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ABSTRACT

This report summarizes the findings of a five-month study of Arlington pupil enrollment, including projections of future enrollments over the next five to ten years, utilization rates of elementary and junior high school facilities, and criteria for identifying candidate facilities for consolidation. In developing the forecast data, the committee talked with school principals, PTA groups, area realtors, housing developers, county and school administration staff, and staff members of the Alexandria and Fairfax school systems. Statistical data from the U.S. Census, HEW educational projections, and Council of Government forecasts were also used in the study. No attempt was made to evaluate the merits or impacts of possible changes to the instructional program. The committee predicted a continuing decline in school population, with an estimated 24 percent reduction from 1973 to 1978. The committee also included suggestions to attract and retain families with children, in hopes of slowing and eventually reversing the decline in school enrollment. (Author/JG)

REPORT

OF THE

COMMITTEE ON PUPIL ENROLLMENT

TO THE

ARLINGTON COUNTY SCHOOL BOARD

February 7, 1974

February 7, 1974

Mr. Michael Timpane, Chairman
Arlington School Board

Dear Mr. Timpane:

On 13 September 1973 you established a Citizens Committee on Pupil Enrollment charged with estimating the pupil enrollments over the next five to ten years and with estimating the possible implications of those enrollment trends upon the school system. The attached report responds to your charge points.

The report summarizes the findings of a five-month study of Arlington pupil enrollment, including projections of future enrollments over the next five to ten years, utilization rates of elementary and junior high school facilities, and criteria for identifying candidate facilities for consolidation. In developing the forecast data, the committee talked with school principals, PTA groups, area realtors, housing developers, county and school administration staff, and staff members of the Alexandria and Fairfax school systems. Statistical data from the U.S. Census, HEW educational projections and Council of Governments forecasts were also used in the study. The committee has limited its review to its original charter and has in no way attempted to evaluate the merits or impacts of possible changes to the instructional program.

The committee has concluded that a continuation of the decline in school population which has averaged 5 percent in each of the past three years is inevitable over the next several years. Our most likely estimate is a 24 percent reduction by 1978 from the actual September 1973 enrollment caused by rapidly declining birth rates and a continued net outmigration of students.

Working from data provided by each principal to the school administration staff, the committee developed criteria for working capacity and utilization rates at each elementary and junior high school based on the existing instructional program. Changes to the instructional program such as full day kindergarten or the middle school concept were not examined. A number of schools have been identified as candidates for redistricting or consolidation actions over the next five years.

Finally, at your request the committee has included suggestions to attract and retain families with children in Arlington. It is hoped that these recommendations will slow down and eventually reverse the continuing decline in school enrollment.

I propose follow-on meetings by our committee with each of the three Regional Advisory Committees to review the report prior to any public hearings conducted by the school board.

Mr. Michael Timpane, Chairman
Arlington School Board

February 7, 1974

I cannot close without citing the outstanding performance of the committee members on this study. Each member contributed much to the analysis required and to the spirited discussions which enlivened every meeting. The final report is truly a collective one, reflecting the consensus opinion of the entire committee.

The committee extends a special note of thanks to John Palmer whose background expertise proved of great assistance and to Herb Ware, and his staff, whose excellent analytic work, extreme patience and unfailing good humor really made this report possible.

Sincerely,

Richard A. Stubbing
Chairman
Committee on Pupil Enrollment

Committee Members: Larry Anderson
Godfrey E. Barber
Edith Lohman
Margaret Martin
Thomas Teeples
Joseph Welsch

RAS:dc

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I. Summary and Recommendations

The Committee on Pupil Enrollment has completed its assigned tasks of projecting future student enrollment levels, examining current and future school utilization levels and leveloping plans for consolidating and redistricting current facilities. The study assumed no changes to ongoing instructional programs. Highlights of our findings include:

- Enrollment has actually declined by 15 percent between September, 1970, and September, 1973.
- The Arlington school population by 1978 can be expected to decline 24 percent to about 16,000 from the actual September, 1973, enrollment of 21,126. Assuming a continuation of current trends, the 1983 enrollment will range from 11,000-14,000 students. No decline is forecast in the Special Education and Maury programs.
- The most severe decline is experienced in the elementary schools. This is a reflection of lower births since the mid-1960's coupled with a significant net decrease in the number of families with children in the county.
- An extensive study of elementary school utilization suggests that average facility usage will drop from about 80 percent of working capacity in 1973 to about 60 percent in 1978 for the basic full day instructional program. Junior high utilization will decline from 82 percent in 1973 to 61 percent in 1978.
- Using as criteria pupil enrollment, overhead cost per pupil and facility utilization rates, eight elementary schools have been identified as candidates for recistricting or consolidation

actions over the next five years. Over $1.5 million savings to the school system can be achieved through 1978 by these actions. Other non-school use of these facilities has not been addressed.

- A growing number of unused or underutilized classrooms is anticipated over the next five years. Assuming no additional instructional programs, there is no justification for additional classroom space in the foreseeable future. This should not preclude renovation and modernization of existing facilities.
- Overcrowding at schools such as Glencarlyn and Stratford should be accommodated through redistricting actions.
- Reversing the declining population trend will require first, agreement by the county board and school board that attracting and retaining families with children is a high priority county objective and second, a commitment to programs which could change the trend over the next five to ten years.

The committee recommends the following actions:

1. School board acceptance of the assumptions used in forecasting the student population and adoption of the most likely pupil enrollment estimates for planning purposes through 1978
2. School board acceptance of the proposed criteria for identifying the working capacity of each school facility.
3. The school board should review and act upon the two-phased plan proposed for elementary school redistricting and consolidation, including the closing of four elementary schools. Alternate non-school use of these facilities also must be addressed.

4. No bond issues for additional classrooms should be approved for the foreseeable future. Bond issues limited to modernization and renovation would be acceptable.
5. The county board, school board and planning commission jointly should develop plans to attract and retain families with children in Arlington with particular emphasis on increased housing opportunities for families with children.
6. Pupil enrollment forecasts should be updated each September. The computer model developed by the committee is available and would save many hours of manual calculations.

II. Background Information

Future school population trends must be examined in the context of the latest available demographic and economic information. In addition to studying statistical data, the committee has consulted a cross section of knowledgeable people to obtain their professional views on the significance of recent events. Definite trends in housing and population can be identified; they will provide the single greatest influence on school population over the next five years. Large changes in these downward trends are not likely to occur suddenly, and would take some 5 - 10 years to make a significant change in anticipated school enrollments.

A. County Population

The 1970 census disclosed a marked slowdown in the Arlington growth rate during the 1960's. Fairfax County, by contrast, during the past decade experienced a surging growth of 67 percent while Alexandria increased by 20 percent. Significant Arlington population changes in the 1960-70 period include:

- an overall increase of 7 percent (compared to 21 percent in the 1950's)
- a 350 percent increase in non-black minorities (primarily Spanish-speaking)
- a 15 percent decrease in the 17 and under population
- a 48 percent increase in the 55 and over population

A continuation of these trends indicates that the composition of the Arlington population will shift from a ratio of 3.0 children for each resident over 55 in 1960 to 0.9 children for each resident over 55

in the mid-1970's. Arlington will thus become the first jurisdiction in the Washington area in which the older adult population exceeds the number of children.

New births are the single greatest factor driving future school population estimates. Projected Arlington 1973 live births of about 1,900 are approximately 39 percent less than in 1970. Table II - 1 shows the sizeable decline in new births experienced in other Washington area communities as well as in Arlington.

Table II - 1

Births by Year, Washington, D.C. Metropolitan Area

	1970	1971	1972	% decline since 1970
Arlington	3,114	2,671	2,199	29
Alexandria	2,738	2,409	1,966	28
Fairfax	7,815	7,271	6,528	16
Montgomery	8,187	7,508	7,061	14
Prince George	14,337	13,303	11,410	20
D.C.	14,960	13,914	11,886	20
Total	51,151	47,076	41,050	20

As measured by the number of births per thousand women aged 15-44, the Arlington birth rate in 1973 is considerably less than the U.S. average and has been declining faster than that in the U.S. as a whole. Table II - 2 shows the information for three of the last four years.

Table II - 2

Births per Thousand Women, U.S. and Arlington County
(Ages 15-44)

	1970	1972	1973	% decline since 1970
U.S. Total	87	73	71(est)	18
Arlington	74	53	44(est)	41

Source: U.S. Census Bureau and Arlington County Human Resources Department. Estimates for 1973 prepared by the Committee on Pupil Enrollment, based on reported births for first ten months.

B. Arlington Housing

The 1970 census provides revealing information on those aspects of the Arlington housing situation over the past decade which affect school enrollment. Single family dwellings have reached a stable level; almost all growth since 1960 has been in high-rise rental units. No garden apartments have been added since the early 1950's. Table II - 4 identifies significant housing pattern changes in the 1960-70 period which include:

- a 3 percent increase in owner-occupied (single family) units
- a 45 percent increase in rental units (mostly high-rise)
- a 66 percent increase in the number of households consisting of only one or two persons
- a 10 percent decline in the number of households consisting of three or more persons

An examination of housing permits issued annually since 1960 shows a sharp fall-off in recent years. Total permits dropped from 1,900 units per year in the 1961-65 period to an average of 300 per

year in the 1969-72 period. An average of 150 single family homes were added to the housing stock annually in the early 1960's; this has dropped to about 50 units per year in the 1969-72 period.

Despite the lack of growth in the number of single family and garden apartments, Arlington still has a large supply of these dwellings which, in fact, still comprise well over half of the available housing units in Arlington. These units are particularly important to the school population since more children come from single family units, per unit, than from garden apartments, and many more from single family than from high-rise apartments. The 1971 school census for Arlington County showed the following ratios for number of children in different type housing units, by age of children:

Table II - 3

1971 Children Per Housing Unit

Age	Single family Units	Garden Apartments	High-rise Apartments
6-11	.346	.134	.027
12-14	.200	.048	.016
15-17	.200	.044	.020
Total	.746	.226	.063

Source: Arlington Public Schools staff

The number of children per single family and garden apartment unit declined 20 percent from 1965 to 1971 and can be expected to show a further reduction when the May, 1974, school census is taken. It is this decline in pupils per housing unit and the lack of growth in single family dwellings or garden apartments which has accounted for the pupil decline in recent years.

Table II - 4

Selected Arlington Housing Trends

Available Households[a/]

	1960	1970	Percent change
Owner-occupied	22,600	23,300	+3
Renter-occupied	31,900	46,100	+45
Total	54,500	69,400	

Households by Size[a/]

1-2 person households	26,700	44,300	+66
3 or more person households	27,800	25,100	-10

Housing Permits Issued[b/]

	Average 1961-65	Actual 1970	1971	1972
Total permits issued	1,900	525	665	129
Single family permits	250	70	76	115
Less single family demolitions	-100	-31	-36	-55
Net single family	150	39	40	60

a/ Source: U.S. Housing Census, 1960 and 1970.
b/ Source: Arlington County Planning Staff

C. Real Estate Trends

Arlington property values have soared in the last five years, benefiting from higher government salaries and from an inadequate housing supply to meet consumer demands. Increases of up to 50 percent in the resale value of single family dwellings have occurred, resulting in high prospective profits to the seller but effectively shutting out Arlington dwellings to many young families with children living on a single wage earner's income. Fairfax, with its greater supply of housing, larger acreage and a broader price range has proved a more attractive investment both to young families moving

into the Washington area and to Arlington families (many from rental units) looking for larger quarters as their children reach school age. Arlington single family housing by contrast has become increasingly attractive to singles and young couples without children.

Discussions with realtors reveal the following trends in single family dwellings, both owned and rental:

- In the 1955-65 period almost all families moving into Arlington had children; today about one-third of new occupants have no children.
- Most families moving out of Arlington from single family dwellings have children; older families tend to remain in their homes after the children have left.
- Arlington has a limited supply of single family dwellings which young families with children can afford; Fairfax, by contrast, has a large supply of dwellings, particularly townhouses, in the $30-40,000 price range.
- Arlington is rated highly for its convenient location and good school system; Fairfax, however, is given overall better marks for its residential facilities (number of bedrooms, acreage), a more child-oriented environment and a greater breadth of available recreational facilities (e.g., boating, fishing, golf).
- Single family rental units increasingly house singles and couples without children. In many instances, a maximum of one to two children will be accepted. Also, many apartment units either exclude children or place maximum limits on the number per unit.

. Converting garden apartments to condominiums is likely to reduce further the child population since prices of the converted units tend to escalate sharply and limits are placed on both children and pets. By September, 1975, when the South Fairlington conversion is completed, much firmer data will be available on this subject. A preliminary report on the first year effects prepared by the Fairlington PTA is provided in Appendix B, Exhibit 1.

. No discernible change in single family housing trends has been noted in the past year.

D. Historical Trend of School Enrollments

The Arlington school population has been declining in size since September 1968. In the five years since then there has been a 19 percent decline to an enrollment of 21,126 in September, 1973. The shift in pupil enrollment has been on an across-the-board basis with a somewhat higher impact on the kindergarten and early elementary grades reflecting local and national declines in the birth rate commencing in 1963.

Analysis of school enrollments in neighboring counties reveals that the Arlington experience is not unique to the Washington area. The Alexandria elementary school population declined by 17 percent from 1969 to 1973. With the cooperation of Fairfax County school officials twenty Fairfax elementary schools geographically close to Arlington, with housing and neighborhood patterns similar to

Arlington, were identified. Table II - 5 summarizes the enrollment trends at those schools since 1969. The 19 percent enrollment decline at those schools in five years is remarkably similar to the Arlington experience, which shows a 20 percent reduction over the same period.

Table II - 5

Enrollment Trends in
Selected Fairfax County Elementary Schools
With Housing/Neighborhood Patterns Similar to Arlington

Fairfax Schools by Area	Sept 1969	Sept 1972	Sept 1973
Area 1			
Belleview	615	453	471
Cameron	559	485	479
Mount Eagle	708	505	457
Quander Road	442	363	340
	(2324)	(1806)	(1747)
Area 2			
Bailey's	618	500	516
Devonshire	512	406	340
Edsall Park	578	408	356
Bren Mar Park	503	430	409
Glen Forest	707	683	704
Parklawn	508	493	469
Sleepy Hollow	555	414	381
Weyanoke	592	507	472
Willston	567	453	423
	(5140)	(4294)	(4070)
Area 3			
Chesterbrook	739	670	638
Haycock	668	724	680
Lemon Road	471	413	371
Lewinsville	561	533	480
Marshall Road	603	571	532
Pimmitt Hills	468	452	429
Timber Lane	467	516	444
Westgate	638	488	427
	(4615)	(4367)	(4001)
Total	12,079	10,467	9,818
Index (1969=100)	(100)	(87)	(81)
Arlington Elementary Totals	13,501	11,461	10,762
Index (1969=100)	(100)	(85)	(80)

Source: Prepared by the Committee on Pupil Enrollment from information supplied by Fairfax and Arlington County school staffs.

E. Growth Prospects

Due to the fairly complete development of Arlington County, major new residential construction is anticipated in only a few areas. These will result from the impact of Metro or from the development of the last significant building space in Arlington. The specific areas are the Jefferson-Davis corridor, the Rosslyn-Ballston corridor and East Falls Church.

Without such special growth areas, the prospects of additional school enrollment from new building are slight. For example, the 50 new single family units built annually in recent years would add, on the average, only about 38 total school children, using the 1971 ratio of .746 children per single family dwelling unit. (See Table 1, Appendix A .)

Jefferson-Davis (JD). The Metropolitan Washington Council of Governments (COG) estimates for JD indicate a present population of 17,000 with 20,000 projected for 1978 and 21,500 for 1984. Our own investigations indicate that Crystal Square Apartments will contain 937 rental units (about one-half available by late 1974) and about 6,500 units in Pentagon City (Cafritz Tract) starting in the spring of 1977 with about ten percent becoming available for occupancy each year. The Crystal Square complex will be oriented toward luxury apartments, and based on the latest pupil ratios for high-rise apartments, might produce a total of sixty students for the school system.

The data for the Pentagon City complex came from discussions with representatives of the building planners. Of the 6,500 units planned, about 25 percent will be family units of two to three bedrooms. In addition, there may be an overall additional increase of 10 percent in the number of units to accommodate moderate income families, with higher population density per land unit. The possible impact on school enrollment through the late 1980's was calculated as follows:

Type of unit	Ratio of pupils per unit[a/]	Number of units	Number of pupils
High-rise apartments	.063	4,875	307
Townhouses	.395	1,625	642
Total		6,500	949

a/ Based on latest Arlington school census (1971)

Since only ten percent of the units are expected to become available each year, we can expect about 60-70 students per year, starting in the late 1970's.

From these data, the committee projects an addition of 200 students in 1978 and 600 students by 1983 in the Jefferson-Davis corridor.

Rosslyn-Ballston (RB). Population estimates from COG indicate that the present RB population is 26,500. COG estimates it will increase to 27,500 in 1978 and to 32,000 in 1984. Our discussion with county planning representatives indicate that the 1984 estimates are possibly high and can be considered as an upper limit. We used an estimate of 30,500 for 1983.

From these data, the committee projects an addition of 30 students in 1978 and an addition of 150 students by 1983 for the Rosslyn-Ballston corridor.

East Falls Church. Metro construction is scheduled to reach East Falls Church in the spring of 1977. County planning representatives indicate that no zoning changes are anticipated in East Falls Church. Assuming no zoning changes and with little available open space, no great impact is foreseen on the school system in the next ten years.

From these data the committee projects a slight impact of about 60 additional children by 1983 for the East Falls Church area.

Transfers from Parochial Schools. One additional growth factor which must be considered is possible pupil transfers to the public school system from private schools. Some 2500 Arlington students were attending these schools in October, 1973, (11 percent of total Arlington school population) including some 1598 K-8 pupils and 907 in grades 9-12. Enrollments at the four Arlington parochial schools have decreased by about 20 percent since 1969 and some consideration must be given to possible future consolidations. D.J. O'Connell enrollment, by contrast, has increased since 1969 and is now operating at full capacity. O'Connell is expected to continue at full utilization in the future.

The committee has projected transfers to the elementary schools of 60 additional students in 1975, increasing to 75 additional students in 1978.

F. Energy Crisis

The recent energy shortage and skyrocketing oil prices have brought into focus a problem which is long-term in nature and which can be expected to have a major impact on life style in this country in future years. While the magnitude of the problem and the corrective actions required continue to be hotly disputed, there does appear to be agreement that a period of 10-15 years will be required for the U.S. to make necessary adjustments and to achieve energy self-sufficiency.

What effect will the energy crisis have on Arlington? First, and clearly, there may be an increased demand for housing in close-in communities with good public transportation such as Arlington. Property values will rise, particularly along public transportation routes. Second, there will be an adverse impact on the demand for housing in more remote areas without public transportation, such as parts of Fairfax and other outlying counties.

The impact of these changes upon the Arlington school population is unclear. Higher prices for single family housing will make Arlington even less attractive for young, moderate income families with children. On the other hand, there will be a slowdown in the number of famlies with children leaving Arlington for larger homes in outlying areas. Furthermore, moratorium on new building in Fairfax County will limit the opportunities to move in that direction and probably would lead to still higher housing prices in Arlington. Finally, with smaller families and higher housing costs, together

with pressures to conserve energy, families may find it desirable to stay in smaller dwellings. The net result of these opposing forces cannot be forecast with confidence at this time and has not been included in the future enrollment projections prepared by the committee.

III. Pupil Enrollment Projections

The decline of pupil membership began in 1964 and has continued except for two years, 1966 and 1967. The causes are many. The declining birth rate nationally and in Ar ington, which has been more rapid than the national rate, has impacted the number of pupils coming into the Arlington schools in two ways. First, Arlington families currently in the county have fewer children than previous families whose children entered and progressed through the school system. Second, families moving into the county replacing those who are leaving or occupying new housing also have smaller families than during the 1950's and early 1960's. Federal government hiring restrictions and redeployments of agencies and functions out of the Washington area have also contributed to the exodus of pupils in recent years. Almost all school grades show a net outmigration of students each year with fewer pupils registered in September than were registered in the prior year's lower grade.

One of the tasks assigned to the committee by the school board was to "Estimate the duration and direction of pupil enrollments over the next five to ten years, assuming the continuation of present county/school policies." To accomplish this task extensive review and evaluation of current pupil enrollment estimating procedures was performed. The school administrative procedures were well developed and tested over many years. With minor exceptions these techniques and procedures were utilized to develop the estimates included in this report. In addition, planning information and population estimates developed by the Northern Virginia Planning District Commission were also analysed and considered in the development of our estimates.

Other sources of information used to guide us in developing the various factors used in estimating future enrollments included: "Population Estimates and Projections," U.S. Department of Commerce, Bureau of Census, January, 1972; "Digest of Educational Statistics," 1972 Edition, Department of Health, Education and Welfare; "Projections of Educational Statistics to 1981," 1972 Edition, National Center for Educational Statistics; various historical information and analyses available from the county and school administration offices, and discussions with school principals, PTA representatives, Arlington realtors and building and construction company representatives.

A. Methodology

The committee has examined historical trends in Arlington and other neighboring school systems to establish the critical areas which affect school enrollments. Using these selected criteria, pupil enrollment projections for the 1974-78 period were developed for each school in the county as well as for county-wide projections. A county-wide projection was also developed for 1983. Confidence in the validity of these estimates varies inversely with the number of years into the future. Thus, the 1974 and 1975 estimates can be assigned a high degree of probability, the 1976-78 estimates carry a moderately high confidence level, while the 1983 estimates are much less certain. One further caveat: the impact of an event such as the energy crisis is, in our judgment, incalculable at the present time, but could be significant over a period of years.

Four factors are considered key determinants to future enrollment:

- Births to Arlington County residents
- "Survival rate" from birth to kindergarten
- "Survival rates" for grades K-12
- Changes in housing and population trends

Births

Our analysis coupled with work performed by school administrative staff members shows that the number of births to Arlington residents has a consistent relationship to kindergarten enrollments five years later. Therefore, birth statistics were used in the past and have been used for our projection as a "composite" factor for projections of kindergarten enrollments. Actual births in Arlington County have declined sharply over the past years from 3,355 in 1969 to about 1,900 in 1973, a 43 percent drop. It should be noted that actual births through 1973 provide the basis for projecting the kindergarten population enrollmen through 1978. Forecast 1974 births will not affect the school system until 1979. Three different annual birth levels were used for the projections for pupils entering kindergarten in 1979 through 1983: a high rate of 2500, a medium rate of 2000, and a low rate of 1800. Although there is much uncertainty in this area we believe that the annual birth rate will level off and start to rise over the next three to ten years but this will not impact the school system before 1981 at the earliest. However,

it is the actual decline in births through 1973 which is and will continue to impact our schools over the next five years.

"Survival Rate" from Birth to Kindergarten

The "survival rate" reiates the kindergarten enrollment to births in Arlington County five years earlier. During recent years, actual kindergarten enrollment has consistently averaged about 42 percent of the corresponding birth year as shown in Table III - 1 below:

Table III - 1

Arlington Birth to Kindergarten Survival Ratio
1968 - 1973

	1968	1969	1970	1971	1972	1973
Kindergarten enrollment	1759	1731	1608	1510	1441	1400*
Birth 5 years earlier	4217	4135	3732	3451	3397	3257
Survival ratio (%)	42	42	43	44	42	43*

*Includes one extra month of pupil enrollments; 12 month adjusted rate 40 percent

Source: Arlington County Schools staff

For projection purposes, a four-year historical relationship of kindergarten enrollments to births five years earlier was calculated. Recognition was given to school boundary changes which have occurred since 1970. A medium survival rate of 42 percent was used for the most likely projection; higher and lower rates of 44 and 40 percent were also calculated to examine the sensitivity of the enrollment projections to a change in the survival rate. For individual elementary school projections separate survival

rates were developed for each school based on actual kindergarten enrollments compared with total county-wide births five years earlier.

The fact that the number of children in kindergarten is less than half the number of children born in Arlington five years earlier is largely the result of the net outmigration of families with young children demonstrated by the 10 percent decline in families of three or more persons in the 1970 census. The survival rate is a composite factor and results from families moving into and out of the county, changes in housing trends, and changes in birth rate. Since births are known through 1973, any change in our estimates of the number of children who will enter kindergarten through 1978 will occur as a result of a change in this "survival rate." The possibility of such changes is discussed above under the headings of real estate trends and the energy crisis, as well as below, where we do make some specific adjustments for growth prospects. The use of alternate survival rates provides an upper and lower range of estimates for use in future planning.

There are, of course, some children who do not go to kindergarten, and the survival rate from the kindergarten to the first grade takes account of this, averaging slightly over 100 percent.

"Survival Rates" for Grades K-12

Each year a net outflow of students from the county results in an enrollment decline from one grade to the next higher grade (except for kindergarten to first grade). The enrollment in the

higher grade is compared to that in the lower grade for the preceding year and the resulting ratio is called the survival rate. These rates seem to be sufficiently stable from year to year to provide the best means for making projections, particularly in the short-run.

The rates were computed using a three-year average of grade-to-grade movement at each school and county-wide. Actual second grade enrollments for September, 1971; September, 1972; and September, 1973, were divided by the actual first grade enrollments for September, 1970; September, 1971; and September, 1972, to determine the first to second grade survival rate. Special adjustments were made for schools which experienced boundary changes in the 1970-73 period.

Sixth grade and ninth grade pupil estimates were used as feeder information to project pupil input to the junior and senior high schools using survival rates developed as described above. The pupil inputs from feeder schools to specific high schools were calculated on the percentage basis utilized by the school administration in both past and current year estimates. Using these assumptions, a projection of school enrollment for the next five years was calculated for each school and on a county-wide basis.

The projections for special education pupils and Maury School were made on the basis that the percentage of pupils in this category to total pupils would increase due to program emphasis and legislative requirements. Therefore, the number of pupils in

these programs were projected to remain at the current level even though enrollment for the total school system is declining. Maury students are adjusted slightly in 1974 and then held constant in future years. A summary of these projections is shown in Table III - 2.

Table III - 2

	Special Education				Maury
Actual	K-6	7-9	10- 12	Total	School
1970	241	71	49	361	
1971	238	70	47	355	
1972	259	74	42	375	
1973	317	126	101	544	129
Projected					
1974-83	317	126	101	544	115

Source: Actual enrollment figures from school administration records

Projections prepared in accordance with this methodology assume that the major factors affecting school enrollment in the recent past - the falling birth rate and the rate of net out-migration of families with young children - will not be significantly reversed in the near future. Nevertheless, the committee recognizes that there are some offsetting growth factors which can be estimated at this time and these are summarized in the next section.

Housing Growth Prospects

As discussed in Section II, the impact of additional high-rise and townhouse construction was developed for major growth corridors. Additional growth probably will be experienced from parochial school transfers. The total impact by 1978 is estimated

to be about 305 pupils, and by 1983 we believe the increase will be about 885 pupils. The estimates by region and school are shown on Table III - 3 and are included in both individual school and county-wide estimates.

Table III - 3

Impact of Growth Corridors
Upon Arlington School Population

	1975	1978	1983
Region I - Jefferson-Davis Corridor	+60	+200	+600
Schools - Custis/Oakridge	+30	+100	+300
Gunston	+15	+50	+150
Wakefield	+15	+50	+150

Assumptions: Planning Division estimates about 2,000 added high-rise and 150 townhouses by 1978. The committee projects an additional 3,000 high-rise and 1000 townhouse units in the 1978-1983 period based on COG population projections.

Region II - Rosslyn-Ballston (R-B) Corridor	--	+30	+150
Parochial School Adjustments	+60	+75	+75
Schools - Key/Page/Long Branch	+60	+75	+135
Stratford	--	+15	+60
Washington-Lee	--	+15	+30

Assumptions:

R-B Corridor - No major growth until Metro completes in 1978. Only high-rise units currently foreseen. The committee estimates 2,000 high-rise units added in 1978-83 period.

Parochial Schools - Redrawing of school boundaries could shift 60 students in 1975 and 75 by 1978 to the public schools.

Region III - East Falls Church - Metro Station	+60
Schools - Tuckahoe	+20
Williamsburg	+20
Yorktown	+20

Assumptions: Metro station operational in 1978. No zoning changes anticipated - area will remain single family and townhouses. Little land available for new development. Possibly 100 new units over the next 10 years.

TOTAL PROJECTED GROWTH IMPACT	+120	+305	+885

B. Forecasts

Using the methods described above, pupil enrollment projections were developed for the ten years from 1974 through 1983. Two sets of estimates were developed, one on a county-wide basis and one for each school. The county-wide estimate includes a medium or most likely projection with a range of high and low from the medium. Individual school estimates are limited to the most likely estimate only.

The school level enrollment projections are summarized in six tables and four charts. Several years of actual data are provided together with the projections as a basis for comparison. A summary table, Table III - 4, shows our county-wide medium or most likely projections by school level and the total enrollment projections for the high, medium and low ranges. The individual school projections portrayed on Table III - 9 fall within the range of the county-wide estimates but are not exactly the same as the most likely estimate due to adjustments to individual schools for local conditions.

Table III - 4

Summary of Arlington Enrollment Projections

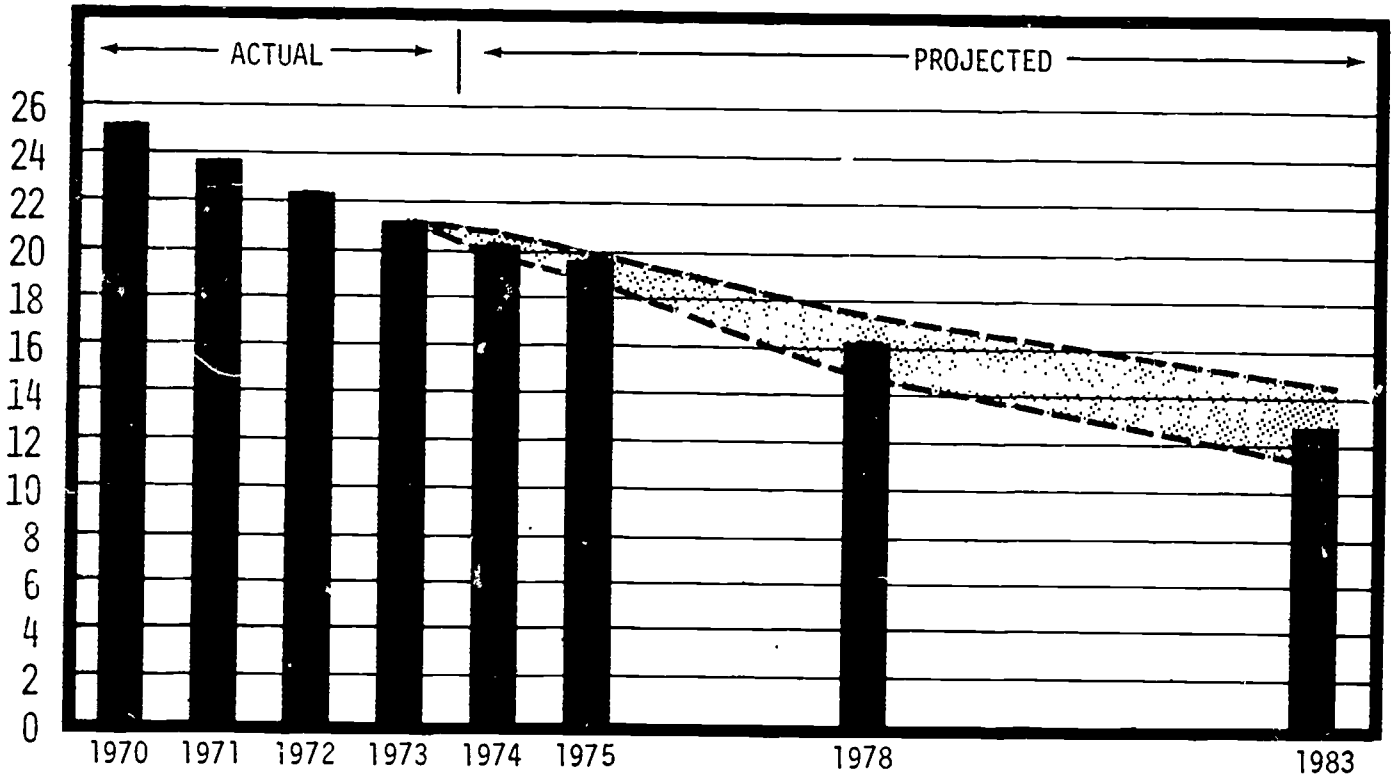
	Actual		Projections			
"Most Likely" Estimate	1972	1973	1974	1975	1978	1983
Elementary	11,202	0,446	10,075	9,682	7,930	5,858
Junior High	5,309	5,043	4,693	4,489	3,552	3,157
Senior High	5,175	4,965	4,743	4,516	3,878	2,863
Special Education	375	544	544	544	544	544
Maury		129	115	115	115	115
County-Wide Total	22,061	21,126	20,170	19,346	16,019	12,537
High Range	-	-	20,445	19,836	16,949	14,177
Medium (Most Likely)	22,061	21,126	20,170	19,346	16,019	12,537
Low Range	-	-	19,895	18,856	15,089	10,897
Individual School Projection Total	22,061	21,126	20,199	19,431	16,420	13,173

Source: 1972 and 1973 enrollments from school administration records

K-12 Enrollment

Chart III - 1 and Table III - 5 portrays the decline in enrollments since 1970 together with our projection for 1974 through 1983, including special education pupils. Arlington County has been experiencing a decline in pupil population over the past several years. In the three years from 1970 to 1973, there was a pupil decline of 3,648 or 15 percent (24,774 to 21,126). Our projections indicate a slowing of the rate of decline in 1974 (4.5%) and 1975 (4.1%) which is due primarily to the change in cutoff dates for admissions to kindergarten and first grade. Except for these two years our projections indicate that the decline in pupil enrollments will continue at about five percent per year through 1978 and at a slightly slower rate through 1983.

CHART III - 1
K - 12 SCHOOL ENROLLMENT
ARLINGTON PUBLIC SCHOOLS
ACTUAL - 1970-73; PROJECTED - 1974, 1975, 1978, 1983



– – – – – UPPER AND LOWER RANGE OF PROJECTIONS

PREPARED BY COMMITTEE ON PUPIL ENROLLMENT
JANUARY 1974

Table III - 5

K-12 Enrollment, Actual and Projected
Arlington Public Schools, Selected Years, 1970-1983

A. Actual and Projected Enrollment

Year	Pupils	Change from prior year	
		Pupils	Percent
Actual			
1970	24,774	-768	-3.0
1971	23,504	-1270	-5.1
1972	22,061	-1443	-6.1
1973	21,126	-935	-4.2
Projected Medium Level			
1974	20,170	-956	-4.5
1975	19,346	-824	-4.1
1978	16,019	-1,109[a/]	-5.7[a/]
1983	12,537	-696[b/]	-4.3[b/]

[a/] Annual average, 1976-78

[b/] Annual average, 1979-83

B. High and Low Range of Projections

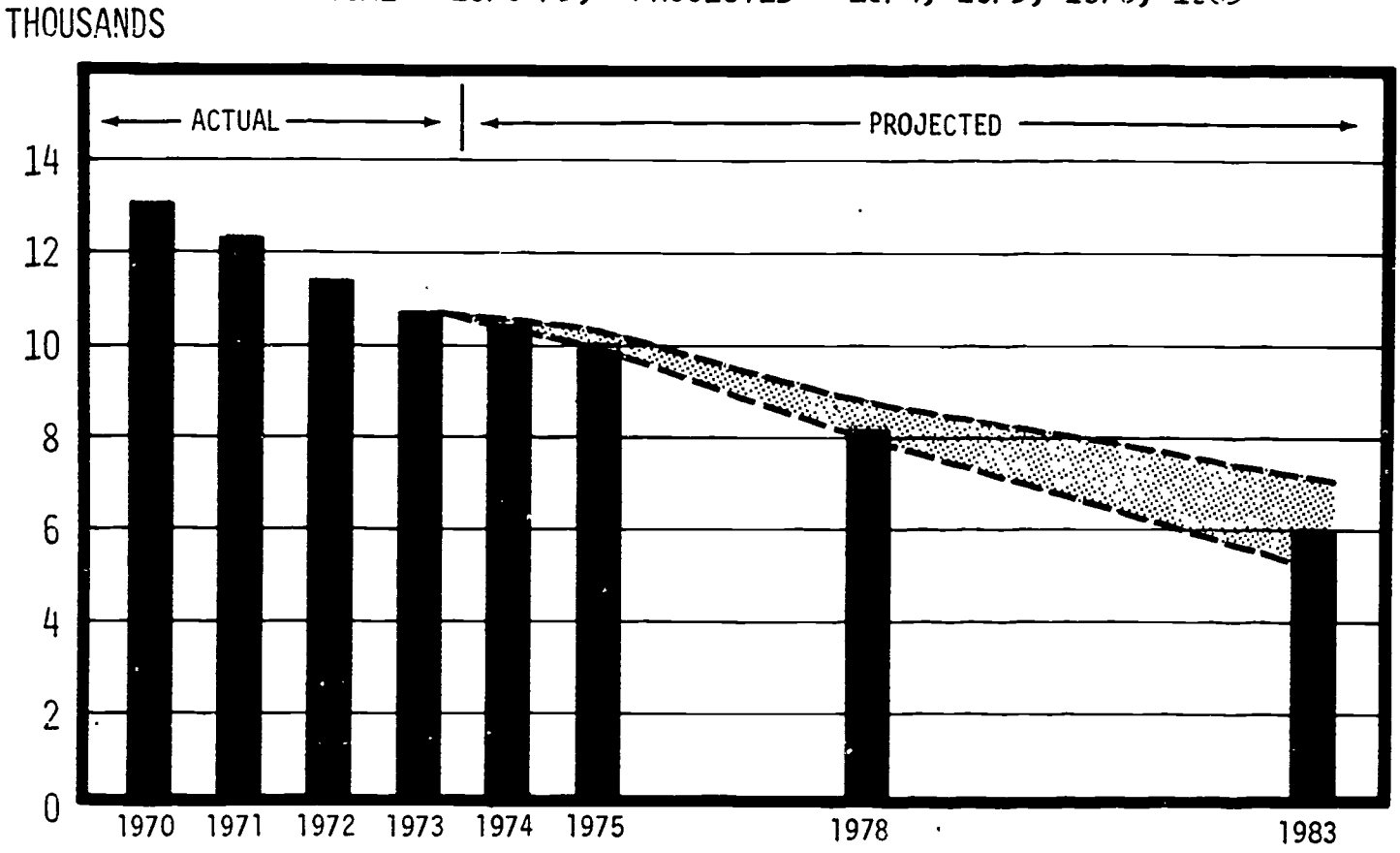
Year	High	Low	Spread between high and low
1974	20,445	19,895	550
1975	19,836	18,856	980
1978	16,949	15,089	1,860
1983	14,177	10,897	3,280

Source: Actual enrollment figures from Arlington Public Schools staff. Projections prepared by the Committee on Pupil Enrollment, January, 1974.

Elementary Schools K-6

Chart III - 2 and Table III - 6 portray the decline in elementary enrollments since 1970 together with projections for 1974 through 1983. Elementary enrollment, including special education pupils has dropped from 13,073 in September, 1970, to 10,762 in September, 1973, an 18 percent decline. The actual rate of decline exceeded the county-wide average in each of the last two years reflecting the decreasing number of pupils entering school in recent years. The added month of kindergarten enrollments and slightly higher birth rates will reduce the elementary decline to less than 4 percent in both 1974 and 1975. Starting in 1976, the rate will increase once again to about 6 percent reflecting the continued birth rate reduction and return to a regular kindergarten entry schedule. The September, 1978, enrollment is expected to be in the range of 7,800-8,700 pupils, with 8,200 the most likely estimate. The September, 1983, enrollment is expected to be in the range of 5,100-7,300 pupils.

CHART III - 2
ELEMENTARY (K - 6) SCHOOL ENROLLMENT
ARLINGTON PUBLIC SCHOOLS
ACTUAL - 1970-73; PROJECTED - 1974, 1975, 1978, 1983



------- UPPER AND LOWER RANGE OF PROJECTIONS

PREPARED BY COMMITTEE ON PUPIL ENROLLMENT
JANUARY 1974

Table III - 6

K-6 Enrollment, Actual and Projected
Arlington Public Schools, Selected Years, 1970-1983

A. Actual and Projected Enrollment

Year	Pupils	Change from prior year	
		Pupils	Percent
Actual			
1970	13,073	-428	-3.2
1971	12,356	-717	-5.5
1972	11,461	-895	-7.2
1973	10,762	-699	-6.1*
Projected Medium Level			
1974	10,392	-370	-3.5
1975	9,999	-393	-3.8
1978	8,247	-584[a/]	-5.8[a/]
1983	6,175	-415[b/]	-5.0[b/]

[a/] Annual average, 1976-78

[b/] Annual average, 1979-83

*Rate actually 7.0 when adjusted for 13 month kindergarten inputs

B. High and Low Range of Projections

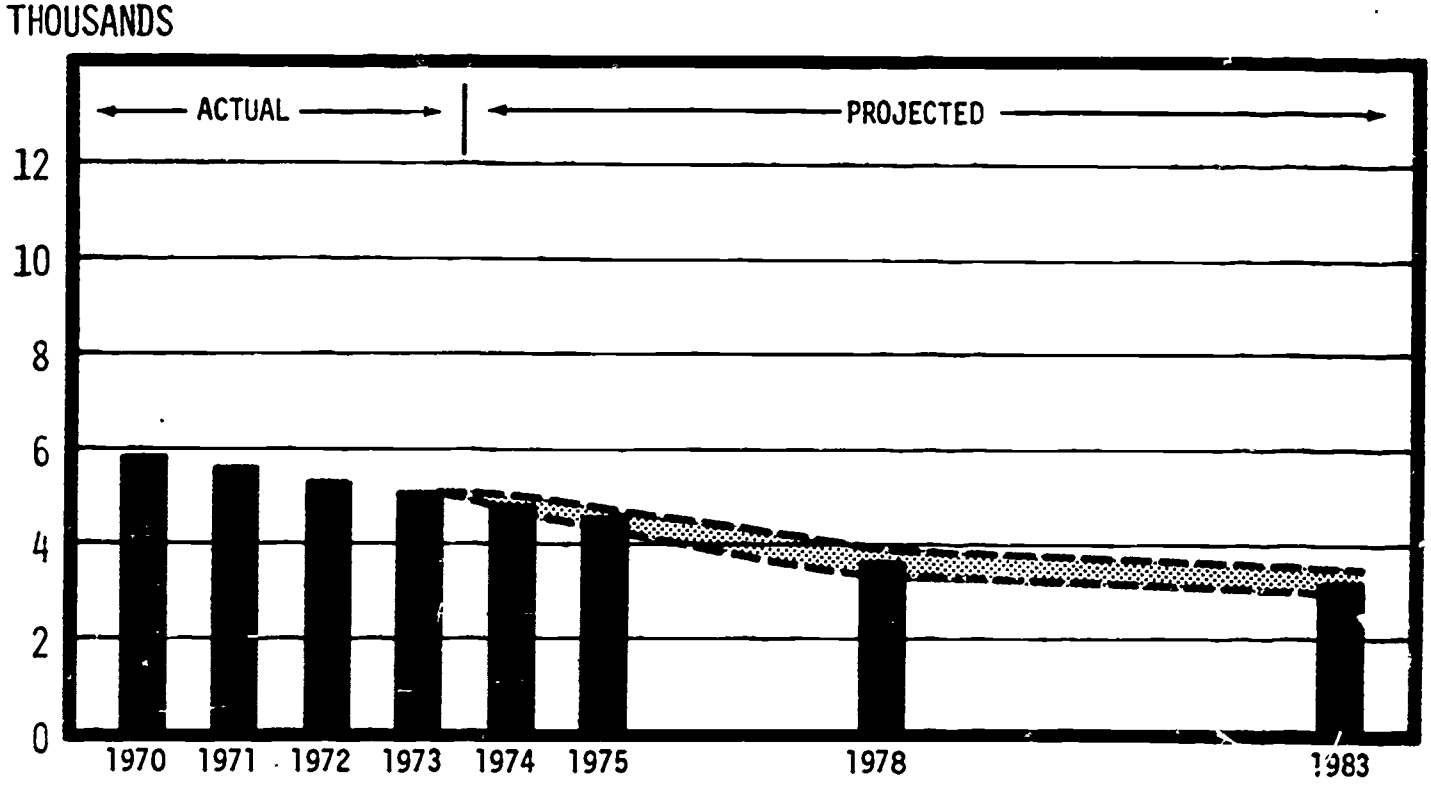
Year	High	Low	Spread between high and low
1974	10,467	10,317	150
1975	10,139	9,859	280
1978	8,657	7,837	820
1983	7,275	5,075	2,200

Source: Actual enrollment figures from Arlington Public Schools staff. Projections prepared by the Committee on Pupil Enrollment, January, 1974.

Junior High Schools

Chart III - 3 and Table III - 7 portray the decline in junior high school enrollments since 1970 together with projections for 1974 through 1983. Junior high enrollments, including special education pupils, dropped from 5,975 in September, 1970, to 5,169 in September, 1973, a 13 percent decline. The projected rate of decline for 1974 is almost 7 percent, followed by a 4 percent rate in 1975 and a return to a rate of almost 7 percent in the 1976-78 period. The accelerated rate of decline in the mid-1970's just reflects the input of the smaller elementary school classes into the junior highs. The September, 1978, enrollment is expected to be in the range of 3,500-3,800, with 3,700 the most likely estimate. The September, 1983, enrollment is expected to be in the range of 3,000-3,500 pupils.

CHART III - 3
JUNIOR HIGH (7 - 9) SCHOOL ENROLLMENT
ARLINGTON PUBLIC SCHOOLS
ACTUAL - 1970-73; PROJECTED - 1974, 1975, 1978, 1983



PREPARED BY COMMITTEE ON PUPIL ENROLLMENT
JANUARY 1974

Table III - 7

Junior High Enrollment, Actual and Projected
Arlington Public Schools, Selected Years, 1970-1983

A. Actual and Projected Enrollment

Year	Pupils	Change from prior year	
		Pupils	Percent
Actual			
1970	5,975	-23	- .4
1971	5,637	-338	-5.7
1972	5,383	-254	-4.5
1973	5,169	-214	-4.0
Projected Medium Level			
1974	4,819	-350	-6.8
1975	4,615	-204	-4.2
1978	3,678	-312[a/]	-6.8[a/]
1983	3,283	-79[b/]	-2.2[b/]

[a/] Annual average, 1976-78

[b/] Annual average, 1979-83

B. High and Low Range of Projections

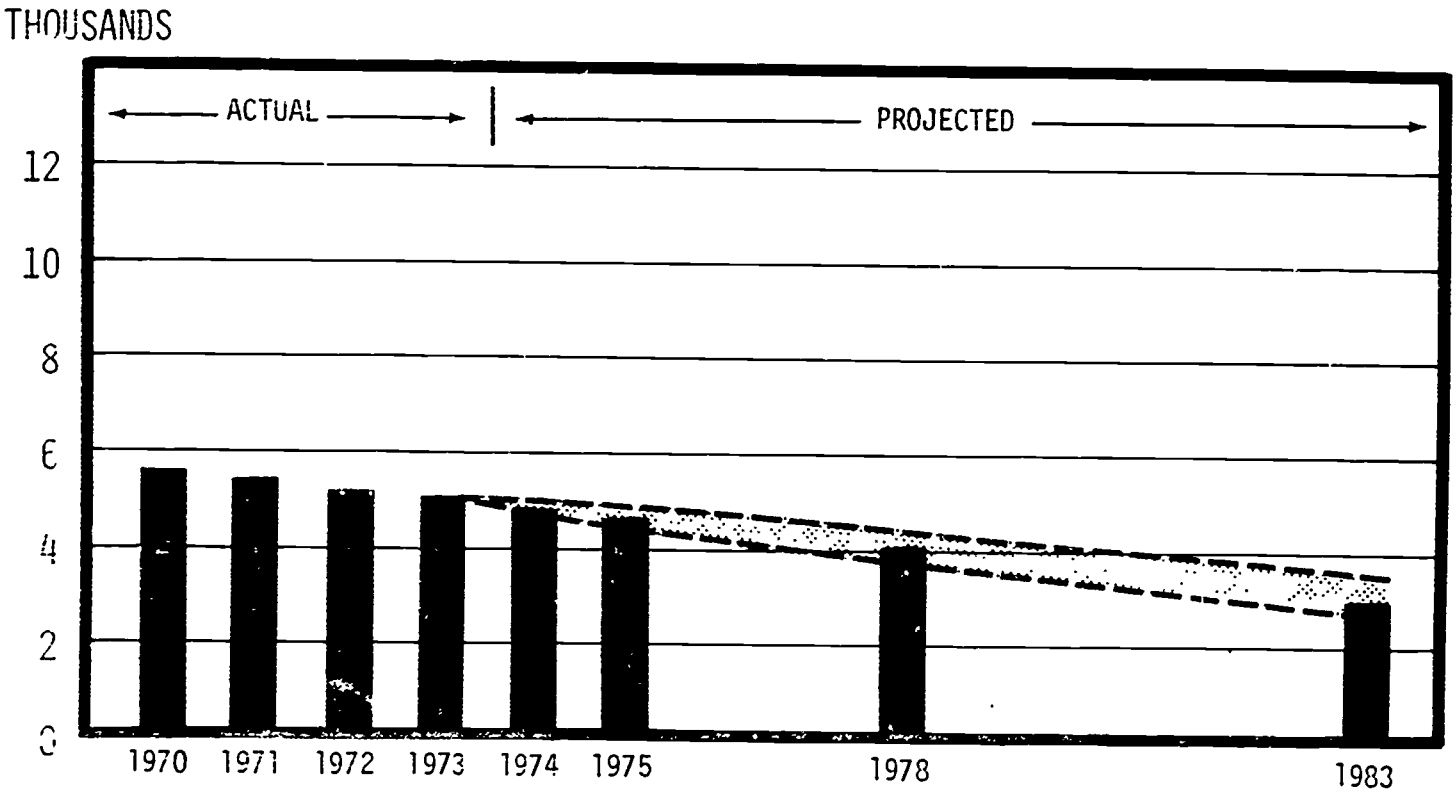
Year	High	Low	Spread between high and low
1974	4,919	4,719	200
1975	4,765	4,465	300
1978	3,828	3,528	300
1983	3,548	3,018	530

Source: Actual enrollment figures from Arlington Public Schools staff. Projections prepared by the Committee on Pupil Enrollment, January, 1974.

Senior High Schools

Chart III - 4 and Table III - 8 portray the decline in senior high school enrollments since 1970 together with projections for 1974 through 1983. Special education pupils are included as are Maury students commencing in September, 1973. Senior high enrollments dropped from 5,726 in 1970 to 5,195 in 1973, an 11 percent decline when adjusted for the 1973 Maury program. An annual decline of 4-5 percent experienced in the last few years is expected to continue in the future. The September, 1978 enrollment is expected to be in the range of 3,700-4,400, with 4,100 the most likely estimate. The September, 1983, enrollment is expected to be in the range of 2,700-3,500 pupils.

CHART III - 4
SENIOR HIGH (10 - 12) SCHOOL ENROLLMENT
ARLINGTON PUBLIC SCHOOLS
ACTUAL - 1970-73; PROJECTED - 1974, 1975, 1978, 1983



– – – – – UPPER AND LOWER RANGE OF PROJECTIONS

PREPARED BY COMMITTEE ON PUPIL ENROLLMENT
JANUARY 1974

Table III - 8

Senior High Enrollment, Actual and Projected
Arlington Public Schools, Selected Years, 1970-1983

A. Actual and Projected Enrollment

Year	Pupils	Change from prior year	
		Pupils	Percent
Actual			
1970	5,726	-317	-5.3
1971	5,511	-215	-3.8
1972	5,217	-294	-5.3
1973	5,195*	-22*	-4.1(-.4)*
Projected Medium Level			
1974	4,959	-236	-4.5
1975	4,732	-227	-4.6
1978	4,094	-213[a/]	-4.5[a/]
1983	3,099	-199[b/]	-4.9[b/]

[a/] Annual average, 1976-78

[b/] Annual average, 1979-83

*Includes 129 Maury students for the first time in 1973

B. High and Low Range of Projections

Year	High	Low	Spread between high and low
1974	5,059	4,859	200
1975	4,932	4,532	400
1978	4,444	3,744	700
1983	3,499	2,699	800

Source: Actual enrollment figures from Arlington Public Schools staff. Projections prepared by the Committee on Pupil Enrollment, January, 1974.

Individual School Projections

A schedule of projections for each school is contained in Table III - 9. The actual enrollments for 1972 and 1973 are shown in addition to the projections for 1974, 1975, and 1978. The special education pupils are not in the individual school totals shown but are added by school level grouping. Special education pupils were projected at the same level and locations as in the current year. The table does not show projections of enrollments for individual schools for the year 1983, although a total for the county as a whole has been estimated. In view of the uncertainties of the specific timing of impacts of re-zoning, changes in housing patterns, birth rates, and other factors affecting school enrollment from very small areas, the committee felt that any attempt to estimate attendance on a school-by-school basis for ten years hence would imply a spurious accuracy. We furthermore believe that such detailed estimates are not required for planning purposes that far in advance. The overall county estimate will provide guidance for general planning purposes.

All of the school-by-school projections in Table III - 9, as well as the county-wide projections, include the adjustments for the anticipated impact of Metro transit, new construction in the three growth areas, and the adjustment for private schools, as described in the prior section on growth prospects.

TABLE III - 9
ARLINGTON COUNTY COMMITTEE ON PUPIL ENROLLMENT
SCHOOL PROJECTIONS JANUARY, 1974

Schools	1973 Membership	1972 SPED	1972 K-6	1972 ToT	1973 SPED	1973 K-6	1973 ToT	1974 ToT	1975 ToT	1976 ToT	1983 ToT
Elementary:											
Abingdon		24	501	525	30	555	585	548	550	440	
Ashlawn		48	313	361	48	292	340	294	281	226	
Barcroft			303	303		303	303	297	278	225	
Barrett			406	406		343	343	333	301	255	
Claremont			467	467		460	460	464	453	392	
Custis			265	265		235	235	222	235	238	
Drew Model	(79)		380	380		384	384	376	366	288	
Fairlington			281	281		225	225	225	223	197	
Ft. Myer		7	353	360	7	359	366	371	375	340	
George Mason		68		68	80		80				
Glebe			468	468		427	427	430	421	360	
Glencarlyn			509	509		524	524	535	525	452	
Henry		26	494	520	32	514	546	494	462	357	
Hoffman-Boston	(82)		18	18		37	37	34	31	20	
Jackson			425	425	8	383	391	365	342	270	
Jamestown			480	480		446	446	428	383	324	
Key	(73)	36	503	539	33	480	513	457	458	362	
Long Branch			565	565		528	528	496	494	402	
Madison			265	265	14	239	253	231	206	184	
McKinley		16	352	368	9	303	312	285	262	207	
Nottingham			459	459		466	466	453	431	363	
Oakridge		31	506	537	23	445	468	411	383	315	
Page			371	371	29	319	348	234	280	223	
Randolph			503	503		471	471	483	479	391	
Reed	(95)		510	510		456	456	418	398	326	
Taylor			609	609		502	502	491	479	405	
Tuckahoe			523	523		467	467	455	427	354	
Woodmont			299	299		282	282	253	240	192	
Sub-Total			-109	-109				10133	9763	8108	6028
Special Ed		3		3	4		4	317	317	317	317
Total Elem	(329)	259	11202	11461	317	10445	10762	10450	10080	8425	6345
Jr. High:		SPED	7-9	ToT	SPED	7-9	ToT	ToT	ToT	ToT	ToT
Gunston			700	700	22	632	654	563	540	496	
Hoff-Boston Proj			172	172		180	180	190	186	173	
Jefferson		41	864	905	20	785	805	711	707	668	
Kenmore		33	943	976	12	943	955	894	911	726	
Stratford			861	861	26	805	831	761	701	545	
Swanson			774	774	19	705	724	672	642	524	
Williamsburg			1085	1085	27	903	1021	950	930	710	
Tech Ed & Career								471	4617	3792	3444
Sub-Total								126	126	126	126
Special Ed								4867	4743	3918	3570
Total Jr. High		74	5339	5383	126	5043	5169				
Sr. High:		SPED	10-12	ToT	SPED	10-12	ToT	ToT	ToT	ToT	ToT
Wakefield		41	1650	1691	14	1572	1616	1492	1392	1204	
Washington-Lee			1621	1621	14	1679	1693	1583	1475	1240	
Yorktown			1621	1621	13	1381	1524	1380	1302	1187	
Woodlawn Proj			243	243		233	233	221	223	230	
Sub-Total								4666	4392	3861	3042
Special Ed		1		1				101	101	101	101
Total Sr. High		42	5175	5217	101	4965	5066	4767	4493	3962	3143
Total K-12			21686			20453		19540	18772	15761	12514
Total Special Ed		375			544			544	544	544	544
Maury							129	115	115	115	115
Grand Total				22061			21126	20199	19431	16420	13173

Note
1. School totals include regular pupils only. Special Education pupils have been projected at the same level and in the same schools as in 1973.

Prepared by Committee on Pupil Enrollment January 1974

C. Range of Uncertainty in the Projections

Future estimates are surrounded with uncertainty. Use of the projections requires some insight into the range of uncertainty surrounding the "most likely" estimates and an understanding of the assumptions on which the projections were based.

As stated before, the major assumptions affecting our projections are the birth rates and the net movement of families with school age children out of the county. On the birth rate, we know at this moment what the births have been that will affect the entering kindergarten classes through the fall of 1978. Our estimates for the period of 1978-1983 have not continued the birth declines of the recent past, but have assumed a leveling off. It is most difficult to make a projection at a turning point such as this, but the committee has decided not to project a declining birth rate indefinitely into the future. Current information on births in the county, available monthly, will provide an easy check on this part of the projection and give the school system advance warning of several years.

The other major factor is the possibility of a major change in the proportion of families with small children moving out of the county as compared with the number who move in. If this factor is to operate to increase school enrollments to a significant degree above the projections, there must be provision for housing such families. Either new housing must be built, and our research has indicated little prospect beyond the estimates

for the growth areas which we have already included, or families must crowd into smaller quarters than they have become accustomed to in the recent past. We have made no specific provision for this latter possibility. Evidence of any changing pattern will become available triennially in the school census. Real estate experts may be able to give informed opinions in the interim and evidence from building permits may help. By consulting these sources, it is thought that changes of the magnitude required to affect our projections materially will become evident several years before any significant impact would occur on actual school enrollment.

The student enrollment projections for Arlington County include a range of variations to demonstrate the sensitivity of the pupil estimates to different levels of births and to different 'survival' factors. This range of estimates covers a group of possibilities surrounding what the committee considers to be the "most likely" estimate, but they do not encompass the full range of "possible" estimates. It should be recognized that the range of "likely" estimates is a matter of judgment and knowledge of local conditions, not a matter of statistical technique or ready access to a computer.

Proportionately more uncertainty surrounds the projections of individual schools or school regions than surrounds the county estimates. The smaller the area covered by the projection, the more likely that a specific, unanticipated event or change in one of the basic assumptions will have a major impact on school

attendance. The Fairlington area is a case in point, where a major change in the housing pattern may have an important, but as yet unknown, effect. The smaller the area, the less opportunity for off-setting changes in other parts of the area to reduce the overall effect.

Recommendations for Reducing Uncertainty

Several steps are recommended for reducing future uncertainty:

- Update information from the triennial school census scheduled for May, 1974
- The projections should be compared with the actual school attendance figures each fall, and recomputed, based on an understanding of where and why the assumptions went wide of the mark.
- Since the projections depend on a number of economic as well as demographic factors, every effort should continue to be made to incorporate the best judgment of knowledgeable persons into the projections. Close ties should be retained with school authorities, county officials and the county planning commission to remain current on events which could change the assumptions on which the projections are based.

IV WORKING CAPACITY AND UTILIZATION

A. The Search for Optimum School Size

In studying the ramifications of decreasing enrollment upon Arlington Schools it is necessary to estimate an optimum enrollment for both elementary and secondary schools which will enable a school to provide an adequately varied curriculum and a general environment conducive to educational achievement. Actual school enrollments in Northern Virginia provide empirical data as to the consensus on school enrollments practiced by educators in this area. A comparison with Alexandria and Fairfax experience reveals that the average Arlington elementary school had 30 percent fewer pupils than facilities in the other two school districts. At the secondary level, however, Arlington has 10 percent more students per facility than Alexandria and 20 percent fewer students than Fairfax. A summary of the comparative data follows:

TABLE IV-1

SEPTEMBER 1973 AVERAGE ENROLLMENTS

(Per Operational School Facility)

	ARLINGTON*	ALEXANDRIA	FAIRFAX
Elementary	410	560	540
Junior High/Middle School	810	750	1,050
Senior High	1,610	1,400	2,020

NOTE: The purpose of the table is to identify pupils per facility; grade mix differences by school system are not relevant.

* Exclude George Mason, Hoffman-Boston and Woodmont for comparison purposes.

SOURCE: Fairfax and Arlington County School staffs.

A search into recent literature bearing on optimum size for elementary and secondary schools has produced four particularly relevant studies: 1) the 1965 report of an Arlington advisory committee entitled, The Report of the Advisory Committee on Criteria for Defining School Attendance Areas, 2) the 1966 publication of the Center for Southern Education Studies entitled, School Size and Program Quality in Southern High Schools, 3) School Building Needs published in 1970 by the Benton Harbor, Michigan school district and 4) A New Challenge - Planning for Declining Enrollment published in May 1973 by the California Association of School Administrators. The 1965 Arlington study recommended that elementary schools contain 300 to 500 pupils and concluded that too small an elementary school reduced the stimulating atmosphere for effective cooperative effort at a given grade level. The Benton Harbor report suggested a range of 300 to 600 pupils; however no correlation of school size with academic achievement was observed.

For secondary schools the Arlington committee recommended enrollments ranging above 1000 pupils while the Center for Southern Education Studies proposed no optimum size for secondary schools. Both groups observed that too few pupils can restrict program flexibility, particularly in regard to the number (and depth) of subject areas offered.

The 1973 California study is a distillation of experience from distinguished school systems which grew rapidly and produced innovative schools but which since 1968 have been faced with a steadily shrinking student population.

Our analysis clearly reveals a national need for additional research on optimum school size. Size itself is probably a crude measure. What is needed is additional effort to establish whether a direct correlation exists between school size and academic achievement. Lacking an answer to this fundamental question, the committee cannot identify definitive guidelines for school size. However, given the reported flexibility associated with elementary schools of 300 to 500 pupils and the availability of some supporting research for that size range, we suggest that these be considered bounds for optimum pupil enrollment. For secondary schools we suggest an optimum size of 800-1000 students.

A differing view arguing against any fixed minimum school size was presented to the School Board and this committee by the James Madison Advisory Committee.

B. Elementary School Capacity and Utilization

The committee has endeavored to develop a definition of elementary school working capacity which can be applied to each school and against which current and future utilization can be measured.

Basic data for analysis of elementary school capacity and utilization was obtained from each school principal in a Teaching Station Utilization survey conducted in November 1973 by the school administration staff. These reports include available classrooms, students accommodated and weekly utilization of each space. Every school reported certain functions: regular day, art, music,

reading and speech. Other functions were identified in selected schools: Special Education, Title I Programs, ESOL, Math and Science Labs, Montessori and Extended Day.

To define working capacity the following criteria were established:

. Basic room and pupil capacity derived from the Teaching Station Utilization survey. A summary of this data is provided in Appendix A, Table 2.

. A two or three room allowance for reading, art, music and speech. These four programs are conducted at each school in the county. Every school has an assigned reading teacher and is visited regularly by art, music and speech teachers. Based upon student enrollments and a summary of actual utilization provided for those programs at each school, it was established that two to three rooms dedicated specifically to use by those programs should be allowed at each school. Schools with less than 18 classrooms were found to require two dedicated classrooms; larger schools required three classrooms. Table 3, Appendix A, summarizes the allowance by school.

. Identification of special education classrooms. Rooms assigned to Special Education were reported by schools and The George Mason Center. These have been separately identified in Table 2, Appendix A. Special Education rooms were assigned a capacity of 10 pupils rather than the capacity of 25 assigned regular classrooms.

Calculation of Working Capacity

Given these three criteria, the working capacity or number of pupils each school can accommodate was computed as follows:

. Regular full day classrooms times rated capacity at 25 pupils per room (or less, when room size warranted).

. Set aside 2 or 3 dedicated classrooms per school for reading, art, music, and speech programs.

. Add kindergarten classrooms at twice regular capacity (or 50 students) since there are separate morning and afternoon sessions.

. Plus Special Education classrooms at 10 pupils per room.

Table 3, Appendix A, summarizes the pupil capacity by school using these criteria. The derived capacity estimate can be viewed as the net capacity available to conduct the basic educational program in each school.

The working capacity calculation does not reflect a discount for a number of rooms used for other special programs conducted at scattered schools throughout the county. These were not discounted in order to permit a common comparison from school to school of capacity and utilization. No attempt was made to evaluate the relative merit of these programs, but all other classroom uses should be re-examined and re-affirmed by the School Board for the schools to which they are assigned. Extended programs include:

EDUCATIONAL PROGRAMS

Title I Reading and Math
ESOL
Science
Math
Language
Physical Education

RESOURCE AREAS

Small group study
Media production
Resource teacher, resource room
Activity room
Learning disabled
Volunteers
Individual pursuits
Itinerant teacher
CDC (4 schools only)

OTHER PROGRAMS

Extended Day
Adult Education
Montessori Program
Regional Offices
Recreation Department

Tables 2 and 3 in Appendix A summarize these other programs by school. Again the important point to be noted is the need for a relook at these programs in terms of continued need and possible alternative facility locations.

Utilization

The total pupil population compared against working capacity by school for September 1973 and for September 1978 are displayed on Table IV-3. In total, the table shows that the schools are currently utilized at an overall rate of 79 percent which will decline to 61 percent by 1978. Table IV-2 summarizes the elementary data by regions.

TABLE IV-2

Elementary Capacity and Utilization Summarized by Region*

	TOTAL CAPACITY	1973 and 1978 UTILIZATION			
		SEPT 1973	PER CENT	SEPT 1978	PER CENT
Total Pupils - Enrollments	13,596	10,678	79	8,341	61
Region I	4,395	3,614	82	2,958	67
Region II	4,314	3,512	81	2,742	64
Region III	3,872	3,131	81	2,333	60
Drew, H-B	1,015	421	42	308	30

SOURCE: Estimates of the Committee on Pupil Enrollment based on utilization reports from individual school principals. January 1974.

*Excludes George Mason Center

TABLE IV-3

Elementary School Utilization
1973 and 1978
by Region

	Actual 1973				Estimated 1978		
	Pupil Capacity	Pupils Regular	Pupils Spec. Ed.	% Utilized	Pupils Regular	Pupils Spec. Ed.	% Utilized
Region I							
Abingdon	623	555	30	94	440	30	75
Barcroft	425	303	--	71	225	--	53
Barrett	425	343	--	81	255	--	60
Claremont	573	460	--	80	392	--	68
Custis	280	235	--	84	238	--	85
Fairlington	400	225	--	56	197	--	49
Glencarlyn	439	524	--	119	452	--	103
Oakridge	775	445	23	60	315	23	44
Randolph	455	471	--	104	391	--	86
Sub-Total	4395	3561	53	82	2905	53	67
Region II							
Fort Myer	390	359	7	94	340	7	89
Glebe	565	427	--	76	360	--	64
Henry	550	514	32	99	357	32	71
Key	645	480	33	80	362	33	61
Long Branch	761	528	--	69	402	--	53
Page	438	319	29	79	223	29	58
Taylor	590	502	--	85	405	--	69
Woodmont	375	282	--	75	192	--	51
Sub-Total	4314	3411	101	81	2641	101	64
Region III							
Ashlawn	425	292	48	80	226	48	64
Jackson	357	383	8	109	270	8	78
Jamestown	580	446	--	77	324	--	56
Madison	345	239	14	73	184	14	57
McKinley	482	303	9	65	207	9	45
Nottingham	525	466	--	89	363	--	69
Reed	590	456	--	77	326	--	55
Tuckahoe	568	467	--	82	354	--	62
Sub-Total	3872	3052	79	81	2254	79	60
Total Reg I-III	12,581	10,024	233	82	7800	233	64
Drew	965	384	--	40	288	--	30
Hoffman-Boston	50	37	--	74	20	--	40
TOTAL	13,596	10,445	233	79	8108	233	61

1/31/74

In assessing individual school utilization, the committee recommends that an objective be establisned to reserve 10 per cent of each school's working capacity (at least 2 rooms) for non-regular instructional programs. This is, of course, beyond the two to three rooms designated for reading, speech, etc. Thus, one school could emphasize small group study and language while another could accentuate science and mathematics. In this way each school in the county would be guaranteed a degree of flexibility to meet identified community needs. This would correct the current deficiency in which special programs are assigned to schools in many cases based primarily upon available classroom space. In practice, this method tends to penalize crowded schools and reward underutilized facilities.

Pertinent utilization data by region is summarized below:

Region I

- Highest overall utilization rate of the three regions in both 1973 and 1978.
- Glencarlyn at 119 per cent utilization today is the most extensively used facility in the County. The 1978 projection of 103 per cent shows this to be the only county school with utilization over 90 per cent.
- Barcroft has available capacity to handle Glencarlyn overload.
- Oakridge at 60 per cent utilization today has the lowest utilization rate (other than Drew). Pentagon City impact will increase this rate after 1978.

- Custis has a stable enrollment from 1973 through 1978 due to the anticipated Jefferson-Davis corridor growth.
- Fairlington population trends will be known with high certainty in 1975 when the South Fairlington condominium conversion has been completed.
- If consolidation of Fairlington is considered, Abingdon, Oakridge and Custis are geographic alternatives. By 1978 Abingdon alone, minus its special education program, could accommodate the Fairlington enrollment.
- Randolph is at 104 percent utilization today and is a candidate for relief from over crowding by redistricting action.

Region II

- The new Long Branch facility is today at 69 percent utilization and will decline to 53 percent in 1978.
- Page is at 79 percent utilization today and will drop to 58 percent in 1978.
- Woodmont utilization will shift from 75 percent today to 51 percent in 1978. It is a candidate for consolidation with Page.

Region III

- Lowest regional utilization with 1978 rate down to 60 percent.
- Jackson is at 109 percent utilization today, but will drop to 78 percent by 1978.
- McKinley's current utilization rate is 65 percent. This will drop to 45 percent in 1978 and the school is a candidate for consolidation with several neighboring schools.

Computation of the capacity of junior high schools differed from the manner of computing capacity for elementary schools. For the junior high schools, a two-step process was used. First, the numbers of pupils each room could accommodate in a week of thirty periods were summed. Then that sum was multiplied by five-sixths to obtain the final "capacity" for the building. Junior high school capacity was "discounted" by use of the multiplier five-sixths rather than by the capacity of rooms designed to serve specific program functions. This multiplication was based on three considerations.

- It is difficult (if not impossible) to develop for a secondary school a master schedule that utilizes one hundred percent of the rooms one hundred percent of the time.
- State requests for capacity estimates for secondary buildings suggest the use of an eighty to ninety percent multiplier of the number of pupils the rooms will accommodate.
- Secondary teachers are typically scheduled for five periods of instruction and one period of planning. It seems appropriate to discount the capacity of a secondary building by a factor acknowledging the frequent need to schedule teacher planning time in the teaching station.

The relocatable classrooms have been excluded from junior high capacity. This exclusion has been based upon the assumption that such a facility constitutes a substandard teaching station. Declining student population and/or redistricting can provide for this situation.

The rate of utilization for a junior high school can be estimated by summing the number of pupil periods accommodated by the school in

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The rate of utilization for a junior high school can be estimated by summing the number of pupil periods accommodated by the school in

one week and dividing that sum by the capacity computed by the technique described above. Those computations are summarized in Table IV-4. The utilization projected for 1978-79 was based upon the assumption that junior high students will continue to be scheduled for thirty periods per week.

TABLE IV-4

Junior High Capacity and Utilization
for
1973 and 1978

SCHOOL	ENROLLMENT 1973	ENROLLMENT 1978	NO. OF STATIONS REG+GYM=TOTAL	ACCOMMODATES THESE STU. PRDS. PER WEEK	STUDENT PERIODS REQUIRED PER WEEK 1973	STUDENT PERIODS REQUIRED PER WEEK 1978	PER CENT OF UTILIZATION 1973	PER CENT OF UTILIZATION 1978
GUNSTON	654	518	42+ 4= 46	27,375	19,030	15,540	70	57
JEFFERSON	805	688	50+ 6= 56	40,000	26,095	20,640	65	52
KENMORE	955	738	36+ 4= 50	31,500	28,300	22,140	90	69
STRATFORD	831	571	38+ 4= 42	25,430	25,000	17,130	99	68
SWANSON	724	493	40+ 4= 44	24,975	20,695	14,220	83	57
WILLIAMSBURG	1020	737	52+ 4= 56	32,500	30,320	21,300	93	66
TOTALS	4989	3745	268+26=294	181,750	149,440	110,970	82	61

SOURCE: Committee on Pupil Enrollment, January 1974.

Pertinent utilization data can be summarized this way:

. Jefferson, at 65 percent, has the lowest utilization rate for this year.

. By 1978 utilization of Gunston, Jefferson and Swanson will drop into the 52 to 57 percent range.

. Kenmore, Williamsburg and Stratford are currently the most intensively utilized junior high schools with utilization percentages in the 90 to 99 percent range. Projections for 1978 suggest that these three will continue to be the more heavily used junior high schools with utilization percentages in the 65 to 70 percent interval.

. The utilization rates could be brought closer together by adjusting junior high school boundaries. For example, the 1973 utilization for Jefferson and Stratford combined would be 78 percent as opposed to the current 99 percent for Stratford and 65 percent for Jefferson.

. By 1978 use of all junior high space in the county will have dropped to 61 percent from the 1973-74 level of 82 percent.

Capacity and utilization data for the senior high schools were being collected by central office staff as this draft of this report was being completed. That summary will be published when that data collection has been completed.

D. Impact on Capital Improvement Program

The present School Board plan for capital improvement results from a staff report of June 15, 1972 entitled, "A Proposed Five-Year Capital Improvement Program as Part of Continuous Facilities Improvement Program". It is important that some of the assumptions underlying that report be reexamined.

First, there was a large decrease in school enrollment between the estimates in the report and actual number of pupils in September, 1972, and September, 1973. The projected school enrollment for September, 1972 was 23,504; the actual was 21,686 or 8 per cent less. The projected enrollment for September, 1978 estimate at the time of the 1972 report was 20,000 students; the committee now estimates 1978 to be about 16,000, or 20 percent less. Clearly unused classroom capacity is available today and will increase in the future.

A second significant factor is the Arlington birth estimates used for projections for high, medium and low annual births which were 3,500, 3,300, and 3,100, respectively in the 1972 study. This committee, with the benefit of more recent actual birth data, finds that a more realistic range of annual birth estimates for high, medium and low projections are 2,500, 2,000 and 1,800 respectively. (Actual 1973 births will be about 1,900). These revised estimates have a significant impact on enrollments for the years when those youngsters will be in school.

The combination of available classroom capacity today and the continuing decline in pupil enrollment over the next five years leads the committee to the conclusion that in the forseeable future no bond issues are required to finance the construction of more classrooms than are now available in the school system. The committee does support the needed renovation or modernization of existing plants to replace worn and outmoded building services such as heating plant and wiring, and needed upgrading of facilities so that they will accommodate the changing educational practices that are in use today.

E. Non-Regular Day School Utilization

In addition to the regular full day school program, most of the school facilities are used for a number of other school and county sponsored activities. These include:

- The Extended Day Program conducted for working mothers of school age children at 16 elementary schools in the county.
- Rental of school facilities by various organizations, primarily the University of Virginia Continuing Education Program.
- Arlington County sponsored recreation programs and the Arlington Schools Adult Education program.

Table IV-5 summarizes the utilization of these facilities for non-regular school programs during the present year. Exhibit 2, Appendix B , show that these non-regular school activities amount to 7 percent of total school building usage. Since these activities are beyond the regular school program the committee feels these should be evaluated separately from this study and certainly before any action is taken to consolidate or close any existing school facility.

TABLE IV 5

ACTIVITIES OTHER THAN
FULL DAY SCHOOL PROGRAMS IN
ARLINGTON SCHOOL FACILITIES 1972-73

Schools	Sept. 1973 Extended Day Program	Rental of School Facilities Under 2 Rooms/day	Rental of School Facilities Over 2 Rooms/day	Arlington County Sponsored Programs Adult Educ/Recreation Dept. Under 2 Rooms/day	Arlington County Sponsored Programs Adult Educ/Recreation Dept. Over 2 Rooms/day
Elementary					
Abingdon	X		X		X
Ashlawn			X		X
Barcroft			X		X
Barrett	X	X			X
Claremont	X	X		X	
Custis	X				X
Drew	X		X		XXX*
Fairlington	X		X		X
Ft. Myer		X		X	
Glebe	X	X			X
Glencarlyn	X	X			X
Henry	X	X			X
Jackson	X	X			X
Jamestown		X			X
Key	X	X			X
Long Branch	X	X			X
Madison		X			X
McKinley		X			X
Nottingham		X			X
Oakridge	X	X			X
Page	X	X			X
Randolph	X	X			X
Reed	X	X			X
Taylor		X			X
Tuckahoe			X		X
Woodmont		X		X	
Junior High					
Gunston			X		X
Hoffman-Boston		X			X
Jefferson			X		X
Kenmore			X		X
Stratford		X			X
Swanson			X		X
Williamsburg		X			X
Senior High					
Wakefield			X		X
Wash-Lee			X		X
Yorktown			X	X	
Woodlawn		X		X	

* Drew usage is 3 times greater than any other Arlington school.

Source: Arlington Public Schools Administrative Staff

V. CRITERIA AND CANDIDATES FOR CONSOLIDATION

With a 15 percent decline in the student population since 1970 and a projected further decline of 24 percent by 1978, serious consideration must be given to the long term facility requirements for the Arlington County School System. It is obvious that unused capacity exists today and will grow in the future.

A. ELEMENTARY SCHOOL OPTIONS

The School Board faces two choices with respect to these unused spaces in the elementary schools:

. Adding new or expanded programs based on anticipated educational benefits and within available financial resources. Alternatively, the County Board may desire to use the facilities to meet other identified County needs, such as day care or recreational programs. Specification of future possibilities for alternate utilization are beyond the purview of this committee.

. Continuing present programs and redistricting school boundaries to meet the anticipated student population. This option has been examined extensively by the committee. A set of criteria for identifying marginal school facilities has been developed, candidate schools for consolidation are named and a two-phase implementation plan is suggested.

Considerations: The committee first addressed the important question - why consolidate? The answer to this question is twofold:

Programmatic. As noted in Section IV on Optimum School Size, the limited literature on this subject suggests that too few pupils can restrict program flexibility. There is benefit in the greater variety and depth of programs available at larger schools plus the synergistic effects of larger teaching and resource staffs. It is recognized these advantages

are offset somewhat by the increased individual attention available to students in smaller schools.

. Financial. The annual overhead cost for each elementary school in Arlington is about $125,000. Thus, overhead becomes a much larger portion of the educational cost per child at the smaller schools. In addition, diseconomies are experienced in the allocation of part-time and itinerant teachers (e.g., physical education) to these facilities.

Future Financial Outlook: Granted that not consolidating schools would cost more than $125,000 per school per year, the point can be made that Arlington is an affluent community with a low tax rate and we should be able to afford to keep all our schools open.

Consideration of this point should be in the context of the future outlook for school financing. This year Arlington will receive about $4.3 million in basic school aid from the State. Under the new State aid formula just proposed by the Governor, Arlington would receive nothing in basic State aid after 1976. The background and basis for this change are given in Exhibit 3, Appendix B.

The Governor's proposal contains a grandfather clause which provides that no locality will receive less during the biennium that it received in 1973-74, but there is no assurance that any of these funds will be forthcoming after two years. To substitute local resources for the potential loss of $4.3 million in State aid would be difficult. For example, in terms of property taxes, an increase of approximately 40¢ or 10 percent would be required above the present tax rate. In the face of such a prospect, retention of uneconomic school facilities is especially hard to justify.

. Criteria: Three criteria have been developed for identifying candidate schools for consolidation. These criteria can be applied against 1973 enrollment and, more importantly, against projected 1978 enrollments. The criteria include:

. School population. Analysis of available research shows that the consensus of available opinion is that the optimum elementary school size is 300-500 pupils excluding kindergarten, which equates to 2-3 classrooms per grade. Neighboring school districts have 400-700 children for elementary schools, about 30 percent more pupils per facility than Arlington. For planning purposes, Arlington schools with enrollments under 300 total pupils, including kindergarten, become candidates for possible consolidation.

. Overhead cost per pupil. As previously noted, the overhead cost of each elementary school is relatively insensitive to size. Table V-1 identifies the fixed costs at each facility, which range from $110,000 to a high of $155,000 annually. Thus, while the total cost of the school with the smallest attendance (Fairlington) is 50 percent of that for the largest school (Abingdon), the fixed overhead costs associated with keeping the smallest school open is 80 percent of the largest. Thus, overhead becomes an increasingly high percentage of the total educational dollars spent on each child at the smaller elementary school. The fixed overhead cost per student is believed to be the best common denominator for portraying this factor at each school, and a cost per pupil was calculated for both 1973 and 1978 as shown on Table V-1.

TABLE V-1

ARLINGTON COUNTY ELEMENTARY SCHOOLS
Analysis of Fixed Costs - School by School
Source: 1973-74 Adopted Budget School and Dept. Detail
Costs Considered as Fixed:
Principal
Child Development Counselor
Educational Secretary
Reading Teacher
Lunch Room Attendant
Custodians
Operation of Plant

SCHOOL	FIXED COSTS** (000)	TOTAL*** COST (000)	K-6 STUDENTS* 1973	K-6 STUDENTS* 1978	FIXED COST PER STUDENT* 1973	FIXED COST PER STUDENT* 1978
Abingdon	$ 148.2	$ 600.0	555	440	267	$ 337
Ashlawn	128.2	410.6	292	226	439	567
Barcroft	110.2	330.4	303	225	364	490
Barrett	115.1	364.7	343	255	336	451
Claremont	121.2	437.0	460	392	263	309
Custis	114.3	302.5	235	238	486	480
Drew	155.5	545.8	384	288	405	540
Fairlington	116.6	305.1	225	197	518	592
Fort Myer	112.9	367.5	359	340	314	332
Glebe	128.7	456.2	427	360	301	358
Glencarlyn	117.1	416.2	524	452	223	259
Henry	129.8	526.5	514	357	253	364
Jackson	126.4	384.2	383	290	330	436
Jamestown	118.0	450.0	446	324	265	364
Key	146.5	623.4	480	362	305	404
Long Branch	127.2	507.8	528	402	241	316
Madison	110.9	268.8	239	184	464	603
McKinley	131.5	447.1	303	207	434	635
Nottingham	120.8	471.9	466	363	259	333
Oakridge	134.8	495.7	445	315	303	427
Page	119.5	417.7	319	223	375	536
Randolph	116.9	434.1	471	391	248	299
Reed	126.2	537.0	456	326	277	387
Taylor	144.3	586.4	502	405	287	356
Tuckahoe	129.6	478.7	467	354	278	366
Woodmont	116.8	322.3	282	192	414	608
TOTAL	$ 3267.2	$ 11,487.6	10,408	8,405	$ 314	$ 389

* Excludes Special Education enrollments
** Average Fixed Cost equals 28% Total Cost. Salaries at each school are the average for these positions in the elementary schools.
*** Equals School-based Variable Cost plus Fixed Cost.

. Capacity utilized. The data developed in Section IV provide the ingredients for identifying the portion of available capacity being utilized for the basic full day instructional program at each school. Again, the basic program includes regular classes, special education and a two or three room allowance for reading, art, music and speech. Other unique programs have not been included in assessing utilization of each facility. The utilization rate is calculated by dividing the number of full-time enrolled students by the computed capacity at each school. Utilization rates were developed for both 1973 and 1978.

Chart V-2 summarizes our findings for elementary schools in both 1973 and 1978. For planning purposes, 1978 enrollment estimates are considered more important for decision makers, and the chart shows by major school groupings the 1978 data on enrollment, fixed costs per pupil and capacity utilized. The (X) symbol is used to designate factors at each school which are judged below the norms for each category. These include:

. Enrollments. Any school with enrollments, including kindergarten, below 300 by 1978.

. Overhead costs. The average county-wide school overhead cost per pupil is 389 (in 1973 dollars) in 1978. Any school in excess of $500 (30 percent above the average) is identified as carrying a particularly high proportion of overhead to instructional costs.

. Capacity utilized. Any school with utilization for regular and special education under 60 percent by 1978 is identified.

Candidate schools. Schools whose 1978 projections include two or three (X) symbols can be identified as the primary candidates for facility closing or redistricting. These include the following

TABLE V-2

ARLINGTON COUNTY COMMITTEE ON PUPIL ENROLLMENT

SCHOOL PROJECTIONS JANUARY 31, 1974

SCHOOLS	(1) Enrollments				(2) Fixed Costs Per Pupil				(3) % Capacity Utilized			
		1973 Estimate				1973 Estimate				1973 Estimate		
	1973	Abo 300	251 300	200 250	Blo 200	1973	Blo 300	300 400	400 Abo 500	1973	Over 80	60 80	Below 60
ELEMENTARY:													
Abingdon	555	X				267		X		94		X	
Ashlawn	717			(X)		439			(X)	80		X	
Barcroft	313			(X)		3[illegible]			X	71			(X)
Barrett	343		(X)			335			X	81		X	
Claremont	[illegible]	X				263		X		80		X	
Custis	235			(X)		486			X	84	X		
Drew Model	364		(X)			405			(X)	40			(X)
Fairlington	225				(X)	516			(X)	56			(X)
Ft. Myer	359	X				314		X		94	X		
Geo. Mason													
Glebe	427	X				391		X		76		X	
Glencarlyn	524	X				223	X			119	X		
Henry	514	X				253		X		99		X	
Hoff-Boston	37												
Jackson	393		(X)			337			X	109		X	
Jamestown	445	X				265		X		77			(X)
Key	480	X				305			X	80		X	
Long Branch	528	X				241		X		69			(X)
Madison	230				(X)	472			(X)	73			(X)
McKinley	393			(X)		434			(X)	65			(X)
Nottingham	492	X				229		X		89		X	
Oakridge	345	X				323			X	60			(X)
Page	319			(X)		387			(X)	79			(X)
Randolph	471	X				243	X			104	X		
Ree.	465	X				277		X		77			(X)
Taylor	292	X				267		X		85		X	
Tuckahoe	457	X				278		X		82		X	
Woodmont	262				(X)	414			(X)	75			(X)
TOTAL ELEM:	10,445												
		Abo 500		500	Blo 500								
JR. HIGH:		700	700	500									
Gunston	632				(X)	282			(X)	70			(X)
Horr-Best Prog.	150				(X)	387			(X)				
Jefferson	785		X			370			(X)	65			(X)
Kenmore	943	X				219	X			90		X	
Stratford	805			(X)		210		X		99		X	
Swanson	735				(X)	217		X		83			(X)
Wmsburg.	993	X				163	X			93		X	
TOTAL JR.H.	5043												

(1) Enrollments are for grades K-6 and do not include special education students.

(2) Fixed costs 1973-74 were computed on an average salary basis for Principal, CDC, Ed. Sec., Reading Teacher, Lunch Room Attendant, Custodian and cost of operation of plant.

(3) Capacity reflects a discount of 2 rooms for schools with less than 18 classrooms and of 3 rooms for schools with 18 or more classrooms. Discounts are made for Art and/or Music, reading and speech. Capacity does not reflect discounts for such programs as Title I, TESOL, Extended Day or programs unique to a school. Utilization does reflect allowance for special education.

schools:

REGION I	REGION II	REGION III	OTHER
Barcroft Fairlington	Page Woodmont	Ashlawn Madison McKinley	Drew

B. ELEMENTARY RESIZING IMPLEMENTATION PLAN

A two-phase plan to permit the closing and redistricting of elementary school facilities is proposed. Phase I actions could be implemented prior to September 1975 while phase II can be accomplished in the 1976-78 period. In making these adjustments, the following guidelines were used:

. Enrollment in any one school will not exceed 90 percent of working capacity by 1978; this will provide at least two classrooms beyond the basic program in each school for special programs.

. Some shifting between schools can be considered for special education programs.

. Minim school boundary line adjustments are proposed.

. Age of the physical plant must be considered.

Using these guidelines and assuming completion by September 1974 of a master plan based upon 1978 enrollment estimates, the following specific step are recommended:

Phase I (Completed by September 1975)

Region I - Redistrict the Glencarlyn and Barcroft school boundaries to provide needed relief to the overcrowded Glencarlyn situation and to use some of the available Barcroft capacity.

Region II - Combine the Long Branch, Page and Woodmont attendance areas into two districts. Page and Woodmont are the prime candidates for consolidation.

Additional staff effort should be requested to develop a specific implementation plan to select the facility for retention.

Region III - Combine Jamestown and Madison into a single district using the Jamestown facility. Some of the Madison district pupils could be shifted to the Taylor school.

Phase II (Completed by September 1978)

Region I - Combine Abingdon and Fairlington into a single district using the Abingdon facility. Redistrict Custis and Oakridge to meet the anticipated pupil workload in the 1980 period.

Region III - Combine Ashlawn, McKinley and Reed into two school districts. Ashlawn has a large special education program and a fairly modern facility; McKinley has some special education programs and a recently modernized facility. Reed has more enrolled students than the other two schools; however, the Reed facility is older and may be a better candidate for closing. It is clear that one of the three schools is not required by 1978; additional school staff effort is recommended as to which schools should be retained.

Drew - Retention of the Drew facility for school use is dependent upon continuation of the ongoing Model School program at Drew. If this program is ended there would be little requirement for Drew as a regular fulltime school facility. A number of other programs now conducted at Drew could continue in a portion of the existing facility or could be transferred to other neighboring schools with available capacity (e.g., Henry, Long Branch, Claremont).

C. JUNIOR HIGH SCHOOLS

By applying the general methodological approach for elementary schools to the junior high schools, one can then identify schools which could be considered marginal under the following conditions:

. Enrollment under 600 pupils. This is some 200 pupils (25 percent) below the lower end of the 800-1000 optimal student load. Gunston, Stratford and Swanson fall below 600 students by 1978.

. Fixed costs cost over $400 per student. Current 1973 costs are under $300 per student for all schools except Thomas Jefferson and Hoffman-Boston, both of which increase to over $400 by 1978.

. Utilization rates under 60 percent. Current 1973 utilization is above 80 percent at all schools except Thomas Jefferson, Gunston and Hoffman-Boston. All of these schools fall below 60 percent by 1978.

Looking to 1978, it appears that the newly built Thomas Jefferson, as well as Gunston and Hoffman-Boston are potential candidates for consolidation over the next five years. Lack of time has precluded full consideration of the long term needs for junior high facilities. A follow-on effort is needed to identify these requirements. However, two points are fairly clear at this time:

. The current overcrowding at Stratford can be alleviated by redistricting with Thomas Jefferson which has considerable free capacity.

. Retention of Hoffman-Boston for school use is dependent upon continuation of the Model School Program. If this program is ended, the Hoffman-Boston facility will be surplus to the needs of the regular full day school program.

VI. Countering the Projected Decline in School Children

The pupil population estimates display a dramatic trend and raise the question of what can be done about it. If it is decided that the forecasted declines in pupil enrollment will unfavorably affect the population makeup of the county, then county-wide programs to counter these trends need to be initiated. This section identifies possible plans which could, over time, increase the proportion of families with children in the community.

Factors beyond our control. Several factors critical to future school enrollment are beyond the control of Arlington. These include:

- The declining national birth rate. Births thru 1973 have already determined the national school population for September, 1978. The entire Washington area has experienced a 25% decline in actual births over the last four years.
- The energy crisis. This is a problem whose duration, severity and overall impact at the local levels will be determined by decisions reached at the international and national levels.
- Actions by neighboring jurisdictions. Decisions by neighboring counties will impact the relative desirability of Arlington housing. The recent Fairfax moratorium on housing construction is a good example of an action which should have a positive effect on housing families with children in Arlington; however, its duration and long-term impact remains uncertain.

Possible actions to counter the trend. Programs to slowdown the decline in families must recognize the twin objectives of retaining a larger proportion of families currently residing in Arlington and of attracting more young families into the community. The desirability of Arlington living over that of other neighboring communities is a function of the community image and the availability of housing units.

Improving the image of Arlington is an ongoing task performed by elected officials and citizens alike which can be augmented to emphasize features such as the excellent schools, parks, and recreation facilities which would appeal to families with young children.

The availability of a broad range of housing units which could appeal to families across all economic levels is much the more difficult task for Arlington with its limited undeveloped land space. There has been a massive increase in the number of people employed in Arlington over the past decade but there has been no corresponding increase in housing units - especially single family and garden apartment dwellings which could attract and retain families with children.

Garden apartments have historically served an important role as initial housing for young families moving into the area. Many of these families have moved into Arlington single family dwellings as their children grow older and finances improve. Yet, the supply of single family dwellings has been virtually stable in recent years and there has been a decrease in garden apartments due to the condominium conversion program. Actual housing unit growth since 1960 has been limited to expensive high rise units which often carry restrictions on the number of children.

Elements of a county program to expand the housing supply for families would include:

- Adoption of a growth policy by the county board and the planning commission emphasizing the need for single, duplex (probably townhouse) or garden apartment type dwellings in the Rosslyn-Ballston and Jefferson-Davis corridors. Single or duplex dwellings should also be assigned priority in the utilization of available school facility land (e.g., Cherrydale). Housing units should be designed and priced within the economic reach of young families.
- Retention, wherever possible, of existing family and garden apartment dwellings. The Neighborhood Conservation Program should be expanded. High rise and condominium conversions which reduce the stock of single family and garden apartment units should be seriously questioned.
- Increased opportunity for moderate income families to rent available units through utilization of the federal leased housing program.
- Discussions between county officials and high rise owners as to the relaxation of existing restrictions on children.

A decision on the part of Arlington County leaders to attract and retain families with children, together with initiation of the above suggested programs, could provide the needed momentum to slow down and hopefully, eventually reverse the decline in school enrollment. It must be recognized, however, that actual implementation will take time. A turnaround in the enrollment decline could easily take up to 10 years even with adoption of the total package.

An indication of the proposed impact upon the school population from these programs follows:

- Building 1,000 single family or duplex dwellings will add about 400 students.
- Deferring conversion of 1,000 garden apartment units will retain about 150 students.
- Deferring the move out of Arlington for 1,000 single family dwellers could retain about 300 net students.

VII. Conclusions

This study of the future Arlington pupil enrollment has led to the following conclusions:

- The 1973 enrollment of 21,120 will continue to decline in future years.
- The 1978 school population will range from 15,000-17,000 with the most likely estimate about 16,000. By 1983 the total enrollment will range from 11,000-14,000.
- Utilization of the elementary schools will fall from 79 percent in 1973 to 61 percent in 1978. Junior high utilization will decline from 82 per cent in 1973 to 61 percent in 1978.
- Some reduction in elementary school facilities can be accomplished while preserving neighborhood schools and retaining flexibility to accommodate a broad spectrum of programs at each school. No facility should be closed until the continued need for nonregular day school activities has been evaluated. Some redistricting of the junior high schools can be accomplished to alleviate overcrowding.
- Selected redistricting against 1978 population estimates will be required at the elementary level to relieve overcrowding at several schools and to permit implementation of a school consolidation plan.

. In the face of a declining school population no additional classrooms are needed in the county over the next five years. Bond issue proposals for more classrooms should not be proposed; bond money for replacement of obsolete facilities, however, can be justified. The 1972 Capital Improvement Plan needs to be reworked in the light of the updated pupil population estimates.

. Financial savings to the school system of $1.5 million can be achieved over the 1975-1978 period from the time phased consolidation plan. Deferred bond issues could be added to these savings.

. A sense of commitment on the part of Arlington County leadership and citizens to reverse the population decline can slow down and perhaps eventually stop the projected decline. A campaign to enhance the Arlington image and to provide housing units for young families could help change the trend.

VIII. Appointment of the Committee

ARLINGTON PUBLIC SCHOOLS
OFFICE OF THE SCHOOL BOARD
1426 NORTH QUINCY STREET ARLINGTON, VIRGINIA 22207

September 13, 1973

Mr. Richard Stubbing
1116 North Powhatan Street
Arlington, Virginia 22205

Dear Mr. Stubbing:

I am pleased to advise you that the Arlington School Board has appointed you to its committee on Declining Pupil Population. A list of committee members and the action taken by the Board in establishing the committee is attached for your information and review.

The Chairman of the committee has been asked to call the first meeting of the committee.

The School Board feels that citizens' committees such as this make a very important contribution to the conduct of the public schools and it is our sincere hope that you will find serving on this committee both rewarding and interesting.

Sincerely yours,

Michael Timpane

Michael Timpane
Chairman

MT:b/s
encs.

COPY COPY COPY COPY COPY

ARLINGTON PUBLIC SCHOOLS
Office of the Superintendent
November 17, 1972

Name of Citizen Committee/Council/Etc. Committee on Declining Pupil Population Enrollment

Who appoints? XX Board ____ Superintendent ____ Other _____ (Name)

When appointed? July 5, 1973

Purpose or Function of the Committee? Inquire into causes and nature of decline and estimate direction of enrollment over next 5 years to 10 years; impact of county growth and transportation policies; spell out possible implications for educational program.

When does committee report? Not indicated

List of Committee Members:	Address	Phone No.
Chairman	Richard Stubbing, 1116 N. Powhatan St., 22205	532-2566
Vice-Chairman		
Members	Larry Anderson, 815 S. 18th St., 22202	979-8471
	Godfrey E. Barber, 3821 N. Oakland St., 22207	522-2723
	Edith Lohman, 4936 S. 25th St., 22204	671-8586
	Margaret E. Martin, 1510 N. Herndon St., 22207	528-8177
	Thomas Teeples, 2313 S. Buchanan St., 22206	671-8787
	Joseph Welsch, 2809 N. Jefferson St., 22207	536-6934
Liaison:	Herbert Ware, Asst. Director, PMB, Ed. Center	558-2842

Charge to Citizens Committee on Declining Population Enrollment

A citizens committee on the above subject should be established with one member to be appointed by each board member, that member being appointed by the chairman to be the chairman of the committee.

The citizens committee should:

A. Inquire into the causes and the nature of the decline in pupil enrollment including possible notable changes in the characteristics of the pupil population.

B. Estimate the duration and direction of pupil enrollments over the next five to ten years, assuming the continuation of present county/school policies.

C. Describe the impact of alternative county growth and transportation policies (in terms of the density and cost of housing) upon the pupil population.

D. Spell out possible implications for the educational program including:

... capital policy including possible consolidation and closing of schools as well as the nature and scheduling of major renovations;

... budget planning;

... grade groupings within the existing facilities;

... instructional and attendance policies.

The committee is requested to make the initial report that will: (a) spell out implications for the FY 74-75 budget and (b) describe for the board the time and resources required to complete its work.

MT:ap

APPENDIX A

TABLES

PREPARED FOR OR BY

THE COMMITTEE ON PUPIL ENROLLMENT

TABLE 1

(Requested by School Bd. Cmte. "Declining Enr. Study") COMPARISON OF DWELLING UNIT RATIOS, ARLINGTON SCHOOL CEN
Sept. 6, 1973, Compiled by J. Palmer BY LAND USE CODE FOR SELECTED ELEMENTARY DISTRIC

DWELLING UNIT TYPE	LAND USE CODE	SUGGESTED SCHOOL GRADE	BY AGE GROUP	DWELLING UNIT RATIOS--POPULATION PER U											
				COUNTY WIDE			Abingdon/Fairlington			Custis			Nottingham		
				1971	1968	1965	1971	1968	1965	1971	1968	1965	1971	1968	1965
SINGLE FAMILY	111	Elementary(1-3)	1-5	.183	.218	.262				.150	.207	.229	.174	.227	.264
		Elementary(4-6)	6-11	.346	.377	.418				.329	.386	.406	.329	.352	.413
		Intermediate(7-9)	12-14	.200	.205	.224				.191	.194	.230	.193	.218	.218
		Secondary(10-12)	15-17	.200	.206	.234				.202	.193	.198	.221	.228	.239
			18-19	.124	.124	.146				.119	.112	.129	.128	.143	.155
		TOTAL 1-19		1.053	1.131	1.284				.990	1.097	1.192	1.045	1.168	1.299
SEMI-DETACHED (A two-family dwelling)	115	Elementary(1-3)	1-5	.275	.348	.449									
		Elementary(4-6)	6-11	.396	.398	.537									
		Intermediate(7-9)	12-14	.203	.173	.218									
		Secondary(10-12)	15-17	.180	.164	.174									
			18-19	.045	.073	.091									
		TOTAL 1-19		1.149	1.156	1.464									
DUPLEX or Townhouse	113 & 119	Elementary(1-3)	1-5	.151	.172	.325				.175	.386	.370			
		Elementary(4-6)	6-11	.180	.215	.237				.228	.278	.288			
		Intermediate(7-9)	12-14	.098	.089	.089				.123	.105	.039			
		Secondary(10-12)	15-17	.117	.129	.061				.070	.193	.081			
			18-19	.076	.080	.088				.035	.070	.061			
		TOTAL 1-19		.624	.684	.800				.631	.982	.919			
GARDEN APARTMENTS	116	Elementary(1-3)	1-5	.155	.190	.245	.305	.360	.441	.329	.143	.303			
		Elementary(4-6)	6-11	.134	.120	.111	.253	.230	.225	.294	.076	.148			
		Intermediate(7-9)	12-14	.048	.040	.039	.095	.062	.064	.140	.013	.041			
		Secondary(10-12)	15-17	.044	.036	.034	.072	.055	.059	.084	.000	.053			
			18-19	.029	.033	.046	.014	.051	.048	.049	.013	.059			
		TOTAL 1-19		.410	.419	.480	.759	.758	.837	.695	.247	.604			
HIGH RISE APARTMENTS	117 & 118	Elementary(1-3)	1-5	.032	.030	.037	.007	.014	.004	.028	.017	.032			
		Elementary(4-6)	6-11	.027	.024	.028	.605	.002	.000	.021	.021	.015			
		Intermediate(7-9)	12-14	.016	.015	.021	.007	.005	.004	.019	.018	.013			
		Secondary(10-12)	15-17	.020	.023	.024	.005	.002	.023	.031	.024	.030			
			18-19	.016	.019	.031	.012	.017	.040	.020	.028	.042			
		TOTAL 1-19		.111	.111	.143	.036	.040	.071	.119	.118	.132			

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TABLE 1

COMPARISON OF DWELLING UNIT RATIOS, ARLINGTON SCHOOL CENSUS, 1965, 1968 & 1971, AGE 1-19 BY LAND USE CODE FOR SELECTED ELEMENTARY DISTRICTS WITH COUNTY-WIDE DWELLING UNIT RATIOS--(POPULATION PER UNIT TYPE) AGE 1-19

ED	AGE GROUP	COUNTY WIDE			Abingdon & Fairlington			Custis			Nottingham			Page			Ozkridge		
		1971	1968	1965	1971	1968	1965	1971	1968	1965	1971	1968	1965	1971	1968	1965	1971	1968	1965
	1-5	.183	.218	.262				.150	.207	.229	.174	.227	.264	.167	.230	.250	.129	.175	.154
(1-3)	6-11	.346	.377	.418				.329	.386	.406	.329	.352	.413	.331	.324	.344	.292	.327	.375
(4-6)																			
te(7-9)	12-14	.200	.205	.224				.191	.194	.230	.193	.218	.238	.181	.160	.174	.195	.238	.235
(10-12)	15-17	.200	.206	.234				.202	.193	.198	.221	.228	.239	.159	.184	.176	.207	.203	.206
	18-19	.124	.124	.146				.119	.112	.129	.128	.143	.155	.115	.092	.095	.125	.133	.174
19		1.053	1.131	1.284				.990	1.092	1.192	1.045	1.168	1.249	.954	.989	1.019	.948	1.07	1.163
	1-5	.275	.348	.449										.425	.277	.349			
(1-3)	6-11	.395	.398	.537										.450	.149	.333			
(4-6)																			
te(7-9)	12-14	.203	.173	.213										.074	.021	.158			
(10-12)	15-17	.180	.164	.174										.159	.085	.206			
	18-19	.045	.073	.091										.101	.085	.063			
		1.149	1.156	1.464										1.200	.817	1.111			
	1-5	.151	.172	.325				.175	.386	.379				.111	.111	N/A	.299	.191	.330
(1-3)	6-11	.180	.215	.237				.228	.228	.288				.268	.222		.347	.303	.379
(4-6)																			
te(7-9)	12-[illegible]	.093	.089	.089				.125	.105	.099				.111	.111		.147	.202	.126
(10-12)	15-17	.117	.129	.061				.070	.193	.081				.135	.181		.136	.134	.155
	18-19	.076	.080	.088				.035	.070	.061				.097	.111		.073	.032	.097
		.624	.684	.800				.631	.982	.819				.708	.736		1.023	.859	1.059
	1-5	.155	.190	.245	.305	.360	.441	.329	.143	.303				.129	.163	.169	.110	.167	N/A
(1-3)	6-11	.134	.120	.111	.253	.230	.225	.294	.078	.148				.098	.077	.101	.123	.167	
(4-6)																			
te(7-9)	12-14	.048	.040	.039	.095	.062	.064	.140	.015	.041				.037	.073	.045	.045	.073	
(10-12)	15-17	.044	.036	.039	.072	.055	.059	.084	.060	.053				.151	.046	.086	.042	.050	
	18-19	.029	.033	.046	.074	.051	.048	.049	.013	.039				.058	.038	.046	.036	.031	
		.410	.419	.480	.759	.758	.837	.895	.247	.604				.364	.362	.429	.360	.493	
	1-5	.032	.030	.037	.007	.014	.004	.028	.017	.032				.003	.025	.035	.017	.027	.022
(1-3)	6-11	.027	.024	.028	.005	.002	.000	.021	.021	.015				.022	.012	.024	.013	.019	.025
(4-6)																			
e(7-9)	12-14	.016	.015	.021	.007	.005	.004	.019	.018	.013				.003	.006	.017	.017	.012	.018
0-12)	15-17	.020	.023	.024	.005	.002	.003	.031	.034	.030				.003	.022	.037	.014	.017	.023
	18-19	.016	.019	.031	.012	.017	.040	.020	.026	.042				.025	.006	.025	.010	.014	.029
9		.111	.111	.143	.036	.040	.071	.113	.118	.132				.056	.071	.141	.071	.089	.117

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Table 2

TEACHING STATION SURVEY
ROOM UTILIZATION BY SCHOOL

	TOTAL AVAIL		REG CLASSES	READ ART MUSIC SPEECH	SPEC EDUC	TOTAL BASIC PROG	AVAILABLE FOR OTHER USE DESCRIPTION	TOTAL
Abingdon	30		20	3	4	27	Title I 1; ESOL 1; Itin.Tchr 1	3
Ashlawn	23		12	3	5	20	CDC 1; Sci Lab 1; PE 1	3
Barcroft	20		15	3	-	18	Sm Grp Sty 1; Media Prod	2
Barrett	17	a)	15	2	-	17		-
Claremont	25		17	3	-	20	Title I 2; Ext Day 1; ESOL 1; CDC 1	5
Custis	13		11	2	-	13	Sci, Math, Lang & SS Labs used as Reg. Classrooms	
Drew	39		15	3	-	18	See attached list	21
Fairlington	17		11	2	-	13	Title I 2; Ext Day 1; Math 1; Adult Ed 1	4
Ft. Myer	20		13	3	1	17	Title I 2; ESOL 1; CDC 1	3
Glebe	23		20	3	-	23		-
Glencarlyn	19		16	3	-	19		-
Henry	--		--	-	-	--		-
Jackson	19		13	3	1	17	Ext Day 1; PE 1	2
Jamestown	26		19	3	-	22	Math Lab 1; CDC 1; Reg I 2	4
Key	31		21	3	3	27	ESOL 2; Math 1; Lang 1	4
Long Branch	37		31	3	-	34	Title I 2; ESOL 1	3
Madison	16		9	2	2	13	Occ Ther 1; PE 1; Rec Pre Sch 1	3
McKinley	22		14	3	3	20	Math Ctr 1; Sci Ctr 1	2
Nottingham	22		17	3	-	20	Res Tchr 1; Activity Rm 1	2
Oakridge	33		16	3	2	21	Title I 2' Reg I 3; Various 7	12
Page	22		12	3	4	19	Title I 2; Lrng Disabled 1	3
Randolph	20	b)	16	3	-	19	Title I 1	1
Reed	25		17	3	-	20	Ext Day 1; Math 1; Monte 3	5
Taylor	31		22	3	2	27	Vol 1; Individ Pursuits 3	4
Tuckahoe	25		20	3	-	23	CDC 1; Resource Rm 1	2
Woodmont	19		13	3	-	16	Title I 2; Resource Ctr 1	3
TOTAL	594		405	71	27	503		91

a) Includes 2 relocatables
b) Includes 3 relocatables

TABLE 3

COMPUTATION OF CAPACITY FOR
ARLINGTON ELEMENTARY SCHOOLS

	REPTD CAP	DEDUCT: RDG/ART MUSIC SPEECH	SPEC EDUC ADJ.	ADD: KINDER-GARTEN	NET CAP.	CAPACITY ASSIGNED TO SPECIAL PROGRAMS	TOTAL
Abingdon	683	-75	-60	75	623	Title I 5; ESOL 8; Itin. Tchr 25	38
Ashlawn	530	-75	-55	25	425	CDC 25; Sci Lab 25; PE 25	75
Barcroft	475	-75	-	25	425	Sm Grp Sty 10; Media Prod. 25	35
Barrett	425 a)	-50	-	50	425		--
Claremont	598	-75	-	50	573	Title I 38; Ext Day 25; ESOL 25; CDC 10	98
Custis	290	-50	-	40	280		--
Drew	990	-75	-	50	965	See attached list	540
Fairlington	415	-50	-	25	400	Title I 50; Ext Day 25; Math 25; Adult Ed 25	125
Ft. Myer	465	-75	-15	25	390	Title I 50; ESOL 25; CDC 10	85
Glebe	565	-75	-	75	565		--
Glencarlyn	464	-75	-	50	439		--
Henry	635	-75	-60	50	550		--
Jackson	415	-75	- 8	25	357	Ext Day 25; PE 35	60
Jamestown	630	-75	-	25	580	Math 25; CDC 25; Reg I 50	100
Key	679	-75	- 9	50	645	ESOL 45; Math 15; Lang 15	75
Long Branch	786	-75	-	50	761	Title I 10; ESOL 5	15
Madison	400	-50	-30	25	345	Occ Ther 25: PE 25; Rec Pre-Sch 25	75
McKinley	587	-75	-60	30	482	Math Ctr 20; Sci Ctr 20	40
Nottingham	550	-75	-	50	525	Res Tchr 25; Activity Rm 25	50
Oakridge	830	-75	-30	50	775	Title I 50; Reg I 75; Var.150	275
Page	497	-75	- 9	25	438	Title I (2) 50; Lrng Dis (1) 25	75
Randolph	480 b)	-75	-	50	455	Title I 25	25
Reed	640	-75	-	25	590	Ext Day 25; Math 40;Monte 75	140
Taylor	645	-75	-30	50	590	Vol 15; Indiv Pursuits 55	70
Tuckahoe	593	-75	-	50	568	CDC 6; Res Rm 25	31
Woodmont	400	-75	-	50	375	Title I 10; Res Ctr 40	50
TOTAL	14,667	-1,850	-366	1,095	13,546		2,077

a) Includes 2 relocatables
b) Includes 3 relocatables

APPENDIX B

OTHER EXHIBITS CONSIDERED

BY THE

COMMITTEE ON PUPIL ENROLLMENT

Exhibit 1 Paper presented by representatives of the Fairlington PTA

Exhibit 2 December 18, 1973, memorandum to Mr. Joseph Ringers on extra-school day use of school facilities

Exhibit 3 Impact of Proposed "Standards of Quality" State Aid Formula on the Arlington Public School Budget

Exhibit 4 Letter of December 30, 1973, from Arlington Citizens Steering Committee for the Extended Day Program

EXHIBIT 1

November 6, 1973

MEMORANDUM

TO: Committee to Study Declining School Population

FROM: Fairlington Elementary School PTA

In response to this Committee's request for certain information about Fairlington Elementary School, we submit the following:

Fairlington Elementary School is 30 years old, having been opened in 1944. Its last renovation was in 1967-68 and it is scheduled again for 1978 as part of the continuous improvement program in the County. The physical plant is in good condition, being very well kept both inside and out. Its architecture is in complete conformity with the rest of the community.[1]

Its present enrollment is a little over 200. Despite this decrease from previous years, there is not one classroom un-used in the school. Since the school is small, each teacher knows a great many of the children and can relate personally to students other than those in her classes. The school is organized basically into nine self-contained classrooms. Some cooperative teaching situations are planned to achieve specific goals over varying lengths of time, from three weeks to as long as a semester. The professional staff has achieved a high degree of competency in planning programs for children with the Librarian, Reading Teacher, Child Development Consultant, Speech Teacher and Physical Education Teacher. In addition to its regular complement of teachers and resource persons, we welcome two Title I teachers (one Reading and one Math) to the faculty. The children have scheduled vocal music instruction with some opportunity for small group classes based on special interests. The Art Teacher has at least one open day for art a month with a variety of activities available for all age groups. This has been a most successful cross-grade-level experience for the children. Of particular interest this past year, has been a Math Lab of instructional games and manipulative materials. A group of volunteer parents has kept the Lab open, supervising the work of small groups of children on a scheduled basis.

Fairlington is one of several schools in the County enrolled in a self-study program leading to Accreditation with the Southern Association of Schools and Colleges. All phases of our school program will be reviewed with goals set for improvement over the next five years. This will be particularly significant in light of the changing enrollment.

---

1. See attached History of Fairlington School

In spite of the unstable conditions in South Fairlington, the school continues to be the hub of activity, today, for example, serving the community as a polling place. The building has a wide variety of uses. Scout troops, recreation classes for children and adults, The Fairlington Players (a local amateur theatrical group), civic associations, a new condominium association and recently a Senior Citizens Group, keep the building open almost every evening. The playground is also widely used for those active sports such as football, soccer, softball and baseball which it is not possible for children to play in the common areas. Five years ago, Fairlington was a pilot school for the Extended Day Program, providing supervised care from 7:30 a.m. to 6:00 p.m. for children in grades K through 6 of working parents. This Fall, daytime Adult Education classes are scheduled as a result of a survey of citizens living in the Fairlington Community. A program sponsored by the Recreation Department for children 3 and 4 years old will be available soon.

While our survey[2] of occupied condominiums in Sections 1 and 2 of Fairlington South revealed a very small number of children of elementary school age or younger, we did encounter almost unanimous expressions of concern for the fate of Fairlington School and strong evidence of active support for plans to promote keeping the school open.

As part of its continuing efforts on behalf of the school, our PTA committee contacted representatives of CBI-Fairmac Corporation as well as members of the Board of Directors of the Council of Homeowners for Section 1 of Fairlington South, receiving in both instances verbal and written expressions of support for Fairlington School and indications that letters to this Committee would be forthcoming. Again as part of our continuing efforts on behalf of the school, and particularly, toward total community involvement in Fairlington, the PTA has issued an open invitation to condominium owners, with or without children, to attend a special "Get-Acquainted with Fairlington School Night" early in December. We plan to use this meeting to promote membership in the PTA, and therefore active support for the school, from all segments of our community.[3]

---

2. See attached Table of Figures

3. See attached Condominium Progress Report

The consensus from the community as a whole is to urge this Committee and the School Board not to accept the child population figures from Sections 1 and 2 as being representative of what they will be when Fairlington South is once more a fully-occupied, stable community.

We would strongly urge this Committee to recommend that the School Board defer any decision regarding Fairlington School until next year at this time, when it will be possible to more realistically project enrollment figures for succeeding years.

We look forward to working with this Committee. Please be assured of our continued interest and cooperation.

Attachments - 3

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HISTORY AND GROWTH OF FAIRLINGTON SCHOOL AND COMMUNITY

The Fairlington School community is bordered by Alexandria on three sides and by Shirley Highway on the other. The school is one of 40 now making up the Arlington County School system.

White Deer, Chief of the Powhatan Indian tribe followed the buffalo migration trail to the West, through the Four Mile Run Valley along Leesburg Pike. His is the first record we have of the Fairlington area.

Land in the valley and on the heights, a part of the estate of Lord Fairfax, was passed to a Mr. Strutfield on January 21, 1705. All of South Fairlington and North Fairlington south of Columbus Street lies within the original ten-mile square set aside in 1789 to form the District of Columbia. The Virginia portion was returned to the Commonwealth in 1846.

Later, the land passed to Colonel John Carlyle, a Scottish merchant prominent in affairs of Alexandria, and remained in the hands of his descendants well into the nineteenth century. In 1870, "Morven", as the estate was then named, was acquired by Courtland Smith, whose heirs possessed it until 1926. It was then known as Hampton Farm, and Mr. Smith raised thoroughbred horses upon it.

After 1926 the land was broken up into small holdings, and for a time a portion was used as a small air field. The land lay fallow until December 7, 1941, the terrible day of the attack on Pearl Harbor. The Defense Home Corporation was then established to meet the need for housing defense personnel called into Washington. It operated on money borrowed from the Reconstruction Finance Corporation. George Basset Williams, Executive Vice President of the Defense Homes Corporation, along with the architects, designed the project in the Williamsburg tradition.

On May 15, 1943, the first residents moved into the community. Fairlington School opened the following January. Since the top personnel in the government lived in the houses, the children were from high middle-class and well-educated parents. The parents had high educational expectations for their children and were consistently interested in their achievement in school. Many of the officers were sent to war, and on some days a number of children received word of their fathers' deaths in any given class. There were sixteen classrooms, a library, a multipurpose room, kitchen, clinic, and office in the school. The rooms were overflowing with children, and classes had to be held in double sessions. Miss Grace Hall was the first principal of the six-grade school.

During the first several years, the children who lived in the South Fairlington community walked home for lunch, and the bus children brought their lunch, eating in the classroom under the homeroom teacher's supervision. The first and second grade children were on double

sessions and therefore ate at home before or after coming to school. In the first few years, the first and second grade classes were very large in spite of double sessions. Some first grade teachers had an average of one hundred children per day. During these years the enrollment was also very transient.

By the end of the first three years the basement was made into two classrooms, and two classes were also held in the Auditorium. During the years 1951-54, 5 1/2 year old children were allowed to come. In 1956 one classroom was remodeled for the hard-of-hearing. A teacher was hired to work with these children, who were members of regular classrooms. Three years later these students were transferred to another school where all hard-of-hearing were based. There were also two special education classes held in the school from 1954 to 1962. They were later transferred to George Mason Center. In 1968 Fairlington was remodeled with a larger library, teachers' room, multipurpose room and kitchen.

Fairlington had children riding buses from Arna Valley and Shirley Park in 1958. In September, 1963 kindergarten youngsters were transferred from Oakridge to Fairlington. In 1970 the Fairlington kindergartens were transferred to Drew. In 1971 when all Arlington schools became integrated, Fairlington no longer received children from Arna Valley and Shirley Park and the kindergarten came back to Fairlington.

In 1972-73 Fairlington has decreased in enrollment, because of the fact that Fairmac Corporation, the owners of the Fairlington Apartments, have made them into condominium homes for sale rather than rental. With the time needed for remodeling, many places have been vacant, and this will continue until the homes are completed for occupancy.

The future of Fairlington School will be determined by the needs of the new members of the Fairlington Condominium Community.

No. of Children, By Age, Living In Fairlington Condominium Villages As Of November, 1973*

Age	No. of Children
Birth to One Year	4
One to Two Years	6
Two to Three Years	3
Three to Four Years	8
Four to Five Years	7
Five to Six Years	4
Six to Seven Years	7
Seven to Eight Years	6
Eight to Nine Years	2
Nine to Ten Years	4
Ten to Eleven Years	4
Eleven to Twelve Years	1
TOTAL	56

Expectant Mothers - 3

*Represents total occupancy of first condominium village and partial occupancy of second village.

CONDOMINIUM PROGRESS REPORT

Fairlington South, bounded by I-95, King Street and Quaker Lane, began its transformation from rental units to individually owned condominium homes in mid-1972. The conversion involves installing new plumbing; wiring; central air-conditioning and heating; kitchens and baths; and finished basements in each home. The conversion project encompasses 1,736 homes and is divided into six consecutive stages. Briefly, the project is planned as follows:

Phase Number	No. of Units	Target Dates[1] Start	Complete	
1	224			Occupied
2	169			Being occupied
3	342		4/74	Under renovation
4	352	1/74	10/74	
5	364	6/74	2/75	
6	285	1/75	7/75	

There are more empty units than this chart would indicate. Besides the 342 units empty in Phase 3 and the majority of Phase 4's 352 units, many others in Phases 5 and 6 are vacant and may not be occupied again until after renovation. We think it is obvious that for the next year and a half to two years, Fairlington South will be continuously changing. We cannot guess the final complexion of our community until the end of that time.

[1] These dates were provided by CBI Faimac Corporation which stressed the rough nature of the estimates and the possibility of changes.

P. O. Box 6025
Arlington, Virginia 22206
November 2, 1973

Dick Stubbings, Chairman
Committee to Study Declining
School Population
1426 North Quincy Street
Arlington, Virginia 22206

Dear Mr. Stubbings:

The Board of Directors, Council of Co-Owners, Fairlington Commons, passed the following resolution on October 31, 1973:

"BE IT RESOLVED THAT this Board opposes any action to close Fairlington School during conversion of our community from rented apartments to privately owned townhouses. We feel such action fails to recognize the uncertainty of our situation. We do not believe our school age population can be projected realistically while hundreds of homes are unoccupied awaiting and undergoing renovation."

We appeal to your sense of fairness, Mr. Stubbings, to reconsider closing Fairlington School for the time being. Surely some temporary measures could be employed to maintain enrollment until our community stabilizes. At that time an evaluation should be made.

We completely support the PTA's efforts to keep our school open and continue its role as a vital component of our community.

Respectfully yours,

COUNCIL OF CO-OWNERS
FAIRLINGTON COMMONS

By: James W. Patterson
President, Board of Directors

EXHIBIT 2

ARLINGTON PUBLIC SCHOOLS
FACILITIES
2770 South Taylor Street
Arlington, Virginia 22206

Building Maintenance
Custodial Services
New Construction
Security

MEMORANDUM

December 18, 1973

TO: Mr. Ringers

FROM: K. G. Duglass

SUBJ: Cost to Arlington Schools for Support of Recreation Programs, Community Use, Adult Education, University of Virginia and Distributive Education

Facts Concerning School Use for Elementary and Secondary Education (all figures rounded)

22,000	Elementary and Secondary Students - Arlington Schools
1,600	Teachers and Staff for Arlington Schools
23,600	Total Personnel Using Arlington Schools for Elementary/Secondary Education
9	Hours use per day average
186	Days per year usage for elementary/secondary education

Hence

23,600 X X 186 = 39,506,400 People Hours

Summer School

1,750	Students
180	Staff
1,930	Total People for Summer School
130	Hours Summer School Average

Hence

1,930 X 130 = 250,600 People Hours

Part Cost of School Use [illegible] Programs, Community Use, Adult Education, Distributive Ed[illegible]

124,981 Hours of School Building Usage

25 Persons (average) per usage hour

Hence

124,981 X 25 = 3,124,000 People hours

From Above

30,737,000 93% School People Hours
3,121,000 7% Non School People Hours

42,861,000 100% Total People Hours

171-1	Operation of Plant	$	2,728,229
171-2	Maintenance of Plant	$	1,703,757
		$	4,431,986
			7 %

Cost to Operate Arlington Schools for Non Elementary/Secondary Education $ 310,239

KG3/by

EXHIBIT 3

IMPACT OF PROPOSED "STANDARDS OF QUALITY"
STATE AID FORMULA ON THE ARLINGTON PUBLIC SCHOOL BUDGET

The proposals of the Governor of Virginia for the 1974-76 biennium include the application of a new formula for distribution of basic State aid to school districts with the objective of assuring Standards of Quality in education throughout the Commonwealth.

For several reasons, the new basis of distribution is very unfavorable to Arlington. We are already providing quality education whereas many other communities are not; we are one of the wealthiest communities in the State; and we have one of the lowest ratios of students to total population of any locality.

The distribution formula is based 50% on true value of real estate, 40% on personal income, and 10% on taxable retail sales. The ratio of each locality to the State average of these indicators is calculated on a per pupil basis and a per capita basis (total population). The resulting figures are weighted 2/3 for pupils and 1/3 for total population, and an index for each locality in relation to the State average is computed.

Based on pupil attendance in each locality, the basic budget of each locality for 1974-75 is computed at $690 per pupil in average daily membership (ADM) and, after deducting 1¢ sales tax revenue, the resulting requirement is shared with the State. For an <u>average</u> locality, the share would be 50/50. For all communities with indexes of less than 100, the State could pay some share,

large or small depending on the index. The vast majority of the localities fall in this category. For communities with indexes above 100, the State pays nothing. (Arlington's index number is 117.5). There are only four communities in this group: Falls Church, Williamsburg, Surrey County, and Arlington. These are localities with exceptionally high per capita wealth and low percentage of students in the population.

The indicators of ability to pay appear to have been devised in a professional manner by the Taylor Murphy Institute of the University of Virginia and it would be very difficult to challenge them. The weighting of the index 2/3 for pupils and 1/3 for total population was a policy decission by the Governor's Advisory Committee and could be challenged on a logical basis. However, since the vast majority of communities have a higher student to population ratio than Arlington, this seems a remote prospect.

Another possibility would be to provide incentive grants to localities making exceptional effort to provide quality education. Arlington would benefit from this. Incentive grants were proposed by the advisory committee but were deleted from the final proposal. Instead, the subsidy was included for localities from whom Standards of Quality would require substantial increase in expenditures.

Apparently, the only bright spot is the "grandfather" clause during this biennium. The Governor's proposal provides that no locality shall receive for either year less than it received in by 1973-74, except for the pro-ratio effect of lower student enrollment. Thus, Arlington is protected against catastrophic loss for two years. However, at the end of the two years,

we could lose as much as $4,300,000. At current tax rates and property values, this equates to a ¢ increase in the real estate tax rate.

Efforts will probably be made by our legislative delegation to ease the formula or extend the grandfathering beyond the biennium. Though these may be successful, the trail is clear. State aid to Arlington will be less in the future, probably much less. Decisions on locas issues should be made with this in mind.

EXHIBIT 4

ARLINGTON CITIZENS STEERING COMMITTEE FOR THE EXTENDED DAY PROGRAM
1715 North Calvert Street, Arlington, Virginia 22201

December 30, 1973

Mr. Richard A. Stubbing, Chairman
Committee on Declining School Enrollments
1116 North Powhatan Street
Arlington, Virginia 22205

Dear Mr. Stubbing:

The Steering Committee for the Extended Day Program has instructed me at its last meeting (December 6, 1973 in the Arlington School Administration Building) to express to you and your committee our concern that space for the Extended Day Program be calculated in any estimation of school space requirements that you and your committee might make for the future.

While the space available and the program requirements of the Extended Day Program coincide at most of the schools offering the program, a number of others are less fortunate. At a few schools, the Extended Day Program children are, or have been, care for in small rooms originally designed for other purposes (teachers' lounges, etc.), or in such extremely large rooms (cafeterias, etc.) that the children's needs cannot be met adequately.

Arlington's Coordinator of the Extended Day Program, Mrs. Pat Rowland, who is on Superintendent Bovee's staff, and members of the program's steering committee will be very happy to work with you and your committee in any way possible to ensure that adequate space will be found for the program in all schools offering the program in the future.

Sincerely,

Nora Fairman

Nora Fairman, Chairman

EXTENDED DAY PROGRAM
1973-74

The Extended Day Program of the Arlington Public Schools will provide a before and after school program in sixteen schools.

Abingdon	Drew*	Henry	Oakridge
Carlin Hall	Fairlington*	Jackson*	Page
Claremont*	Glebe	Key	Randolph*
Custis*	Glencarlyn*	Long Branch	Reed*

* An after kindergarten program will be provided.

Hours

The Extended Day Program will begin on Tuesday, September 4, 1973 and continue throughout the school year. The final session will be on Friday morning, June 14, 1974.

The regular hours will be:

Before school session	7.30 a.m. - 9:10 a.m.
After kindergarten session	12.15 p.m. - 3:30 p.m.
After school session	3.30 p.m. - 6:00 p.m.

On the twenty six (26) early release days, the after school program will begin at 1:15. Also on the eight (8) parent/teacher conference days the after school program will begin at 12:15 p.m.

Children Served

The following criteria are to be used in determining a child's eligibility for the program:

1. He must be enrolled in the schools listed above, or in a private elementary school serving one of the above areas.
2. Students in grades kindergarten - six in schools without an Extended Day program can transfer to schools with such a program provided space is available. Transportation will be provided by the parent.
3. His mother must be employed outside the home, be incapacited, or be absent from the home due to other circumstances.
4. He must be a child who needs or could benefit from this kind of supervised activity program before and/or after the regular school day.
5. He must be 5 years old by October 31, 1973.

Selection

The principal will be responsible for the selection of children to be enrolled and for completion of application forms. Families in the school districts will be notified through P.T.A. publications, notices, and local media. They may initiate the procedure to enroll their children by calling the principal of the school.

Fees

Fees will be based on a sliding scale, the designated amount being commensurate with the family's ability to pay. There will be separate amounts for before school, after kindergarten, and after school programs

Please call your local school or the Extended Day Coordinator, 558-2884 for more information.