
2005>06
2006>07
Year

K to 5 Residents
Washington