

NEEDHAM PUBLIC SCHOOLS
Needham, Massachusetts

TO: Paul Richards
FROM: George Johnson
DATE: October 15, 2004
RE: Class of 2003 Alumni Survey

The following is an analysis of the results from the recent alumni survey for the Class of 2003. In previous years, we have surveyed both one-year and five-year graduates; however, a decision was made last year to survey five-year graduates every three years instead of every year. We now have data from one-year alumni for five classes (1999 – 2003). By looking at all of them, we can identify trend data.

Surveys were mailed to all 297 members of the class of 2003. Of those, 15 were returned as undeliverable. The response rate from the remaining 282 students was 40.1% or 113 students. As in past years, girls are more likely to respond than boys – 59.3% versus 40.7%. Of the respondents, 93.8% were attending a four-year college; and another 1% were at a two-year school. An extremely large percentage of the students said that they had been either Accelerated (50.0%) or Honors (48.2%) level students while at Needham High School. Only 1.8% of the respondents said that they had been Standard level students. Because of the small group of Standard level students, it is impossible to offer any reliable analysis of disaggregated data by level.

A very large majority of Needham students continue their education after high school. The questionnaire was sent to all students, but only five students who did not go on to college responded to the survey. Because this number is much too small to provide reliable data, I am omitting any analysis of their responses as a group. Their responses are included in all of the aggregate data except for those questions relating to preparation for post-secondary education.

As with any mailed questionnaire, one cannot assume that non-response is randomly distributed throughout the group. Studies have shown that respondents tend to be better students, more conscientious, and more interested in the topics involved in the questionnaire. However, a response rate over 40% is considered very good; and the similarity of responses among all five classes tends to support the reliability of the results.

Issues Relating to Choice and Preparation for Post-Secondary Experiences

We asked our graduates the primary reason for selecting their college or university. Below are the answers for the last five graduating classes:

Class of 1999

Academic Reputation (43.1%)
Location (14.4%)
Specific Major Offered (12.7%)
Cost (9.3%)

Class of 2000

Academic Reputation (41.0%)
Specific Major Offered (14.8%)
Location (14.2%)
Cost (9.3%)

Class of 2001

Academic Reputation (45.1%)
Specific Major Offered (21.0%)
Cost (10.5%)
Location (10.4%)

Class of 2002

Academic Reputation (40.9%)
Specific Major Offered (21.5%)
Cost (10.8%)
Location (9.1%)

Class of 2003

Academic Reputation (42.6%)
Specific Major Offered (14.8%)
Location (13.9%)
Cost (8.3%)

A number of other reasons (size, advice from guidance, etc.) were given, but none represented more than 5% of the population. It is obvious that the four reasons listed above are the primary considerations for choosing post-secondary institutions, but Academic Reputation is given by three times more graduates than the next highest answer.

Below is a chart listing the percentages of graduates who indicated that they felt adequately prepared for various areas of college demands.

Area	Class of:				
	'99	'00	'01	'02	'03
Reading Level	93.3	92.2	97.2	94.5	96.3
Written Assignments	89.6	90.4	92.7	95.7	93.5
Study Demands	85.8	89.5	89.8	85.5	90.7
Mathematics	84.7	88.8	87.6	86.2	82.4
Research Skills	86.8	91.0	87.0	88.8	87.7
Computer Usage	86.7	84.8	80.4	86.0	79.2

As in previous years, a very high percentage of Needham High School graduates felt prepared to handle the demands of their college programs. Literacy skills (reading and writing) continued to be the highest rated areas for college preparation. There was an increase in the percentages of students who felt prepared for the demands of college study while there were decreases in mathematics and computer usage.

The survey also asked the graduates whether or not they had received advanced placement credit or had been required to take remedial courses in colleges.

Class of	% in Advanced Placements	% in Remedial English	% in Remedial Math
'99	67.9	14.1	7.1
'00	60.9	22.1	15.7
'01	58.1	23.4	22.1
'02	55.6	24.1	16.7
'03	60.2	16.2	21.4

Over sixty percent of these Needham High School graduates received advanced placement at college. Of that group 61.5% indicated that the advanced placement resulted from AP test scores, 24.6% from college placement tests, and the remainder from SATs. The percentage of students required to take remedial English courses declined after rising for the past three years; however, one in six students still indicated the need to take a remedial course in this area. The percentage required to take a remedial math course rose again after dropping last year. It is unclear how these high rates relate to the high percentage of students indicating adequate preparation in reading, writing, and mathematics.

The questionnaire asked students to estimate the level of debt they personally anticipate when they graduate from college. There is a national trend of more students incurring great debt to pay for their college education; however, for this group of respondents a smaller percentage than the last two years indicated that they anticipated incurring a debt of greater than \$25,000. Overall, 42% of the graduates anticipate having no debt when they graduate from college.

Class of:	Percentage Anticipating Over \$25,000
'99	9.0%
'00	9.1%
'01	11.1%
'02	14.1%
'03	11.0%

For the next areas of the survey, respondents were asked to rate various services and factors on a scale from excellent (5) to unsatisfactory (1). These rating guidelines are given to help interpret the data.

<u>Rating</u>	<u>Interpretation</u>
Over 4.00	Exceptionally Strong
3.80-3.99	Very Strong
3.60-3.79	Strong
3.40-3.59	Neutral
3.00-3.39	Weak
2.50-2.99	Very Weak
Below 2.50	Exceptionally Weak

When comparing scores, a .2 difference is considered significant.

Quality of Preparation for Future Responsibilities

The graduates were asked to rate their level of preparedness in certain areas.

Area	Class of:				
	'99	'00	'01	'02	'03
Treat Others with Respect	3.87	3.92	4.03	3.93	4.01
Accept Responsibility	3.97	3.98	4.01	4.03	4.07
Think Creatively	4.00	4.00	3.85	3.92	4.13
Make Positive Wellness Decisions	3.95	3.91	3.82	3.87	3.83
Appreciate Diversity	3.37	3.38	3.57	3.37	3.47

The first three areas all fall in the Exceptionally Strong category, and Making Positive Wellness Decisions is in the Very Strong range. Appreciating Diversity continues to lag well behind the other areas. It falls in the Neutral range.

Quality of Learning Skills

The five graduating classes have been asked to rate the quality of instruction for key skill areas.

Area	Class of:				
	'99	'00	'01	'02	'03
Reading Skills	4.07	4.20	4.20	4.19	4.32
Writing Skills	4.15	4.23	4.14	4.16	4.31
Critical Thinking Skills	4.05	4.11	4.06	4.02	4.28
Teamwork Skills	4.12	4.03	4.04	4.12	4.19
Problem Solving Skills	4.05	3.99	3.97	3.99	4.16
Listening Skills	3.90	3.97	4.04	4.01	4.15
Study Skills	3.87	4.01	3.87	3.83	4.05
Research Skills	4.05	4.10	4.01	3.93	4.04
Grammar Skills	3.56	3.76	3.64	3.79	3.91
Math Skills	3.96	3.86	3.93	3.87	3.86
Science Skills	3.98	3.83	3.74	3.82	3.82
Appreciation of the Arts	3.72	3.61	3.65	3.51	3.73
Public Speaking Skills	3.45	3.57	3.50	3.61	3.59
Technology Skills	3.65	3.42	3.38	3.48	3.29
Foreign Language Skills	3.61	3.38	3.19	3.09	3.26

The Class of '03 rated 8 of the 15 skill areas as Exceptionally Strong – which is the largest number since the survey began. In addition, math, science, and grammar skills are rated Very Strong. Appreciation of the Arts is Strong, while Technology and Foreign language skills fall in the Weak range. There was a significant improvement in the ratings for Critical Thinking, Study Skills, and Appreciation for the Arts. No area had a significant decline.

Average Rating for Subject Areas

Next students were asked to rate the eleven primary subject areas at Needham High School.

Subject	Class of:				
	'99	'00	'01	'02	'03
English	4.23	4.34	4.30	4.19	4.39
Social Studies	3.84	4.05	4.05	4.04	4.30
Resource Room/PLC	4.00	4.44	4.28	4.10	4.23
Mathematics	3.82	3.82	3.91	3.93	3.99
Science	4.00	4.03	3.86	3.87	3.88
Art	3.98	3.81	3.64	3.75	3.87
Music	3.47	3.88	3.96	3.72	3.85
Physical Education	3.83	3.72	3.62	3.68	3.45
Health Education	3.80	3.62	3.54	3.55	3.45
Media/Technology	3.52	3.28	3.64	3.86	3.43
Foreign Languages	3.43	3.28	3.05	3.02	3.11
Average	3.87	3.89	3.80	3.79	3.88

These ratings tend to confirm the skill areas scores discussed above. English continues to be the highest rated area with scores well into the Exceptionally Strong range. Social Studies and Resource Room/PLC are also considered Exceptionally Strong; and Mathematics, Science, Art, and Music fall into the Very Strong range. Both Media/Technology and Physical Education declined and now are in the Neutral range along with Health Education. Graduates continue to see Foreign Languages as Weak.

Topics Requiring More Emphasis

The questionnaire asked a number of questions about twenty-one other areas of school experience and preparation. These issues do not necessarily relate to specific subjects but are important for the general education and development of our students. The format of the question asks if more emphasis should be given to the area, not if it should be taught. The chart below tells the percentage of students saying that there should be more emphasis.

Area	Class of:				
	'99	'00	'01	'02	'03
Career Exploration	50.4	55.6	52.3	52.8	58.4
Computer Skills	39.8	58.9	39.6	39.0	39.8
Leadership Development	36.3	26.6	27.0	35.0	27.4
Study Skills	31.0	25.8	24.3	29.3	27.4
Research Skills	27.4	21.8	18.0	26.8	24.8
Independent Projects	30.1	20.2	26.1	33.3	22.1
Creativity	21.2	13.7	22.5	27.6	19.5
Consumer Education	19.5	16.1	15.3	24.4	19.5
Self Discipline	23.9	22.6	18.9	24.4	18.6
Class Participation	15.0	8.9	12.6	16.3	17.4
Lifelong Learning	20.4	19.4	10.8	15.4	15.0
Family Living/Parenting	8.8	12.9	5.4	12.2	13.3
Environmental Education	11.5	19.4	10.8	21.1	11.5
Nutrition & Diet	8.8	11.3	13.5	13.8	9.7
Understanding Others	15.0	24.2	11.7	15.4	8.8
Sex Education	4.1	9.7	8.1	13.0	8.8
Community Service	11.5	12.1	10.8	12.2	8.8
Citizenship	9.7	12.1	5.4	9.8	6.2
Homework	13.3	7.3	4.5	8.9	6.2
Drug & Alcohol Education	5.3	5.6	3.6	7.3	4.4
Physical Fitness	4.4	5.6	7.2	11.4	3.5

There is remarkable consistency to the responses of all five classes. Career Education was identified again as the area most in need of expansion, with over 58% of the Class of '03 listing it. Almost two in five students indicated Computer Skills, and one in four asked for more emphasis on Leadership Development, Study Skills, and Research Skills. In this same section, students were asked to list courses which were most helpful and least helpful at Needham High School. The three courses getting the most responses in each area with the number of people giving that response are:

Most Helpful
 English (38)
 AP History (23)
 Physiology (15)

Least Helpful
 Physical Education (20)
 Spanish (15)
 Health Education (14)

Counseling

The questionnaire asked students to rate the services provided by the High School guidance counselors.

Area	Class of:				
	'99	'00	'01	'02	'03
Course Planning	3.68	3.74	3.70	4.05	3.97
Schedule Adjustment Services	3.80	4.01	4.05	3.83	3.90
Personal Problems	3.37	3.23	3.46	4.29	3.88
College Planning	3.54	3.31	3.69	3.76	3.79
Academic Problems	3.24	3.85	3.92	3.68	3.73
Availability	3.70	3.61	3.81	3.89	3.69
Career & Job Resources	2.80	2.82	3.15	3.27	3.60
Career Planning	3.00	2.79	3.14	3.17	2.93
Average	3.47	3.42	3.62	3.79	3.77

The overall rating for guidance remained very similar to last year's, which fell into the Strong category. The area of Personal Problems declined significantly, but last year's number was much higher than previous years. It is of some concern that availability declined because an additional counselor joined the High School guidance staff in 2002-03. Areas having to do with career planning and resources continue to lack behind other areas.

Media Center

The survey asked graduates to rate topics related to the Media Center.

Area	One-Year Survey				
	Class of: '99	'00	'01	'02	'03
Print Resources	3.85	3.97	3.74	3.65	3.96
Technology Resources	3.99	3.93	3.68	3.65	3.94
Study Climate	3.25	3.30	3.18	3.23	3.57
Average	3.70	3.78	3.51	3.53	3.88

The overall rating for the Media Center was significantly higher than previous years. All three areas in this section of the survey increased significantly.

Co-Curricular Activities

The graduates rated their co-curricular activities.

Area	Class of:				
	'99	'00	'01	'02	'03
Athletics	4.24	4.39	4.24	4.41	4.37
Music	3.76	4.13	4.34	4.29	4.27
Drama	3.68	4.48	4.50	3.90	4.04
Clubs	3.96	3.99	3.94	3.90	3.86
Student Government	4.14	4.10	4.43	3.94	3.64
Publications	3.78	4.08	3.53	3.11	3.53

As in previous years, the co-curricular activities received very high ratings. Athletics, Music, and Drama all were rated as Exceptionally Strong. Student Government declined significantly while Publications increased.

Of the students who participated in a co-curricular activity, 67.3% said that it had a positive effect on their academic performance. Only 1.9% said it had a detrimental impact.

In this section, students were also asked about working during their years at the High School; 63.4% said that they had worked a part-time job during their senior year at Needham High School. Of this group, 46.5% said that they worked over 10 hours per week. Only 5.7% said that they would have done better academically if they had not worked.

Issues and Problems Associated with School

The chart below represents the percentage of students who indicated that the issue had been a problem while they were in high school.

Area	Class of:				
	'99	'00	'01	'02	'03
Condition of Building	31.0	33.9	45.0	36.6	47.8
Academic Pressure	38.1	38.7	43.2	44.7	46.7
Cheating	1.5	23.9	17.1	30.1	36.3
Social Acceptance	38.9	26.6	34.2	25.2	24.8
Alcohol Use	36.3	29.0	32.4	20.3	23.9
Smoking	31.0	21.0	27.9	28.5	23.0
Lack of Student Morale	31.0	31.5	23.4	28.5	19.5
Drug Use	23.9	23.4	27.9	24.4	19.5
Class Size	25.7	26.6	25.2	10.6	18.6
Respect by Administration	16.7	12.4	7.5	14.3	10.1
Respect by Students	10.4	9.7	11.2	13.8	10.0
Harassment	22.1	10.5	11.7	10.6	8.8
Respect by Teachers	6.3	5.0	6.6	9.5	5.5
Respect by Support Staff	6.5	5.6	5.6	3.6	3.7
School Safety	3.5	2.4	3.6	0.8	0.9

Condition of the Building topped the list of concerns for our graduates; however, Academic Pressures continues to be very high (46.7%) and has increased for the fourth straight year. Cheating also showed an increase from 30.1% to 36.3% and a significant upward trend over five years. Smoking decreased from 28.5% to 23.0%. Fewer students thought morale was a problem, but a larger percentage were concerned by class size. It is reassuring to see that fewer than 1% are concerned about safety in school.

Summary and Conclusion

The overall satisfaction rate for graduates is the highest in the history of the alumni survey:

Class of 1999 - 3.99
Class of 2000 - 4.02
Class of 2001 - 3.91
Class of 2002 - 4.05
Class of 2003 - 4.20

The overall rating for Needham High School falls in the Exceptionally Strong range; consequently, we can feel very confident in stating that graduates have extremely positive feelings about their educational experiences at Needham High School. Despite the positive results, there are certain areas which deserve discussion:

- 1) The continuing increase in students who report that they are required to take remedial courses in both English and mathematics is a concern and deserves further analysis. Although the percentage of students who were required to take a remedial course in English declined this year, more students than ever had to take a remedial math course.
- 2) The condition of the building was a concern for almost half of the graduates. There will be a new high school facility in a few years, but maintenance and cleanliness will need to be monitored to look for trends.
- 3) Academic pressure and cheating are rising concerns among graduates. Both issues are worthy of concern for the High School administration.
- 4) Foreign language remains an area of dissatisfaction for our graduates. Significant changes have taken place in the department including an administrative reorganization, staff change, and a focus on standards-based instruction. It will be important to monitor the satisfaction levels in the future.
- 5) Job knowledge, career exploration, and planning continue as areas of need identified by students. The high school staff and Guidance Department should continue to analyze this need and suggest possible ways of addressing it.