SCHOOL ENROLLMENT PROJECTIONS FOR ROCHESTER, NEW HAMPSHIRE 2001-02

Prepared for:

The Rochester School Department

Prepared by:

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April, 2002

D. Projections of Entering First Grade Class Sizes

Between 1995-96 and 1999-00, resident births in Rochester averaged 393 annually, which was similar to the average annual number of births that occurred between 1997-98 and 1999-00, or 394 births. However, there have been swings in the level of resident births over the last five years which will contribute to swings in the first grade enrollment.

1. Best Fit Projections

Planning Decisions' "best fit" model is based on resident birth levels in Rochester between 1997-98 and 1999-00, and a continuation of an out-migration of preschool-aged children similar to the level of out-migration that occurred over the last seven years. Under the "best fit" model, Planning Decisions projects that first grade enrollment will increase from the current 2001-02 enrollment of 328 students to range between 334 and 368 students through 2011-12. However, this is a projected increase only because 2001-02 experienced a low enrollment year because of a low birth year in 1994-95. Future enrollment will actually be at a level similar to that seen between 1998-99 and 2000-01, which had declined over the last ten years. In addition, the average annual enrollment over the next ten years should be about 350 students. ***(See Table II-3 and Figure II-1).***

Table II-3 - Projected First Grade Enrollment, 2002-2011
City of Rochester, New Hampshire - Best Fit Model

Birth Year	# of Births	1st Grade Year	1st Grade Enrollment	Ratio 1st/Birth
1995-96	379	2002-03	337	0.889
1996-97	403	2003-04	358	0.889
1997-98	414	2004-05	368	0.889
1998-99	376	2005-06	334	0.889
1999-00	391	2006-07	348	0.889
2000-01*	394	2007-08	350	0.889
2001-02*	394	2008-09	350	0.889
2002-03*	394	2009-10	350	0.889
2003-04*	394	2010-11	350	0.889
2004-05*	394	2011-12	350	0.889
Avg. 98-00	394	**Avg. 02-11**	350	

Note: Enrollment figures do not include tuition students.
Sources: Births 1995-2000 - Bureau of Health Statistics and Data Management, New Hampshire Department of Health and Human Services. *2000-01 to 2004-05 births estimated by Planning Decisions based on average births between 1997-98-1999-00. 1st Grade Enrollment - Projected by Planning Decisions, Inc.

2. Recent Migration Projections

In addition to the "recent migration" projections, Planning Decisions developed a second set of projections based on the impacts of the recent (last three-years) decrease in preschool and in-grade net out-migration which appears to be driven by the recent higher levels of residential development in the City. This second set of projections is called the "recent migration" projections. An analysis on how the "recent migration" projections were made is in **Section VI** of this report.

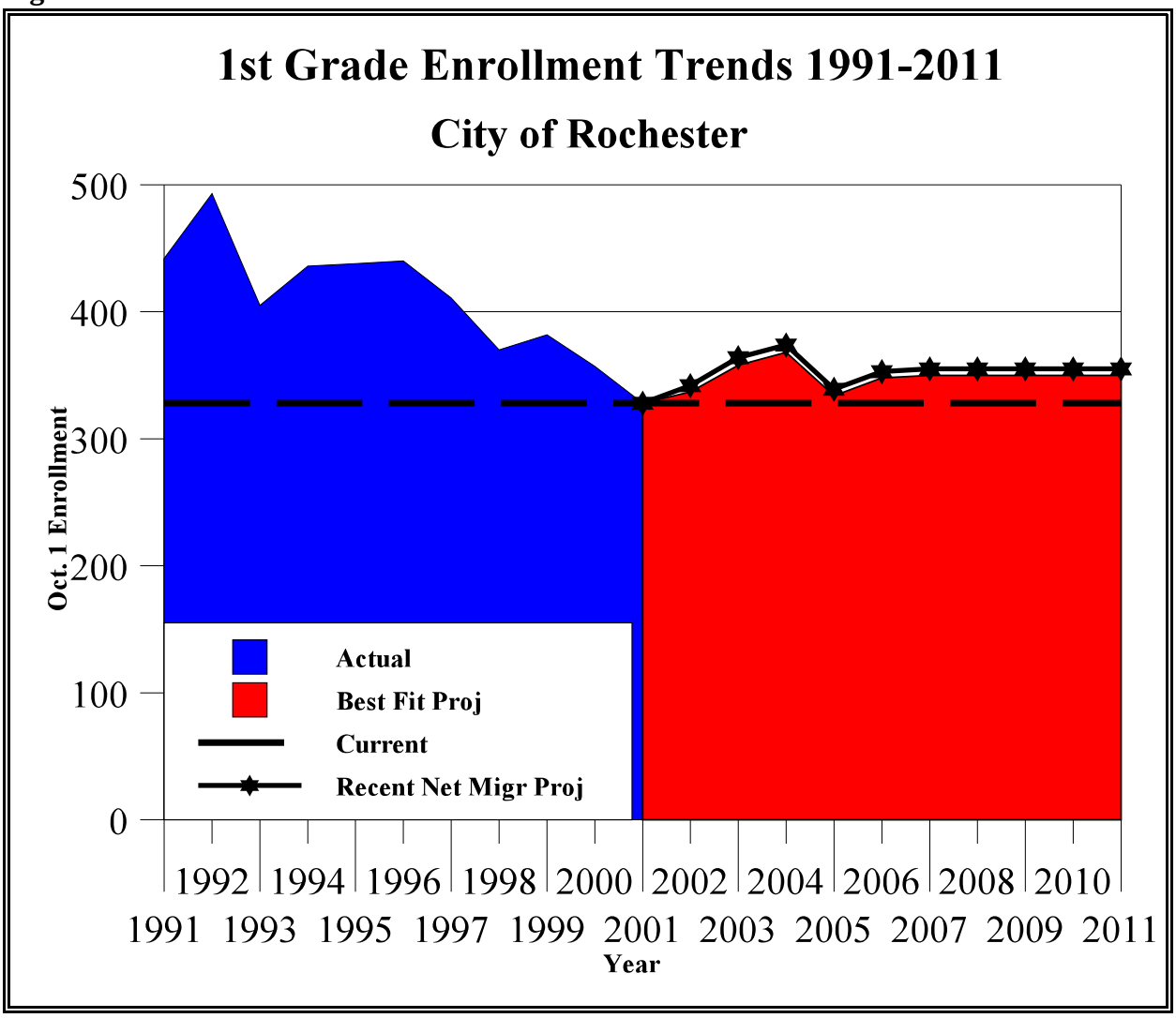
Planning Decisions' "recent migration" model is based on resident birth levels in Rochester between 1997-98 and 1999-00, and a continuation of an out-migration of preschool-aged children similar to the level of out-migration that occurred over the last three years. Under the "best fit" model, Planning Decisions projects that first grade enrollment will increase from the current 2001-02 enrollment of 328 students to range between 339 students and 374 students through 2011-12. Again, this is a projected increase only because 2001-02 experienced a low enrollment year because of a low birth year in 1994-95. In addition, the average annual enrollment over the next ten years should be about 355 students. ***(See Table II-4 and Figure II-1).***

Table II-4 - Projected First Grade Enrollment, 2002-2011
City of Rochester, New Hampshire - Recent Migration Model

Birth Year	# of Births	1st Grade Year	1st Grade Enrollment	Ratio 1st/Birth
1995-96	379	2002-03	342	0.903
1996-97	403	2003-04	364	0.903
1997-98	414	2004-05	374	0.903
1998-99	376	2005-06	339	0.903
1999-00	391	2006-07	353	0.903
2000-01*	394	2007-08	355	0.903
2001-02*	394	2008-09	355	0.903
2002-03*	394	2009-10	355	0.903
2003-04*	394	2010-11	355	0.903
2004-05*	394	2011-12	355	0.903
Avg. 98-00	394	**Avg. 02-11**	355	

Note: Enrollment figures do not include tuition students.
Sources: Births 1995-2000 - Bureau of Health Statistics and Data Management, New Hampshire Department of Health and Human Services. *2000-01 to 2004-05 births estimated by Planning Decisions based on average births between 1997-98-1999-00. 1st Grade Enrollment - Projected by Planning Decisions, Inc.

Figure II-1


1st Grade Enrollment Trends 1991-2011
City of Rochester
500
400
300
200
100
0
Oct. 1 Enrollment
Actual
Best Fit Proj
Current
Recent Net Migr Proj
1992
1994
1996
1998
2000
2002
2004
2006
2008
2010
1991
1993
1995
1997
1999
2001
2003
2005
2007
2009
2011
Year

III. ELEMENTARY ENROLLMENT (K, 1-5)

The elementary level for the Rochester School Department includes the Kindergarten through the fifth grade. Students in these grades attend one of the following schools: Chamberlain Street School, the East Rochester Annex, the East Rochester School, the Gonic School, the Maple Street School, the McClelland School, the School Street School or the William E. Allen School.

Because Kindergarten classes began in Rochester starting with the 2000-01 school year, Planning Decisions will discuss trends for elementary enrollment in terms of Kindergarten by itself as well as the first through fifth grade. In addition, enrollment figures exclude tuitioned students.

A. Historical Enrollment

Since Kindergarten classes in Rochester began in 2000-01 there are no historical trends in enrollment to discuss. ***(See Table III-1).***

At the first through fifth grade level combined, between 1991-92 and 1995-96 enrollment remained fairly stable, ranging between 1,935 and 1,975 students. Following 1995-96, enrollment declined yearly reaching 1,744 students by 2001-02. ***(See Table III-1 and Figure III-1).***

Table III-1 - Historical Elementary Enrollment (K, 1-5) - 1991-2001
City of Rochester, New Hampshire

School Year	Grade						Total (1-5)
	K	1st	2nd	3rd	4th	5th	
1991-92	—	442	404	382	366	350	1,944
1992-93	—	493	378	365	394	341	1,971
1993-94	—	405	388	394	382	366	1,935
1994-95	—	436	356	395	400	388	1,975
1995-96	—	438	390	357	379	402	1,966
1996-97	—	440	387	383	324	381	1,915
1997-98	—	411	398	369	371	317	1,866
1998-99	—	370	377	363	353	363	1,826
1999-00	—	380	329	381	338	337	1,765
2000-01	203	357	349	325	385	346	1,762
2001-02	236	328	343	345	342	386	1,744

Note: Enrollment figures exclude tuition students.
Source: Rochester, NH School Department

B. Best Fit Projections

Based on conversations with the Superintendent of Rochester Schools, the projection for the Kindergarten class in 2002-03 and 2003-04 was based on 75% of the projected first grade class enrolling in Kindergarten. This estimate assumes that Rochester will continue to offer half-day Kindergarten classes without offering midday transportation for Kindergarten students. In addition, the estimate assumes that private schools will continue to offer Kindergarten classes, and will continue to require children to attend Kindergarten at their school if daycare before or after class is needed. Between 2004-05 and 2011-12, Planning Decisions projected Kindergarten by estimating that 80% of the projected first grade class will enroll in Kindergarten in the Rochester Schools. This increase is made assuming that midday transportation for Kindergarten students becomes available, but also takes into consideration the continuation of private schools offering classes and requiring attendance at their schools if daycare before or after class is needed. Therefore, barring significant changes in school policy in regards to Kindergarten classes, Planning Decisions projects that Kindergarten enrollment will range between 269 and 280 students.

Based on average births to residents of Rochester since 1998-99 and a continuation of preschool out-migration levels similar to that experienced over the last seven years, Planning Decisions projects that 1-5 enrollment will decline from the current enrollment of 1,744 students, but will remain fairly consistent, ranging between 1,596 and 1,659 students through 2011-12. ***(See Table III-2 and Figure III-1).***

Table III-2 - Projected Elementary Enrollment (K, 1-5) - 2002-2011
City of Rochester, New Hampshire - Best Fit Model

School Year	Grade						Total (1-5)
	K	1st	2nd	3rd	4th	5th	
2001-02*	**236**	**328**	**343**	**345**	**342**	**386**	**1,744**
2002-03	269	337	301	342	341	338	1,659
2003-04	276	358	309	300	337	336	1,640
2004-05	268	368	329	308	296	333	1,634
2005-06	278	334	338	328	304	292	1,596
2006-07	280	348	307	337	324	300	1,616
2007-08	280	350	319	306	332	320	1,627
2008-09	280	350	321	318	302	328	1,619
2009-10	280	350	321	320	314	298	1,603
2010-11	280	350	321	320	316	310	1,617
2011-12	280	350	321	320	316	312	1,619

Note: Enrollment figures exclude tuition students.
Sources: *2001-02 - actual enrollment, Rochester, NH School Department; all other years - projected by Planning Decisions, Inc.

C. Recent Migration Projections

Under the "recent migration" model, Kindergarten was also based on 75% of the projected first grade class enrolling in Kindergarten in 2002-03 and 2003-04, and 80% of the projected first grade enrolling from 2004-05 through 2011-12. Therefore, barring significant changes in school policy in regards to Kindergarten classes, Planning Decisions "recent migration" model projects that Kindergarten enrollment will range between 273 and 284 students.

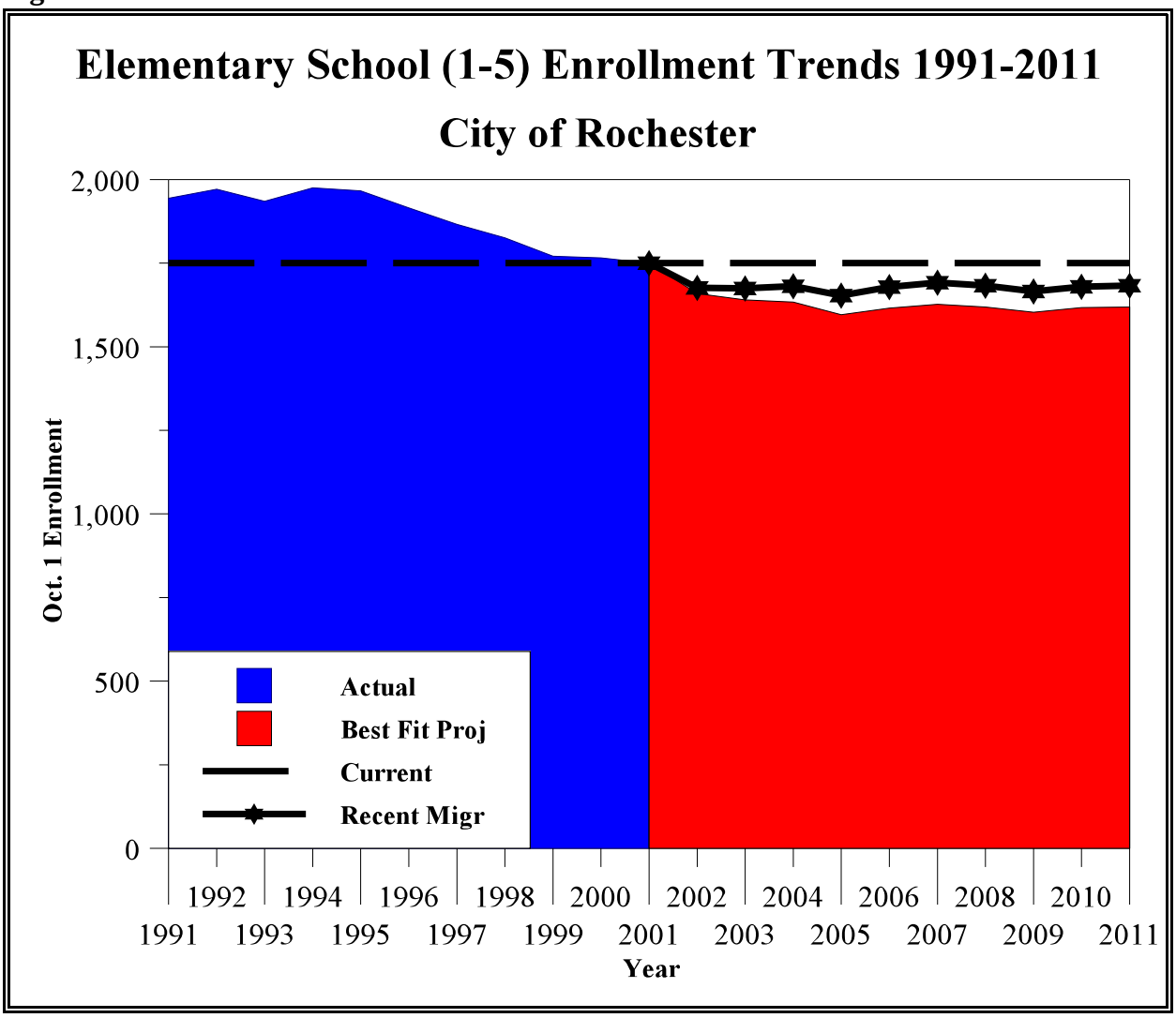
The "recent migration" model is based on average births to residents of Rochester since 1998-99 and a continuation of preschool out-migration levels similar to that experienced over the last three years and grade-to-grade net migration that occurred over the last three years, with the exception of Kindergarten class and the eleventh and the twelfth grade. The eleventh and twelfth grade was projected using the last two years of net migration. Under this model, Planning Decisions projects that grades 1-5 enrollment will decline from the current enrollment of 1,744 students, but will remain fairly consistent, ranging between 1,653 and 1,692 students through 2011-12. ***(See Table III-3 and Figure III-1).***

Table III-3 - Projected Elementary Enrollment (K, 1-5) - 2002-2011
City of Rochester - Recent Migration Model

School Year	Grade						Total (1-5)
	K	1st	2nd	3rd	4th	5th	
2001-02*	**236**	**328**	**343**	**345**	**342**	**386**	**1,744**
2002-03	273	342	308	342	344	340	1,676
2003-04	280	364	321	307	341	342	1,675
2004-05	272	374	342	320	306	339	1,681
2005-06	282	339	351	340	319	304	1,653
2006-07	284	353	319	350	340	317	1,679
2007-08	284	355	332	318	349	338	1,692
2008-09	284	355	334	330	317	347	1,683
2009-10	284	355	334	332	330	315	1,666
2010-11	284	355	334	332	332	327	1,680
2011-12	284	355	334	332	332	330	1,683

Note: Enrollment figures exclude tuition students.
Sources: *2001-02 - actual enrollment, Rochester, NH School Department; all other years - projected by Planning Decisions, Inc.

Figure III-1


Elementary School (1-5) Enrollment Trends 1991-2011
City of Rochester
2,000
1,500
1,000
500
0
Oct. 1 Enrollment
Actual
Best Fit Proj
Current
Recent Migr
1992
1994
1996
1998
2000
2002
2004
2006
2008
2010
1991
1993
1995
1997
1999
2001
2003
2005
2007
2009
2011
Year

IV. MIDDLE SCHOOL ENROLLMENT (6-8)

The middle school level in Rochester includes the sixth through the eighth grade. Students in these grades attend the Rochester Middle School.

A. Historical Enrollment

Between 1991-92 and 1993-94, enrollment in grades 6-8 fluctuated. Enrollment declined from 1,046 students in 1991-92 to reach 908 students in 1992-93, but then increased to reach 1,083 students 1993-94. The source of this decline was an out-migration of students moving from the seventh grade in 1991-92 to the eighth grade in 1992-93. Based on discussions with the Superintendent of Schools in Rochester, this fluctuation was an anomaly that was never fully understood but could potentially be attributed to a recession at that time which hit the community very hard, and possibly caused a number of people to move. However, it is still unclear why the seventh and eighth grade experienced such a decline. Following 1993-94, enrollment at the middle school increased, ranging between 1,114 and 1,156 students through 1997-98. Following 1997-98, enrollment in grades 6-8 decreased slightly to a level similar to that experienced in early 1990's, to range between 1,011 and 1,097 students through 2001-02. ***(See Table IV-1 and Figure IV-1).***

Table IV-1 - Historical Middle School Enrollment (6-8) - 1991-2001
City of Rochester, New Hampshire

School Year	Grade			Total (6-8)
	6th	7th	8th	
1991-92	387	340	319	1,046
1992-93	315	300	293	908
1993-94	372	374	337	1,083
1994-95	376	363	375	1,114
1995-96	378	385	369	1,132
1996-97	394	388	368	1,150
1997-98	376	414	366	1,156
1998-99	303	397	397	1,097
1999-00	381	313	370	1,064
2000-01	353	374	284	1,011
2001-02	366	347	365	1,078

Note: Enrollment figures exclude tuition students.
Source: Rochester, NH School Department

B. Best Fit Projections

Planning Decisions' "best fit" model projects that enrollment in grades 6-8 will be similar to the current level of 1,078 students, ranging between 1,037 and 1,104 students through 2005-06. Following 2005-06, enrollment will decline and range between 942 and 979 students through 2011-12 as the smaller 1-5 classes discussed previously enter into the middle school. ***(See Table IV-2 and Figure IV-1).***

Table IV-2 - Projected Middle School Enrollment (6-8) - 2002-2011
City of Rochester, New Hampshire - Best Fit Model

School Year	Grade			Total (6-8)
	6th	7th	8th	
2001-02*	**366**	**347**	**365**	**1,078**
2002-03	406	366	326	1,098
2003-04	355	406	343	1,104
2004-05	354	355	381	1,090
2005-06	350	354	333	1,037
2006-07	308	350	332	990
2007-08	316	307	328	951
2008-09	336	316	288	940
2009-10	345	336	296	977
2010-11	313	345	315	973
2011-12	326	313	324	963

Note: Enrollment figures exclude tuition students.
Sources: *2001-02 - actual enrollment, Rochester NH School Department; all other years - projected by Planning Decisions, Inc.

C. Recent Migration Projections

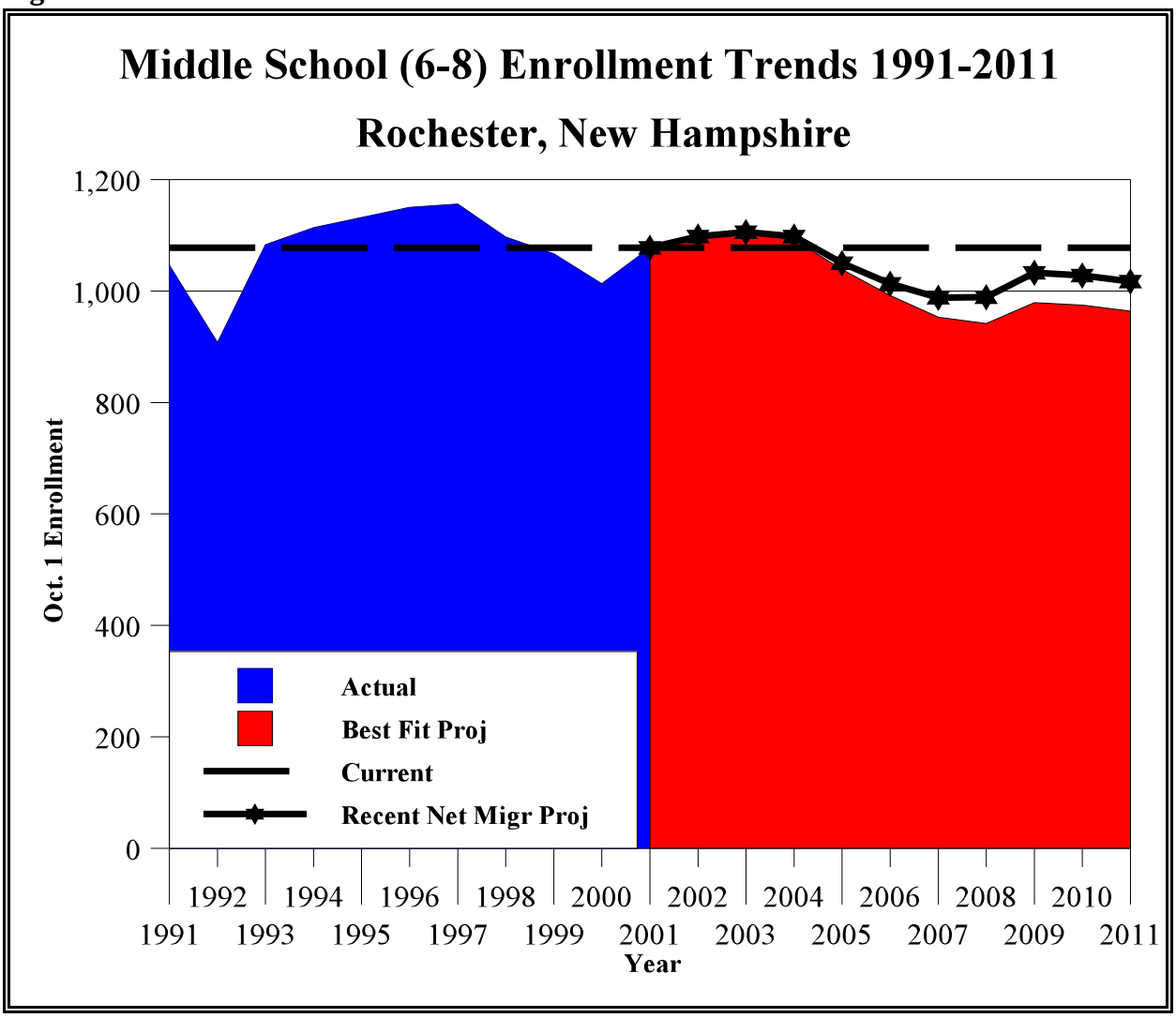
Planning Decisions' "recent migration" model projects that enrollment in grades 6-8 will be similar to the current level of 1,078 students, ranging between 1,050 and 1,106 students through 2005-06. Following 2005-06, enrollment will decline slightly, ranging between 988 and 1,033 students through 2011-12 as the smaller 1-5 classes discussed previously enter into the middle school. ***(See Table IV-3 and Figure IV-1).***

Table IV-3 - Projected Middle School Enrollment (6-8) - 2002-2011
City of Rochester, New Hampshire - Recent Migration Model

School Year	Grade			Total (6-8)
	6th	7th	8th	
2001-02*	366	347	365	1,078
2002-03	406	366	326	1,098
2003-04	357	406	343	1,106
2004-05	360	357	381	1,098
2005-06	356	359	335	1,050
2006-07	320	356	337	1,013
2007-08	334	320	334	988
2008-09	355	334	300	989
2009-10	365	355	313	1,033
2010-11	331	364	333	1,028
2011-12	344	331	342	1,017

Note: Enrollment figures exclude tuition students.
Sources: *2001-02 - actual enrollment, Rochester NH School Department; all other years - projected by Planning Decisions, Inc.

Figure IV-1


Middle School (6-8) Enrollment Trends 1991-2011
Rochester, New Hampshire
1,200
1,000
800
600
400
200
0
Oct. 1 Enrollment
Actual
Best Fit Proj
Current
Recent Net Migr Proj
1992
1994
1996
1998
2000
2002
2004
2006
2008
2010
1991
1993
1995
1997
1999
2001
2003
2005
2007
2009
2011
Year

V. HIGH SCHOOL ENROLLMENT (9-12)

The high school level in Rochester includes the ninth through twelfth grade, and students in these grades attend the Rochester High School. In addition, students are tuitioned into the Rochester High School from the Town of Wakefield at grades nine through twelve.

A. City of Rochester (Non-Tuition Students)

1. Historical Enrollment

Tuition students are not included in the enrollment figures between 1992-93 and 2001-02. However, for the 1991-92 school year the breakdown of tuition students from Rochester students was not available. Therefore, tuition students are included in 1991-92, and enrollment is higher in this year than in the following years.

Disregarding enrollment in 1991-92, enrollment increased from 1,018 students in 1992-93 to reach 1,416 students in 2001-02 as the larger 6-8 class sizes discussed previously entered in the high school. However over the last two years, enrollment appears to have begun to level off. ***(See Table V-1 and Figure V-1).***

Table V-1 - Historical High School Enrollment (9-12) - 1991-2001
City of Rochester, New Hampshire

School Year	Grade				Total (9-12)
	9th	10th	11th	12th	
1991-92	374	325	270	276	1,245
1992-93	251	269	245	253	1,018
1993-94	333	294	266	225	1,118
1994-95	341	292	280	257	1,170
1995-96	379	326	308	265	1,278
1996-97	364	364	304	287	1,319
1997-98	362	337	320	294	1,313
1998-99	367	338	311	301	1,317
1999-00	455	359	260	264	1,338
2000-01	432	385	335	241	1,393
2001-02	335	428	354	299	1,416

Note: A breakdown for the number of tuition students in 1991-92 was not available so tuition students are included in the individual grades. Tuition students from 1992-93 through 2001-02 are not included in these enrollment figures.
Source: Rochester NH School Department

2. Best Fit Projections

Planning Decisions' "best fit" model projects that enrollment of Rochester students at the high school will be similar to the current enrollment of 1,416 students, ranging between 1,344 and 1,436 students through 2008-09. Following 2008-09, enrollment will decline, reaching 1,242 students by 2011-12 as the smaller 6-8 classes enter into the high school grades. ***(See Table V-2 and Figure V-1).***

Table V-2 - Projected High School Enrollment (9-12) - 2002-2011
City of Rochester, New Hampshire - Best Fit Model

School Year	Grade				Total (9-12)
	9th	10th	11th	12th	
2001-02*	**335**	**428**	**354**	**299**	**1,416**
2002-03	425	313	374	315	1,427
2003-04	379	397	274	333	1,383
2004-05	400	354	347	243	1,344
2005-06	443	374	310	309	1,436
2006-07	388	414	327	276	1,405
2007-08	386	363	362	290	1,401
2008-09	382	361	317	322	1,382
2009-10	336	358	316	282	1,292
2010-11	345	314	312	281	1,252
2011-12	367	323	274	278	1,242

Note: Enrollment figures do not include tuition students.
Sources: *2001-02 - actual enrollment, Rochester NH School Department; all other years - projected by Planning Decisions, Inc.

3. Recent Migration Projections

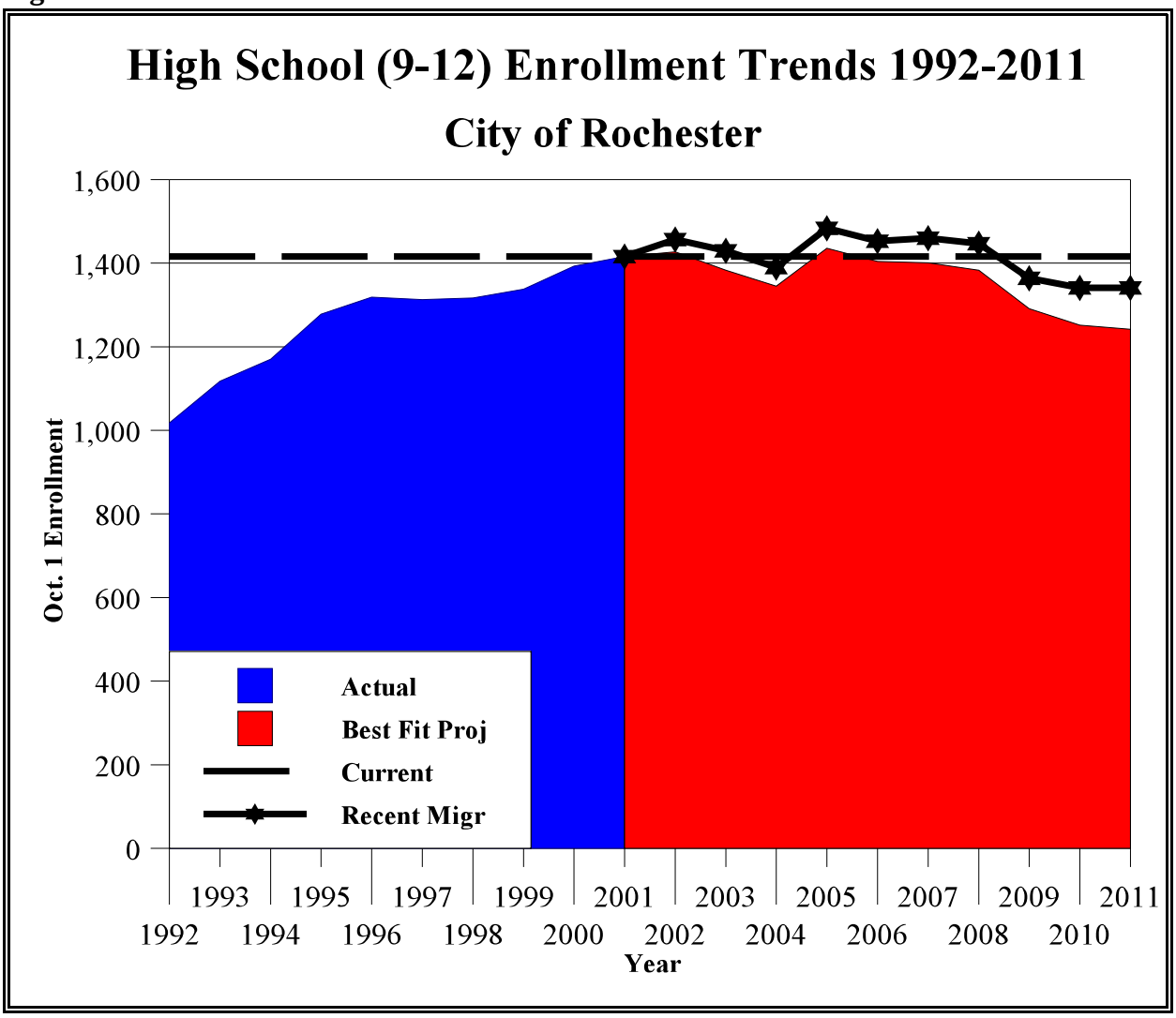
Planning Decisions' "recent migration" model is based on the three-year grade-to-grade ratios to project enrollment for grades nine and ten, but is based on the two-year grade-to-grade ratios to project the eleventh and twelfth grade. This model projects that enrollment of Rochester students at the high school will be similar to, but slightly higher than, the current enrollment of 1,416 students, ranging between 1,390 and 1,484 students through 2008-09. Following 2008-09, enrollment will decline slightly to reach 1,341 students by 2011-12. ***(See Table V-3 and Figure V-1).***

Table V-3 - Projected High School Enrollment (9-12) - 2002-2011
City of Rochester, New Hampshire - Recent Migration Model

School Year	Grade				Total (9-12)
	9th	10th	11th	12th	
2001-02*	**335**	**428**	**354**	**299**	**1,416**
2002-03	425	314	396	322	1,457
2003-04	379	399	291	361	1,430
2004-05	400	356	369	265	1,390
2005-06	443	375	330	336	1,484
2006-07	390	416	347	300	1,453
2007-08	393	366	385	316	1,460
2008-09	389	369	339	350	1,447
2009-10	349	365	341	309	1,364
2010-11	364	328	338	311	1,341
2011-12	388	342	304	307	1,341

Note: Enrollment figures do not include tuition students.
Sources: *2001-02 - actual enrollment, Rochester NH School Department; all other years - projected by Planning Decisions, Inc.

Figure V-1


High School (9-12) Enrollment Trends 1992-2011
City of Rochester
1,600
1,400
1,200
1,000
800
600
400
200
0
Oct. 1 Enrollment
Actual
Best Fit Proj
Current
Recent Migr
1993
1995
1997
1999
2001
2003
2005
2007
2009
2011
1992
1994
1996
1998
2000
2002
2004
2006
2008
2010
Year

B. Town of Wakefield (Tuition Students)

In grades 9-12, the Rochester School Department receives tuition students from the Town of Wakefield. In order to more accurately project enrollment at the ninth through twelfth grade, Planning Decisions' also supplied projections of students from Wakefield. These projections assume that students from Wakefield will be tuitioned to Rochester based on the last four years of historical of net migration at the 9-12 grades. Data for enrollment of Wakefield students in grades 9-12 was only available since 1997-98. However, since 1997-98, enrollment has increased from 169 students in 1997-98 to 208 students in 2001-02.

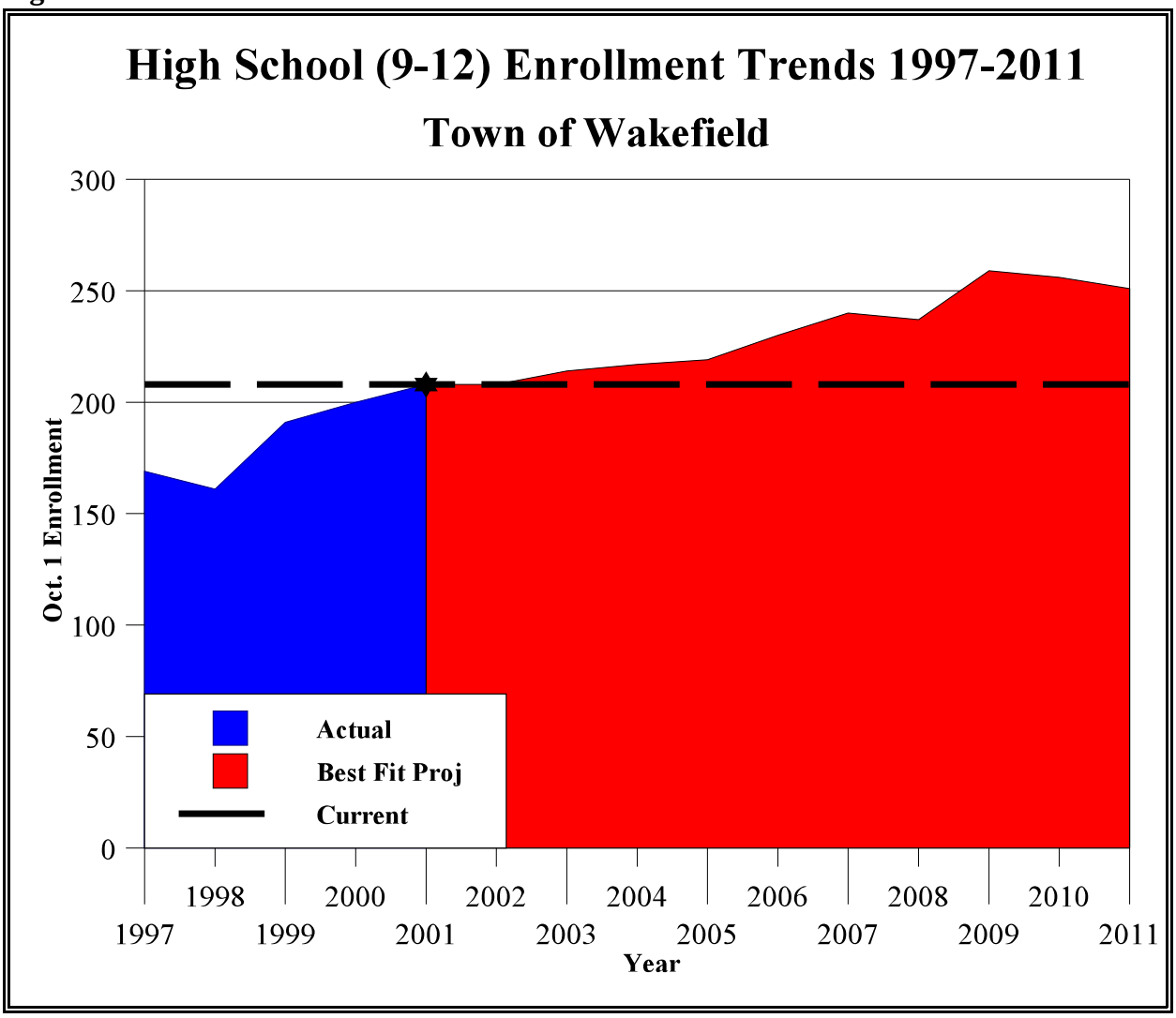
Only one model, called the "best fit" model, was supplied for the projection of Wakefield students. Under the "best fit" model, enrollment from Wakefield students will be similar to the current enrollment of 208 students, ranging between 208 and 219 students through 2005-06. Following 2005-06, enrollment will increase, reaching a peak of 251 to 259 students between 2009-10 and 2011-12. ***(See Table V-4 and Figure V-2).***

Table V-4 - Historical and Projected High School Enrollment (9-12) - 2002-2011
Town of Wakefield, New Hampshire - Best Fit Model

School Year	Grade				Total (9-12)
	9th	10th	11th	12th	
1997-98	46	37	41	45	169
1998-99	38	44	40	39	161
1999-00	79	42	39	31	191
2000-01	70	58	38	34	200
2001-02*	**68**	**41**	**63**	**36**	**208**
2002-03	54	57	41	56	208
2003-04	75	46	57	36	214
2004-05	59	63	45	50	217
2005-06	67	50	62	40	219
2006-07	68	57	50	55	230
2007-08	82	58	56	44	240
2008-09	60	70	57	50	237
2009-10	88	51	69	51	259
2010-11	71	74	50	61	256
2011-12	73	60	73	45	251

Sources: 1997-98 through 2001-02 - actual enrollment, Rochester NH School Department; all other years - projected by Planning Decisions, Inc.

Figure V-2


High School (9-12) Enrollment Trends 1997-2011
Town of Wakefield
300
250
200
150
100
50
0
Oct. 1 Enrollment
Actual
Best Fit Proj
Current
1998
2000
2002
2004
2006
2008
2010
1997
1999
2001
2003
2005
2007
2009
2011
Year

C. Rochester, Wakefield and Other Tuition Students Combined

The following enrollment figures include 9-12 tuition students from the Town of Wakefield separated into each individual grade. In addition, the 9-12 tuition students from other districts other than Wakefield are included separately, but are included as a group. Based on conversations with the Superintendent of Rochester Schools, Rochester is no longer accepting 9-12 tuition students from other school districts other than Wakefield unless a student can demonstrate a dramatic need to transfer. Therefore, projection of 9-12 tuition students from other districts declines as those tuition students currently attending the Rochester High School move through the high school grades. One student per year following 2004-05 was estimated to account for the potential of one tuition student each year attending the Rochester High School.

1. Historical Enrollment

Following a decline in enrollment from 1,245 students in 1991-92 to 1,173 students in 1992-93 which could potentially be attributed to a recession hitting the area, enrollment increased yearly from 1,298 students in 1993-94 to reach 1,659 students in 2001-02 as the larger 6-8 class sizes discussed previously entered into the high school. ***(See Table V-5 and Figure V-3).***

Table V-5 - Historical High School Enrollment (9-12) - 1991-2001
City of Rochester, New Hampshire

School Year	Grade				Tuition 9-12	Total (9-12)
	9th	10th	11th	12th		
1991-92	374	325	270	276	—	1,245
1992-93	251	269	245	253	155	1,173
1993-94	333	294	266	225	180	1,298
1994-95	341	292	280	257	223	1,393
1995-96	379	326	308	265	206	1,484
1996-97	364	364	304	287	187	1,506
1997-98	362	337	320	294	186	1,499
1998-99	367	338	311	301	175	1,492
1999-00	455	359	260	264	214	1,552
2000-01	432	385	335	241	228	1,621
2001-02	335	428	354	299	243	1,659

Note: A breakdown for the number of tuition students in 1991-92 was not available so tuition students are included in the individual grades.
Source: Rochester NH School Department

2. Best Fit Model

Under the "best fit" model, high school enrollment, including all tuition students, will remain similar to the current enrollment of 1,659 students to range between 1,569 and 1,664 students through 2008-09. Following 2008-09, enrollment will decline, reaching 1,494 students by 2011-12 as the smaller 6-8 classes from Rochester enter into the high school grades. ***(See Table V-6 and Figure V-3).***

Table V-6 - Projected High School Enrollment (9-12) - 2002-2011
Rochester, Wakefield and Other Tuition Students - Best Fit Model

School Year	Grade (Including Wakefield)				Other 9-12 Tuition	Total 9-12
	9th	10th	11th	12th		
2001-02*	403	469	417	335	35	1,659
2002-03	479	370	415	371	29	1,664
2003-04	454	443	331	369	16	1,613
2004-05	459	417	392	293	8	1,569
2005-06	510	424	372	349	1	1,656
2006-07	456	471	377	331	1	1,636
2007-08	468	421	418	334	1	1,642
2008-09	442	431	374	372	1	1,620
2009-10	424	409	385	333	1	1,552
2010-11	416	388	362	342	1	1,509
2011-12	440	383	347	323	1	1,494

Sources: *2001-02 - actual enrollment, Rochester NH School Department; all other years - projected by Planning Decisions, Inc.

3. Recent Migration Model

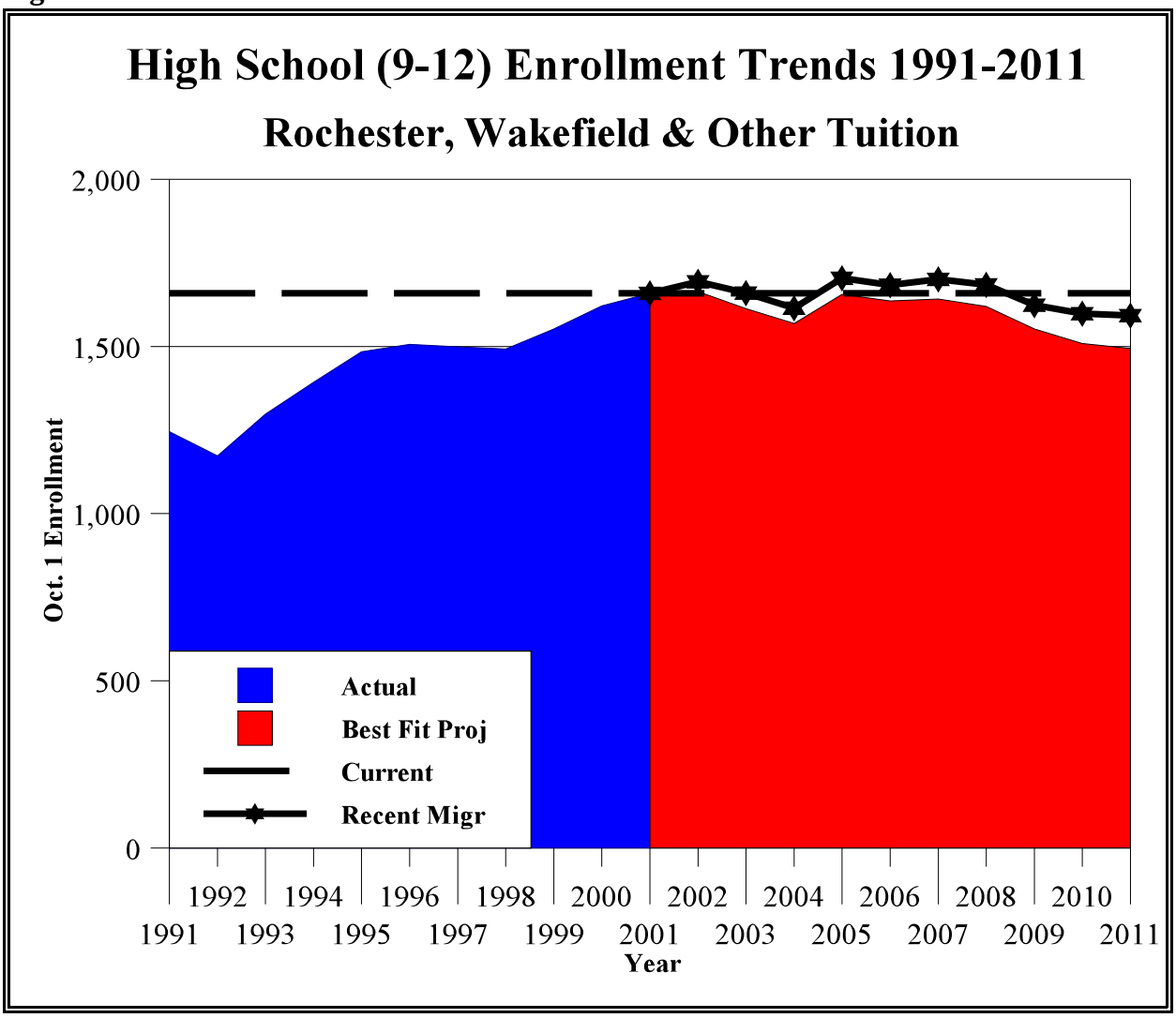
Planning Decisions' "recent migration" model projects that enrollment at the high school including tuition students will be similar to the current enrollment of 1,659 students, ranging between 1,593 and 1,704 students through 2011-12. ***(See Table V-7 and Figure V-3).***

Table V-7 - Projected High School Enrollment (9-12) - 2002-2011
Rochester, Wakefield and Other Tuition Students - Recent Migration Model

School Year	Grade (Including Wakefield)				Other 9-12 Tuition	Total 9-12
	9th	10th	11th	12th		
2001-02*	403	469	417	335	35	1,659
2002-03	479	371	437	378	29	1,694
2003-04	454	445	348	397	16	1,660
2004-05	459	419	414	315	8	1,615
2005-06	510	425	392	376	1	1,704
2006-07	458	473	397	355	1	1,684
2007-08	475	424	441	360	1	1,701
2008-09	449	439	396	400	1	1,685
2009-10	437	416	410	360	1	1,624
2010-11	435	402	388	372	1	1,598
2011-12	461	402	377	352	1	1,593

Sources: *2001-02 - actual enrollment, Rochester NH School Department; all other years - projected by Planning Decisions, Inc.

Figure V-3


High School (9-12) Enrollment Trends 1991-2011
Rochester, Wakefield & Other Tuition
2,000
1,500
1,000
500
0
Oct. 1 Enrollment
Actual
Best Fit Proj
Current
Recent Migr
1992
1994
1996
1998
2000
2002
2004
2006
2008
2010
1991
1993
1995
1997
1999
2001
2003
2005
2007
2009
2011
Year

VI. ASSESSMENT OF ECONOMIC CONDITIONS, POPULATION TRENDS, AND RESIDENTIAL DEVELOPMENT AND THEIR RELATION TO SCHOOL ENROLLMENT

Future school enrollment in Rochester will be impacted by past, current, and future trends in population, housing development, and economic conditions. With the growth of a population and development of new homes comes the potential for new students in the school system. Because school enrollment is impacted by residential development, Planning Decisions analyzed development trends in Rochester. This information is then used to test whether the "best fit" cohort survival enrollment projections adequately reflect potential future economic and residential development trends.

A. Economic Trends

1. Where People Work

Census commuting data provides a snapshot of where people living in Rochester worked in 1990. ***At the time of this study, commuter data from the 2000 U.S. Census was not available. (See Table VI-1).*** Based on the 1990 Census data, there was a total of 12,843 Rochester resident workers in 1990 (people who reside in Rochester and either work in Rochester or commute to work in other communities). The majority of Rochester's employed residents, 90.6%, worked in communities in the Portsmouth-Rochester Primary Metropolitan Statistical Area (PMSA), and only 9.4% commuted elsewhere. This means that Rochester is strongly tied to the economic health of the Portsmouth-Rochester PMSA.

The **Portsmouth-Rochester NH-ME PMSA** (which includes the cities of Portsmouth, Dover, Rochester, and Somersworth, and the towns of Barrington, Brentwood, Durham, East Kingston, Epping, Exeter, Farmington, Greenland, Hampton, Hampton Falls, Kensington, Lee, Madbury, Milton, New Castle, Newfields, Newington, Newmarket, North Hampton, Rollinsford, Rye, and Stratham in New Hampshire and Berwick, Elliot, Kittery, South Berwick and York in Maine) was the largest recipient of Rochester workers with 90.6% of all Rochester's resident workers. Within the PMSA, the City of Rochester had the largest number of workers, 37.5%, the second largest recipient of Rochester workers was the City of Dover with 15.5%, and the third largest recipient was the City of Portsmouth with 8.1%.

Table VI-1 - 1990 Census Commuting Data City of Rochester, New Hampshire		
Total Rochester Resident Workers	**12,843**	**% of Total Resident Workers**
Place of Work		
Portsmouth-Rochester NH-ME PMSA	**11,639**	**90.6%**
City of Rochester	*4,814*	*37.5%*
City of Dover	*1,986*	*15.5%*
City of Portsmouth	*1,045*	*8.1%*
City of Somersworth	*896*	*7.0%*
Town of Kittery	*561*	*4.4%*
All Other Areas	**1,204**	**9.4%**
Source: 1990 U.S. Census Commuting Data; New Hampshire Commuting Patterns - Special Publication		

Based on this analysis, the economic health of Rochester is strongly tied to the Portsmouth-Rochester NH-ME PMSA.

2. Regional Employment Levels

Table VI-2 presents trends in wage and salary employment in the Labor Market Area that influences Rochester. The Portsmouth-Rochester PMSA experienced a 6.6% increase in the number of jobs from 122,402 jobs in 1990 to 130,504 jobs in 2000, or a gain of 8,102 jobs in the decade. The State of New Hampshire, experienced a 9.2% increase in the number of jobs, growing from 627,671 jobs in 1990 to 685,511 jobs in 2000, or gain of 57,840 jobs. Therefore, job growth over the last ten years in the Labor Market Area which influences Rochester, has been at slightly lower levels than those experienced Statewide.

Table VI-2 - Trends in Total Wage and Salary Employment 1990-2000
Labor Market Areas Influencing Rochester vs. State of New Hampshire

Labor Market Area	1990	2000	# change	% change
Portsmouth-Rochester NH-ME PMSA	122,402	130,504	8,102	6.6%
New Hampshire Total	627,671	685,511	57,840	9.2%

Note: The New Hampshire portion of the PMSA accounts for 82.8% of the PMSA's total population.
Source: New Hampshire Department of Employment Security

B. Population Trends

1. U.S. Census Data

Table VI-4 presents the population trends for Rochester in comparison to Strafford County and the State of New Hampshire using data from the U.S. Census. In 1990, Rochester's total population was 26,630 people. Total population in Rochester increased by 1,831 people to become 28,461 people by the year 2000, an increase of 6.9%. This increase in the population for the City of Rochester was similar to the increase in Strafford County, or 7.7%, but less than the increase in the State as a whole, which had an increase of 11.4%.

The population of Rochester under 18 years of age was 6,961 in 1990 according to the U.S. Census. By 2000, that figure increased by 3.4%, to gain 234 children. This rate of increase in the under 18 population was lower than what occurred for the total population in Rochester. When we look at the Strafford County, the population of people under 18 years of age increased by 8.7%, and the State of New Hampshire increased by 11.1%. Therefore, Rochester's under 18 population increased at a slower rate than Strafford County and the State of New Hampshire.

The population of Rochester who are between 5 and 17 years of age was 4,708 in 1990. By 2000, that figure increased by 11.9% to 5,266, a gain of 558 children. It is important to note that while the 5 to 17 population increased, the total of the under 18 population increased at a slower rate. In other words, while the school aged population in Rochester increased by 558 children, the under 18 population increased by only 234 children. Therefore, the population of infants to 4 year olds actually decreased, and, these are children who would have attended the Rochester Schools. Looking at Strafford County, the population of people 5 to 17 years of age increased by 18.7%, while the State of New Hampshire increased by 20.4%. Therefore, Rochester's school aged population increased at a slower rate than Strafford County and the State of New Hampshire.

Table VI-4 - Population Trends 1990 - 2000 Rochester vs. Strafford County & State of New Hampshire				
Area	**1990**	**2000**	**1990-00**	
			#	**%**
Total Population				
Rochester	**26,630**	**28,461**	**1,831**	**6.9%**
Strafford County	104,233	112,233	8,000	7.7%
State	1,109,252	1,235,796	126,544	11.4%
Population Age Under 18				
Rochester	**6,961**	**7,195**	**234**	**3.4%**
Strafford County	24,448	26,572	2,124	8.7%
State	278,755	309,572	30,817	11.1%
Population 5 to 17 Years of Age				
Rochester	**4,708**	**5,266**	**558**	**11.9%**
Strafford County	16,777	19,908	3,131	18.7%
State	194,190	233,887	39,697	20.4%

Source: 1990 and 2000 U.S. Census.

C. Residential Development Trends

Trends in housing development are influenced by national and regional economic trends as well as local land-use policies. Therefore, two sets of data are used to examine residential development trends in Rochester. They are the U.S. Census and local new housing unit data.

1. U.S. Census Data

In 1980, according to the U.S. Census, there was a total of 8,140 year-round housing units in Rochester. ***(See Table VI-5).*** By 1990, total year-round housing units had increased to 11,026 units, an increase of 35.5% (2,886 units) in the decade, or an average of 289 new units per year. The percentage increase in Rochester during this period was more than the increase for Strafford County (32%), and the State of New Hampshire (27.9%).

In 1990, according to the U.S. Census, there was a total of 11,026 year-round housing units in Rochester. By 2000, total year-round housing units had increased to 11,756 units, an increase of 6.6% (733 units) in the decade, or an average gain of 73 new units per year. The percentage increase in Rochester during this period was slightly lower than, but similar to, what occurred in Strafford County which experienced an increase of 7.7%, but less than the State of New Hampshire which increased by 9.8%. Interestingly, the rate of growth in the number of year-round housing units in Rochester and in Strafford County between 1990 and 2000 was similar to the rate of growth of the total population for both the City and County. It is important to note that the rate of growth between 1990 and 2000 was much slower than what occurred between 1980 and 1990.

In addition, over the twenty-year period between 1980 and 2000, total year-round housing units in Rochester had increased by 44.5% (3,619 units), or an average of 181 new units per year. The percentage increase in Rochester during this period was slightly more than the increase for Strafford County (42.1%), and the State of New Hampshire (40.5%).

This data indicates that while the City of Rochester experienced an increase in the number of new year-round housing units built over the last twenty years, the rate of increase slowed over the last ten years. In addition, over the last ten years Rochester experienced an increase in new year-round housing units at a slightly slower rate than Strafford County and the State of New Hampshire.

Table VI-5- Housing Unit Trends - 1980-2000
Rochester vs. Strafford County and the State of New Hampshire

Area	# of Year Round Housing Units			Change between 1980-1990		Avg. # of Units Added Annually	Change between 1990-2000		Avg. # of Units Added Annually	Change between 1980-2000		Avg. # of Units Added Annually
	1980	1990	2000	# of units	% Change		# of units	% Change		# of units	% Change	
Rochester	**8,140**	**11,026**	**11,759**	**2,886**	**35.5%**	**289**	**733**	**6.6%**	**73**	**3,619**	**44.5%**	**181**
Strafford County	30,757	40,593	43,716	9,836	32.0%	984	3,123	7.7%	312	12,959	42.1%	648
State of NH	349,215	446,769	490,611	97,554	27.9%	9,755	43,842	9.8%	4,384	141,396	40.5%	7,070

Source: 1980, 1990 and 2000 U.S. Census

2. Local Housing Data

Data on annual new housing units added since 1992 is used to analyze residential development trends. For this analysis, the data on new housing is based on information supplied by the City of Rochester, New Hampshire Economic Development Department.

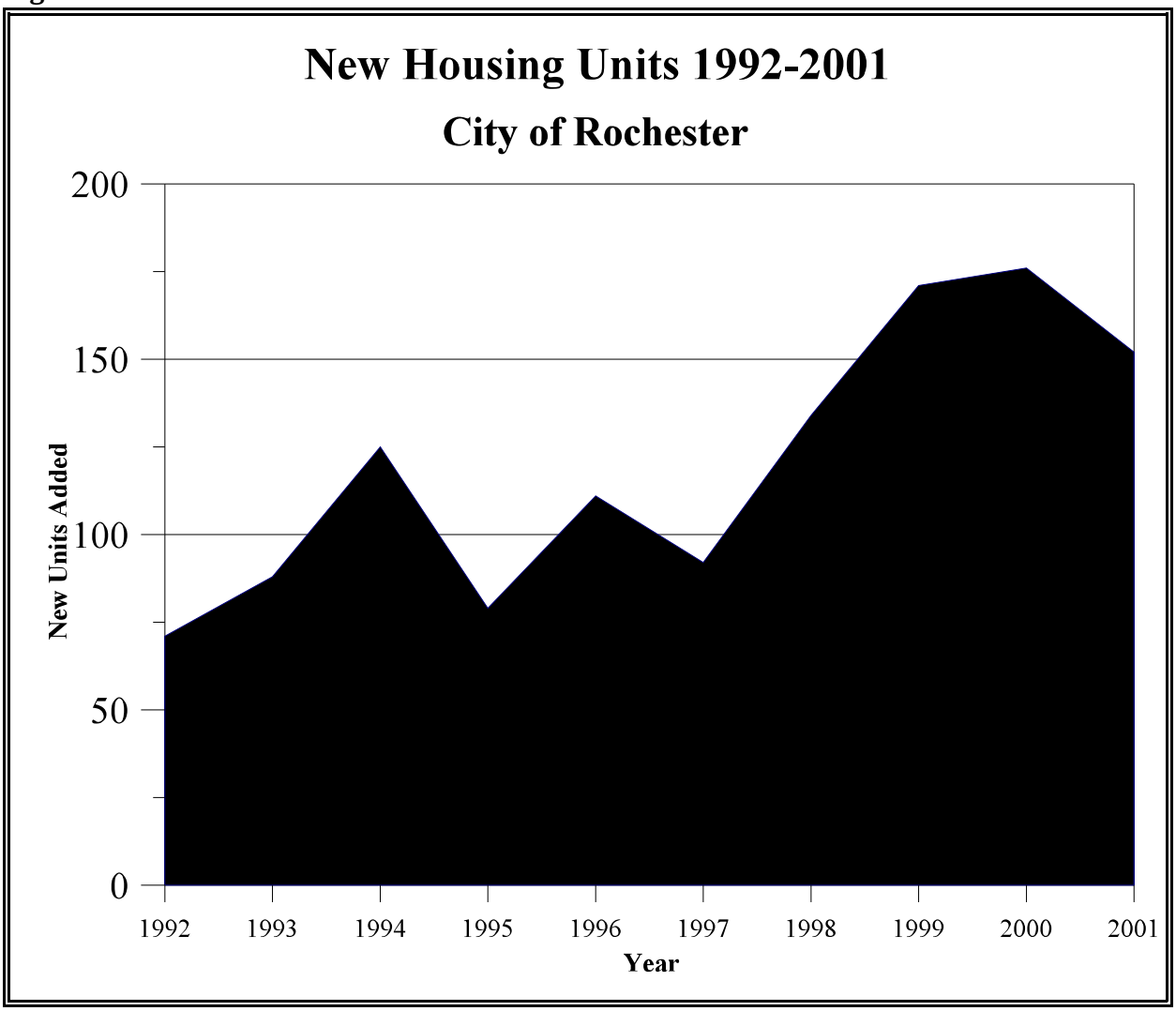
Table VI-6 and ***Figure VI-1*** present the annual new housing data for Rochester between 1992 and 2001. Between 1992 and 1996, new housing unit growth was lower in Rochester in comparison to more recent years. During this five-year period, an average of 95 new housing units were added annually in Rochester. In the second five years of the period, 1997 through 2001, the number of new housing units increased to an average of 145 new units added annually. More recently, 1999 through 2001, Rochester had an average of 166 new units added annually, a level slightly higher than the five-year average.

Table VI-6 -Annual New Housing Units Added, 1992-2001 City of Rochester				
Year	**Single Family**	**Multi-Family**	**Mobile Homes**	**Total New Units**
1992	*36*	*2*	*33*	71
1993	*19*	*0*	*69*	88
1994	*47*	*15*	*63*	125
1995	*36*	*7*	*36*	79
1996	*40*	*11*	*60*	111
1997	*44*	*0*	*48*	92
1998	*56*	*14*	*64*	134
1999	*92*	*0*	*79*	171
2000	*95*	*14*	*67*	176
2001	*69*	*4*	*79*	152
First 5 Yr Avg. 92-96	*36*	*7*	*52*	95
Last 5 Yr Avg. 97-01	*71*	*6*	*67*	145
Last 3 Yr Avg. 99-01	*85*	*6*	*75*	166
10 Yr Avg. 92-01	*53*	*7*	*60*	120
Sources: City of Rochester, NH Economic Development Administrator				

Overall Residential Development Trends

As discussed previously, the U.S. Census data indicated that there was an average gain of 73 housing units per year between 1990 and 2000. The data from the U.S. Census also indicated new housing units were gained annually at a rate that was slower than what the local permit data indicated for the number of units added over the last three years, 1999 through 2001, or the addition about 166 new units annually. It is important to note that the U.S. Census data is the net number of year-round housing units gained, and takes into account those housing units lost to fire, demolition, conversion etc., and the local permit data is the number of new housing units added and does not take into account those units lost to fire, demolition, conversion etc. However, for the purpose of this study Planning Decisions will use the local data and the average of total of new housing units added, not the net units gained.

Figure VI-1


New Housing Units 1992-2001
City of Rochester
200
150
100
50
0
New Units Added
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
Year

D. Future Residential Growth

Over the last five years, 1997 through 2001, residential growth in Rochester (145 new housing units added annually), and three years, 1999 through 2001, (166 new housing units added annually) has been at higher levels than seen over the last ten years, 1992 through 2001, (120 new housing units added annually).

In speaking to the Economic Development Administrator, over the last ten years the City of Rochester did not adopt any type of growth cap which would limit the number or type of new housing units that could be added in City. Although residential development in the City increased over the last ten years, it appears to have leveled off somewhat over the last three years. Yet, it is important to note that over the last three years there has been a fair amount of demand for new housing units. In addition, the type of growth over the last three years is important. In 1999, there were 27 subdivision lots approved in Rochester, but by 2000, the total number of subdivision lots approved increased to 63, and by 2001 there were 152 new subdivision lots approved. Although, it was unknown how many of these approved lots have already been issued permits which would have been included in the new housing units figures over the last three years, it can be reasonably assumed that many of these lots are included in the last three year data and helped to contribute to the increase in new housing units added in Rochester. It is also important to note that the total number of lots approved in subdivisions more than doubled each year, from 1999 to 2000, and then from 2000 to 2001. The addition of subdivisions, especially those subdivisions with single family housing units, creates the potential for new families with school aged children to move to Rochester. Therefore it is important to look at the most recent levels of residential development in Rochester compared to the most recent levels of net preschool and in-grade migration in Rochester to see if there have been any noticeable changes in net migration patterns.

There has been a housing shortage in Rochester region of New Hampshire, specifically with regards to the availability of affordable housing. To combat this problem, the City is trying to create some work force housing in the area. Recently, there has been the potential for 64 units of affordable housing to be added in the City. Although the City is pushing for economic development, at the time of this report, the City did not anticipate any new sizable businesses entering into the City, and, there were also no sizable businesses lost recently. However, there had been some layoffs recently, but the Economic Development Administrator did not believe those workers who had been laid-off have moved from the City and were able to find employment elsewhere. The recent layoffs and the lack of sizable business moving into Rochester may be the result of the economic recession currently facing the nation. However, it is important to note that these conditions may change as the economy recovers or moves deeper into recession. Regardless, it appears that new housing unit growth the City of Rochester is going to continue in the future at the higher levels seen recently.

Therefore, based on the most recent level (1999 through 2001) of residential development and discussions with the City, Planning Decisions estimates that the City of Rochester will continue to see about 170 new housing units added annually.

E. Relationship of Residential Development to School Enrollment

Planning Decisions' in-house cohort survival does not directly incorporate the level of residential development and turn-over in the existing housing stock when projecting school enrollment. Rather, the survival ratios utilized within cohort models reflect the historical impact of net migration (which is influenced by residential development and turn-over) on school enrollment. If future residential development levels, turn-over levels, or their relationship to net migration are significantly different from levels experienced in the past ten years, then cohort survival models may overstate or understate future enrollment. For school planning purposes, it is important to understand the degree to which residential development activity will impact school enrollment. Specifically, Planning Decisions looked at how past residential development has impacted the in-migration of students.

To do this, Planning Decisions examined data on the relationship between new housing units built in Rochester and migration levels of preschool-aged children and elementary students, grades 1-6, coming from Rochester.

1. Net Preschool Migration

To show the relationship between residential development and preschool net migration, Planning Decisions examined the ratios between net preschool migration reflected in the first grade enrollment between 1997-98 and 2001-02, and the number of new housing units built in Rochester between the year of the first grade enrollment year and the six years prior. ***(See Table VI-7).***

On average, for each of the six-year periods examined, 701 new housing units were built in Rochester. The average net out-migration of preschool-aged children for each of the first grade enrollment years was 45 children, or a ratio of -0.067 children per. Over the last three years 770 new housing units were built and the average net out-migration of preschool-aged children was 37 children, or a ratio of -0.048 children per unit. In other words, Rochester has experienced a slightly lower level of preschool out-migration over the last three years while the residential development has increased.

Based on this analysis, and the level of new residential development seen in Rochester compared to preschool net migration, it appears as though the higher levels of new residential development seen in Rochester over the last three years has had a slight impact on the net migration of preschool aged children into the Rochester schools. In other words, higher levels of residential development have caused slightly lower levels of out-migration. Since the "best fit" model takes into account the last seven years of net migration, and residential development has increased over the last three years along with the lower levels of out-migration occurring over the last three years, Planning Decisions "best fit" cohort survival model may not adequately account for decreased levels of out-migration in Rochester caused by increased residential development.

Therefore, if residential development levels continued in Rochester over the next ten years at levels similar to that experienced over the last three years <u>and</u> the relationship between development and preschool out-migration is similar to levels experienced over the last three years, then Planning Decisions' "best fit" cohort survival projections <u>DO NOT</u> adequately reflect the potential impacts of future development on enrollment. Therefore, a second model was created called the "recent migration" model which takes into account the recent (three-year) level net out-migration of preschool aged students.

Table VI-7 - Births, First Grade Enrollment, Net Preschool Migration and New Housing Units Added - Rochester, New Hampshire

Birth Year	# of Births	1st Grade Class Year	1st Grade Enroll.	Net Migr.	Assessing Years	New Housing Units	Ratio Mig/Hsng Units
1990-91	467	1997-98	411	(56)	1992-97	566	(0.099)
1991-92	428	1998-99	370	(58)	1993-98	629	(0.092)
1992-93	416	1999-00	382	(34)	1994-99	712	(0.048)
1993-94	386	2000-01	357	(29)	1995-00	763	(0.038)
1994-95	377	2001-02	329	(48)	1996-01	836	(0.057)
3 Yr Avg. (93-95)	393	**3 Yr Avg. (99-01)**	356	(37)	**Avg. (94-01)**	770	(0.048)
5 Yr Avg. (91-95)	415	**5 Yr Avg. (97-01)**	370	(45)	**Avg. (92-01)**	701	(0.067)

Sources: <u>Births</u> - Bureau of Health Statistics and Data Management, New Hampshire Department of Health and Human Services. <u>1st Grade Enrollment</u> - City of Rochester, NH School Department. <u>Residential New Housing Units</u> - City of Rochester, Economic Development Administrator. All else calculated by Planning Decisions, Inc.

2. Net Grades 1-6 Migration

Regarding the relationship between residential development levels and migration of students at the elementary grades (first through sixth), Planning Decisions examined the ratio of annual net migration of students at each of the grade levels and annual new housing units built in Rochester. ***(See Table VI-8).***

As indicated in ***Table VI-8***, over the last ten years between 1992-93 and 2001-02 Rochester has experienced an average out-migration of 54 students. This average out-migration level experienced by the Rochester School Department over the last ten years was slightly higher than the five-year average between 1997-98 and 2001-02 which experienced an average out-migration of 47 students. However, the average level of out-migration has declined over the last three years between 1999-00 and 2001-02 average 14 students per year. In addition, it is important to note that based on the October 1, 2001 enrollment, the actual net migration for grades 1-6 was actually an in-migration of 22 students verses an out-migration of students contributing to the lower level of out-migration over the last three years. This in-migration at grades 1-6 was the only time over the last ten years that Rochester experienced an in-migration of students at grades 1-6. **Because every year except 2001-02 experienced an out-migration of students, this in-migration of students at grades 1-6 is unusual based on historical enrollment trends. Therefore, it is difficult to predict whether this change is the beginning of a trend, or merely a one year anomaly. Taking this into account, Planning Decisions strongly recommends that the Rochester School Department monitors enrollment over the next couple of years to determine if this in-migration is the beginning of a trend which may impact enrollment.**

As discussed previously, over the ten years between 1992-93 and 2001-02, Rochester experienced an average net out-migration of elementary students. The average ratio of out-migration of elementary students (1-6) to new housing units was -0.515. In other words, on average, over the last ten years every 100 housing units built in Rochester resulted in the out-migration of about 52 elementary students in one year. However, over the last three years this level of out-migration has decreased. Between 1999-00 and 2001-02, the average ratio of out-migration of elementary students to new housing units was -0.077, or on average, over the last three years every 100 housing units built in Rochester resulting in the out-migration of about 8 elementary students in one year. This a much lower level of out-migration than experienced on average over the last ten years. Therefore, it appears as though Rochester has been experiencing lower levels of in-grade out-migration.

Based on this analysis, if residential development levels continued in Rochester over the next ten years at levels similar to that experienced over the last three years and the relationship between development and in-grade in-migration was similar to levels experienced over the last three years, then Planning Decisions' "best fit" cohort survival projections DO NOT adequately reflect the potential impacts of future development on enrollments. Therefore, a second set of projections called the "recent migration" model was created to account for recent levels of in-grade migration. This model uses the three-year ratios of grade-to-grade migration to project future enrollment, with the exception of the projection of the eleventh and twelfth grade which uses the two-year ratios of grade-to-grade migration to project enrollment. The exception at the eleventh and twelfth grade was made because there was a historically unusual level of out-migration occurring between 1998-99 and 1999-00. This historically unusual higher level of out-migration skewed the three-year grade-to-grade ratios which would have projected a higher level of out-migration at the eleventh and twelfth grade than what Planning Decisions believes will occur in Rochester given higher levels of residential development.

Table VI-8 - Net Elementary (Grades 1-6) Migration and New Housing Units
City of Rochester, New Hampshire

Enrollment Years	Net Migration	Year	# of New Housing Units	Ratio Migr/Perm
1991-92 to 1992-93	(151)	1992	71	(2.127)
1992-93 to 1993-94	(69)	1993	88	(0.784)
1993-94 to 1994-95	(20)	1994	125	(0.160)
1994-95 to 1995-96	(69)	1995	79	(0.873)
1995-96 to 1996-97	(97)	1996	111	(0.874)
1996-97 to 1997-98	(84)	1997	92	(0.913)
1997-98 to 1998-99	(107)	1998	134	(0.799)
1998-99 to 1999-00	(55)	1999	171	(0.322)
1999-00 to 2000-01	(9)	2000	176	(0.051)
2000-01 to 2001-02	22	2001	156	0.141
10 Yr Avg. (92-01)	(54)	**10 Yr Avg. (91-00)**	126	(0.515)
5 Yr Avg. (97-01)	(47)	**5 Yr Avg. (96-00)**	146	(0.389)
3 Yr Avg. (99-01)	(14)	**3 Yr Avg. (98-00)**	168	(0.077)

Sources: Net Migration - Calculated by Planning Decisions, Inc. based on October 1, enrollment data supplied by the City of Rochester School Department. Residential New Housing Units - City of Rochester, Economic Development Administrator. All else calculated by Planning Decisions, Inc.

F. Summary and Recommendations Regarding Population Trends, Residential Development and Economic Conditions

Based on recent trends, Rochester most likely will continue to experience new housing unit development over the next 3-5 years at levels similar to those seen over the last three years. In addition, when looking at the recent level of development the "best fit" cohort DOES NOT adequately reflect levels of preschool net migration caused from this development. In addition, the "best fit" model DOES NOT adequately reflect levels of in-grade net migration. Therefore, the enrollment projections were adjusted to reflect a decrease in preschool out-migration and used the most recent levels of in-grade net migration in order to account for projected future residential development in Rochester.

In addition, the "best fit" model is a standard statistical model which projects enrollment based on historical trends. It is the ***most likely*** scenario to occur in Rochester ***if*** enrollment was to follow the historical pattern of enrollment. However, because the historical patterns of enrollment in Rochester have been interrupted by the increase in residential development in the City and changes in the level of net migration of students, a second model called the "recent migration" model was created using the most recent three-year preschool net migration ratio and the three-year grade-to-grade net migration ratios, with the exception of the eleventh and twelfth grade which uses a grade-to-grade ratio from the last two years, to project future enrollment. This second model is considered the ***most likely*** scenario to occur in Rochester ***if*** residential development and net migration continues on at the rate seen recently.

Therefore, the "best fit" enrollment projections adequately reflect historical trends of preschool and in-grade (1-6) net-migration, while the "recent net migration" enrollment projections reflect only the most recent trends in net preschool and grade to grade net migration. Both sets of projections are presented in **Section VII** within ranges of plus or minus 10% for Kindergarten and grades 1-5, and 5% at grades 6-12.

VII. SUMMARY OF ENROLLMENT PROJECTIONS FOR SCHOOL PLANNING PURPOSES

In order to provide reasonable cushions for use in the planning of school facilities, Planning Decisions has summarized school enrollment projections for the "best fit" model by grade group and presented the projections within ranges of plus or minus 10% for Kindergarten and the 1-5 grade group, and plus or minus 5% for the 6-12 grade groups. These ranges provide reasonable cushions for use in school planning. The results are presented for each of the grade groupings in ***Table VII-1 through VII-5***. ***Appendix A*** contains grade by grade historical and projected enrollment and grade group summaries.

A. Best Fit Projections

1. Projections without Tuition Students

Table VII-1 - School Enrollment Projection Ranges - 2002-2011 (K-12)
City of Rochester - Best Fit Model

School Year	Elementary School (K)			Elementary School (1-5)			Middle School (6-8)			High School (9-12)		
	-10%	Proj.	+10%	-10%	Proj.	+10%	-5%	Proj.	+5%	-5%	Proj.	+5%
2002-03	242	**269**	296	1,493	**1,659**	1,825	1,043	**1,098**	1,153	1,356	**1,427**	1,498
2003-04	248	**276**	304	1,476	**1,640**	1,804	1,049	**1,104**	1,159	1,316	**1,385**	1,454
2004-05	241	**268**	295	1,471	**1,634**	1,797	1,036	**1,090**	1,145	1,281	**1,348**	1,415
2005-06	250	**278**	306	1,436	**1,596**	1,756	985	**1,037**	1,089	1,371	**1,443**	1,515
2006-07	252	**280**	308	1,454	**1,616**	1,778	941	**990**	1,040	1,341	**1,412**	1,483
2007-08	252	**280**	308	1,464	**1,627**	1,790	903	**951**	999	1,339	**1,409**	1,479
2008-09	252	**280**	308	1,457	**1,619**	1,781	893	**940**	987	1,321	**1,391**	1,461
2009-10	252	**280**	308	1,443	**1,603**	1,763	928	**977**	1,026	1,233	**1,298**	1,363
2010-11	252	**280**	308	1,455	**1,617**	1,779	924	**973**	1,022	1,196	**1,259**	1,322
2011-12	252	**280**	308	1,457	**1,619**	1,781	915	**963**	1,011	1,186	**1,248**	1,310

Note: Enrollment figures exclude tuition students.
Sources: Projected by Planning Decisions, Inc., April, 2002.

2. Projections with Tuition Students

Table VII-2 - School Enrollment Projection Ranges - 2002-2011 (9-12) Town of Wakefield - Best Fit Model			
	High School (9-12)		
School Year	-5%	Proj.	+5%
2002-03	198	**208**	218
2003-04	203	**214**	225
2004-05	206	**217**	228
2005-06	208	**219**	230
2006-07	219	**230**	242
2007-08	228	**240**	252
2008-09	225	**237**	249
2009-10	246	**259**	272
2010-11	243	**256**	269
2011-12	238	**251**	264

Sources: Projected by Planning Decisions, Inc., April, 2002.

Table VII-3 - School Enrollment Projection Ranges - 2002-2011 (9-12) Rochester, Wakefield, and Other Tuition Students - Best Fit Model			
	High School (9-12)		
School Year	-5%	Proj.	+5%
2002-03	1,581	**1,664**	1,747
2003-04	1,532	**1,613**	1,694
2004-05	1,491	**1,569**	1,647
2005-06	1,573	**1,656**	1,739
2006-07	1,554	**1,636**	1,718
2007-08	1,560	**1,642**	1,724
2008-09	1,539	**1,620**	1,701
2009-10	1,474	**1,552**	1,630
2010-11	1,434	**1,509**	1,584
2011-12	1,419	**1,494**	1,569

Sources: Projected by Planning Decisions, Inc., April, 2002.

B. Recent Net Migration Projections

1. Projections without Tuition Students

Table VII-4 - School Enrollment Projection Ranges - 2002-2011 (K-12)
City of Rochester - Recent Net Migration Model

School Year	Elementary School (K)			Elementary School (1-5)			Middle School (6-8)			High School (9-12)		
	-10%	Proj.	+10%	-10%	Proj.	+10%	-5%	Proj.	+5%	-5%	Proj.	+5%
2002-03	246	**273**	300	1,508	**1,676**	1,844	1,043	**1,098**	1,153	1,384	**1,457**	1,530
2003-04	252	**280**	308	1,508	**1,675**	1,843	1,051	**1,106**	1,161	1,359	**1,430**	1,502
2004-05	245	**272**	299	1,513	**1,681**	1,849	1,043	**1,098**	1,153	1,321	**1,390**	1,460
2005-06	254	**282**	310	1,488	**1,653**	1,818	998	**1,050**	1,103	1,410	**1,484**	1,558
2006-07	256	**284**	312	1,511	**1,679**	1,847	962	**1,013**	1,064	1,380	**1,453**	1,526
2007-08	256	**284**	312	1,523	**1,692**	1,861	939	**988**	1,037	1,387	**1,460**	1,533
2008-09	256	**284**	312	1,515	**1,683**	1,851	940	**989**	1,038	1,375	**1,447**	1,519
2009-10	256	**284**	312	1,499	**1,666**	1,833	981	**1,033**	1,085	1,296	**1,364**	1,432
2010-11	256	**284**	312	1,512	**1,680**	1,848	977	**1,028**	1,079	1,274	**1,341**	1,408
2011-12	256	**284**	312	1,515	**1,683**	1,851	966	**1,017**	1,068	1,274	**1,341**	1,408

Note: Enrollment figures exclude tuition students.
Sources: Projected by Planning Decisions, Inc., April, 2002.

2. Projections with Tuition Students

Table VII-5 - School Enrollment Projection Ranges - 2002-2011 (9-12) Rochester, Wakefield and Other Tuition Students - Recent Net Migration Model			
School Year	High School (9-12)		
	-5%	Proj.	+5%
2002-03	1,609	**1,694**	1,779
2003-04	1,577	**1,660**	1,743
2004-05	1,534	**1,615**	1,696
2005-06	1,619	**1,704**	1,789
2006-07	1,600	**1,684**	1,768
2007-08	1,616	**1,701**	1,786
2008-09	1,601	**1,685**	1,769
2009-10	1,543	**1,624**	1,705
2010-11	1,518	**1,598**	1,678
2011-12	1,513	**1,593**	1,673

Sources: Projected by Planning Decisions, Inc., April, 2002.