## Demographic and Facility Study



Prepared for the School District of South Orange and Maplewood

April 24, 2017

## Purpose of the Study

- To provide the South Orange-Maplewood Board of Education with enrollment and demographic data to help in making long term decisions regarding:
a. Enrollment Projections
b. Long and/short range facility planning: setting criteria
c. Program locations based upon space availability
d. Diversity issues within the District
e. Analysis of current and/or future attendance zones (elementary and middle schools)
f. Equity in the delivery of educational programs to every child in the South Orange-Maplewood School District.

1. Context and Reality

- To avoid overcrowding in schools and larger than necessary class sizes
- To eliminate unexpected student to school assignments and to provide for stable instructional programming within each school (not moving student based upon overcrowding in any particular grade level)
- To ensure resources are aligned to provide equity and excellence for all students including facilities that can support special education students in district in the least restrictive environment.

2. Results or What?

- Ample educational space for current projected enrollment through 2030
- Predictable assignment of students to schools
- School enrollment numbers that are manageable for grade range, capacity of buildings and programmatic needs

3. Unacceptable Means, or Not How?

- No recommendation should violate SOMSD's Access and Equity policy and the District's obligation to offer students with special needs placement in the least restrictive educational environment
- No pre-determined group of students should be denied educational choice if the choice is an option for that grade level
- No recommendation should be made without input from related action planning teams
- No recommendation should be made without gathering information from the community
- No recommendation should include a disproportionate increase in costs beyond what is reasonably projected in year over year adjustments for inflation without demonstrated enhancements to student services and programs and/or efficiencies
- No recommendation should be made without a cost benefit analysis


## General Observations

- The District provides programs and services of the highest quality
- The building administrators at all levels, and particularly at the elementary schools maximize the use of their facilities finding spaces, to ensure that programs and services are delivered to the students of the District
- In the elementary schools the teachers make great efforts in decorating the rooms and the hallways outside their rooms to make sure the students find themselves in a warm and inviting environment
- The buildings themselves are old and in many cases in need of significant repairs. The condition of the buildings, in terms of those things outside of the control of the teaching and administrative staff, are not up to the standards set by the educators of the district
- The high school, although not the focus of this study, needs major upgrades and modernization. The science labs are very old and out of date. With the closing of the pool there is an opportunity to repurpose that area to expand programs for the students
- The District currently has a total of 16 portable classrooms located at four of the elementary schools. These are all quite old and are in need of replacement.
- There are portable classrooms which are not physically connected to the main buildings thus making younger students have to go outside to get to core facilities such as the cafeteria, gym and even to the nurse. This takes away from instructional time..especially in bad weather

Community and School Demographics

General Demographics South Orange and Maplewood Combined*

South Orange-Maplewood Combined

|  | 2010 | 2015 | Diff | Percent |
| :---: | :---: | :---: | :---: | :---: |
| Population | 39,931 | 40,608 | 677 | $1.70 \%$ |
| Housing | 14,000 | 14,326 | 326 | $2.33 \%$ |
| Median Age | 38.1 | 37.4 | -0.70 | $-1.84 \%$ |
| Median Income | $\$ 112,418$ | $\$ 117,484$ | $\$ 5,066$ | $4.51 \%$ |
| White | 22,056 | 23,539 | 1,483 | $6.72 \%$ |
| Black | 12,354 | 11,503 | -851 | $-6.89 \%$ |
| Asian | 1,479 | 1,586 | 107 | $7.23 \%$ |
| Hispanic | 2,913 | 2,739 | -174 | $-5.97 \%$ |
| Others* | 1,129 | 1,241 | 112 | $9.92 \%$ |

*Others include families reporting as multi-racial and less than 10 families reporting as Native American and/or Pacific Islander

* Source: United States Census—American Factfinder 2


## General Demographics by Town

| Maplewood |  |  |  |  | South Orange |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2010 | 2015 | Diff | Percent |  | 2010 | 2015 | Diff | Percent |
| Population | 23,733 | 24,303 | 570 | 2.40\% | Population | 16,198 | 16,305 | 107 | 0.66\% |
| Housing | 8,484 | 8,741 | 257 | 3.03\% | Housing | 5,516 | 5,585 | 69 | 1.25\% |
| Median Age | 39.0 | 39.2 | 0.20 | 0.51\% | Median Age | 37.2 | 35.6 | -1.60 | -4.30\% |
| Median Income | \$101,463 | \$118,240 | \$16,777 | 16.54\% | Median Income | \$123,373 | \$116,727 | -\$6,646 | -5.39\% |
| White | 12,825 | 13,481 | 656 | 5.12\% | White | 9,231 | 10,058 | 827 | 8.96\% |
| Black | 7,870 | 7,479 | -391 | -4.97\% | Black | 4,484 | 4,024 | -460 | -10.26\% |
| Asian | 650 | 709 | 59 | 9.08\% | Asian | 829 | 877 | 48 | 5.79\% |
| Hispanic | 1,920 | 1,867 | -53 | -2.76\% | Hispanic | 993 | 872 | -121 | -12.19\% |
| Others* | 468 | 767 | 299 | 63.89\% | Others* | 661 | 474 | -187 | -28.29\% |

*Others include families reporting as multi-racial and less than 10 families
reporting as Native American and/or Pacific Islander

* Source: United States Census—American Factfinder 2


## District-Wide General School Demographics*

| General School Demographics |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2011 | Percent | 2016 | Percent | Change | Percent |
| Enrollment | 6,459 |  | 6,879 |  | 420 | $6.10 \%$ |
| Econ.Disadv* | 1,166 | $18.05 \%$ | 1,277 | $18.56 \%$ | 111 | $0.16 \%$ |
| White | 3,088 | $47.81 \%$ | 3,647 | $53.02 \%$ | 559 | $4.26 \%$ |
| Black | 2,562 | $39.67 \%$ | 2,203 | $32.03 \%$ | -359 | $-8.33 \%$ |
| Hispanic | 354 | $5.48 \%$ | 484 | $7.04 \%$ | 130 | $1.44 \%$ |
| Asian | 246 | $3.81 \%$ | 258 | $3.75 \%$ | 12 | NA |
| Others | 143 | $2.21 \%$ | 348 | $5.39 \%$ | 205 | $3.20 \%$ |

*those families identified as economically disadvantaged as calculated through free and reduced lunch applications

[^0]
## Secondary Schools-General Demographics

| Columbia High School |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Enrolled | Econ.Dis | White | Black | Hispanic | Asian | Others |
| 2011 | 1,797 | 404 | 690 | 931 | 97 | 65 | 14 |
|  |  | 22.48\% | 38.40\% | 51.81\% | 5.40\% | 3.62\% | 0.78\% |
| 2016 | 1,911 | 428 | 907 | 805 | 105 | 65 | 29 |
|  |  | 22.40\% | 47.46\% | 42.12\% | 5.49\% | 3.40\% | 1.52\% |
| Change | 114 | 24 | 217 | -126 | 8 | 0 | 15 |
|  |  | -0.08\% | 9.06\% | -9.69\% | 0.09\% | 0.00\% | 0.74\% |

Maplewood Middle School

|  | Enrolled | Econ.Dis | White | Black | Hispanic | Asian | Others |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2011 | 719 | 162 | 344 | 314 | 32 | 21 | 8 |
|  |  | $22.53 \%$ | $47.84 \%$ | $43.67 \%$ | $4.45 \%$ | $2.92 \%$ | $1.11 \%$ |
| 2016 | 762 | 172 | 400 | 254 | 52 | 26 | 30 |
|  |  | $22.57 \%$ | $52.49 \%$ | $33.33 \%$ | $6.82 \%$ | $3.41 \%$ | $3.94 \%$ |
| Change | 43 | 10 | 56 | -60 | 20 | 5 | 22 |
|  |  | $0.04 \%$ | $4.65 \%$ | $-10.34 \%$ | $2.37 \%$ | $0.49 \%$ | $2.83 \%$ |

South Orange Middle School

| 2011 | Enrolled | Econ.Dis | White | Black | Hispanic | Asian | Others |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 668 | 118 | 275 | 339 | 21 | 22 | 11 |
| 2016 |  | $17.66 \%$ | $41.17 \%$ | $50.75 \%$ | $3.14 \%$ | $3.29 \%$ | $1.65 \%$ |
|  |  | 118 | 417 | 240 | 61 | 32 | 55 |
| Change | 137 | $14.66 \%$ | $51.80 \%$ | $29.81 \%$ | $7.58 \%$ | $3.98 \%$ | $6.83 \%$ |
|  |  | 0 | 142 | -99 | 40 | 10 | 44 |

The high school has shown a significant increase in enrollment. It has also shown a significant percentage growth in the white enrollment and a decrease in the African American enrollment. Other ethnic groups appear to be stable. There is only a marginal increase in economically disadvantaged families.

Maplewood MS has shown an increase in enrollment. It has also shown growth in the white enrollment and a decrease in the African American enrollment. Other ethnic groups appear to be stable. There is only a marginal increase in economically disadvantaged families.

South Orange MS has shown an increase in enrollment. It has also shown growth in the white enrollment and a decrease in the African American enrollment. Other ethnic groups appear to be stable. There was only a slight increase in the economically disadvantage group as a percentage of the enrollment.

## Elementary Schools-General Demographics

Clinton Elementary School

|  | Enrolled | Econ.Dis | White | Black | Hispanic | Asian | Others |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 513 | 117 | 238 | 194 | 38 | 26 | 17 |
|  |  | $22.81 \%$ | $46.39 \%$ | $37.82 \%$ | $7.41 \%$ | $5.07 \%$ | $3.31 \%$ |
| 2016 | 574 | 108 | 323 | 131 | 53 | 39 | 28 |
|  |  | $18.82 \%$ | $56.27 \%$ | $22.82 \%$ | $9.23 \%$ | $6.79 \%$ | $4.88 \%$ |
| Change | 61 | -9 | 85 | -63 | 15 | 13 | 11 |
|  | $11.89 \%$ | $-3.99 \%$ | $9.88 \%$ | $-15.00 \%$ | $1.82 \%$ | $1.72 \%$ | $1.57 \%$ |

Jefferson Elementary School

|  | Enrolled | Econ.Dis | White | Black | Hispanic | Asian | Others |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 467 | 68 | 260 | 145 | 27 | 20 | 2 |
|  |  | $14.56 \%$ | $55.67 \%$ | $31.05 \%$ | $5.78 \%$ | $4.28 \%$ | $0.43 \%$ |
| 2016 | 486 | 54 | 292 | 112 | 30 | 17 | 35 |
|  |  | $11.11 \%$ | $60.08 \%$ | $23.05 \%$ | $6.17 \%$ | $3.50 \%$ | $7.20 \%$ |
| Change | 19 | -14 | 32 | -33 | 3 | -3 | 33 |
|  | $4.07 \%$ | $-3.45 \%$ | $4.41 \%$ | $-8.00 \%$ | $0.39 \%$ | $-0.78 \%$ | $6.77 \%$ |

Marshall Elementary School

| 2011 | Enrolled | Econ.Dis | White | Black | Hispanic | Asian | Others |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 491 | 42 | 286 | 120 | 32 | 20 | 33 |
| 2016 | 532 | $4.55 \%$ | $58.25 \%$ | $24.44 \%$ | $6.52 \%$ | $4.07 \%$ | $6.72 \%$ |
|  |  | $7.71 \%$ | $62.78 \%$ | $17.86 \%$ | $6.58 \%$ | $4.14 \%$ | $8.65 \%$ |
| Change | 41 | -1 | 48 | -25 | 3 | 2 | 13 |
|  | $8.35 \%$ | $-0.84 \%$ | $4.53 \%$ | $-6.58 \%$ | $0.06 \%$ | $0.07 \%$ | $1.93 \%$ |

Clinton ES has increased its enrollment since 2011-12. It has seen an decrease in economically disadvantaged families. The African-American enrollment has decreased while the white enrollment has increased. Other minorities have remained fairly stable.

The Jefferson ES enrollment increased slightly with a small drop in the economically disadvantaged students. The white enrollment did increase while the African-American enrollment decreased.

The Marshall ES enrollment increased between 2011-12 and 2016-17 while the economically disadvantaged remained stable. There was an increase in the white enrollment and a decrease in the African American enrollment.

Elementary Schools-General Demographics


South Mountain Elementary School

|  | Enrolled | Econ.Dis | White | Black | Hispanic | Asian | Others |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2011 | 624 | 35 | 405 | 123 | 36 | 32 | 28 |
|  |  | $5.61 \%$ | $64.90 \%$ | $19.71 \%$ | $5.77 \%$ | $5.13 \%$ | $4.49 \%$ |
| 2016 | 600 | 33 | 383 | 95 | 43 | 27 | 52 |
|  |  | $5.50 \%$ | $63.83 \%$ | $15.83 \%$ | $7.17 \%$ | $4.50 \%$ | $8.67 \%$ |
| Change | -24 | -2 | -22 | -28 | 7 | -5 | 24 |
|  | $-3.85 \%$ | $-0.11 \%$ | $-1.07 \%$ | $-3.88 \%$ | $1.40 \%$ | $-0.63 \%$ | $4.18 \%$ |

## Tuscan Elementary School

|  | Enrolled | Econ.Dis | White | Black | Hispanic | Asian | Others |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2011 | 617 | 58 | 407 | 123 | 44 | 25 | 18 |
|  |  | $9.40 \%$ | $65.96 \%$ | $19.94 \%$ | $7.13 \%$ | $4.05 \%$ | $2.92 \%$ |
| 2016 | 631 | 61 | 429 | 95 | 51 | 16 | 40 |
|  |  | $9.67 \%$ | $67.99 \%$ | $15.06 \%$ | $8.08 \%$ | $2.54 \%$ | $6.34 \%$ |
| Change | 14 | 3 | 22 | -28 | 7 | -9 | 22 |
|  | $2.27 \%$ | $0.27 \%$ | $2.03 \%$ | $-4.88 \%$ | $0.95 \%$ | $-1.51 \%$ | $3.42 \%$ |

The Seth Boyden enrollment increased between 2011-12 and 2016-17. The African American enrollment increased while the white enrollment decreased. This may be attributable to lower participation in the Demonstration School concept. There was also a large increase in the number of students identified as economically disadvantaged.

The South Mountain ES enrollment did decline between 2011-12 and 2016-17. There wee decreases in almost all ethnic categories with a slight increase in the Hispanic enrollment and for those identifying themselves as multi-racial.

The Tuscan ES showed as slight increase in enrollment. There was marginal changes in those students identified as economically disadvantaged. The white enrollment increased slightly and the African-American enrollment decreased at a slightly higher rate.

## 2016-17 School Year

Ethnic and Socio Economic Factors by Schools/District/Community

|  | Econ.Dis | White | Black | Hispanic | Asian | Others |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Clinton | $18.82 \%$ | $46.39 \%$ | $37.82 \%$ | $7.41 \%$ | $5.07 \%$ | $3.31 \%$ |
| Jefferson | $14.56 \%$ | $55.67 \%$ | $31.05 \%$ | $5.78 \%$ | $4.28 \%$ | $0.43 \%$ |
| Marshall | $8.55 \%$ | $58.25 \%$ | $24.44 \%$ | $6.52 \%$ | $4.07 \%$ | $6.72 \%$ |
| Boyden | $32.06 \%$ | $34.61 \%$ | $54.93 \%$ | $7.83 \%$ | $2.62 \%$ | $3.02 \%$ |
| South Mtn | $5.50 \%$ | $63.83 \%$ | $15.83 \%$ | $7.17 \%$ | $4.50 \%$ | $8.67 \%$ |
| Tuscan | $9.67 \%$ | $67.99 \%$ | $15.06 \%$ | $8.08 \%$ | $2.54 \%$ | $6.34 \%$ |
| Columbia HS | $22.40 \%$ | $47.46 \%$ | $42.12 \%$ | $6.82 \%$ | $3.41 \%$ | $3.94 \%$ |
| Maplewood MS | $\mathbf{2 2 . 5 7 \%}$ | $52.49 \%$ | $33.33 \%$ | $6.82 \%$ | $3.14 \%$ | $3.94 \%$ |
| South Orange MS | $\mathbf{1 4 . 6 6 \%}$ | $51.80 \%$ | $\mathbf{2 9 . 8 1 \%}$ | $\mathbf{7 . 5 8 \%}$ | $3.98 \%$ | $6.83 \%$ |
|  |  |  |  |  |  |  |
| District | $\mathbf{1 8 . 4 0 \%}$ | $\mathbf{5 2 . 5 6 \%}$ | $\mathbf{3 1 . 7 5 \%}$ | $\mathbf{6 . 9 8 \%}$ | $\mathbf{3 . 7 2 \%}$ | $\mathbf{5 . 4 4 \%}$ |
| Community |  | $\mathbf{5 7 . 9 6 \%}$ | $\mathbf{2 8 . 3 2 \%}$ | $\mathbf{6 . 7 4 \%}$ | $\mathbf{3 . 9 0 \%}$ | $\mathbf{3 . 0 5 \%}$ |

These are all as a percentage of the school/community population.

## Projections

## District-Wide Enrollment History and Projection



- From 2011-12 to 2016-17 the total enrollment grew from 6,459 to 6,879 in 2016-17. This is an increase of 420 students or approximately $6.1 \%$.
- The enrollment is projected to grow from the current 6,879 to 7,271 in 2021-22. This is an increase of 392 students or approximately 5.4\%.


## School Enrollment Changes (History and Projection)

| School | 2011-12 | $2016-17$ | Change | Percent | 2021-22 | Change | Percent |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Clinton | 500 | 578 | 78 | $-13.49 \%$ | 573 | -5 | $-0.87 \%$ |
| Jefferson | 472 | 486 | 14 | $2.97 \%$ | 512 | 26 | $5.35 \%$ |
| Marshal | 494 | 537 | 43 | $8.70 \%$ | 516 | -21 | $-3.91 \%$ |
| Boyden | 526 | 533 | 7 | $1.33 \%$ | 537 | 4 | $0.75 \%$ |
| South Mtn/Annex | 613 | 601 | -12 | $-1.96 \%$ | 600 | -1 | $-0.17 \%$ |
| Tuscan | 597 | 632 | 35 | $5.86 \%$ | 633 | 1 | $0.16 \%$ |
| Columbia HS | 1868 | 1933 | 65 | $3.48 \%$ | 2097 | 164 | $8.48 \%$ |
| Maplewood MS | 755 | 806 | 51 | $6.75 \%$ | 847 | 41 | $5.09 \%$ |
| South Orange MS | 674 | 777 | 103 | $15.28 \%$ | 862 | 85 | $10.94 \%$ |

Elementary Enrollment History and Projection


It is important to note that while the elementary enrollment appears to be leveling off it is leveling off above building capacity. The projection does not show that there is going to be any significant downward trend that would allow for either a reduction in classroom demands, a decrease in average class size or a lesser need to send students to schools outside of their attendance zones.

## Projected Net Shortfall of Classroom Space through 2021-22

Net Classroom Shortfall (Current)

|  | Rooms 2017 | 2018 | 2019 | 2020 | 2021 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Clinton | 29 | -1 | -3 | -2 | -1 | 1 |
| Av Cl Sz |  | 23 | 22 | 22 | 23 | 24 |
| Jefferson | 22 | -3 | -2 | -3 | -2 | -2 |
| Av Cl Sz |  | 23 | 24 | 23 | 23 | 24 |
| Marshall | 25 | 0 | -1 | -1 | -1 | -1 |
| Av Cl Sz |  | 22 | 22 | 21 | 22 | 22 |
| Boyden | 26 | -1 | -1 | -1 | -1 | -1 |
| Av Cl Sz |  | 20 | 20 | 20 | 20 | 20 |
| So Mountain | 28 | -1 | -1 | -1 | -1 | 0 |
| Av Cl Sz |  | 21 | 20 | 20 | 21 | 22 |
| Tuscan | 29 | 0 | 0 | 0 | 0 | -1 |
| Av Cl Sz |  | 22 | 21 | 21 | 22 | 21 |
| Net |  | -6 | -7 | -7 | -5 | -2 |
| N |  |  |  |  |  |  |

This tables includes maintenance of the 16the portable classrooms.
This table may also be a bit deceiving in that there are some grades with lower enrollment in each school..but there are grades with enrollments at 24 and 25

## Keeping within the Current Class Size Guidelines

| In-Zone Out of Zone Comparisons |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| School | Total | In-Zone | Seth Boyden | Other |  |
| Clinton | 562 | 421 | 95 | 46 |  |
| Jefferson | 501 | 469 | 10 | 22 | *** |
| Marshall | 538 | 446 | 41 | 51 | *** |
| Seth Boyden | 543 | 268 |  | 275 |  |
| South Mountain | 694 | 568 | 30 | 96 |  |
| Tuscan | 734 | 607 | 69 | 58 |  |
|  |  |  |  |  |  |
| ***combined Jefferson and Marshall |  |  |  |  |  |

When class sizes exceed Board guidelines students may be sent to the nearest elementary school which has room at that grade level. This practice leads to students having to attend schools outside of their home attendance zone. This, of course, does not include those students who voluntarily attend the Demonstration School.

## South Orange Maplewood Elementary Attendance Zones



Key Issues

## Key Issues

- The elementary schools are all at or above capacity and while it appears that for the foreseeable future the enrollment is leveling off, it is leveling off at a point where every instructional space is being utilized and where some programs are operating in less than ideal spaces do to the lack of classoom space
- The projections show that the shortfall of classroom space will continue through at least the projection period
- That programs and services will continue to be conducted in small and/or divided classrooms and shared spaces
- That the continuation of the Demonstration School does provide some degree of socioeconomic and ethnic balancing. It also does help with some of the space issues
- All of the portable classrooms are very old and either need replacement or extensive (and expensive) renovation
- That most of the portables require students to walk outside to get to core facilities
- That all of the buildings in the District are in need to upgrades and repairs ranging from science labs at the high school to roofs and HVAC.
- That the District needs to continue to solve issues regarding program equity as well as socio-economic and racial balancing issues
- To the extent that additional resource or therapy rooms are needed to ensure that more special education students can be educated in-District, there is currently insufficient space to meet their needs.


## Solutions

- There is no single or easy solution to resolve the issues which motivated the Board of Education to request this study. This is further complicated by where people in the District live and accessibility to different schools (vis a vis transportation)
- The long range solution to these issues will be a combination of efforts requiring: EXPANSION; RENOVATION; REDISTRICTING; INNOVATION
- Expansion would mean adding classrooms on to existing structures. This would, of necessity, require the elimination of portables, replacement with new classrooms plus the needed additional classrooms. This would also require some degree of redistricting (adjusting attendance zones) to balance enrollment.
- Renovation would build on expansion, which would mean modernizing the buildings to better meet the needs of the students
- Redistricting would consider new building capacities and draw lines to make sure that class sizes were as close to uniform as possible and reduce the possibility of overcrowding in any one particular school
- Innovation could look at other organizational models for K-5 elementary schools.


## Tasks Ahead

- Setting priorities:
--creating more classroom space. Identifying based upon population where to expand
--adapting attendance zones or adopting alternate organizational models to better serve the population and continue to improve upon the equity and diversity within the District
--acquiring existing facilities or constructing new facilities to relieve some space issues if possible and cost effective
--doing a cost analysis for any change to be considered
--continue ongoing dialogue with the community acknowledge concerns and receive input



[^0]:    *Source: New Jersey Department of Education

