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# DEMOGRAPHIC STUDY

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for the

## NETCONG BOARD OF EDUCATION

Netcong, Morris County, State of New Jersey

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Prepared By:

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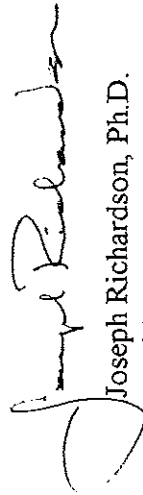
Whereas, all New Jersey Public School Districts are required by P.L. 2000 and N.J.A.C. 6:23 to prepare a Long Range Facility Plan and, Whereas, the Long Range Facility Plan requires a certification of the school district's demographics by a qualified demographer and, Whereas, Whitehall Associates, Inc. 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.

**IMPORTANT NOTICE:** The enrollments for these demographics begin with the 1999-2000 school year and end with the 2004-2005 school year. The enrollment projections are through the 2009-2010 school year. They take into account the dynamics of the district and may or may not agree with the report posted on the web by the New Jersey Department of Education (NJDOE). The NJDOE report does not take into account some of the dynamics such as residential development or changes in programs. Bernard Piaia at the Division of Abbott Implementation of the NJDOE, has agreed to accept this report, if it submitted in its complete final form, with an original signature, along with the NJDOE cohort survival worksheets for the Long Range Facility Plan.

The original of this 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 cohort projections, as developed in the New Jersey Department of Education (NJDOE) Long Range Facility Plan (LRFP) electronic data sheets, do not fit a particular district, the correct information may be entered manually. Even so there are some cells on the worksheets that cannot be modified, such as the birth to kindergarten ratio in districts where the birth figures are inaccurate (see the New Jersey Department of Health and Human Services explanation below). If a reason exists not to 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. Any modification to the NJDOE worksheets will be fully explained in this report. In some instances there is no way to rectify this report with the NJDOE worksheets. The Division of Abbott Implementation of the NJDOE will accept the modified LRFP demographics, even though they do not

agree with this report, providing this report, in its final form, is submitted, in its entirety, along with the NJDOE worksheets. This report must be submitted with an original signature on page 2.

## ENROLLMENT DATA AND PROJECTIONS

In studies for the New Jersey Department of Education, enrollment data, by grade, for the past six 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 reports for districts with self-contained special education students, projections are made by using the percent of population method. That is, the number of special education students is divided by the total school population to arrive at a percentage for each year. The last year's percentage in Table 2 is 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 some proposed residential development that will warrant the modification of the cohort survival projections.

**MUNICIPAL POPULATION TRENDS** 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 1** shows the pre-kindergarten data for the district both the "universe" and the actual.

**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 1999-2000, 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 LRFPP 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.

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. In Netcong there was no apparent change in birth figures.

**TABLE 3** is the main table and is designed to be used in conferences and meetings and conforms to the NJDOE worksheet. 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 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 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 31 students or 10.93 percent in the next five years.

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

The line **2009-10 Total Enrollment** combines the net development impact and the normal cohort projection for 09-10 to give a planning figure for enrollments.

**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 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, 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, the net impact is shown on the line labeled **Net Development Impact** in Table 3.
- 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.

Since the normal cohort projection shows an anticipated decrease in the total school population of 31 students in the next five years and residential development will add 26 students, the total impact of 26 is shown on the line labeled **Net Development Impact** in Table 3.

**NOTE:** Usually the **Net Development Impact** is added to the last year of enrollment projections. This becomes the planning figure for new facilities. It is understood that the developments will contribute additional students throughout the five year period of projections. However, there is no competent way to determine how many students will be added in any particular year.

**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 LRFP.

NETCONG

MUNICIPAL POPULATION TRENDS

LAND AREA = 0.77 Sq. Mi.

| YEAR | POPULATION | INCREASE | % INCREASE |
|------|------------|----------|------------|
| 1930 | 2,097      |          |            |
| 1940 | 2,157      | 60       | 2.86%      |
| 1950 | 2,284      | 127      | 5.89%      |
| 1960 | 2,765      | 481      | 21.06%     |
| 1970 | 2,858      | 93       | 3.36%      |
| 1980 | 3,557      | 699      | 24.46%     |
| 1990 | 3,311      | -246     | -6.92%     |
| 2000 | 2,580      | -731     | -22.08%    |

SOURCE: U.S. Census



**TABLE 1**  
**NETCONG BOARD OF EDUCATION**  
**PRE-K STUDENT ENROLLMENT HISTORY**

| SCHOOL YEAR | BIRTHS 4 YRS EARLIER | UNIVERSE |         |         | TOTAL | ACTUAL  |         |       |
|-------------|----------------------|----------|---------|---------|-------|---------|---------|-------|
|             |                      | Pre-K-3  | Pre-K-4 | Pre-K-4 |       | Pre-K-3 | Pre-K-4 | TOTAL |
| 99-98       | 43                   | 44       | 43      | 87      | 0     | 22      | 22      |       |
| 00-01       | 44                   | 41       | 44      | 85      | 0     | 20      | 20      |       |
| 01-02       | 41                   | 47       | 41      | 88      | 0     | 25      | 25      |       |
| 02-03       | 47                   | 33       | 47      | 80      | 0     | 24      | 24      |       |
| 03-04       | 33                   | 42       | 33      | 75      | 0     | 29      | 29      |       |
| 04-05       | 42                   | 36       | 42      | 78      | 0     | 18      | 18      |       |
| 05-06       | 36                   | 38       | 36      | 74      | 0     | 20      | 20      |       |
| 06-07       | 38                   | 38       | 38      | 76      | 0     | 21      | 21      |       |
| 07-08       | 38                   | 38       | 38      | 76      | 0     | 21      | 21      |       |
| 08-09       | 38                   | 38       | 38      | 76      | 0     | 21      | 21      |       |
| 09-10       | 38                   | 38       | 38      | 76      | 0     | 15      | 15      |       |

**NOTES:**

1. Births in the boxed area were calculated using the last known birth figure. Students in those year groups have either not been born or reported to date.
2. The "UNIVERSE" is considered to be the same as the births for that cohort year.

**TABLE 2  
NETCONG BOARD OF EDUCATION  
STUDENT ENROLLMENT HISTORY**

| School Year            | Births 5 Yrs. Ago |  | PK 3 yr |      | PK 4yr | K    | 1st Gr. | 2nd Gr. | 3rd Gr. | 4th Gr. | 5th Gr. | 6th Gr. | 7th Gr. | 8th Gr. | SELF-CONTAINED SPECIAL EDUCATION |      |     | DISTRICT TOTAL |    |      |    |      |    |   |   |   |     |  |
|------------------------|-------------------|--|---------|------|--------|------|---------|---------|---------|---------|---------|---------|---------|---------|----------------------------------|------|-----|----------------|----|------|----|------|----|---|---|---|-----|--|
|                        |                   |  |         |      |        |      |         |         |         |         |         |         |         |         | PK                               | K-5  | 6-8 |                |    |      |    |      |    |   |   |   |     |  |
| 1999-00                | 42                |  | 0       | 0.51 | 22     | 0.83 | 35      | 1.14    | 30      | 1.07    | 34      | 1.06    | 32      | 0.66    | 37                               | 1.03 | 34  | 0.91           | 33 | 0.88 | 32 | 1.09 | 29 | 0 | 0 | 0 | 318 |  |
| 2000-01                | 43                |  | 0       | 0.45 | 20     | 0.79 | 34      | 0.94    | 40      | 1.00    | 32      | 1.00    | 36      | 0.78    | 21                               | 1.33 | 38  | 0.89           | 31 | 1.23 | 29 | 1.03 | 35 | 0 | 0 | 0 | 316 |  |
| 2001-02                | 44                |  | 0       | 0.61 | 25     | 0.57 | 25      | 1.06    | 32      | 1.13    | 40      | 0.83    | 32      | 0.84    | 28                               | 0.96 | 28  | 0.96           | 34 | 0.94 | 38 | 1.03 | 30 | 0 | 0 | 0 | 312 |  |
| 2002-03                | 41                |  | 0       | 0.51 | 24     | 0.61 | 25      | 1.00    | 27      | 0.96    | 36      | 1.00    | 33      | 1.03    | 27                               | 0.89 | 27  | 1.11           | 27 | 1.15 | 32 | 1.03 | 39 | 0 | 0 | 0 | 297 |  |
| 2003-04                | 47                |  | 0       | 0.88 | 29     | 0.49 | 23      | 1.13    | 25      | 1.00    | 26      | 1.00    | 36      | 0.89    | 34                               | 1.03 | 24  | 1.13           | 30 | 1.03 | 31 | 1.00 | 33 | 0 | 0 | 0 | 291 |  |
| 2004-05                | 33                |  | 0       | 0.43 | 18     | 0.61 | 30      | 1.06    | 26      | 1.03    | 25      | 0.98    | 26      | 0.84    | 32                               | 1.05 | 35  | 1.00           | 27 | 1.03 | 31 | 1.00 | 31 | 0 | 1 | 0 | 282 |  |
| Average Survival Ratio |                   |  | 0.00    | 0.57 |        | 0.70 |         | 1.06    |         | 1.03    |         | 0.98    |         | 0.84    |                                  | 1.05 |     | 1.00           |    | 1.05 |    | 1.04 |    |   |   |   |     |  |

**NOTE:** Enrollments reported in fractions of a student were rounded to the next whole number.

**TABLE 3**  
**NETCONG BOARD OF EDUCATION**  
**STUDENT ENROLLMENT PROJECTIONS**

| School Year              | Births 5 Yrs. Ago | PK 3 Yr | PK 4 Yr | K    | 1st Gr. | 2nd Gr. | 3rd Gr. | 4th Gr. | 5th Gr. | PK-5 Total | 6th Gr. | 7th Gr. | 8th Gr. | 6-8 Total | SELF-CONTAINED SPECIAL EDUCATION | DISTRICT TOTAL |     |
|--------------------------|-------------------|---------|---------|------|---------|---------|---------|---------|---------|------------|---------|---------|---------|-----------|----------------------------------|----------------|-----|
|                          |                   |         |         |      |         |         |         |         |         |            |         |         |         |           | PK                               | K-5            | 6-8 |
| 2005-06                  | 42                | 0       | 20      | 29   | 32      | 27      | 24      | 22      | 34      | 188        | 35      | 28      | 32      | 95        | 0                                | 1              | 0   |
|                          |                   | 0.00    | 0.57    | 0.70 | 1.06    | 1.03    | 0.98    | 0.84    | 1.05    |            | 1.00    | 1.05    | 1.04    |           |                                  |                |     |
| 2005-07                  | 36                | 0       | 21      | 25   | 31      | 33      | 26      | 20      | 23      | 180        | 34      | 37      | 29      | 100       | 0                                | 1              | 0   |
| 2007-08                  | 38                | 0       | 21      | 27   | 27      | 32      | 32      | 22      | 21      | 182        | 23      | 35      | 38      | 96        | 0                                | 1              | 0   |
| 2009-09                  | 38                | 0       | 21      | 27   | 28      | 28      | 31      | 27      | 23      | 185        | 22      | 24      | 36      | 82        | 0                                | 1              | 0   |
| 2009-10                  | 38                | 0       | 15      | 27   | 28      | 29      | 27      | 26      | 28      | 180        | 23      | 23      | 25      | 70        | 0                                | 1              | 0   |
| NET DEVELOPMENT IMPACT   |                   | 0       | 2       | 3    | 3       | 3       | 3       | 2       | 2       | 17         | 3       | 3       | 3       | 8         | 0                                | 0              | 0   |
| 2010-11 TOTAL ENROLLMENT |                   | 0       | 17      | 29   | 31      | 32      | 30      | 29      | 31      | 197        | 26      | 25      | 28      | 79        | 0                                | 1              | 0   |

- NOTES:**
1. Births in the dashed boxed area were calculated using the last known birth figure. Students in those year groups have 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 **2009-10 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 4**  
**NETCONG BOARD OF EDUCATION**  
**MUNICIPAL RESIDENTIAL DEVELOPMENT**

| 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         |
| <b>TOTALS</b>                       |               |                 |                    |         | <b>34</b>      | <b>26</b> |

**NOTES:**

1. The name of the development, type, number of units, number of bedrooms, and remarks were supplied by Barry 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 10-11 projection and entered manually into the Long Range Facility Plan pages with an appropriate explanation.

**TABLE 5**  
**NETCONG BOARD OF EDUCATION**  
**OCTOBER 16, 2004 ENROLLMENT, BY SCHOOL, BY GRADE**

| SCHOOL                          | Pre-K 3 | Pre-K 4 | K  | 1  | 2  | 3  | 4  | 5  | 6  | 7  | 8  | Sub-Total | Sp Ed | TOTAL |
|---------------------------------|---------|---------|----|----|----|----|----|----|----|----|----|-----------|-------|-------|
| Netcong Elementary School (060) | 0       | 18      | 30 | 26 | 25 | 26 | 32 | 35 | 27 | 31 | 31 | 281       | 1     | 282   |
| <b>TOTAL</b>                    | 0       | 18      | 30 | 26 | 25 | 26 | 32 | 35 | 27 | 31 | 31 | 281       | 1     | 282   |

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

| SCHOOL                          | Pre-K 3 | Pre-K 4 | K  | 1  | 2  | 3  | 4  | 5  | 6  | 7  | 8  | Sub-Total | Sp Ed | TOTAL |
|---------------------------------|---------|---------|----|----|----|----|----|----|----|----|----|-----------|-------|-------|
| Netcong Elementary School (060) | 0       | 17      | 29 | 31 | 32 | 30 | 29 | 31 | 26 | 25 | 28 | 276       | 1     | 277   |
| <b>TOTAL</b>                    | 0       | 17      | 29 | 31 | 32 | 30 | 29 | 31 | 26 | 25 | 28 | 276       | 1     | 277   |

| TABLE 3 PROJECTIONS FOR 2009-10 | 0 | 17 | 29 | 31 | 32 | 30 | 29 | 31 | 26 | 25 | 28 | 276 | 1 | 277 |
|---------------------------------|---|----|----|----|----|----|----|----|----|----|----|-----|---|-----|
|---------------------------------|---|----|----|----|----|----|----|----|----|----|----|-----|---|-----|

