DEMOGRAPHIC STUDY

for the

NETCONG BOARD OF EDUCATION

Netcong, Morris County, State of New Jersey

Prepared By:

WHITEHALL ASSOCIATES, INC.
Educational Facilities Planning Consultants
65 Fayson Lakes Road
Kinnelon, New Jersey 07405-3129

September 22, 2005

Whitehall Associates, Inc.

65 Farpson Lakes Road

Kinnelon, New Jersey 07405

September 22, 2005

Whereas, all New Jersey Public School Districts are required by P.L. 2000 and N.J.A.C. 6:23 to prepare a Long Range Facility Plan and,

Whereas, the Long Range Facility Plan requires a certification of the school district's demographics by a qualified demographer and,

Whereas, Whitehall Associates, Inc. is considered a qualified demographer by the New Jersey Department of Education.

Therefore, Whitehall Associates, Inc. states that the demographic report it prepared for the Netcong Board of Education was prepared in compliance with the appropriate law and administrative code. The original report is on electronic file at the offices of Whitehall Associates, Inc. and is available for examination by the appropriate authorities.

For:
WHITEHALL ASSOCIATES, INC.

Joseph Richardson, Ph.D.
President

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INTRODUCTION

Whitehall Associates was retained by Tri-Tech Engineering to prepare a demographic study for the Netcong Public Schools. The information in this demographic report is suitable for inclusion in any document to be forwarded to the New Jersey Department of Education for matters concerning school facilities.

OVERVIEW OF THE DISTRICT

Netcong covers 0.77 square miles in Morris County, New Jersey. The Board of Education maintains one school in a Pre-K-8 district. Board offices are located at 26 College Road in Netcong.

SPECIAL NOTE CONCERNING THE LONG RANGE FACILITY PLAN SUBMISSION:

If the normal cohort projections, as developed in the New Jersey Department of Education Long Range Facility Plan (LRFP) electronic data sheets, do not fit a particular district, the correct information may be entered manually. Such modification may be necessary due to residential development impact, a major program change or anything that would skew the normal cohort and render it invalid. The same applies to birth figures. If a reason exists to not use the birth to kindergarten ratios and some other method is used, such as a regression analysis of the kindergarten figures, the information may be entered manually. Therefore, in cases where the normal input must be overridden, the correct data will be shown in the respective tables, usually Table 3, and the data to be inserted in the LRFP program will be clearly annotated.

ENROLLMENT DATA AND PROJECTIONS

In studies for the New Jersey Department of Education, enrollment data, by grade, for the past five years is required. A five year enrollment projection based on these data and computed by the cohort survival method is required. The resulting enrollments are used as a factor in determining the adequacy of the educational facilities. Birth figures are obtained from the Center for Health Statistics of the New Jersey Department of Health and Senior Services. Enrollment figures are obtained from the annual *Fall Survey Report* provided by the district administration to the New Jersey Department of Education or to Whitehall Associates directly. Until 1997 it was customary to use the enrollment figures from the *Application for State School Aid* (ASSA). That year the form was changed to report special education students in "tiers." Some, if not the majority, of these tier students were in "pull-out" programs and occupied seats in regular classrooms except for the time they were receiving additional help. Since seats must be provided for these students in their regular grade, the ASSA cannot be used for accurate student population projections. The Fall Survey Report on the other hand did not change and continues to identify those special education students in self-contained classes. The difference in special education reporting, since both of these reports are as of the same day, has caused massive confusion in the districts. Whitehall's experience has been that over fifty percent of the Fall Report special education figures since 1997 are in error. The only special education students in this report are those in self-contained classrooms.

Beginning with the October 2005 Fall Survey Report, shared time

students are counted in whole numbers and are not counted as half of a full time student. This is an improvement since a whole space must be provided in the school for each student.

In developing a projection of five year enrollments, the cohort-survival method has been used as a base. This method is the one required by law and expected by the New Jersey Department of Education unless a cogent reason exists for another method to be used. The use of a different method must be explained and justified to the satisfaction of the Commissioner of Education.

The cohort-survival method acquires its name from the use of grade to grade survival figures derived from a recent history of the school district. Grade survival ratios at each level can then be computed on the basis of the recent years' known enrollment with an average survival ratio per grade determined. Ratios less than one usually reflect such factors as out-transfers, ex-migration from the school district and other such losses. A survival ratio of more than one usually reflects such factors as in-transfers and in-migration. Projections of enrollment can then be made by applying the individual grade by grade survival ratio to each grade level for future years with a base of known enrollments for the present year. In this report, projections for special education students were made by using the percent of population method. That is, the number of special education students was divided by the total school population to arrive at a percentage for each year. The past year's percentage was used to project the number of special education students reported in Table 3-1.

With some adaptation to local circumstances, the cohort survival method is the most accurate we have to project enrollments. In rapidly developing districts, the impact of new residential development must be taken into account. This is accomplished by using data derived from the Center for Urban Policy Research at Rutgers University and Whitehall's research. In Netcong's case there is proposed residential development that will warrant the modification of the cohort survival projections.

TABLE 1 lists the population of Netcong since 1930. In the 1950's and 1970's the municipality experienced a growth of over 20 percent. However for the past two decades the municipality has experienced a decline of just over 27 percent in the general population or approximately 977 persons.

TABLE 2 is the district's enrollment history wherein the survival ratios mentioned in the preceding paragraphs were developed. Student enrollments were taken from the *Fall Survey Report* provided by the district administration to the New Jersey Department of Education or to Whitehall Associates directly. These figures are for students housed in the district schools and do not include out of district placement. This method is standard and is fully acceptable by the Department of Education and required by law as the source of enrollments. Birth figures were obtained from the Center for Health Statistics of the New Jersey Department of Health and Senior Services (NJDOH). This also is standard and is required by law.

The district's reported enrollments for school years 2000-01, 2001-02, and 2003-04 were in error in that all of the students receiving remedial instruction were listed in the special education column. The only

students to be reported there are those in self-contained classrooms. Therefore, since there were no self-contained classes, all of the students so reported had to be placed back into their respective grades. For this reason the enrollments must be entered manually into the LRFP worksheet.

The U.S. Department of Health, Center for Disease Control in Atlanta, which has the responsibility on the national level for birth statistics, changed its format for reporting births as of January 1, 1989. At that time the Center for Health Statistics, NJDOH engaged on a monumental program to geo-code all birth statistics. This was completed in late October, 1998 and has resulted in the most accurate birth data yet obtainable from any source. Any report submitted by Whitehall Associates after November 1, 1998 reflect these updated data. Therefore, previous reports may or may not agree with the current data.

That being said, the following explanation has been made by the NJDOH on their website which publishes birth statistics:

> *"The 1998 data year marks the inception of a new and more accurate processing method for the geo-coding of address information. There are some inconsistencies with previous years' data at the municipality level - and to a much lesser degree at the county level - due to the new procedures. In most cases this occurs where adjoining municipalities share a zip code; therefore, an unusual variation in birth data for a particular municipality may be resolved by examining the relative changes in nearby towns. In particular, portions of Burlington County may show marked irregularities over prior years due to the improved assignment of military residence addresses within municipal boundaries."*
>
> *Two additional improvements were made with the processing of the 1999 data. First, it was determined that the original municipality assigned was usually more accurate than the municipality assigned by the geo-coding software if the software returned an error code. So, in those cases, the original municipality was used. This leads to the assignment of some records to McGuire Air Force Base, Fort Dix, and Fort Monmouth when the software could not make a match at the zip+4 level. Second, efforts were made to identify true street addresses when post office boxes were given as a mailing address. When a post office box address is used, the geo-coding software assigns the record the municipality at the center of the zip code centroid, which may be problematic in cases where zip codes cross municipality boundaries or where the zip code boundaries are irregular in shape."*

If irregularities in births do occur, adaptations have to be made to the normal cohort calculations in Tables 2 and/or 3-1 and 3-2. In Netcong there was no apparent change in birth figures.

TABLE 3-1 is the main table and is designed to be used in conferences and meetings. It allows the participant to be able to refer to one page rather than searching through a document for more information. The back-up for Table 3-1 entries will be found in other tables. All calculations are carried to eight or more decimal places. Since there cannot be fractions of a student, the district totals may vary by one or two students if added manually. These projections can and should be

updated every year.

The boxed area to the lower left of the table is an area of low confidence in that these children have either not been born or reported. Births in the boxed area may be shown as a regression, an average of the last five year's births or the last known birth figure. In this case we used the last known birth figure.

Table 3-1 shows the live births attributed to Netcong for the five years prior to the kindergarten year shown. The projection of student enrollment for the next five years has been made. The total school population is expected to decrease by 27 students or 9.42 percent in the next five years not considering the residential development impact.

The line **Net Development Impact** displays, by grade, the impact residential development will have on the cohort survival projections.

The line **09-10 Total Enrollment** combines the net development impact and the normal cohort projection for 09-10 to give a planning figure for enrollments.

TABLE 3-2 is the same as Table 3-1 except it is by grade grouping and is in a configuration similar to the Long Range Facility Plan.

TABLE 4 shows the population impact of planned and approved residential development in the district. The name of the development, type, number of units, number of bedrooms and remarks were supplied by Barrie Krause of the Netcong Planning Board and Marvin Joss the Borough Administrator.

We begin with some assumptions. The cohort survival method assumes that the rate of growth during the period the data is collected will remain the same for the period of population projection. Therefore the rate of growth indicated in Table 2 will carry over to Table 3-1 in all cases. Now if something were to happen that changes the rate of growth, that event must be taken into account. Residential development is one of those factors. There are several options at this point:

a. If the development impact in Table 4 is less than the projected five year increase in student population shown in Table 3-1, the Table 4 impact is ignored. To do otherwise would be double counting.

b. If the development impact in Table 4 is more than the projected five year increase in student population shown in Table 3-1, the net impact is shown on the line labeled **Net Development Impact** in Table 3-1.

c. If there is a projected decrease in the student population in Table 3, the entire Table 4 impact is considered and shown on the line labeled **Net Development Impact** in Table 3-1.

Since the district is expected to have a decreasing student population, the entire development impact of 16 in Table 4 is shown on the line labeled **Net Development Impact** in Table 3-1.

TABLE 5 displays the enrollment projections by school, by grade for the year 2009-10. The ratio of students was taken from the October 15, 2004 Fall Survey Report data and applied to the 2009-10 district wide projections. This method is the one required by the state in the Long Range Facilities Plan.

EXPLANATION OF THE TABLES

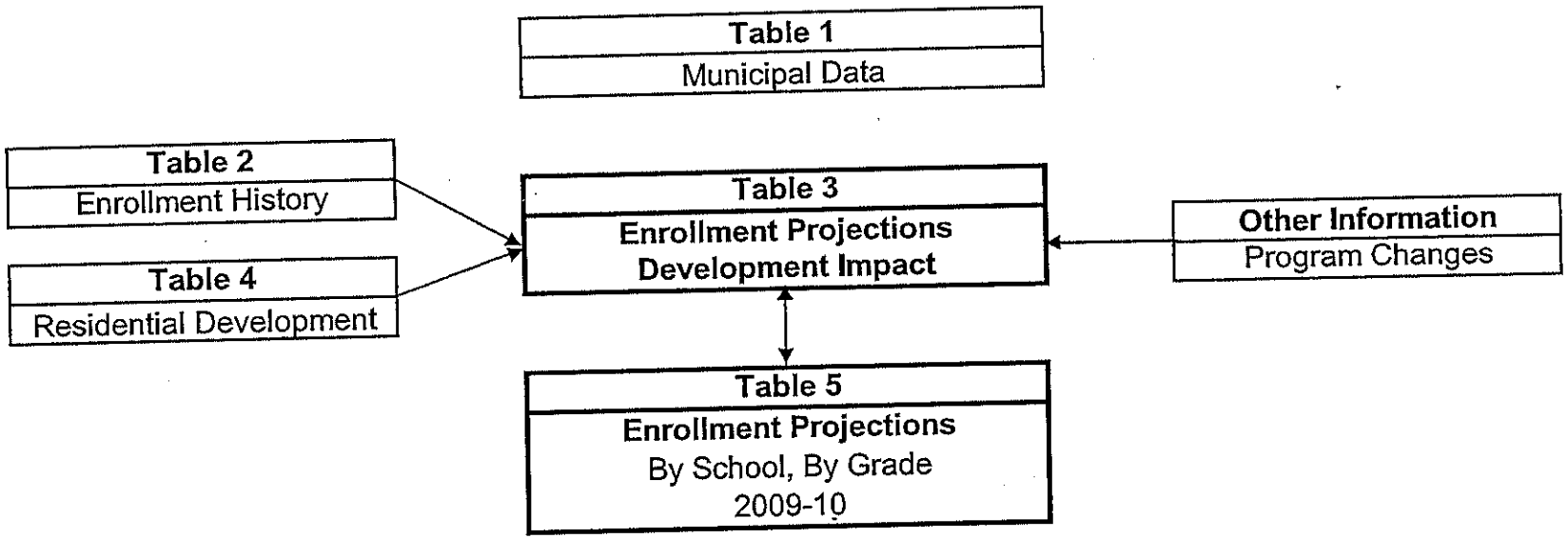

Table 3 is the main table and is designed to be used in conferences and meetings. It allows the participant to be able to refer to one page rather than searching through a document for information. Back-up data for Table 3 entries will be found in other tables as indicated above.

All calculations are carried to eight or more decimal places. Since there cannot be fractions of a student, the district totals may vary by one or two students if added manually.

TABLE 1

NETCONG BOROUGH

MUNICIPAL POPULATION TRENDS

LAND AREA = 0.77 Sq. Mi.

YEAR	POPULATION	INCREASE	% INCREASE
1930	2,097		
		60	2.861%
1940	2,157		
		127	5.888%
1950	2,284		
		481	21.060%
1960	2,765		
		93	3.363%
1970	2,858		
		699	24.458%
1980	3,557		
		-246	-6.916%
1990	3,311		
		-731	-22.078%
2000	2,580		

SOURCE: U.S. Census Bureau

TABLE 2

NETCONG BOARD OF EDUCATION

STUDENT ENROLLMENT HISTORY

SCHOOL YEAR	BIRTHS 5 YEARS EARLIER		Pre K		K		1		2		3		4		5		6		7		8	SP ED	DISTRICT TOTAL
00-01	43	0.45	20	0.79	34		40		32		36		21		38		31		29		35	0	316
						0.94		1.00		1.00		0.78		1.33		0.89		1.23		1.03			
01-02	44	0.61	25	0.57	25		32		40		32		28		28		34		38		30	0	312
						1.08		1.13		0.83		0.84		0.96		0.96		0.94		1.03			
02-03	41	0.51	24	0.61	25		27		36		33		27		27		27		32		39	0	297
						1.00		0.96		1.00		1.03		0.89		1.11		1.15		1.03			
03-04	47	0.88	29	0.49	23		25		26		36		34		24		30		31		33	0	291
						1.13		1.00		1.00		0.89		1.03		1.13		1.03		1.00			
04-05	33	0.43	18	0.91	30		26		25		26		32		35		27		31		31	1	282
AVERAGE SURVIVAL RATIO		0.58		0.67		1.04		1.02		0.96		0.89		1.05		1.02		1.09		1.02			

Birth to Pre-Kindergarten

Birth to Kindergarten

NOTE: Fall Report enrollments as reported to NJDOE were in error for years 00-01, 01-0-2 and 02-03 in the way special education figures were reported. Therefore enrollment figures for those years must be entered manually into the Long Range Facility Plan worksheet.

TABLE 3-1

NETCONG BOARD OF EDUCATION

STUDENT ENROLLMENT PROJECTIONS

SCHOOL YEAR	BIRTHS 5 YEARS EARLIER		Pre K		K	1	2	3	4	5	6	7	8	SP ED	DISTRICT TOTAL
04-05	33		18		30	26	25	26	32	35	27	31	31	1	282
						1.04	1.02	0.96	0.89	1.05	1.02	1.09	1.02		
05-06	42	0.58	21	0.67	28	31	27	24	23	34	36	29	32	1	285
06-07	36		22		24	29	32	25	21	24	35	39	30	1	283
07-08	38		22		26	25	30	30	22	22	25	38	40	1	281
08-09	38		22		26	27	26	29	27	24	23	27	38	1	268
09-10	38		20		26	27	27	25	25	28	24	25	28	1	255
Net Development Impact			1		2	1	2	1	1	2	2	2	2	0	16
09-10 Total Enrollment			21		28	28	29	26	26	30	26	27	30	1	271

NOTES:

1. Births in the boxed area were calculated by last known birth figure. Students in those year groups have either not been born or reported to date.
2. All calculations are carried to eight or more decimal places. Since there cannot be fractions of a student, the district totals may vary by one or two students if added manually.
3. The line ***09-10 Total Enrollment*** must be entered manually into the Long Range Facility Plan worksheet along with the explanation that the normal cohort did not consider the residential development impact.

TABLE 3-2

NETCONG BOARD OF EDUCATION

STUDENT ENROLLMENT PROJECTIONS - BY GRADE GROUPING

	Pre-K- 5					6-8			
SCHOOL YEAR	Regular	Self-Contained Special Ed	K-5 Total	Pre-K Disabled	Pre-K-5 Total	Regular	Self-Contained Special Ed	6-8 Total	DISTRICT TOTAL
04-05	192	1	193	0	193	89	0	89	282
05-06	188	1	189	0	189	96	0	96	285
06-07	179	1	180	0	180	103	0	103	283
07-08	179	1	180	0	180	102	0	102	281
08-09	180	1	181	0	181	88	0	88	268
09-10	187	1	188	0	188	83	0	83	271

TABLE 4

NETCONG RESIDENTIAL DEVELOPMENT

(as of September 6, 2005)

STUDENT IMPACT

DEVELOPMENT	TYPE	NUMBER OF UNITS	NUMBER OF BEDROOMS	REMARKS	TOTAL STUDENTS	TOTAL K-8
Montella	single family	5	4		5	4
The Netcong Transit Village Project	townhouse	100	2		16	12
The Netcong Transit Village Project	townhouse	20	2		3	2
The Netcong Transit Village Project	apartment	81	1		10	7
				TOTALS	**21**	**16**

NOTES:

1. The name of the development, type, number of units, number of bedrooms and remarks were supplied by Barrie Krause of the Netcong Planning Board and Marvin Joss the Borough Administrator.
2. All calculations are carried to eight or more decimal places. Since there cannot be fractions of a student, the district totals may vary by one or two students if added manually.
3. If there is a projected decrease in the student population in Table 3, the entire Table 4 impact is considered and shown on the line labeled Net Development Impact in Table 3.
4. Any net development impact must be added to the normal 09-10 projection and entered manually into the Long Range Facility Plan pages with an appropriate explanation.

TABLE 5

NETCONG BOARD OF EDUCATION

OCTOBER 15, 2004 ENROLLMENTS - BY SCHOOL, BY GRADE

SCHOOL	Pre-K	K	1	2	3	4	5	6	7	8	SUB -TOTAL	SP ED	TOTAL
Netcong Elementary School (060)	18	30	26	25	26	32	35	27	31	31	281	1	282
TOTAL	18	30	26	25	26	32	35	27	31	31	281	1	282

PROJECTED STUDENT ENROLLMENT BY SCHOOL, BY GRADE FOR 2009-10

SCHOOL	Pre-K	K	1	2	3	4	5	6	7	8	SUB -TOTAL	SP ED	TOTAL
Netcong Elementary School (060)	21	28	28	29	26	26	30	26	27	30	270	1	271
TOTAL	21	28	28	29	26	26	30	26	27	30	270	1	271

Table 3-1 Projections for 09-10	21	28	28	29	26	26	30	26	27	30	270	1	271