ORANGE COUNTY, NC

SCHOOLS ADEQUATE PUBLIC FACILITIES ORDINANCE

PREPARED BY A STAFF COMMITTEE: PLANNING DIRECTORS, SCHOOL REPRESENTATIVES, TECHNICAL ADVISORY COMMITTEE (SAPFOTAC)

(PURSUANT TO PROVISIONS OF A MEMORANDUM OF UNDERSTANDING ADOPTED IN 2002 & 2003)

(ORDINANCES ADOPTED IN JULY 2003)

Annual Report
2016

(BASED ON NOVEMBER 2015 DATA)

CERTIFIED BY THE BOCC ON MAY 17, 2016

Table of Contents

2016 SAPFOTAC Executive Summary i

Introduction iv

Schools Adequate Public Facilities Ordinance Partners v

Planning Directors/School Representatives Technical Advisory Committee vi

I. Base Memorandum of Understanding 1

A. Level of Service 1

B. Building Capacity and Membership 2

Attachment I.B.1 Orange County School Capacity (Elementary, Middle, & High) (2014-15) 5

Attachment I.B.2 Chapel Hill/Carrboro School Capacity (Elementary, Middle, & High) (2014-15) 8

Attachment I.B.3 Orange County School Capacity (Elementary, Middle, & High) (2015-16) 11

Attachment I.B.4 Chapel Hill/Carrboro School Capacity (Elementary, Middle, & High) (2015-16) 14

C. Membership Date 17

II. Annual Update to Schools Adequate Public Facilities Ordinance System 18

A. Capital Investment Plan (CIP) 18

B. Student Membership Projection Methodology 19

Attachment II.B.I Student Membership Projection Descriptions 21

Attachment II.B.2 – Student Membership Projection Models Performance Analysis (2014-15) 22

Attachment II.B.3 – Student Membership Projection Models Performance Analysis (2015-16) 26

C. Student Membership Projections 30

Attachment II.C.1 – Orange County Student Projections (Elementary, Middle, & High) (2014-15) 35

Attachment II.C.2 – Chapel Hill/Carrboro Student Projections (Elementary, Middle, & High) (2014-15) 36

Attachment II.C.3 – Orange County Student Projections (Elementary, Middle, & High) (2015-16) 37

Attachment II.C.4 – Chapel Hill/Carrboro Student Projections (Elementary, Middle, & High) (2015-16) 38

D. Student Membership Growth Rate 39

Attachment II.D.1 – Orange County and Chapel Hill/Carrboro Student Growth Rates (Chart dates from 2015-2025 based on 11/14/14 membership numbers) (2014-15) 40

Attachment II.D.2 – Orange County and Chapel Hill/Carrboro Student Growth Rates (Chart dates from 2016-2026 based on 11/13/15 membership numbers) (2015-16) 41

E. Student / Housing Generation Rate 42

Attachment II.E.1 – Current Student Generation Rates (2015) 44

III. Flowchart of Schools Adequate Public Facilities Ordinance Process 45

A. Capital Investment Plan (CIP) (Process 1) 45

Attachment III.A.1 – Process 1 Capital Improvement Plan 46

B. Schools Adequate Public Facilities Ordinance Certificate of Adequate Public Schools (CAPS) Update (Process 2) 47

Attachment III.B.1 – Process 2 Certificate of Adequate Public Schools (CAPS) Allocation 49

2016 SAPFOTAC Executive Summary

I. Base Memorandum of Understanding

A. Level of Service .....*(No Change)*.....*Pg. 1*

	Chapel Hill/Carrboro School District	*Orange County School District*
Elementary	105%	105%
Middle	107%	107%
High	110%	110%

B. Building Capacity and Membership .....*(Change)*.....*Pg. 2*

	Chapel Hill/Carrboro School District			*Orange County School District*		
	Capacity	**Membership**	**Increase from Prior Year**	**Capacity**	**Membership**	**Increase from Prior Year**
Elementary	5829	5501	(40)	3694	3318	59
Middle	2944	2844	(17)	2166	1739	(23)
High	3875	3701	(29)	2439	2469	(33)

C. Membership Date – *November 15*.....*(No Change)*.....*Pg.17*

II. Annual Update to SAPFO System

A. Capital Investment Plan (CIP) .....*(No Change)*.....*Pg. 18*

B. Student Membership Projection Methodology .....*(No Change)*.....*Pg. 19*

The average of 3, 5, and 10 year history/cohort survival, linear and arithmetic projection models.

C. Student Membership Projections .....*(Change)*.....*Pg. 30*

Analysis of 5 Years of Projections for 2015-16 School Year – Chapel Hill/Carrboro City Schools

(The first column for each year includes the student membership projection made for 2015-2016 in that given year. The second column for each year includes the number of students the projection was off compared to actual membership. An "L" indicates the projection was low compared to the actual, whereas an "H" indicates the projection was high compared to the actual.)

		Year Projection Made for 2015-16 Membership									
	Actual 2015 Membership	**2010-2011**		**2011-2012**		**2012-2013**		**2013-2014**		**2014-2015**	
Elementary	5501	5752	H251	5921	H420	5764	H263	5748	H247	5606	H105
Middle	2844	2951	H107	2949	H105	2972	H128	2947	H103	2895	H51
High	3701	3911	H210	3937	H236	3910	H209	3825	H124	3742	H41

Analysis of 5 Years of Projections for 2015-16 School Year – Orange County Schools											
(The first column for each year includes the student membership projection made for 2015-2016 in that given year. The second column for each year includes the number of students the projection was off compared to actual membership. An "L" indicates the projection was low compared to the actual, whereas an "H" indicates the projection was high compared to the actual.)											
		Year Projection Made for 2015-16 Membership									
	Actual 2015 Membership	**2010-2011**		**2011-2012**		**2012-2013**		**2013-2014**		**2014-2015**	
Elementary	3318	3617	H299	3649	H331	3574	H256	3555	H237	3285	L33
Middle	1739	1846	H107	1829	H90	1777	H38	1805	H66	1751	H12
High	2469	2375	L94	2379	L90	2359	L110	2411	L58	2510	H41

D. Student Membership Growth Rate .....*(Change)*.....*Pg. 39*

Projected Average Annual Growth Rate over Next 10 Years										
	Chapel Hill/Carrboro School District					***Orange County School District***				
Year Projection Made:	**2011-12**	**2012-13**	**2013-14**	**2014-15**	**2015-16**	**2011-12**	**2012-13**	**2013-14**	**2014-15**	**2015-16**
Elementary	1.59%	1.18%	1.44%	1.11%	0.92%	1.6%	1.31%	1.30%	0.55%	0.80%
Middle	1.94%	1.59%	1.58%	1.15%	0.82%	2.01%	1.64%	1.42%	0.09%	0.67%
High	1.73%	1.60%	1.27%	1.22%	0.93%	1.61%	1.43%	1.35%	0.39%	0.56%

E. Student / Housing Generation Rate .....(*No Change*).....*Pg. 42*

SCHOOL ADEQUATE PUBLIC FACILITIES ORDINANCE STATUS

(based on future year Student Membership Projections)

CHAPEL HILL/CARRBORO SCHOOL DISTRICT

Elementary School Level

A. Does not currently exceed 105% LOS standard (current LOS is 94.4%).

B. The projected growth rate at this level is expected to decrease over the next 10 years, but remain positive (average ~0.92% per year compared to 1.7% over the past 10 years).

C. Projections are not showing a need for an additional elementary school in the 10 year projection period. Last year's projections showed a need in 2023-24.

Middle School Level

A. Does not currently exceed 107% LOS standard (current LOS is 96.6%).

B. The projected growth rate at this level is expected to decrease over the next 10 years, but remain positive (average ~0.82% compared to an average of 1.4% over the past 10 years).

C. Projections are not showing a need for an additional middle school in the 10 year projection period. Last year's projections showed a need in 2023-24.

High School Level

A. Does not currently exceed the 110% LOS standard (current LOS is 95.5%).
B. The projected growth rate at this level is expected to increase over the next 10 years (average ~0.93% compared to 0.79% over the past 10 years).
C. Similar to last year, projections are not showing a need to expand Carrboro High School from the initial capacity of 800 students to the ultimate capacity of 1,200 students in the 10 year projection period.

ORANGE COUNTY SCHOOL DISTRICT

Elementary School Level

A. Does not currently exceed 105% LOS standard (current LOS is 89.8%).
B. The projected growth rate at this level is expected remain the same over the next 10 years (average ~0.80% compared to 0.80% over the past 10 years).
C. Similar to last year, projections are not showing a need for an additional Elementary School in the 10 year projection period.

Middle School Level

A. Does not currently exceed 107% LOS standard (current LOS is 80.3%).
B. The projected growth rate at this level is expected to decrease, but remain positive over the next 10 years (average ~0.67% compared to 1.04% over the past 10 years).
C. Similar to last year, projections are not showing a need for an additional Middle School in the 10 year projection period.

High School Level

A. Does not currently exceed 110% LOS standard (current LOS is 101.2%).
B. The projected growth rate at this level is expected to decrease, but remain positive over the next 10 years (average ~0.56% compared to 1.99% over the past 10 years).
C. Projections are not showing a need to expand Cedar Ridge High School from the initial capacity of 1,000 students to 1,500 students in the ten year projection period. Last year's projections showed a need in 2022-23.

ADDITIONAL INFORMATION

The Schools Adequate Public Facilities Ordinance (SAPFO) student projections illustrate when the adopted level of service capacities are forecasted to be met and/or exceeded in anticipation of CIP planning and the construction of a new school. However, as is being identified by both school districts, a new trend is emerging to renovate and expand existing facilities to address school capacity needs in a more feasible way. As this trend continues, additional capacity resulting from school renovations and expansions will be added to the projection models in stages, once funding is approved, versus the addition of greater capacity when a new school is constructed and completed. The renovation and expansion to existing facilities may delay construction of new schools further into the future. This process will pose some challenges to SAPFO compared to the existing process which indicates in advance when a completely new school is needed. Decisions on the timing of reconstruction funding would be indirectly linked to the SAPFO model.

Introduction

The Schools Adequate Public Facilities Ordinance and its Memorandum of Understanding are ordinances and agreements, respectively. Supporting documents are anticipated to be dynamic to incorporate the annual changing conditions of membership, capacity and student projections that may affect School Capital Investment Plan (CIP) timing. This formal annual report will be forthcoming to all of the Schools Adequate Public Facilities Ordinance partners each year as new information is available.

This updated information is used in the schools capital needs process of the Capital Investment Plan (Process 1) and within elements of the Schools Adequate Public Facilities Ordinance Certificate of Adequate Public Schools (CAPS) spreadsheet system (Process 2).

This report and any comments from the Schools Adequate Public Facilities Ordinance partners will be considered in the first half of each year by the Board of County Commissioners at a regular or special meeting. The various elements of the report are then "certified" and formally considered in the process of the upcoming Capital Investment Plan. The Certificate of Adequate Public Schools system is updated after November 15 when data is received from the school districts with actual membership and pre-certified capacity (i.e. CIP capacity or prior "joint action" capacity changes).

The Schools Adequate Public Facilities Ordinance and Memorandum of Understanding have dynamic aspects. The derivation of the baseline and update to the variables will continue in the future as a variety of school related issues are fine-tuned by technical and policy groups.

The primary facet of this report includes the creation of mathematical projections for student memberships by school levels (Elementary, Middle and High) and by School Districts (Chapel Hill/Carrboro and Orange County). This information is found in Section II, Subsections B, C, D, and E.

In summary, this report serves as an update to the dynamic conditions of student membership and school capacity which affect future projected needs considered in Capital Investment Planning.

Interested parties may make their comments known to the Board of County Commissioners prior to their review of the report and school CIP completion or ask questions of the SAPFOTAC members.

Schools Adequate Public Facilities Ordinance Partners

ANNUAL REPORT AS OUTLINED IN Schools Adequate Public Facilities Ordinance Memorandum of Understanding (Schools APFO MOU) SECTION 1d

RESPECTFULLY SUBMITTED TO SCHOOLS ADEQUATE PUBLIC FACILITIES ORDINANCE PARTNERS

Chapel Hill/Carrboro School District School APFO	Orange County School District School APFO
Board of County Commissioners	Board of County Commissioners
Carrboro Board of Aldermen	Hillsborough Town Council
Chapel Hill Town Council	
Chapel Hill/Carrboro School Board	Orange County School Board

Planning Directors/School Representatives Technical Advisory Committee
(aka SAPFOTAC)

Town of Carrboro
Trish McGuire, Planning Director
301 West Main Street
Carrboro, NC 27510

Town of Chapel Hill
Mary Jane Nirdlinger, Planning and Sustainability Executive Director
405 Martin Luther King, Jr. Blvd.
Chapel Hill, North Carolina 27514

Town of Hillsborough
Margaret Hauth, Planning Director
P.O. Box 429
Hillsborough, NC 27278

Orange County Planning Department
Craig Benedict, Planning Director and
Ashley Moncado, Special Projects Planner and
Gary Donaldson, Director of Finance and Administrative Services
131 W. Margaret Lane
P.O. Box 8181
Hillsborough, NC 27278

Orange County School District
Todd Wirt, Superintendent
Patrick Abele, Chief Operations Officer
200 E. King Street
Hillsborough, NC 27278

Chapel Hill-Carrboro School District
Todd LoFrese, Assistant Superintendent for Support Services and
Catherine Mau, Coordinator of Student Enrollment
750 Merritt Mill Road
Chapel Hill, NC 2751

I. Base Memorandum of Understanding

A. Level of Service

1. ***Responsible Entity for Suggesting Change –*** Change can only be effectuated by amendment to Memorandum of Understanding (MOU) by all School APFO partners.
2. ***Definition –*** Level of Service (LOS) means the amount (level) of students that can be accommodated (serviced) at a certain school system grade group [i.e., Elementary level (K-5), Middle Level (6-8), High School Level (9-12)].
3. ***Standard for:*** ***Standard for:***

Chapel Hill/Carrboro School District			**Orange County School District**		
Elementary	**Middle**	**High School**	**Elementary**	**Middle**	**High School**
105%	**107%**	**110%**	**105%**	**107%**	**110%**

4. ***Analysis of Existing Conditions:*** ***Analysis of Existing Conditions:***

Chapel Hill/Carrboro School District	**Orange County School District**
These standards are acceptable at this time.	These standards are acceptable at this time.

5. ***Recommendation:*** ***Recommendation:***

Chapel Hill/Carrboro School District	**Orange County School District**
No change from above standard.	No change from above standard.

B. Building Capacity and Membership

1. ***Responsible Entity for Suggesting Change –*** The Planning Directors, School Representatives, and Technical Advisory Committee (SAPFOTAC) will receive requested changes that are CIP related and adopted in the prior year. CIP capacity changes will be updated along with actual membership received in November of each year. Other changes will be sent to a 'Joint Action Committee' of the BOCC and Board of Education, as noted in the MOU, who will make recommendations and forward changes (on the specific forms with justification) to the full Board of County Commissioners for review and action. These non-CIP changes would be updated in the upcoming November CAPS system recalibration and included in the SAPFOTAC report.
2. ***Definition –*** "For purposes of this Memorandum, "building capacity" will be determined by reference to State guidelines and the School District guidelines (consistent with CIP School Construction Guidelines/policies developed by the School District and the Board of County Commissioners) and will be determined by a joint action of the School Board and the Orange County Board of Commissioners. As used herein the term "building capacity" refers to permanent buildings. Mobile classrooms and other temporary student accommodating classroom spaces are not permanent buildings and may not be counted in determining the school districts building capacity."
3. ***Standard for:***

Chapel Hill/Carrboro School District

The original certified capacity for each of the schools was certified by the respective superintendent and incorporated in the initialization of the CAPS system (Chapel Hill Carrboro School District April 29, 2002 - Base)

Capacity changes were made each year as follows:

2003: Increase of 619 at Rashkis Elementary.

2004: No changes at Elementary, Middle, or High School levels.

2005: No changes at Elementary, Middle, or High

Standard for:

Orange County School District

The original certified capacity for each of the schools was certified by the respective superintendent and incorporated in the initialization of the CAPS system (Orange County School District April 30, 2002 - Base)

Capacity changes were made each year as follows:

2003: No net increase in capacity at Elementary level. No changes at Middle School level. Increase of 1,000 at Cedar Ridge High School.

2004: No net increase in capacity at Elementary

School levels.

2006: No changes at Elementary, Middle, or High School levels.

2007: An increase of 800 at the High School level with the opening of Carrboro High School.

2008: An increase of 323 at the Elementary School level due to the opening of Morris Grove Elementary School and the implementation of the 1:21 class size ratio in grades K-3

2009: No changes at Elementary, Middle, or High School levels.

2010: An increase in capacity of 40 students at the High School level with Phoenix Academy High School becoming official high school within the district

2011: No changes at Elementary, Middle, or High School levels.

2012: No changes at Elementary, Middle, or High School levels.

2013: An increase in capacity of 585 students due to the opening of Northside Elementary School.

2014: An increase in capacity of 104 students due to the opening of the Culbreth Middle School addition.

2015: No changes at Elementary, Middle, or High School levels.

level. No changes at Middle or High School levels.

2005: An increase in capacity of 100 at Hillsborough Elementary with the completion of renovations.

2006: An increase in capacity of 700 at the Middle School level with the completion of Gravelly Hill Middle School and an increase of 15 at the High School level with the temporary location of Partnership Academy Alternative School. An increase of 2 at the Elementary level due to a change in the capacity calculation for each grade at each school.

2007: No changes at Elementary, Middle, or High School levels.

2008: A decrease of 228 at the Elementary School level due to the implementation of the 1:21 class size ratio in grades K-3 and an increase of 25 at the High School level with the completion of the new Partnership Academy Alternative School.

2009: No changes at Elementary, Middle, or High School levels.

2010: No changes at Elementary, Middle, or High School levels.

2011: No changes at Elementary, Middle, or High School levels.

2012: No changes at Elementary or Middle School levels. A decrease of 119 at High School level as a result of a N.C. Department of Public Instruction (DPI) study.

2013: No changes at Elementary, Middle, or High

School levels.

2014: No changes at Elementary, Middle, or High School levels.

2015: No changes at Elementary, Middle, or High School levels.

4. ***Analysis of Existing Conditions:***

Chapel Hill/Carrboro School District

The Schools Facilities Task Force developed a system to calculate capacity. Any changes year to year will be monitored, reviewed, and recorded by the SAPFOTAC on approved forms distributed to SAPFO partners and certified upon approval by the Board of County Commissioners each year. The requested 2015-16 capacity is noted on Attachment I.B.4

Analysis of Existing Conditions:

Orange County School District

The Schools Facilities Task Force developed a system to calculate capacity. Any changes year to year will be monitored, reviewed, and recorded by the SAPFOTAC on approved forms distributed to SAPFO partners and certified upon approval by the Board of County Commissioners each year. The requested 2015-16 capacity is noted on Attachment I.B.3

5. ***Recommendation:***

Chapel Hill/Carrboro School District

Accept school capacities at all levels, as reported by CHCCS and shown in Attachment I.B.4.

Recommendation:

Orange County School District

Accept school capacities at all levels, as reported by OCS and shown in Attachment I.B.3.

School APFO Capacity, Membership and Change Request Form

School District: Orange County Schools
SAPFO CAPS Year: November 14, 2014 - November 13, 2015
Capacity and Membership Submittal Date: November 14, 2014

Elementary School	Square Feet	2010-2011 Requested Capacity	2011-2012 Requested Capacity	2012-2013 Requested Capacity	2013-2014 Requested Capacity	2014-2015 Requested Capacity	Justification Footnote #	Membership
Cameron Park	**70,812**	565	565	565	565	565		**591**
Central	**52,492**	455	455	455	455	455		**305**
Efland Cheeks	**64,316**	497	497	497	497	497		**426**
Grady Brown	**74,016**	544	544	544	544	544		**466**
Hillsborough	**51,106**	471	471	471	471	471		**457**
New Hope	**100,164**	586	586	586	586	586		**614**
Pathways	**85,282**	576	576	576	576	576		**400**
Total	**498,188**	**3,694**	**3,694**	**3,694**	**3,694**	**3,694**		**3,259**

Special Note(s): 1. For the November 15, 2002 base year the board accepted the superintendent-certified capacities as part of the School Facilities Task Force review and 2003 Planners and School Representative Technical Advisory Committee Report. These capacities will remain effective until changed by (1) the School CIP or (2) an amended version of this form that is certified by the BOCC. 2. Due to November 15th falling on a Saturday this year, membership and capacity numbers shall be provided for Friday, November 14, 2014.

Justification:

Capacity Certification:

Superintendent Date

Earl McKee 12/9/14
BOCC Chair Date

Membership Certification:

Superintendent Date

Earl McKee 12/9/14
BOCC Chair Date

School APFO Capacity, Membership and Change Request Form

School District: Orange County Schools
SAPFO CAPS Year: November 14, 2014 - November 13, 2015
Capacity and Membership Submittal Date: November 14, 2014

Middle School	Square Feet	2010-2011 Requested Capacity	2011-2012 Requested Capacity	2012-2013 Requested Capacity	2013-2014 Requested Capacity	2014-2015 Requested Capacity	Justification Footnote #	Membership
A.L. Stanback	**136,000**	740	740	740	740	740		**614**
C.W. Stanford	**107,620**	726	726	726	726	726		**650**
Gravelly Hill	**123,000**	700	700	700	700	700		**498**
Total	**366,620**	**2,166**	**2,166**	**2,166**	**2,166**	**2,166**		**1,762**

Special Note(s): 1. For the November 15, 2002 base year the board accepted the superintendent-certified capacities as part of the School Facilities Task Force review and 2003 Planners and School Representative Technical Advisory Committee Report. These capacities will remain effective until changed by (1) the School CIP or (2) an amended version of this form that is certified by the BOCC. 2. Due to November 15th falling on a Saturday this year, membership and capacity numbers shall be provided for Friday, November 14, 2014.

Justification:

Capacity Certification:

Superintendent 11/17/14 Date

Earl McKee 12/9/14
BOCC Chair Date

Membership Certification:

Superintendent 11/17/14 Date

Earl McKee 12/9/14
BOCC Chair Date

School APFO Capacity, Membership and Change Request Form

School District: Orange County Schools
SAPFO CAPS Year: November 14, 2014 - November 13, 2015
Capacity and Membership Submittal Date: November 14, 2014

High School	Square Feet	2010-2011 Requested Capacity	2011-2012 Requested Capacity	2012-2013 Requested Capacity	2013-2014 Requested Capacity	2014-2015 Requested Capacity	Justification Footnote #	Membership
Orange	**213,509**	1,518	1,518	1,399	1,399	1,399		**1,318**
Cedar Ridge	**206,900**	1,000	1,000	1,000	1,000	1,000		**1,154**
Partnership	**6,600**	40	40	40	40	40		**30**
Total	**427,009**	**2,558**	**2,558**	**2,439**	**2,439**	**2,439**		**2,502**

Special Note(s): 1. For the November 15, 2002 base year the board accepted the superintendent-certified capacities as part of the School Facilities Task Force review and 2003 Planners and School Representative Technical Advisory Committee Report. These capacities will remain effective until changed by (1) the School CIP or (2) an amended version of this form that is certified by the BOCC. 2. The 2012-2013 capacity numbers for Orange High School (1,399) is based on a capacity analysis and facilities study completed by the Department of Public Instruction in August 2012. 3. Due to November 15th falling on a Saturday this year, membership and capacity numbers shall be provided for Friday, November 14, 2014.

Justification:

Capacity Certification:

Superintendent 11/17/14 Date

BOCC Chair Earl McKee 12/9/14 Date

Membership Certification:

Superintendent 11/17/14 Date

BOCC Chair Earl McKee 12/9/14 Date

School APFO Capacity, Membership and Change Request Form

School District: Chapel Hill-Carrboro City Schools
SAPFO CAPS Year: November 14, 2014 - November 13, 2015
Capacity and Membership Submittal Date: November 14, 2014

Elementary School	Square Feet	2010-2011 Requested Capacity	2011-2012 Requested Capacity	2012-2013 Requested Capacity	2013-2014 Requested Capacity	2014-2015 Requested Capacity	Justification Footnote #	Membership (referenced school year)
Carrboro	60,832	533	533	533	533	533		500
Ephesus	66,952	448	448	448	448	448		431
Estes Hills	56,299	527	527	527	527	527		480
FP Graham	66,689	538	538	538	538	538		496
Glenwood	50,764	423	423	423	423	423		483
McDougle	98,000	564	564	564	564	564		478
Morris Grove	90,221	585	585	585	585	585		550
Northside	99,500	0	0	0	585	585		520
Rashkis	95,729	585	585	585	585	585		526
Scroggs	90,980	575	575	575	575	575		554
Seawell	52,896	466	466	466	466	466		523
Total	828,862	5,244	5,244	5,244	5,829	5,829		5,541

Special Note(s): 1. For the November 15, 2002 base year the board accepted the superintendent-certified capacities as part of the School Facilities Task Force review and 2003 Planners and School Representative Technical Advisory Committee Report. These capacities will remain effective until changed by (1) the School CIP or (2) an amended version of this form that is certified by the BOCC. 2. Due to November 15th falling on a Saturday this year, membership and capacity numbers shall be provided for Friday, November 14, 2014.

Justification:

Capacity Certification:

Thos A. Forrest 11/20/14
Superintendent Date

Earl McKee 12/9/14
BOCC Chair Date

Membership Certification:

Thos A. Forrest 11/20/14
Superintendent Date

Earl McKee 12/9/14
BOCC Chair Date

School APFO Capacity, Membership and Change Request Form

School District: Chapel Hill-Carrboro City Schools
SAPFO CAPS Year: November 14, 2014 - November 14, 2015
Capacity and Membership Submittal Date: November 14, 2014

Middle School	Square Feet	2010-2011 Requested Capacity	2011-2012 Requested Capacity	2012-2013 Requested Capacity	2013-2014 Requested Capacity	2014-2015 Requested Capacity	Justification Footnote #	Membership (referenced school year)
Culbreth	122,467	670	670	670	670	774	Science wing addition	686
McDougle	136,221	732	732	732	732	732		721
Phillips	109,498	706	706	706	706	706		625
Smith	128,764	732	732	732	732	732		829
Total	**496,950**	**2,840**	**2,840**	**2,840**	**2,840**	**2,944**		**2,861**

Special Note(s): 1. For the November 15, 2002 base year the board accepted the superintendent-certified capacities as part of the School Facilities Task Force review and 2003 Planners and School Representative Technical Advisory Committee Report. These capacities will remain effective until changed by (1) the School CIP or (2) an amended version of this form that is certified by the BOCC. 2. Due to November 15th falling on a Saturday this year, membership and capacity numbers shall be provided from Friday, November 14, 2014.

Justification:

Capacity Certification:

Thomas H. Forrest 12/1/14
Superintendent Date

Earl McKee 12/9/14
BOCC Chair Date

Membership Certification:

Thomas H. Forrest 12/1/14
Superintendent Date

Earl McKee 12/9/14
BOCC Chair Date

School APFO Capacity, Membership and Change Request Form

School District: Chapel Hill-Carrboro City Schools
SAPFO CAPS Year: November 14, 2014 - November 13, 2015
Capacity and Membership Submittal Date: November 14, 2014

High School	Square Feet	2010-2011 Requested Capacity	2011-2012 Requested Capacity	2012-2013 Requested Capacity	2013-2014 Requested Capacity	2014-2015 Requested Capacity	Justification Footnote #	Membership (referenced school year)
Carrboro	148,023	800	800	800	800	800		833
Chapel Hill	241,111	1,520	1,520	1,520	1,520	1,520		1,454
East Chapel Hill	259,869	1,515	1,515	1,515	1,515	1,515		1,410
Phoenix Acad.	5,207	40	40	40	40	40		33
Total	654,210	3,875	3,875	3,875	3,875	3,875		3,730

Special Note(s): 1. For the November 15, 2002 base year the board accepted the superintendent-certified capacities as part of the School Facilities Task Force review and 2003 Planners and School Representative Technical Advisory Committee Report. These capacities will remain effective until changed by (1) the School CIP or (2) an amended version of this form that is certified by the BOCC. 2. Due to November 15th falling on a Saturday this year, membership and capacity numbers shall be provided for Friday, November 14, 2014.

Justification:

Capacity Certification:

Thomas L. Forcella 11/20/14
Superintendent Date

Earl McKee 12/9/14
BOCC Chair Date

Membership Certification:

Thomas L. Forcella 11/20/14
Superintendent Date

Earl McKee 12/9/14
BOCC Chair Date

Attachment I.B.3 Orange County School Capacity (Elementary, Middle, & High)
(2015-16)
(page 1 of 3)

School APFO Capacity, Membership and Change Request Form

School District: Orange County Schools
SAPFO CAPS Year: November 13, 2015 - November 14, 2016
Capacity and Membership Submittal Date: November 13, 2015

Elementary School	Square Feet	2011-2012 Requested Capacity	2012-2013 Requested Capacity	2013-2014 Requested Capacity	2014-2015 Requested Capacity	2015-2016 Requested Capacity	Justification Footnote #	Membership
Cameron Park	70,812	565	565	565	565	565		609
Central	52,492	455	455	455	455	455		319
Efland Cheeks	64,316	497	497	497	497	497		428
Grady Brown	74,016	544	544	544	544	544		486
Hillsborough	51,106	471	471	471	471	471		466
New Hope	100,164	586	586	586	586	586		621
Pathways	85,282	576	576	576	576	576		389
Total	**498,188**	**3,694**	**3,694**	**3,694**	**3,694**	**3,694**		**3,318**

Special Note(s): 1. For the November 15, 2002 base year the board accepted the superintendent-certified capacities as part of the School Facilities Task Force review and 2003 Planners and School Representative Technical Advisory Committee Report. These capacities will remain effective until changed by (1) the School CIP or (2) an amended version of this form that is certified by the BOCC. 2. Due to November 15th falling on a Sunday this year, membership and capacity numbers shall be provided for Friday, November 13, 2015.

Justification:

Capacity Certification:

11/19/15
Superintendent Date

Earl McKee 12/15/15
BOCC Chair Date

Membership Certification:

11/19/15
Superintendent Date

Earl McKee 12/15/15
BOCC Chair Date

Attachment I.B.3 Orange County School Capacity (Elementary, Middle, & High)
(2015-16)
(page 2 of 3)

School APFO Capacity, Membership and Change Request Form

School District: Orange County Schools
SAPFO CAPS Year: November 13, 2015 - November 14, 2016
Capacity and Membership Submittal Date: November 13, 2015

Middle School	Square Feet	2011-2012 Requested Capacity	2012-2013 Requested Capacity	2013-2014 Requested Capacity	2014-2015 Requested Capacity	2015-2016 Requested Capacity	Justification Footnote #	Membership
A.L. Stanback	**136,000**	740	740	740	740	740		**635**
C.W. Stanford	**107,620**	726	726	726	726	726		**654**
Gravelly Hill	**123,000**	700	700	700	700	700		**450**
Total	**366,620**	**2,166**	**2,166**	**2,166**	**2,166**	**2,166**		**1,739**

Special Note(s): 1. For the November 15, 2002 base year the board accepted the superintendent-certified capacities as part of the School Facilities Task Force review and 2003 Planners and School Representative Technical Advisory Committee Report. These capacities will remain effective until changed by (1) the School CIP or (2) an amended version of this form that is certified by the BOCC. 2. Due to November 15th falling on a Sunday this year, membership and capacity numbers shall be provided for Friday, November 13, 2015.

Justification:

Capacity Certification:

11/19/15
Superintendent Date

Earl McKee 12/15/15
BOCC Chair Date

Membership Certification:

11/19/15
Superintendent Date

Earl McKee 12/15/15
BOCC Chair Date

School APFO Capacity, Membership and Change Request Form

School District: Orange County Schools
SAPFO CAPS Year: November 13, 2015 - November 14, 2016
Capacity and Membership Submittal Date: November 13, 2015

High School	Square Feet	2011-2012 Requested Capacity	2012-2013 Requested Capacity	2013-2014 Requested Capacity	2014-2015 Requested Capacity	2015-2016 Requested Capacity	Justification Footnote #	Membership
Orange	**213,509**	1,518	1,399	1,399	1,399	1,399		**1,298**
Cedar Ridge	**206,900**	1,000	1,000	1,000	1,000	1,000		**1,140**
Partnership	**6,600**	40	40	40	40	40		**31**
Total	**427,009**	**2,558**	**2,439**	**2,439**	**2,439**	**2,439**		**2,469**

Special Note(s): 1. For the November 15, 2002 base year the board accepted the superintendent-certified capacities as part of the School Facilities Task Force review and 2003 Planners and School Representative Technical Advisory Committee Report. These capacities will remain effective until changed by (1) the School CIP or (2) an amended version of this form that is certified by the BOCC. 2. The 2012-2013 capacity numbers for Orange High School (1,399) is based on a capacity analysis and facilities study completed by the Department of Public Instruction in August 2012. 3. Due to November 15th falling on a Sunday this year, membership and capacity numbers shall be provided for Friday, November 13, 2015.

Justification:

Capacity Certification:

11/19/15
Superintendent Date

Earl McKee 12/15/15
BOCC Chair Date

Membership Certification:

11/19/15
Superintendent Date

Earl McKee 12/15/15
BOCC Chair Date

Attachment I.B.4 Chapel Hill/Carrboro School Capacity (Elementary, Middle, & High)
(2015-16)
(page 1 of 3)

School APFO Capacity, Membership and Change Request Form

School District: Chapel Hill-Carrboro City Schools
SAPFO CAPS Year: November 13, 2015 - November 14, 2016
Capacity and Membership Submittal Date: November 13, 2015

Elementary School	Square Feet	2011-2012 Requested Capacity	2012-2013 Requested Capacity	2013-2014 Requested Capacity	2014-2015 Requested Capacity	2015-2016 Requested Capacity	Justification Footnote #	Membership (referenced school year)
Carrboro	60,832	533	533	533	533	533		502
Ephesus	66,952	448	448	448	448	448		440
Estes Hills	56,299	527	527	527	527	527		485
Glenwood	50,764	423	423	423	423	423		454
FP Graham	66,689	538	538	538	538	538		531
McDougle	98,000	564	564	564	564	564		499
Rashkis	95,729	585	585	585	585	585		517
Scroggs	90,980	575	575	575	575	575		505
Seawell	52,896	466	466	466	466	466		525
Morris Grove	90,221	585	585	585	585	585		558
Northside	99,500	0	0	585	585	585		485
Total	828,862	5,244	5,244	5,829	5,829	5,829		5,501

Special Note(s): 1. For the November 15, 2002 base year the board accepted the superintendent-certified capacities as part of the School Facilities Task Force review and 2003 Planners and School Representative Technical Advisory Committee Report. These capacities will remain effective until changed by (1) the School CIP or (2) an amended version of this form that is certified by the BOCC. 2. Due to November 15th falling on a Sunday this year, membership and capacity numbers shall be provided for Friday, November 13, 2015.

Justification:

Capacity Certification:

Superintendent 12/7/15 Date

BOCC Chair Earl McKee 12/15/15 Date

Membership Certification:

Superintendent 12/7/15 Date

BOCC Chair Earl McKee 12/15/15 Date

School APFO Capacity, Membership and Change Request Form

School District: Chapel Hill-Carrboro City Schools
SAPFO CAPS Year: November 13, 2015 - November 14, 2016
Capacity and Membership Submittal Date: November 13, 2015

Middle School	Square Feet	2011-2012 Requested Capacity	2012-2013 Requested Capacity	2013-2014 Requested Capacity	2014-2015 Requested Capacity	2015-2016 Requested Capacity	Justification Footnote #	Membership (referenced school year)
Culbreth	108,058	670	670	670	774	774		716
McDougle	136,221	732	732	732	732	732		689
Phillips	109,498	706	706	706	706	706		642
Smith	128,764	732	732	732	732	732		797
Total	482,541	2,840	2,840	2,840	2,944	2,944		2,844

Special Note(s): 1. For the November 15, 2002 base year the board accepted the superintendent-certified capacities as part of the School Facilities Task Force review and 2003 Planners and School Representative Technical Advisory Committee Report. These capacities will remain effective until changed by (1) the School CIP or (2) an amended version of this form that is certified by the BOCC. 2. Due to November 15th falling on a Sunday this year, membership and capacity numbers shall be provided for Friday, November 13, 2015.

Justification:

Capacity Certification:

Thomas A Nowell 12/7/15
Superintendent Date

Earl McKee 12/15/15
BOCC Chair Date

Membership Certification:

Thomas A Nowell 12/7/15
Superintendent Date

Earl McKee 12/15/15
BOCC Chair Date

School APFO Capacity, Membership and Change Request Form

School District: Chapel Hill-Carrboro City Schools
SAPFO CAPS Year: November 13, 2015 - November 14, 2016
Capacity and Membership Submittal Date: November 13, 2015

High School	Square Feet	2011-2012 Requested Capacity	2012-2013 Requested Capacity	2013-2014 Requested Capacity	2014-2015 Requested Capacity	2015-2016 Requested Capacity	Justification Footnote #	Membership (referenced school year)
Chapel Hill	241,111	1,520	1,520	1,520	1,520	1,520		1,471
East Chapel Hill	259,869	1,515	1,515	1,515	1,515	1,515		1,373
Carrboro	148,023	800	800	800	800	800		824
Phoenix Acad.	5,207	40	40	40	40	40		33
Total	654,210	3,875	3,875	3,875	3,875	3,875		3,701

Special Note(s): 1. For the November 15, 2002 base year the board accepted the superintendent-certified capacities as part of the School Facilities Task Force review and 2003 Planners and School Representative Technical Advisory Committee Report. These capacities will remain effective until changed by (1) the School CIP or (2) an amended version of this form that is certified by the BOCC. 2. Due to November 15th falling on a Sunday this year, membership and capacity numbers shall be provided for Friday, November 13, 2015.

Justification:

Capacity Certification:

Thomas H. Nelle 12/7/15
Superintendent Date

Earl McKee 12/15/15
BOCC Chair Date

Membership Certification:

Thomas H. Nelle 12/7/15
Superintendent Date

Earl McKee 12/15/15
BOCC Chair Date

C. Membership Date

1. ***Responsible Entity for Suggesting Change –*** Change can be effectuated only by amendment to Memorandum of Understanding (MOU) by all School APFO partners. The Planning Directors, School Representatives, and Technical Advisory Committee (SAPFOTAC) may advise if a change in date would improve the reporting or timeliness of the report.
2. ***Definition –*** The date at which student membership is calculated. This date is updated each year and also serves as the basis for projections along with the history from previous years. "For purposes of this Memorandum, the term "school membership" means the actual number of students attending school as of November 15 of each year. The figure is determined by considering the number of students enrolled (i.e. registered, regardless of whether a student is no longer attending school) and making adjustments for withdrawals, dropouts, deaths, retentions and promotions. Students who are merely absent from class on the date membership is determined as a result of sickness or some other temporary reason are included in school membership figures. Each year the School District shall transmit its school membership to the parties to this agreement no later than five (5) school days after November 15.
3. ***Standard for:*** ***Standard for:***

Chapel Hill/Carrboro School District	**Orange County School District**
November 15	**November 15**
of each year	of each year

4. ***Analysis of Existing Conditions:***

   This will be analyzed in the future years to determine if it is an exemplary date.
5. ***Recommendation:*** ***Recommendation:***

Chapel Hill/Carrboro School District	**Orange County School District**
No change at this time.	No change at this time.

II. Annual Update to Schools Adequate Public Facilities Ordinance System

A. Capital Investment Plan (CIP)

1. ***Responsible Entity for Suggesting Change –*** The updating of this section will be conducted by the Board of County Commissioners (BOCC) after review of the CIP requests from the School Districts. Action regarding CIP programs usually occurs during the BOCC budget Public Hearing process in the winter and spring of each year. The development of the CIP considers the conditions noted in the SAPFOTAC report released in the same CIP development year including LOS (level of service), capacity, and membership projections.
2. ***Definition –*** The process and resultant program to determine school needs and provide funding for new school facilities through a variety of funding mechanisms.
3. ***Standard for:*** ***Standard for:***

Chapel Hill/Carrboro School District	**Orange County School District**
Not Applicable	Not Applicable

4. ***Analysis of Existing Conditions:***

   The MOU outlines a system of implementing the SAPFO, including issuing Certificates of Adequate Public Schools (CAPS) to new development if capacity is available. The Requests for CAPS will be evaluated using the most recently adopted Capital Investment Plan. A new Capital Investment Plan is currently under development for approval prior to June 30, 2016.
5. ***Recommendation:***

   Not subject to staff review.

B. Student Membership Projection Methodology

1. ***Responsible Entity for Suggesting Change –*** This section is reviewed and recommended by the Planning Directors, School Representatives, and Technical Advisory Committee (SAPFOTAC) to the BOCC for change, if necessary.
2. ***Definition –*** The method(s) by which student memberships are calculated for future years to determine total membership at each combined school level (Elementary, Middle, and High School) which take into consideration historical membership totals at a specific time (November 15) in the school year. These methods are also known as 'models'.
3. ***Standard for:*** ***Standard for:***

   Chapel Hill/Carrboro School District **Orange County School District**

   Presently, the <u>average of five models</u> is being used: namely 3, 5, and 10 year history/cohort survival methods, Orange County Planning Department Linear Wave, and Tischler Linear methods. Attachment II.B.1 includes a description of each model.
4. ***Analysis of Existing Conditions:***

   Performance of the models is monitored each year. The value of a projection model is in its prediction of school level capacities at least three years in advance of capacity shortfalls so the annual Capital Investment Plan (CIP) updates can respond proactively with siting, design, and construction. Attachment II.B.1 includes a description of each model. Attachment II.B.3 shows the performance of the models for the 2014-15 school year from the prior year projection.
5. ***Recommendation:***

   More than ten years of projection results are now available. Analysis on the accuracy of the results is showing that some models have better results in one district while others have better results in the other district. The historic growth rate is recorded by the models, but projected future growth is more difficult to accurately quantify. In all areas of the county, proposed growth is not included in the SAPFO projection system until actual students begin enrollment. The system is updated in November of each year, becoming part of the historical projection base. This is especially pertinent in the Orange County School District which serves students living within the Orange County portion of the City of Mebane which have had little historic enrollment

impact. The significant proposed residential growth occurring within Mebane's jurisdiction has yet to be fully entered into the historically based projection methods. Although construction activity in this portion of the county has slowed, there are still a substantial number of approved, but undeveloped residential lots.

STUDENT MEMBERSHIP PROJECTIONS

PROJECTION TYPE	DESCRIPTION / CHARACTERISTICS	FORMULA	ASSUMPTIONS
Tischler Linear (OCS & CHCCS)	Mathematical formula; straight line projection	y=((c*b)*x)+b y=projected population; c=historical annual change; b=base year; x= projection years	Historical growth is reflected in projected growth
OCP Linear Wave (OCS)	Mathematical linear with percent variation among school levels; reflects progressing waves of membership	BYM + (BYI + 5(n)) = EYM EYM * %SL = EYM/SL BYM= base year 2nd month membership; BYI=year student membership increment base; EYM=ensuing year membership; n=projection year; %SL=% of total membership per school level (i.e. elementary, middle, high); EYM/SL=ensuing year member by school level	Base year growth reflects 10-year average; increase in BYI of 5 every other year reflects increases in housing growth; reflects buildout constraints
OCP Linear Wave (CHCCS)	Mathematical linear with percent variation among school levels; reflects progressing waves of membership	BYM + (BYI - 15(n)) = EYM EYM * %SL = EYM/SL BYM= base year 2nd month membership; BYI=year student membership increment base; EYM=ensuing year membership; n=projection year; %SL=% of total membership per school level (i.e. elementary, middle, high); EYM/SL=ensuing year member by school level	Base year growth reflects 10-year average; decrease in BYI of 15 until school year 2010-2011 reflects decreases in housing growth; reflects buildout constraints
3-Year Cohort (OCS & CHCCS)	Mathematical formula that computes the average advancement rate over the previous 3 years for each grade level and then uses each rate to calculate projected membership by school level; an assumed kindergarten membership is based on birth records and/or historical growth rates	$K_n = k_{n-1} + (k_{n-1} * 0.01)$ n=1 $a = (\Sigma\ G_n / g_{n-1}) / 3$ n=3 $b = g_{n-1}\ (a)$ K=kindergarten membership; n=given school year; G=given grade's membership(other than kindergarten); g= previous grade's membership; a=average advancement rate; b=projected membership	Assumes a 1% annual growth rate for the kindergarten grade level; assumes the same percentage of students in each grade level graduate to the next level each year
5 year Cohort (OCS & CHCCS)	Mathematical formula that computes the average advancement rate over the previous 5 years for each grade level and then uses each rate to calculate projected membership by school level; an assumed kindergarten membership is based on birth records and/or historical growth rates	$K_n = k_{n-1} + (k_{n-1} * 0.01)$ n=1 $a = (\Sigma\ G_n / g_{n-1}) / 5$ n=5 $b = g_{n-1}\ (a)$ K=kindergarten membership; n=given school year; G=given grade's membership(other than kindergarten); g= previous grade's membership; a=average advancement rate; b=projected membership	Assumes a 1% annual growth rate for the kindergarten grade level; assumes the same percentage of students in each grade level graduate to the next level each year
10 year Cohort (OCS & CHCCS)	Mathematical formula that computes the average advancement rate over the previous 10 years for each grade level and then uses each rate to calculate projected membership by school level; an assumed kindergarten membership is based on birth records and/or historical growth rates	$K_n = k_{n-1} + (k_{n-1} * 0.01)$ n=1 $a = (\Sigma\ G_n / g_{n-1}) / 10$ n=10 $b = g_{n-1}\ (a)$ K=kindergarten membership; n=given school year; G=given grade's membership(other than kindergarten); g= previous grade's membership; a=average advancement rate; b=projected membership	Assumes a 1% annual growth rate for the kindergarten grade level; assumes the same percentage of students in each grade level graduate to the next level each year

Orange County School District
School Membership 2014-15 School Year (November 14, 2014)

	11/15/13 Actual 2013-14		2014 Report Projection for 2014-15	11/14/14 Actual 2014-15	Change between actual Nov 2013 - Nov 2014
Elementary	**3433**			**3259**	**-174**
Model				Projection is	
T			3493	H234	
OCP			3492	H233	
10C			3457	H198	
5C			3471	H212	
3C			3488	H229	
AVG			**3472**	**H213**	
	11/15/13			11/14/14	
Middle	**1747**			**1762**	**+15**
Model				Projection is	
T			1778	H16	
OCP			1777	H15	
10C			1796	H34	
5C			1799	H37	
3C			1793	H31	
AVG			**1789**	**H27**	
	11/15/13			11/14/14	
High	**2421**			**2502**	**+81**
Model				Projection is	
T			2463	L39	
OCP			2434	L68	
10C			2404	L98	
5C			2436	L66	
3C			2294	L208	
AVG			**2406**	**L96**	
Totals	11/15/13			11/14/14	
Elementary	3433			3259	
Middle	1747			1762	
High	2421			2502	
	7601			**7523**	**-78**
Model				Projection is	
T			7734	H211	
OCP			7703	H180	
10C			7657	H134	
5C			7706	H183	
3C			7575	H52	
AVG			**7667**	**H144**	

H means High
L means Low

Orange County School District
School Membership 2014-2015 School Year (November 14, 2014)

Statistical Findings

PROJECTION TYPE ABBREVIATIONS	
'TISCHLER' LINEAR (T) ORANGE COUNTY PLANNING (OCP)	10-YEAR COHORT (10C) 5-YEAR COHORT (5C) 3-YEAR COHORT (3C)

Elementary School Level

- Projections were all high ranging from 198 students to 234 students high. On average, the projections were 213 students higher than actual membership.
- The membership actually decreased by 174 students between November 15, 2013 and November 14, 2014.

Middle School Level

- Projections were all high, ranging from 15 students to 37 students high. On average, the projections were 27 students higher than the actual membership.
- The membership actually increased by 15 students between November 15, 2013 and November 14, 2014.

High School Level

- Projections were all low ranging from 39 students to 208 students low. On average, the projections were 96 students lower than the actual membership.
- The membership actually increased by 81 students between November 15, 2013 and November 14, 2014.

TOTAL

- The totals of all school level projections were high, ranging from 52 to 211 above actual membership. On average, the projections were high by 144 students.
- The membership decreased in total by 78 students, which is the sum of -174 at Elementary, +15 at Middle, and +81 at High.

Chapel Hill/Carrboro School District
School Membership 2014-2015 School Year (November 14. 2014)

	11/15/13 Actual 2013-14		**2014 Report Projection for 2014-15**	**11/14/14 Actual 2014-15**	**Change between actual Nov 2013 - Nov 2014**
Elementary	**5554**			**5541**	**-13**
Model				Projection is	
T			5647	H106	
OCP			5655	H114	
10C			5637	H96	
5C			5610	H69	
3C			5628	H87	
AVG			**5635**	**H94**	
	11/15/13			11/14/14	
Middle	**2858**			**2861**	**+3**
Model				Projection is	
T			2906	H45	
OCP			2889	H28	
10C			2957	H96	
5C			2930	H69	
3C			2943	H82	
AVG			**2925**	**H64**	
	11/15/13			11/14/14	
High	**3764**			**3730**	**-34**
Model				Projection is	
T			3827	H97	
OCP			3875	H145	
10C			3761	H31	
5C			3772	H42	
3C			3788	H58	
AVG			**3805**	**H75**	
Totals	11/15/13			11/14/14	
Elementary	5554			5541	
Middle	2858			2861	
High	3764			3730	
	12,176			**12,132**	**-44**
Model				Projection is	
T			12,380	H248	
OCP			12,419	H287	
10C			12,355	H223	
5C			12,312	H180	
3C			12,359	H227	
AVG			**12,365**	**H233**	

H means High
L means Low

Chapel Hill/Carrboro School District
School Membership 2014-2015 School Year (November 14, 2014)

Statistical Findings

PROJECTION TYPE ABBREVIATIONS	
'TISCHLER' LINEAR (T) ORANGE COUNTY PLANNING (OCP)	10-YEAR COHORT (10C) 5-YEAR COHORT (5C) 3-YEAR COHORT (3C)

Elementary School Level

- Projections were all high, ranging from 69 students to 114 students high. On average, the projections were 94 students higher than the actual membership.
- The actual membership decreased by 13 students between November 15, 2013 and November 14, 2014.

Middle School Level

- Projections were all high, ranging from 28 students to 96 students high. On average, the projections were 64 students higher than the actual membership.
- The actual membership increased by 3 students between November 15, 2013 and November 14, 2014.

High School Level

- Projections were all high, ranging from 31 students to 145 students high. On average, the projections were 75 students higher than the actual membership.
- The actual membership decreased by 34 students between November 15, 2013 and November 14, 2014.

TOTAL

- The total of all school level projections were all high, ranging from 180 students to 287 students above actual membership. On average, the projections were high by 233 students.
- The membership decreased in total by 44 students, which is the sum of -13 at Elementary, +3 at Middle, and -34 at High.

Orange County School District
School Membership 2015-16 School Year (November 13, 2015)

	11/14/14 Actual 2014-15		2015 Report Projection for 2015-16	11/13/15 Actual 2015-16	Change between actual Nov 2014 - Nov 2015
Elementary	**3259**			**3318**	**+59**
Model				Projection is	
T			3309	L9	
OCP			3318	Equal	
10C			3279	L39	
5C			3268	L50	
3C			3251	L67	
AVG			**3285**	**L33**	
	11/14/14			11/13/15	
Middle	**1762**			**1739**	**-23**
Model				Projection is	
T			1789	H50	
OCP			1791	H52	
10C			1730	L9	
5C			1722	L17	
3C			1721	L18	
AVG			**1751**	**H12**	
	11/14/14			11/13/15	
High	**2502**			**2469**	**-33**
Model				Projection is	
T			2541	H72	
OCP			2545	H76	
10C			2456	L13	
5C			2488	H19	
3C			2520	H51	
AVG			**2510**	**H41**	
Totals	11/14/14			11/13/15	
Elementary	3259			3318	
Middle	1762			1739	
High	2502			2469	
	7523			**7526**	**+3**
Model				Projection is	
T			7639	H113	
OCP			7654	H128	
10C			7465	L61	
5C			7478	L48	
3C			7492	L34	
AVG			**7546**	**H20**	

H means High
L means Low

Orange County School District
School Membership 2015-2016 School Year (November 13, 2015)

Statistical Findings

PROJECTION TYPE ABBREVIATIONS	
'TISCHLER' LINEAR (T) ORANGE COUNTY PLANNING (OCP)	10-YEAR COHORT (10C) 5-YEAR COHORT (5C) 3-YEAR COHORT (3C)

Elementary School Level

- The majority of projections were all low ranging from 9 students to 67 students below actual membership. One projection equaled actual membership. On average, the projections were 33 students lower than actual membership.
- The membership actually increased by 59 students between November 14, 2014 and November 13, 2015.

Middle School Level

- Projections were mixed low and high, ranging from 18 students below to 52 students above actual membership. On average, the projections were 12 students higher than the actual membership.
- The membership actually decreased by 23 students between November 14, 2014 and November 13, 2015.

High School Level

- The majority of projections were high, ranging from 19 to 76 students above actual membership. One projection was low with 13 students below actual membership. On average, the projections were 41 students higher than the actual membership.
- The membership actually decreased by 33 students between November 14, 2014 and November 13, 2015.

TOTAL

- The totals of all school level projections were mixed low to high, ranging from 61 students below to 128 students above actual membership. On average, the projections were 20 students higher than the actual membership.
- The membership increased in total by 3 students, which is the sum of +59 at Elementary, -23 at Middle, and -33 at High.

Chapel Hill/Carrboro School District
School Membership 2015-16 School Year (November 13, 2015)

	11/14/14 Actual 2014-15		2015 Report Projection for 2015-16	11/13/15 Actual 2015-16	Change between actual Nov 2014 - Nov 2015
Elementary	**5541**			**5501**	**-40**
Model				Projection is	
T			5625	H124	
OCP			5641	H140	
10C			5606	H105	
5C			5586	H85	
3C			5573	H72	
AVG			**5606**	**H105**	
	11/14/14			11/13/15	
Middle	**2861**			**2844**	**-17**
Model				Projection is	
T			2905	H61	
OCP			2898	H54	
10C			2910	H66	
5C			2888	H44	
3C			2874	H30	
AVG			**2895**	**H51**	
	11/14/14			11/13/15	
High	**3730**			**3701**	**-29**
Model				Projection is	
T			3787	H86	
OCP			3818	H117	
10C			3701	Equal	
5C			3707	H6	
3C			3696	L5	
AVG			**3742**	**H41**	
Totals	11/14/14			11/13/15	
Elementary	5541			5501	
Middle	2861			2844	
High	3730			3701	
	12,132			**12,046**	**-86**
Model				Projection is	
T			12,317	H271	
OCP			12,357	H311	
10C			12,217	H171	
5C			12,181	H135	
3C			12,143	H97	
AVG			**12,243**	**H197**	

H means High
L means Low

Chapel Hill/Carrboro School District
School Membership 2015-2016 School Year (November 13, 2015)

Statistical Findings

PROJECTION TYPE ABBREVIATIONS	
'TISCHLER' LINEAR (T) ORANGE COUNTY PLANNING (OCP)	10-YEAR COHORT (10C) 5-YEAR COHORT (5C) 3-YEAR COHORT (3C)

Elementary School Level

- Projections were all high, ranging from 72 students to 140 students above actual membership. On average, the projections were 105 students higher than the actual membership.
- The actual membership decreased by 40 students between November 14, 2014 and November 13, 2015.

Middle School Level

- Projections were all high, ranging from 30 students to 66 students above actual membership. On average, the projections were 51 students higher than the actual membership.
- The actual membership decreased by 17 students between November 14, 2014 and November 13, 2015.

High School Level

- Projections were mixed, ranging from 5 students below to 117 students above actual membership. One projection equaled actual membership. On average, the projections were 41 students higher than the actual membership.
- The actual membership decreased by 29 students between November 14, 2014 and November 13, 2015.

TOTAL

- The total of all school level projections were all high, ranging from 97 students to 311 students above actual membership. On average, the projections were high by 197 students.
- The membership decreased in total by 86 students, which is the sum of -40 at Elementary, -17 at Middle, and -29 at High.

C. Student Membership Projections

1. ***Responsible Entity for Suggesting Change –*** The updating of this section will be conducted by the Planning Directors, School Representatives, and Technical Advisory Committee (SAPFOTAC) and referred to the BOCC for annual report certifications. Projections will be distributed to SAPFO partners for review and comments to the BOCC prior to certification.
2. ***Definition –*** The result of the average of the five student projection models represented by 10 year numerical membership projections by school level (Elementary, Middle, and High) for each school district (Chapel Hill/Carrboro School District and Orange County School District).
3. ***Standard for:***

Standard for:	
Chapel Hill Carrboro School District	**Orange County School District**
The 5 model average discussed in Section II.B (Student Projection Methodology)	The 5 model average discussed in Section II.B (Student Projection Methodology)
See Attachment II.C.4	See Attachment II.C.3

4. ***Analysis of Existing Conditions***

   The membership figures and percentage growth on the attachments show a decrease at the Chapel Hill/Carrboro City Schools' elementary, middle, and high school levels and at the Orange County Schools' middle and high school levels. The only increase in student membership was at the Orange County Schools' elementary school level. Chapel Hill/Carrboro Schools projected average annual growth rates have decreased slightly, but remain positive. Future growth rates show positive growth at the elementary and high school levels, but varying positive and negative growth at the middle school level in the 10 year projection period. Projected average annual growth rates for Orange County Schools have increased slightly since the previous year. Orange County Schools' future growth rates show varying positive and negative growth in the 10 year projection period for the elementary, middle, and high school levels. Attachment II.C.3 and Attachment II.C.4 show year by year percent growth and projected level of service (LOS). The projection models were updated using current (November 13, 2015) memberships. Membership numbers were collected on

November 13 due to November 15 falling on a Sunday in 2015. Ten years of student membership were projected thereafter.

Chapel Hill/Carrboro School District

Elementary

The previous year (2015-15) projections for November 2015 at this level were overestimated by 105 students. The actual membership decreased by 40 students. Over the previous ten years, this level has shown varying increases in growth rates including a decrease in actual membership in 2009-10 which was most likely due to the shorter enrollment period caused by the institution of the new date requiring kindergarteners to be five years old. Following that dip, membership numbers experienced an increase each year with a significant jump (168 students) in 2011-12 before experiencing a decrease in 2014-15 and this year. Growth rates during the past ten years have ranged from -1.57% to +3.92%. The district's eleventh elementary school, Northside Elementary School, opened in 2013. The need for an additional elementary school is not anticipated in the 10 year projection period. Last year's projections showed a need in 2023-24.

Although not included in SAPFO school capacity or membership numbers, Pre-K programs continue to impact operations at District elementary schools where Pre-K programs exist. Specific impacts of Pre-K programs at the elementary school level will continue to be reviewed and discussed in the coming year.

Middle

The previous year (2014-15) projections for November 2015 for this level were overestimated by 51 students. The actual membership decreased by 17. Over the previous ten years, this level has shown varying increases before experiencing a decrease this year. Growth rates during this time period have ranged from -0.59% to +2.86%. Capacity was increased in 2014 with the opening of the Culbreth Middle School science wing. The need for an additional middle school is not anticipated in the 10 year projection period. Last year's projections showed a need in 2023-24.

High School

The previous year (2014-15) projections for November 2015 for this level were overestimated by 41 students. The actual membership decreased by 29 students. Over the previous ten years, change has been variable with decreases in membership in five of the ten years. Growth rates during this time period have ranged from -1.74 to +3.27%. The need for additional high school

capacity at Carrboro High School is not anticipated in the 10 year projection period. This is similar to last year's projections.

Additional Information for Chapel Hill/Carrboro School District

PACE Academy High School, located within the Chapel Hill/Carrboro School District, closed prior to the beginning of the 2015 school year. Students from this charter school were absorbed into the Chapel Hill/Carrboro School District and the Orange County School District. The newest charter school, The Expedition School, opened in the Town of Hillsborough for the 2014-15 school year and currently serves elementary and middle school students. The opening of this school continues to have an effect on CHCCS membership numbers at the elementary and middle school levels. Charter schools are not included as part of the SAPFO Annual Report and, as a result, their membership and capacity numbers are not monitored or included in future projections.

Student projections illustrate when the adopted level of service capacities are forecasted to be met and/or exceeded in anticipation of CIP planning and the construction of a new school. However, as is being identified by both school districts, particularly CHCCS, a new trend is emerging to renovate and expand existing facilities to address school capacity needs in a more feasible way. As this trend continues, additional capacity resulting from school renovations and expansion will be added to the projection models in stages, once funding is approved, versus the addition of greater capacity when a new school is constructed and completed. As a result, the renovation and expansion of schools to increase capacity may delay construction of new schools further into the future.

Orange County School District

Elementary

The previous year (2014-15) projections for November 2015 at this level were underestimated by 33 students. Actual membership increased by 59 students. Over the previous ten years, this level experienced varying growth rates including a decrease in membership in 2005-06. Following this decrease, membership and growth rates increased every school year until experiencing a significant decrease in 2014-15. Growth rates during this period have ranged from -5.07% to +2.80%. In the Orange County school system, historic growth is more closely related to new residential development than in the Chapel Hill/Carrboro School District, which

has a sizeable number of new families in older, existing housing stock. The need for an additional Elementary School is not anticipated in the 10 year projection period. This is similar to last year's projections. Staff continues to closely monitor new sizeable residential projects in the Orange County portion of Mebane and Hillsborough.

Although not included in SAPFO school capacity or membership numbers, Pre-K programs continue to impact operations at District elementary schools where Pre-K programs exist. Specific impacts of Pre-K programs at the elementary school level will continue to be reviewed and discussed in the coming year.

Middle

The previous year (2014-15) projections for November 2015 for this level were overestimated by 12 students. The actual membership decreased by 23. Over the previous ten years, growth has varied widely and includes decreases in student membership in four of the ten years. Growth rates during this period have ranged from -2.20% to +4.00%. The district's third Middle School, Gravelly Hill Middle School, opened in October 2006. The need for an additional Middle School is not anticipated in the 10 year projection period. This is similar to last year's projections. Staff continues to closely monitor new sizeable residential projects in the Orange County portion of Mebane and Hillsborough.

High School

The previous year (2014-15) projections for November 2015 for this level were overestimated by 41 students. The actual membership decreased by 33. Over the previous ten years, growth varied considerably and included a decrease in membership in 2009-10. Following this decrease, membership and growth rates increased every school year before experiencing another decrease this year. Growth rates during this period ranged from -1.32% to 4.58%. In 2011-12 student membership increased by 32 while capacity decreased by 199 at Orange County High School as a result of a N.C. Department of Public Instruction (DPI) study. The need for additional capacity at Cedar Ridge High School is not anticipated in the 10 year projection period. This is similar to last year's projections.

Additional Information for Orange County School District

The City of Mebane lies partially within Orange County and students within the Orange County portion of Mebane attend Orange County schools. However, the City of Mebane is not a party to

the SAPFO agreement and therefore does not require that CAPS (Certificate of Adequate Public Schools) be issued prior to development approvals. In previous years, development activity and platting of new subdivisions increased within the Orange County portion of Mebane. However, changed economic conditions have curbed new platting and new construction in the past few years. An uptick in residential activity is likely as the country emerges from "The Great Recession". Increased coordination with the City of Mebane regarding development issues may be necessary in the future. OCS currently has capacity to serve additional growth, but it is possible that development in the Orange County portion of Mebane could quickly encumber available capacity.

Following the economic downtown, there has been an increase in multi-family residential development which has added to increasing student memberships in both districts. Staff will need to continue monitoring and evaluating the demand and growth of the multi-family market in Hillsborough and the entire county as well as its effect on student membership rates.

Orange Charter School, located in the Town of Hillsborough, continues operating in the Orange County School District. Additionally, a new charter school, The Expedition School, opened in the Town of Hillsborough for the 2014-15 school year and currently serves elementary and middle school students. The opening of this school continues to have an effect on OCS membership numbers at the elementary and middle school levels. Charter schools are not included as part of the SAPFO Annual Report and, as a result, their membership and capacity are not monitored or included in future projections.

5. *Recommendation:*

Use statistics as noted in 3 above.

Attachment II.C.1 – Orange County Student Projections (Elementary, Middle, & High)
(2014-15)

REVISED 2/20/2015

OCS Student Projections (1) (4)

Elementary

School Year	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25
Actual	2,893	2,901	2,945	3,016	3,006	3,072	3,158	3,165	3,211	3,285	3,348	3,403	3,433	3,259										
Tischler (2)															3,309	3,359	3,409	3,460	3,510	3,560	3,610	3,660	3,710	3,761
OC Planning															3,318	3,358	3,399	3,457	3,515	3,573	3,647	3,723	3,799	3,875
10 Year Growth															3,279	3,239	3,148	3,101	3,068	3,098	3,129	3,160	3,192	3,224
5 Year Growth															3,268	3,223	3,130	3,085	3,052	3,082	3,113	3,144	3,175	3,207
3 Year Growth															3,251	3,191	3,094	3,027	2,990	3,020	3,050	3,081	3,112	3,143
Average															**3,295**	**3,274**	**3,234**	**3,226**	**3,227**	**3,267**	**3,310**	**3,354**	**3,398**	**3,442**
Annual Change - Increase (Decrease) in Actual & Projected Membership)	(185)	8	44	71	(10)	66	86	7	46	74	63	55	30	(174)	26	(11)	(40)	(8)	1	40	43	44	44	44
Capacity - 100% Level of Service	3,820	3,820	3,820	3,820	3,920	3,920	3,920	3,694	3,694	3,694	3,694	3,694	3,694	3,694	3,694	3,694	3,694	3,694	3,694	3,694	3,694	3,694	3,694	3,694
Number of Students, Actual and Projected, Over (Under) 100% LOS	(927)	(919)	(875)	(804)	(914)	(848)	(762)	(529)	(483)	(409)	(346)	(291)	(261)	(435)	(409)	(420)	(460)	(468)	(467)	(427)	(384)	(340)	(296)	(252)
105% Level of Service	4,011	4,011	4,011	4,011	4,116	4,116	4,116	3,879	3,879	3,879	3,879	3,879	3,879	3,879	3,879	3,879	3,879	3,879	3,879	3,879	3,879	3,879	3,879	3,879
Number of Students, Actual and Projected, Over (Under) 105% LOS	(1,118)	(1,110)	(1,066)	(995)	(1,110)	(1,044)	(958)	(714)	(668)	(594)	(531)	(476)	(446)	(620)	(594)	(605)	(645)	(653)	(652)	(612)	(569)	(525)	(481)	(437)
Actual - % Level of Service	75.7%	75.9%	77.1%	79.0%	76.7%	78.4%	80.6%	85.7%	86.9%	88.9%	90.6%	92.1%	92.9%	88.2%										
Average - % Level of Service															88.9%	88.6%	87.6%	87.3%	87.4%	88.4%	89.6%	90.8%	92.0%	93.2%
Annual Student Growth Rate (3)	-8.01%	0.28%	1.52%	2.41%	-0.33%	2.20%	2.80%	0.22%	1.45%	2.30%	1.92%	1.64%	0.88%	-5.07%	0.80%	-0.33%	-1.22%	-0.26%	0.03%	1.23%	1.33%	1.32%	1.31%	1.30%

Additional 100 new seats at Hillsborough Elementary School

Important Note: Per 2005 recommendation of School Collaboration Work Group and approved by BOCC with approval of 2008-09 Membership & Capacity numbers and certification of 2009 SAPROTAC report of May 5, 2009, Grades K-3 class size reduced from 1:23 to 1:21 with opening of OHCCS Elementary #10-Morris Grove (to allow for prior legislative action re: reduced class size)

indicates when district surpasses Schools APFO recommended Level of Service

(1) It is important to note that this reflects the November 15, 2014 date of membership as outlined in by the Schools Adequate Public Facilities Ordinance.

(2) The Tischler Model provides for the "Linear Method" of projections for both OHCCS and OCS. Original projections used in prior years projection models included the "Linear Extrapolation Method" for OHCCS.

(3) Annual growth rate calculated using actual membership for years 2001-02 through 2014-15 and average membership for years 2015-16 through 2024-25

(4) Class sizes for grades K-3 = 1:23 for school years 2000 through 2007-08. In accordance with 2008 School Collaboration Work Group direction, effective the 2008-2009 school year with the opening of OHCCS Elementary #10, K-3 class sizes are 1:21 as directed by past State legislative action.

OCS Student Projections(1)

Middle

School Year	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25
Actual	1,527	1,631	1,671	1,593	1,590	1,580	1,637	1,601	1,665	1,698	1,704	1,684	1,747	1,762										
Tischler (2)															1,789	1,816	1,843	1,870	1,898	1,925	1,952	1,979	2,006	2,033
OC Planning															1,791	1,829	1,867	1,891	1,915	1,938	1,961	1,984	2,006	2,028
10 Year Growth															1,730	1,714	1,767	1,852	1,861	1,749	1,683	1,631	1,647	1,664
5 Year Growth															1,722	1,687	1,721	1,793	1,797	1,686	1,624	1,573	1,588	1,604
3 Year Growth															1,721	1,683	1,713	1,781	1,773	1,648	1,574	1,520	1,535	1,550
Average															**1,751**	**1,746**	**1,782**	**1,837**	**1,848**	**1,799**	**1,759**	**1,737**	**1,757**	**1,776**
Annual Change - Increase (Decrease) in Actual & Projected Membership)	23	104	40	(79)	(3)	(10)	57	(36)	64	33	6	(20)	63	15	(11)	(5)	36	55	11	(59)	(38)	(22)	19	19
Capacity - 100% Level of Service	1,466	1,466	1,466	1,466	1,466	2,166	2,166	2,166	2,166	2,166	2,166	2,166	2,166	2,166	2,166	2,166	2,166	2,166	2,166	2,166	2,166	2,166	2,166	2,166
Number of Students, Actual and Projected, Over (Under) 100% LOS	61	165	205	127	124	(586)	(529)	(565)	(501)	(468)	(462)	(482)	(419)	(404)	(416)	(420)	(384)	(329)	(318)	(377)	(407)	(429)	(409)	(390)
107% Level of Service	1,569	1,569	1,569	1,569	1,569	2,318	2,318	2,318	2,318	2,318	2,318	2,318	2,318	2,318	2,318	2,318	2,318	2,318	2,318	2,318	2,318	2,318	2,318	2,318
Number of Students, Actual and Projected, Over (Under) 107% LOS	(42)	62	102	24	21	(738)	(681)	(717)	(653)	(620)	(614)	(634)	(571)	(556)	(567)	(572)	(536)	(480)	(469)	(528)	(559)	(580)	(561)	(542)
Actual - % Level of Service	104.2%	111.3%	114.0%	108.7%	108.5%	72.9%	75.6%	73.9%	76.9%	78.4%	78.7%	77.7%	80.7%	81.3%										
Average - % Level of Service															80.8%	80.6%	82.3%	84.8%	85.3%	82.6%	81.2%	80.2%	81.1%	82.0%
Annual Student Growth Rate (3)	1.53%	6.81%	2.45%	-4.67%	-0.19%	-0.63%	3.61%	-2.20%	4.00%	1.98%	0.35%	-1.17%	3.74%	0.96%	-0.65%	-0.27%	2.08%	3.10%	0.60%	-3.21%	-1.70%	-1.23%	1.11%	1.10%

Middle School #3 opens in fall 2006 with 700 additional seats

indicates when district surpasses Schools APFO recommended Level of Service

(1) It is important to note that this reflects the November 15, 2014 date of membership as outlined in by the Schools Adequate Public Facilities Ordinance.

(2) The Tischler Model provides for the "Linear Method" of projections for both OHCCS and OCS. Original projections used in prior years projection models included the "Linear Extrapolation Method" for OHCCS.

(3) Annual growth rate calculated using actual membership for years 2001-02 through 2014-15 and average membership for years 2015-16 through 2024-25

OCS Student Projections (1)

High

School Year	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25
Actual	1,753	1,828	1,887	2,057	2,124	2,184	2,201	2,242	2,217	2,222	2,283	2,315	2,421	2,502										
Tischler (2)															2,541	2,579	2,618	2,656	2,695	2,733	2,772	2,810	2,849	2,887
OC Planning															2,545	2,596	2,647	2,700	2,754	2,807	2,844	2,881	2,918	2,954
10 Year Growth															2,456	2,449	2,479	2,404	2,440	2,502	2,521	2,583	2,506	2,400
5 Year Growth															2,488	2,509	2,536	2,442	2,460	2,491	2,490	2,547	2,470	2,363
3 Year Growth															2,520	2,569	2,625	2,534	2,548	2,573	2,567	2,612	2,517	2,389
Average															**2,510**	**2,540**	**2,581**	**2,547**	**2,579**	**2,622**	**2,639**	**2,687**	**2,652**	**2,599**
Annual Change - Increase (Decrease) in Actual & Projected Membership)	81	75	59	170	67	60	17	41	(25)	5	61	32	106	81	8	30	41	(34)	32	42	17	48	(35)	(54)
Capacity - 100% Level of Service	1,518	2,518	2,518	2,518	2,518	2,533	2,533	2,558	2,558	2,558	2,558	2,439	2,439	2,439	2,439	2,439	2,439	2,439	2,439	2,439	2,439	2,439	2,439	2,439
Number of Students, Actual and Projected, Over (Under) 100% LOS	235	(690)	(631)	(461)	(394)	(349)	(332)	(316)	(341)	(336)	(275)	(124)	(18)	63	71	101	142	108	140	183	200	248	213	160
110% Level of Service	1,670	2,770	2,770	2,770	2,770	2,786	2,786	2,814	2,814	2,814	2,814	2,683	2,683	2,683	2,683	2,683	2,683	2,683	2,683	2,683	2,683	2,683	2,683	2,683
Number of Students, Actual and Projected, Over (Under) 110% LOS	83	(942)	(883)	(713)	(646)	(602)	(585)	(572)	(597)	(592)	(531)	(368)	(262)	(181)	(173)	(143)	(102)	(136)	(104)	(61)	(44)	4	(31)	(84)
Actual - % Level of Service	115.5%	72.6%	74.9%	81.7%	84.4%	86.2%	86.9%	87.6%	86.7%	86.9%	89.2%	94.9%	99.3%	102.6%										
Average - % Level of Service															102.9%	104.2%	105.8%	104.4%	105.8%	107.5%	108.2%	110.2%	108.7%	106.5%
Annual Student Growth Rate (3)	4.84%	4.29%	3.23%	9.01%	3.26%	2.82%	0.78%	1.86%	-1.12%	0.23%	2.75%	1.40%	4.58%	3.35%	0.32%	1.21%	1.60%	-1.30%	1.26%	1.63%	0.66%	1.81%	-1.29%	-2.02%

Partnership Academy Alternative School capacity added

Partnership Academy Alternative School relocated - capacity added

Orange High capacity decreased, per DPI study

indicates when district surpasses Schools APFO recommended Level of Service

(1) It is important to note that this reflects the November 15, 2014 date of membership as outlined in by the Schools Adequate Public Facilities Ordinance.

(2) The Tischler Model provides for the "Linear Method" of projections for both OHCCS and OCS. Original projections used in prior years projection models included the "Linear Extrapolation Method" for OHCCS.

(3) Annual growth rate calculated using actual membership for years 2001-02 through 2014-15 and average membership for years 2015-16 through 2024-25

Attachment II.C.2 – Chapel Hill/Carrboro Student Projections (Elementary, Middle, & High) (2014-15)

REVISED 2/10/2015

CHCCS Student Projections (1) (4)

Elementary

School Year	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15
Actual	4,474	4,551	4,692	4,695	4,879	4,980	5,173	5,302	5,219	5,296	5,464	5,543	5,554	**5,541**
Tischler (2)														
OC Planning														
10 Year Growth														
5 Year Growth														
3 Year Growth														
Average														
Annual Change - Increase (Decrease) in Actual & Projected Membership	**30**	**77**	**141**	**3**	**184**	**101**	**193**	**129**	**(83)**	**77**	**168**	**79**	**11**	**(13)**
Capacity - 100% Level of Service (LOS)	**4,302**	**4,302**	**4,921**	**4,921**	**4,921**	**4,921**	**4,921**	**5,244**	**5,244**	**5,244**	**5,244**	**5,244**	**5,829**	**5,829**
Number of Students, Actual and Projected, Over (Under) 100% LOS	**172**	**249**	**(229)**	**(226)**	**(42)**	**59**	**252**	**58**	**(25)**	**52**	**220**	**299**	**(275)**	**(288)**
Capacity - 105% Level of Service (LOS)	**4,517**	**4,517**	**5,167**	**5,167**	**5,167**	**5,167**	**5,167**	**5,506**	**5,506**	**5,506**	**5,506**	**5,506**	**6,120**	**6,120**
Number of Students, Actual and Projected, Over (Under) 105% LOS	**(43)**	**34**	**(475)**	**(472)**	**(288)**	**(187)**	**6**	**(204)**	**(287)**	**(210)**	**(42)**	**37**	**(566)**	**(579)**
Actual - % Level of Service	104.0%	105.8%	95.3%	95.4%	99.1%	101.2%	105.1%	101.1%	99.5%	101.0%	104.2%	105.7%	95.3%	95.1%
Average - % Level of Service														
Annual Student Growth Rate (3)	**0.68%**	**1.72%**	**3.10%**	**0.06%**	**3.92%**	**2.07%**	**3.88%**	**2.49%**	**-1.57%**	**1.48%**	**3.17%**	**1.45%**	**0.20%**	**-0.23%**

School Year	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25
Actual										
Tischler (2)	5,625	5,710	5,794	5,879	5,963	6,048	6,132	6,217	6,301	6,386
OC Planning	5,641	5,769	5,898	6,014	6,131	6,235	6,326	6,416	6,491	6,565
10 Year Growth	5,606	5,647	5,707	5,759	5,769	5,827	5,885	5,944	6,004	6,064
5 Year Growth	5,586	5,606	5,650	5,695	5,701	5,758	5,816	5,874	5,933	5,992
3 Year Growth	5,573	5,578	5,603	5,629	5,632	5,689	5,746	5,803	5,861	5,920
Average	**5,606**	**5,662**	**5,730**	**5,795**	**5,829**	**5,911**	**5,981**	**6,051**	**6,118**	**6,185**
Annual Change - Increase (Decrease) in Actual & Projected Membership	**65**	**56**	**68**	**65**	**44**	**72**	**70**	**70**	**67**	**67**
Capacity - 100% Level of Service (LOS)	**5,829**	**5,829**	**5,829**	**5,829**	**5,829**	**5,829**	**5,829**	**5,829**	**5,829**	**5,829**
Number of Students, Actual and Projected, Over (Under) 100% LOS	**(223)**	**(167)**	**(99)**	**(34)**	**10**	**82**	**152**	**222**	**289**	**356**
Capacity - 105% Level of Service (LOS)	**6,120**	**6,120**	**6,120**	**6,120**	**6,120**	**6,120**	**6,120**	**6,120**	**6,120**	**6,120**
Number of Students, Actual and Projected, Over (Under) 105% LOS	**(514)**	**(458)**	**(390)**	**(325)**	**(281)**	**(209)**	**(139)**	**(70)**	**(2)**	**65**
Actual - % Level of Service	96.2%	97.1%	98.3%	99.4%	100.2%	101.4%	102.6%	103.8%	105.0%	106.1%
Average - % Level of Service										
Annual Student Growth Rate (3)	**1.18%**	**0.99%**	**1.21%**	**1.13%**	**0.76%**	**1.23%**	**1.18%**	**1.16%**	**1.11%**	**1.10%**

Elementary School #9 opens in fall 2003 with additional 519 seats

For November 15, 2005 Certified Capacity Calculations, CHCCS projects Elementary #10 opening for school year 2008-09. In accordance with BOCC adopted School Construction Standards, elementary school capacity totals 600 students.
Important Note: Per 2005 agreement of School Collaboration Work Group, Grades K-3 class size reduced from 1:23 to 1:21 the year Elementary # 10 opens (to allow for prior Legislative Action re: reduced class size)

Elementary School #11 opens with 595 seats

indicates when district surpasses Schools APFD recommended Level of Service

(1) It is important to note that this reflects the November 15, 2014 date of membership as outlined in by the Schools Adequate Public Facilities Ordinance. It does not include CHCCS students attending the Hospital School.
(2) The Tischler Model provides for the "Linear Method" of projections for both CHCCS and OCS. Original projections used in prior years projection models included the "Linear Extrapolation Method" for CHCCS.
(3) Annual growth rate calculated using actual membership for years 2001-02 through 2014-15 and average membership for years 2015-16 through 2024-25
(4) Class sizes for grades K-3 = 1:23 for school years 2000 through 2007-08. In accordance with 2005 School Collaboration Work Group direction, effective the 2008-2009 school year with the opening of CHCCS Elementary #10, K-3 class sizes are 1:21 as directed by part State legislative action.

CHCCS Student Projections (1)

Middle

School Year	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15
Actual	2,540	2,608	2,612	2,560	2,572	2,592	2,622	2,697	2,708	2,722	2,753	2,785	2,858	**2,861**
Tischler (2)														
OC Planning														
10 Year Growth														
5 Year Growth														
3 Year Growth														
Average														
Annual Change - Increase (Decrease) in Actual & Projected Membership	**214**	**68**	**4**	**(52)**	**12**	**20**	**30**	**75**	**11**	**14**	**31**	**32**	**73**	**3**
Capacity - 100% Level of Service	**2,840**	**2,840**	**2,840**	**2,840**	**2,840**	**2,840**	**2,840**	**2,840**	**2,840**	**2,840**	**2,840**	**2,840**	**2,840**	**2,944**
Number of Students, Actual and Projected, Over (Under) 100% LOS	**(300)**	**(232)**	**(228)**	**(280)**	**(268)**	**(248)**	**(218)**	**(143)**	**(132)**	**(118)**	**(87)**	**(55)**	**18**	**(83)**
107% Level of Service	**3,039**	**3,039**	**3,039**	**3,039**	**3,039**	**3,039**	**3,039**	**3,039**	**3,039**	**3,039**	**3,039**	**3,039**	**3,039**	**3,150**
Number of Students, Actual and Projected, Over (Under) 107% LOS	**(499)**	**(431)**	**(427)**	**(479)**	**(467)**	**(447)**	**(417)**	**(342)**	**(331)**	**(317)**	**(286)**	**(254)**	**(181)**	**(289)**
Actual - % Level of Service	89.4%	91.8%	92.0%	90.1%	90.6%	91.3%	92.3%	95.0%	95.4%	95.8%	96.9%	98.1%	100.6%	97.2%
Average - % Level of Service														
Annual Student Growth Rate (3)	**9.20%**	**2.68%**	**0.15%**	**-1.99%**	**0.47%**	**0.78%**	**1.16%**	**2.86%**	**0.41%**	**0.52%**	**1.14%**	**1.16%**	**2.62%**	**0.10%**

School Year	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25
Actual										
Tischler (2)	2,905	2,948	2,992	3,035	3,079	3,123	3,166	3,210	3,253	3,297
OC Planning	2,898	2,938	3,003	3,069	3,135	3,188	3,255	3,323	3,391	3,459
10 Year Growth	2,910	2,952	2,990	3,034	3,097	3,132	3,158	3,139	3,170	3,202
5 Year Growth	2,888	2,910	2,929	2,958	3,001	3,018	3,036	3,014	3,044	3,075
3 Year Growth	2,874	2,893	2,914	2,948	2,978	2,975	2,973	2,949	2,978	3,008
Average	**2,895**	**2,928**	**2,966**	**3,009**	**3,058**	**3,087**	**3,118**	**3,127**	**3,167**	**3,208**
Annual Change - Increase (Decrease) in Actual & Projected Membership	**34**	**33**	**37**	**43**	**49**	**29**	**31**	**9**	**40**	**41**
Capacity - 100% Level of Service	**2,944**	**2,944**	**2,944**	**2,944**	**2,944**	**2,944**	**2,944**	**2,944**	**2,944**	**2,944**
Number of Students, Actual and Projected, Over (Under) 100% LOS	**(49)**	**(16)**	**22**	**65**	**114**	**143**	**174**	**183**	**223**	**264**
107% Level of Service	**3,150**	**3,150**	**3,150**	**3,150**	**3,150**	**3,150**	**3,150**	**3,150**	**3,150**	**3,150**
Number of Students, Actual and Projected, Over (Under) 107% LOS	**(255)**	**(222)**	**(184)**	**(141)**	**(92)**	**(63)**	**(32)**	**(23)**	**17**	**58**
Actual - % Level of Service	98.3%	99.5%	100.7%	102.2%	103.9%	104.9%	105.9%	106.2%	107.6%	109.0%
Average - % Level of Service										
Annual Student Growth Rate (3)	**1.18%**	**1.15%**	**1.28%**	**1.46%**	**1.63%**	**0.96%**	**0.99%**	**0.29%**	**1.29%**	**1.29%**

Additional 104 new seats at Culbreth Middle School

indicates when district surpasses Schools APFD recommended Level of Service

(1) It is important to note that this reflects the November 15, 2014 date of membership as outlined in by the Schools Adequate Public Facilities Ordinance. It does not include CHCCS students attending the Hospital School.
(2) The Tischler Model provides for the "Linear Method" of projections for both CHCCS and OCS. Original projections used in prior years projection models included the "Linear Extrapolation Method" for CHCCS.
(3) Annual growth rate calculated using actual membership for years 2001-02 through 2014-15 and average membership for years 2015-16 through 2024-25

CHCCS Student Projections (1)

High

School Year	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15
Actual	2,963	3,162	3,330	3,422	3,514	3,520	3,635	3,630	3,606	3,645	3,714	3,796	3,764	**3,730**
Tischler (2)														
OC Planning														
10 Year Growth														
5 Year Growth														
3 Year Growth														
Average														
Annual Change - Increase (Decrease) in Actual & Projected Membership	**148**	**199**	**168**	**92**	**92**	**6**	**115**	**(5)**	**(24)**	**34**	**74**	**82**	**(32)**	**(34)**
Capacity - 100% Level of Service	**3,035**	**3,035**	**3,035**	**3,035**	**3,035**	**3,035**	**3,835**	**3,835**	**3,835**	**3,875**	**3,875**	**3,875**	**3,875**	**3,875**
Number of Students, Actual and Projected, Over (Under) 100% LOS	**(72)**	**127**	**295**	**387**	**479**	**485**	**(200)**	**(205)**	**(229)**	**(230)**	**(161)**	**(79)**	**(111)**	**(145)**
110% Level of Service	**3,339**	**3,339**	**3,339**	**3,339**	**3,339**	**3,339**	**4,219**	**4,219**	**4,219**	**4,263**	**4,263**	**4,263**	**4,263**	**4,263**
Number of Students, Actual and Projected, Over (Under) 110% LOS	**(376)**	**(177)**	**(9)**	**83**	**175**	**182**	**(584)**	**(589)**	**(613)**	**(620)**	**(549)**	**(467)**	**(499)**	**(533)**
Actual - % Level of Service	97.6%	104.2%	109.7%	112.8%	115.8%	116.0%	94.8%	94.7%	94.0%	93.3%	95.8%	98.0%	97.1%	96.3%
Average - % Level of Service														
Annual Student Growth Rate (3)	**5.26%**	**6.72%**	**5.31%**	**2.76%**	**2.69%**	**0.17%**	**3.27%**	**-0.14%**	**-0.66%**	**0.94%**	**2.03%**	**2.21%**	**-0.84%**	**-0.90%**

School Year	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25
Actual										
Tischler (2)	3,787	3,844	3,901	3,957	4,014	4,071	4,128	4,185	4,242	4,299
OC Planning	3,818	3,875	3,906	3,949	3,990	4,058	4,126	4,194	4,276	4,358
10 Year Growth	3,701	3,772	3,862	3,977	4,064	4,098	4,156	4,261	4,283	4,325
5 Year Growth	3,707	3,767	3,841	3,902	3,963	3,973	4,001	4,082	4,083	4,108
3 Year Growth	3,696	3,733	3,782	3,813	3,864	3,873	3,902	3,969	3,953	3,957
Average	**3,742**	**3,798**	**3,858**	**3,920**	**3,979**	**4,015**	**4,063**	**4,138**	**4,167**	**4,209**
Annual Change - Increase (Decrease) in Actual & Projected Membership	**12**	**56**	**60**	**61**	**60**	**36**	**48**	**76**	**29**	**42**
Capacity - 100% Level of Service	**3,875**	**3,875**	**3,875**	**3,875**	**3,875**	**3,875**	**3,875**	**3,875**	**3,875**	**3,875**
Number of Students, Actual and Projected, Over (Under) 100% LOS	**(133)**	**(77)**	**(17)**	**45**	**104**	**140**	**188**	**263**	**292**	**334**
110% Level of Service	**4,263**	**4,263**	**4,263**	**4,263**	**4,263**	**4,263**	**4,263**	**4,263**	**4,263**	**4,263**
Number of Students, Actual and Projected, Over (Under) 110% LOS	**(521)**	**(464)**	**(404)**	**(343)**	**(283)**	**(248)**	**(200)**	**(124)**	**(95)**	**(53)**
Actual - % Level of Service	96.6%	98.0%	99.6%	101.2%	102.7%	103.6%	104.8%	106.8%	107.5%	108.6%
Average - % Level of Service										
Annual Student Growth Rate (3)	**0.32%**	**1.51%**	**1.58%**	**1.59%**	**1.52%**	**0.89%**	**1.19%**	**1.86%**	**0.70%**	**1.01%**

High School #3 opens in fall 2007 with 800 additional seats

Phoenix Academy High School becomes official high school starting 2010-11 school year with 40 student capacity

indicates when district surpasses Schools APFD recommended Level of Service

(1) It is important to note that this reflects the November 15, 2014 date of membership as outlined in by the Schools Adequate Public Facilities Ordinance. It does not include CHCCS students attending the Hospital School.
(2) The Tischler Model provides for the "Linear Method" of projections for both CHCCS and OCS. Original projections used in prior years projection models included the "Linear Extrapolation Method" for CHCCS.
(3) Annual growth rate calculated using actual membership for years 2001-02 through 2014-15 and average membership for years 2015-16 through 2024-25

Attachment II.C.3 – Orange County Student Projections (Elementary, Middle, & High)
(2015-16)

REVISED 12/15/2015

OCS Student Projections (1) (4)

Elementary

School Year	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26
Actual	2,893	2,901	2,945	3,018	3,006	3,072	3,158	3,165	3,211	3,285	3,348	3,403	3,433	3,259	3,318										
Tischler (2)																3,366	3,413	3,461	3,508	3,556	3,603	3,651	3,698	3,746	3,793
OC Planning																3,376	3,438	3,491	3,546	3,602	3,657	3,712	3,767	3,822	3,886
10 Year Growth																3,306	3,250	3,242	3,234	3,299	3,332	3,365	3,399	3,433	3,467
5 Year Growth																3,289	3,221	3,203	3,191	3,252	3,285	3,318	3,351	3,384	3,418
3 Year Growth																3,288	3,218	3,199	3,181	3,240	3,273	3,305	3,338	3,372	3,406
Average																**3,325**	**3,308**	**3,319**	**3,332**	**3,390**	**3,430**	**3,470**	**3,511**	**3,551**	**3,594**
Annual Change - Increase (Decrease) in Actual & Projected Membership)	(185)	8	44	71	(10)	66	86	7	46	74	63	55	30	(174)	59	7	(17)	11	13	58	40	40	40	41	43
Capacity - 100% Level of Service	3,820	3,820	3,820	3,820	3,920	3,920	3,920	3,694	3,694	3,694	3,694	3,694	3,694	3,694	3,694	3,694	3,694	3,694	3,694	3,694	3,694	3,694	3,694	3,694	3,694
Number of Students, Actual and Projected, Over (Under) 100% LOS	(927)	(919)	(875)	(804)	(914)	(848)	(762)	(529)	(483)	(409)	(346)	(291)	(261)	(435)	(376)	(369)	(386)	(375)	(362)	(304)	(264)	(224)	(183)	(143)	(100)
105% Level of Service	4,011	4,011	4,011	4,011	4,116	4,116	4,116	3,879	3,879	3,879	3,879	3,879	3,879	3,879	3,879	3,879	3,879	3,879	3,879	3,879	3,879	3,879	3,879	3,879	3,879
Number of Students, Actual and Projected, Over (Under) 105% LOS	(1,118)	(1,110)	(1,066)	(995)	(1,110)	(1,044)	(958)	(714)	(668)	(594)	(531)	(476)	(446)	(620)	(561)	(554)	(571)	(560)	(547)	(489)	(449)	(409)	(368)	(327)	(286)
Actual - % Level of Service	75.7%	75.9%	77.1%	79.0%	76.7%	78.4%	80.6%	85.7%	86.9%	88.9%	90.6%	92.1%	92.9%	88.2%	89.8%										
Average - % Level of Service																90.0%	89.5%	89.9%	90.2%	91.6%	92.9%	93.9%	95.0%	96.1%	97.3%
Annual Student Growth Rate (3)	-6.01%	0.28%	1.52%	2.41%	-0.33%	2.20%	2.80%	0.22%	1.45%	2.30%	1.92%	1.64%	0.88%	-5.07%	1.81%	0.21%	-0.52%	0.34%	0.39%	1.73%	1.18%	1.18%	1.17%	1.16%	1.20%

Additional 100 new seats at Hillsborough Elementary School

Important Note: Per 2005 recommendation of School Collaboration Work Group and approved by BOCC with approval of 2008-09 Membership & Capacity numbers and certification of 2009 SAPROTAC report of May 5, 2009, Grades K-3 class size reduced from 1:23 to 1:21 with opening of CHCCS Elementary #10-Morris Grove (to allow for prior legislative action re: reduced class size)

indicates when district surpasses Schools APFO recommended Level of Service

(1) It is important to note that this reflects the November 15, 2015 date of membership as outlined in by the Schools Adequate Public Facilities Ordinance.

(2) The Tischler Model provides for the "Linear Method" of projections for both CHCCS and OCS. Original projections used in prior years projection models included the "Linear Extrapolation Method" for CHCCS.

(3) Annual growth rate calculated using actual membership for years 2001-02 through 2015-16 and average membership for years 2016-17 through 2025-26

(4) Class sizes for grades K-3 = 1:23 for school years 2008 through 2007-08. In accordance with 2005 School Collaboration Work Group direction, effective the 2008-2009 school year with the opening of CHCCS Elementary #10, K-3 class sizes are 1:21 as directed by past State legislative action.

OCS Student Projections(1)

Middle

School Year	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26
Actual	1,527	1,631	1,671	1,593	1,590	1,580	1,637	1,601	1,665	1,698	1,704	1,684	1,747	1,762	1,739										
Tischler (2)																1,764	1,789	1,814	1,839	1,864	1,888	1,913	1,938	1,963	1,988
OC Planning																1,769	1,806	1,844	1,884	1,924	1,964	2,004	2,027	2,051	2,073
10 Year Growth																1,733	1,780	1,858	1,870	1,761	1,735	1,709	1,761	1,779	1,796
5 Year Growth																1,726	1,756	1,821	1,822	1,705	1,670	1,638	1,686	1,703	1,720
3 Year Growth																1,724	1,751	1,812	1,815	1,699	1,663	1,627	1,672	1,688	1,705
Average																**1,743**	**1,776**	**1,830**	**1,846**	**1,790**	**1,784**	**1,778**	**1,817**	**1,837**	**1,857**
Annual Change - Increase (Decrease) in Actual & Projected Membership)	23	104	40	(78)	(3)	(10)	57	(36)	64	33	6	(20)	63	15	(23)	4	33	53	16	(56)	(6)	(6)	39	20	20
Capacity - 100% Level of Service	1,466	1,466	1,466	1,466	1,466	2,166	2,166	2,166	2,166	2,166	2,166	2,166	2,166	2,166	2,166	2,166	2,166	2,166	2,166	2,166	2,166	2,166	2,166	2,166	2,166
Number of Students, Actual and Projected, Over (Under) 100% LOS	61	165	205	127	124	(586)	(529)	(565)	(501)	(468)	(462)	(482)	(419)	(404)	(427)	(423)	(390)	(336)	(320)	(376)	(382)	(388)	(349)	(329)	(309)
107% Level of Service	1,569	1,569	1,569	1,569	1,569	2,318	2,318	2,318	2,318	2,318	2,318	2,318	2,318	2,318	2,318	2,318	2,318	2,318	2,318	2,318	2,318	2,318	2,318	2,318	2,318
Number of Students, Actual and Projected, Over (Under) 107% LOS	(42)	62	102	24	21	(738)	(681)	(717)	(653)	(620)	(614)	(634)	(571)	(556)	(579)	(574)	(541)	(488)	(472)	(527)	(534)	(539)	(501)	(481)	(461)
Actual - % Level of Service	104.2%	111.3%	114.0%	108.7%	108.5%	72.9%	75.6%	73.9%	76.9%	78.4%	78.7%	77.7%	80.7%	81.3%	80.3%										
Average - % Level of Service																80.5%	82.0%	84.5%	85.2%	82.7%	82.4%	82.1%	83.9%	84.8%	85.7%
Annual Student Growth Rate (3)	1.53%	6.81%	2.45%	-4.67%	-0.19%	-0.63%	3.61%	-2.20%	4.00%	1.98%	0.35%	-1.17%	3.74%	0.86%	-1.31%	0.24%	1.91%	3.00%	0.90%	-3.02%	-0.36%	-0.33%	2.18%	1.09%	1.08%

Middle School #3 opens in fall 2006 with 700 additional seats

indicates when district surpasses Schools APFO recommended Level of Service

(1) It is important to note that this reflects the November 15, 2015 date of membership as outlined in by the Schools Adequate Public Facilities Ordinance.

(2) The Tischler Model provides for the "Linear Method" of projections for both CHCCS and OCS. Original projections used in prior years projection models included the "Linear Extrapolation Method" for CHCCS.

(3) Annual growth rate calculated using actual membership for years 2001-02 through 2015-16 and average membership for years 2016-17 through 2025-26

OCS Student Projections (1)

High

School Year	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26
Actual	1,753	1,826	1,887	2,057	2,124	2,184	2,201	2,242	2,217	2,222	2,283	2,315	2,421	2,502	2,469										
Tischler (2)																2,504	2,540	2,575	2,610	2,646	2,681	2,716	2,752	2,787	2,823
OC Planning																2,511	2,542	2,581	2,621	2,660	2,700	2,740	2,796	2,853	2,902
10 Year Growth																2,478	2,491	2,422	2,478	2,540	2,548	2,621	2,541	2,478	2,461
5 Year Growth																2,506	2,549	2,487	2,523	2,566	2,557	2,616	2,524	2,444	2,414
3 Year Growth																2,519	2,574	2,522	2,564	2,605	2,593	2,653	2,560	2,477	2,444
Average																**2,504**	**2,539**	**2,517**	**2,559**	**2,604**	**2,616**	**2,669**	**2,635**	**2,609**	**2,609**
Annual Change - Increase (Decrease) in Actual & Projected Membership)	91	75	59	170	67	60	17	41	(25)	5	61	32	106	81	(33)	35	35	(22)	42	44	12	53	(36)	(27)	1
Capacity - 100% Level of Service	1,518	2,518	2,518	2,518	2,518	2,533	2,533	2,558	2,558	2,558	2,558	2,439	2,439	2,439	2,439	2,439	2,439	2,439	2,439	2,439	2,439	2,439	2,439	2,439	2,439
Number of Students, Actual and Projected, Over (Under) 100% LOS	235	(690)	(631)	(461)	(394)	(349)	(332)	(316)	(341)	(336)	(275)	(124)	(18)	63	30	65	100	78	120	165	177	230	196	169	170
110% Level of Service	1,670	2,770	2,770	2,770	2,770	2,786	2,786	2,814	2,814	2,814	2,814	2,683	2,683	2,683	2,683	2,683	2,683	2,683	2,683	2,683	2,683	2,683	2,683	2,683	2,683
Number of Students, Actual and Projected, Over (Under) 110% LOS	83	(942)	(883)	(713)	(646)	(602)	(585)	(572)	(597)	(592)	(531)	(368)	(262)	(181)	(214)	(179)	(144)	(166)	(124)	(79)	(67)	(14)	(48)	(75)	(74)
Actual - % Level of Service	115.5%	72.6%	74.9%	81.7%	84.4%	86.2%	86.9%	87.6%	86.7%	86.9%	89.2%	94.9%	99.3%	102.6%	101.2%										
Average - % Level of Service																102.6%	104.1%	103.2%	104.9%	106.7%	107.2%	109.4%	108.0%	106.9%	107.0%
Annual Student Growth Rate (3)	4.84%	4.26%	3.23%	9.01%	3.26%	2.82%	0.78%	1.86%	-1.12%	0.23%	2.75%	1.40%	4.58%	3.35%	-1.32%	1.40%	1.42%	-0.86%	1.67%	1.73%	0.47%	2.06%	-1.30%	-1.01%	0.03%

Partnership Academy Alternative School capacity added

Partnership Academy Alternative School relocated - capacity added

Orange High capacity decreased, per DPI study

indicates when district surpasses Schools APFO recommended Level of Service

(1) It is important to note that this reflects the November 15, 2015 date of membership as outlined in by the Schools Adequate Public Facilities Ordinance.

(2) The Tischler Model provides for the "Linear Method" of projections for both CHCCS and OCS. Original projections used in prior years projection models included the "Linear Extrapolation Method" for CHCCS.

(3) Annual growth rate calculated using actual membership for years 2001-02 through 2015-16 and average membership for years 2016-17 through 2025-26

Attachment II.C.4 – Chapel Hill/Carrboro Student Projections (Elementary, Middle, & High) (2015-16)

REVISED 11/13/2015

CHCCS Student Projections (1) (4)

Elementary

School Year	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
Actual	4,474	4,551	4,692	4,695	4,879	4,980	5,173	5,302	5,219	5,296	5,464	5,543	5,554	5,541	5,501
Trachler (2)															
OC Planning															
10 Year Growth															
5 Year Growth															
3 Year Growth															
Average															
Annual Change - Increase (Decrease) in Actual & Projected Membership	30	77	141	3	184	101	193	129	(82)	77	168	79	11	(2)	(40)
Capacity - 100% Level of Service (LOS)	4,302	4,302	4,921	4,921	4,921	4,921	4,921	5,244	5,244	5,244	5,244	5,244	5,829	5,829	5,829
Number of Students, Actual and Projected, Over (Under) 100% LOS	172	249	(229)	(226)	(42)	59	252	58	(25)	52	220	299	(275)	(288)	(328)
Capacity - 105% Level of Service (LOS)	4,517	4,517	5,167	5,167	5,167	5,167	5,167	5,506	5,506	5,506	5,506	5,506	6,120	6,120	6,120
Number of Students, Actual and Projected, Over (Under) 105% LOS	(43)	34	(479)	(472)	(288)	(187)	6	(204)	(287)	(210)	(42)	37	(566)	(579)	(619)
Actual - % Level of Service	104.0%	105.9%	95.3%	95.4%	99.1%	101.2%	105.1%	101.1%	99.5%	101.0%	104.2%	105.7%	95.3%	95.1%	94.4%
Average - % Level of Service															
Annual Student Growth Rate (3)	0.68%	1.72%	3.10%	0.06%	3.92%	2.07%	3.88%	2.49%	-1.67%	1.48%	3.17%	1.48%	0.20%	-0.04%	-0.72%

School Year	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26
Actual										
Trachler (2)	5,576	5,651	5,726	5,801	5,876	5,951	6,026	6,102	6,177	6,252
OC Planning	5,602	5,729	5,858	5,975	6,092	6,196	6,286	6,376	6,452	6,526
10 Year Growth	5,547	5,547	5,560	5,524	5,575	5,631	5,687	5,744	5,801	5,859
5 Year Growth	5,534	5,525	5,526	5,494	5,528	5,583	5,639	5,695	5,752	5,810
3 Year Growth	5,502	5,467	5,443	5,396	5,427	5,481	5,536	5,591	5,647	5,703
Average	5,552	5,584	5,622	5,634	5,699	5,768	5,835	5,902	5,966	6,030
Annual Change - Increase (Decrease) in Actual & Projected Membership	51	32	39	12	65	69	65	67	64	64
Capacity - 100% Level of Service (LOS)	5,829	5,829	5,829	5,829	5,829	5,829	5,829	5,829	5,829	5,829
Number of Students, Actual and Projected, Over (Under) 100% LOS	(277)	(245)	(207)	(195)	(130)	(61)	6	73	137	201
Capacity - 105% Level of Service (LOS)	6,120	6,120	6,120	6,120	6,120	6,120	6,120	6,120	6,120	6,120
Number of Students, Actual and Projected, Over (Under) 105% LOS	(568)	(537)	(498)	(486)	(421)	(352)	(286)	(219)	(155)	(90)
Actual - % Level of Service										
Average - % Level of Service	95.3%	95.8%	96.5%	96.7%	97.8%	99.0%	100.1%	101.2%	102.3%	103.4%
Annual Student Growth Rate (3)	0.93%	0.57%	0.69%	0.21%	1.16%	1.21%	1.15%	1.14%	1.09%	1.08%

Elementary School #9 opens in fall 2003 with additional 619 seats

Per November 15, 2005 Certified Capacity Calculations, CHCCS projects Elementary #10 opening for school year 2009-09. In accordance with BOCC adopted School Construction Standards, elementary school capacity totals 600 students.
Important Note: Per 2005 agreement of School Collaboration Work Group, Grades K-3 class size reduced from 1:23 to 1:22 the year Elementary #10 opens (to allow for prior Legislative Action re: reduced class size)

Elementary School #11 opens with 595 seats

indicates when district surpasses Schools APFO recommended Level of Service

(1) It is important to note that this reflects the November 15, 2015 date of membership as outlined in by the Schools Adequate Public Facilities Ordinance. It does not include CHCCS students attending the Hospital School.
(2) The Trachler Model provides for the "Linear Method" of projections for both CHCCS and OCS. Original projections used in prior years projection models included the "Linear Extrapolation Method" for CHCCS.
(3) Annual growth rate calculated using actual membership for years 2001-02 through 2015-16 and average membership for years 2016-17 through 2025-26
(4) Class sizes for grades K-3 = 1:23 for school years 2003 through 2007-08. In accordance with 2005 School Collaboration Work Group direction, effective the 2008-2009 school year with the opening of CHCCS Elementary #10, K-3 class sizes are 1:21 as directed by past State legislation action.

CHCCS Student Projections (1)

Middle

School Year	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
Actual	2,549	2,608	2,612	2,569	2,572	2,592	2,622	2,697	2,708	2,722	2,753	2,765	2,858	2,861	2,844
Trachler (2)															
OC Planning															
10 Year Growth															
5 Year Growth															
3 Year Growth															
Average															
Annual Change - Increase (Decrease) in Actual & Projected Membership	214	68	4	(62)	12	20	30	75	11	14	31	32	73	76	(17)
Capacity - 100% Level of Service	2,840	2,840	2,840	2,840	2,840	2,840	2,840	2,840	2,840	2,840	2,840	2,840	2,840	2,944	2,944
Number of Students, Actual and Projected, Over (Under) 100% LOS	(300)	(232)	(228)	(290)	(268)	(248)	(218)	(143)	(132)	(118)	(87)	(55)	18	(83)	(100)
107% Level of Service	3,039	3,039	3,039	3,039	3,039	3,039	3,039	3,039	3,039	3,039	3,039	3,039	3,039	3,150	3,150
Number of Students, Actual and Projected, Over (Under) 107% LOS	(489)	(431)	(427)	(470)	(467)	(447)	(417)	(342)	(331)	(317)	(286)	(254)	(181)	(289)	(306)
Actual - % Level of Service	89.4%	91.8%	92.0%	90.1%	90.6%	91.3%	92.3%	95.0%	95.4%	95.8%	96.9%	98.1%	100.6%	97.2%	96.6%
Average - % Level of Service															
Annual Student Growth Rate (3)	9.20%	2.68%	0.16%	-1.99%	0.47%	0.78%	1.16%	2.86%	0.41%	0.52%	1.14%	1.16%	2.62%	2.73%	-0.59%

School Year	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26
Actual										
Trachler (2)	2,883	2,922	2,960	2,999	3,038	3,077	3,116	3,154	3,193	3,232
OC Planning	2,878	2,918	2,963	3,049	3,115	3,168	3,235	3,302	3,370	3,438
10 Year Growth	2,815	2,848	2,933	3,044	3,020	3,005	2,940	2,965	2,995	3,025
5 Year Growth	2,798	2,816	2,885	2,987	2,961	2,934	2,864	2,881	2,910	2,939
3 Year Growth	2,775	2,767	2,816	2,898	2,848	2,798	2,716	2,729	2,756	2,784
Average	2,830	2,854	2,915	2,996	2,996	2,997	2,974	3,006	3,045	3,084
Annual Change - Increase (Decrease) in Actual & Projected Membership	(14)	24	61	80	1	0	(22)	32	38	39
Capacity - 100% Level of Service	2,944	2,944	2,944	2,944	2,944	2,944	2,944	2,944	2,944	2,944
Number of Students, Actual and Projected, Over (Under) 100% LOS	(114)	(90)	(29)	51	52	53	30	62	101	140
107% Level of Service	3,150	3,150	3,150	3,150	3,150	3,150	3,150	3,150	3,150	3,150
Number of Students, Actual and Projected, Over (Under) 107% LOS	(320)	(296)	(235)	(155)	(154)	(154)	(176)	(144)	(105)	(67)
Actual - % Level of Service										
Average - % Level of Service	96.1%	96.9%	99.0%	101.7%	101.8%	101.8%	101.0%	102.1%	103.4%	104.7%
Annual Student Growth Rate (3)	-0.50%	0.86%	2.16%	2.74%	0.03%	0.00%	-0.75%	1.09%	1.28%	1.27%

indicates when district surpasses Schools APFO recommended Level of Service

Additional 104 new seats at Culbreth Middle School

(1) It is important to note that this reflects the November 15, 2015 date of membership as outlined in by the Schools Adequate Public Facilities Ordinance. It does not include CHCCS students attending the Hospital School.
(2) The Trachler Model provides for the "Linear Method" of projections for both CHCCS and OCS. Original projections used in prior years projection models included the "Linear Extrapolation Method" for CHCCS.
(3) Annual growth rate calculated using actual membership for years 2001-02 through 2015-16 and average membership for years 2016-17 through 2025-26

CHCCS Student Projections (1)

High

School Year	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
Actual	2,963	3,162	3,330	3,422	3,514	3,520	3,635	3,630	3,606	3,640	3,714	3,790	3,764	3,726	3,701
Trachler (2)															
OC Planning															
10 Year Growth															
5 Year Growth															
3 Year Growth															
Average															
Annual Change - Increase (Decrease) in Actual & Projected Membership	148	199	168	92	92	6	115	(5)	(24)	34	74	82	(30)	(66)	(29)
Capacity - 100% Level of Service	3,035	3,035	3,035	3,035	3,035	3,035	3,835	3,835	3,835	3,875	3,875	3,875	3,875	3,875	3,875
Number of Students, Actual and Projected, Over (Under) 100% LOS	(72)	127	295	387	479	485	(200)	(205)	(229)	(235)	(161)	(79)	(111)	(145)	(174)
110% Level of Service	3,339	3,339	3,339	3,339	3,339	3,339	4,219	4,219	4,219	4,263	4,263	4,263	4,263	4,263	4,263
Number of Students, Actual and Projected, Over (Under) 110% LOS	(376)	(177)	(9)	83	175	182	(584)	(589)	(613)	(623)	(549)	(467)	(499)	(537)	(562)
Actual - % Level of Service	97.6%	104.2%	109.7%	112.8%	115.8%	116.0%	94.8%	94.7%	94.0%	93.9%	95.8%	98.0%	97.1%	96.3%	95.5%
Average - % Level of Service															
Annual Student Growth Rate (3)	5.26%	6.72%	5.31%	2.76%	2.69%	0.17%	3.27%	-0.14%	-0.66%	0.94%	2.03%	2.21%	-0.84%	-1.74%	-0.78%

School Year	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26
Actual										
Trachler (2)	3,752	3,802	3,853	3,903	3,954	4,004	4,055	4,105	4,156	4,206
OC Planning	3,792	3,849	3,880	3,923	3,964	4,032	4,100	4,168	4,249	4,332
10 Year Growth	3,753	3,838	3,864	3,900	3,939	3,977	4,124	4,145	4,121	4,119
5 Year Growth	3,757	3,834	3,850	3,839	3,853	3,875	3,999	4,016	3,983	3,964
3 Year Growth	3,732	3,779	3,765	3,719	3,703	3,696	3,788	3,772	3,715	3,674
Average	3,757	3,820	3,842	3,857	3,883	3,917	4,013	4,041	4,045	4,058
Annual Change - Increase (Decrease) in Actual & Projected Membership	56	63	22	14	26	35	96	28	3	13
Capacity - 100% Level of Service	3,875	3,875	3,875	3,875	3,875	3,875	3,875	3,875	3,875	3,875
Number of Students, Actual and Projected, Over (Under) 100% LOS	(118)	(55)	(33)	(18)	8	42	138	166	170	183
110% Level of Service	4,263	4,263	4,263	4,263	4,263	4,263	4,263	4,263	4,263	4,263
Number of Students, Actual and Projected, Over (Under) 110% LOS	(506)	(443)	(420)	(406)	(380)	(348)	(248)	(221)	(218)	(205)
Actual - % Level of Service	97.0%	98.6%	99.2%	99.9%	100.2%	101.1%	103.6%	104.3%	104.4%	104.7%
Average - % Level of Service										
Annual Student Growth Rate (3)	1.52%	1.68%	0.57%	0.37%	0.67%	0.89%	2.44%	0.71%	0.08%	0.32%

indicates when district surpasses Schools APFO recommended Level of Service

High School #3 opens in fall 2007 with 800 additional seats

Phoenix Academy High School becomes official high school starting 2010-11 school year with 40 student capacity

(1) It is important to note that this reflects the November 15, 2015 date of membership as outlined in by the Schools Adequate Public Facilities Ordinance. It does not include CHCCS students attending the Hospital School.
(2) The Trachler Model provides for the "Linear Method" of projections for both CHCCS and OCS. Original projections used in prior years projection models included the "Linear Extrapolation Method" for CHCCS.
(3) Annual growth rate calculated using actual membership for years 2001-02 through 2015-16 and average membership for years 2016-17 through 2025-26

D. Student Membership Growth Rate

1. ***Responsible Entity for Suggesting Change –*** The updating of this section will be conducted by the Planning Directors, School Representatives, and Technical Advisory Committee (SAPFOTAC) each year and referred to the BOCC for annual report certification. Projections will be distributed to SAPFO partners for review and comments to the BOCC prior to certification.
2. ***Definition*** – The annual percentage growth rate calculated from the projections resulting from the average of the five models represented by 10 year numerical membership projections by school level for each school district. This does not represent the year-by- year growth rate that may be positive or negative, but rather the average of the annual anticipated growth rates over the next 10 years.
3. ***Standard for:***

Chapel Hill/Carrboro School District

See Attachment II.D.2

Standard for:

Orange County School District

See Attachment II.D.2

4. ***Analysis of Existing Conditions:***

Chapel Hill/Carrboro School District

The membership figures and percentage growth on the attachments show continued growth at each school level within the system.

Projected Average Annual Growth Rate over next ten years:

Year Projection Made:	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016
Elementary	1.59%	1.18%	1.44%	1.11%	0.92%
Middle	1.94%	1.59%	1.58%	1.15%	0.82%
High	1.73%	1.60%	1.27%	1.22%	0.93%

Analysis of Existing Conditions:

Orange County School District

The membership figures and percentage growth on the attachments show continued growth at each school level within the system.

Projected Average Annual Growth Rate over next ten years:

Year Projection Made:	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016
Elementary	1.6%	1.31%	1.30%	0.55%	0.80%
Middle	2.01%	1.64%	1.42%	0.09%	0.67%
High	1.61%	1.43%	1.35%	0.39%	0.56%

5. ***Recommendation:***

Chapel Hill/Carrboro School District

Use statistics as noted.

Recommendation:

Orange County School District

Use statistics as noted.

Attachment II.D.1 – Orange County and Chapel Hill/Carrboro Student Growth Rates
(Chart dates from 2015-2025 based on 11/14/14 membership numbers) (2014-15)

2014-2015

Orange County Student Projections

Elementary

School Year	2014-2015 (actual)	2015-2016	2016-2017	2017-2018	2018-2019	2019-2020	2020-2021	2021-2022	2022-2023	2023-2024	2024-2025
Membership	3,259	3,285	3,274	3,234	3,226	3,227	3,267	3,310	3,354	3,398	3,442
Average % Increase		0.80%	-0.33%	-1.22%	-0.26%	0.03%	1.23%	1.33%	1.32%	1.31%	1.30%

Middle

School Year	2014-2015 (actual)	2015-2016	2016-2017	2017-2018	2018-2019	2019-2020	2020-2021	2021-2022	2022-2023	2023-2024	2024-2025
Membership	1,762	1,751	1,746	1,782	1,837	1,848	1,789	1,759	1,737	1,757	1,776
Average % Increase		-0.65%	-0.27%	2.08%	3.10%	0.60%	-3.21%	-1.70%	-1.23%	1.11%	1.10%

High School

School Year	2014-2015 (actual)	2015-2016	2016-2017	2017-2018	2018-2019	2019-2020	2020-2021	2021-2022	2022-2023	2023-2024	2024-2025
Membership	2,502	2,510	2,540	2,581	2,547	2,579	2,622	2,639	2,687	2,652	2,599
Average % Increase		0.32%	1.21%	1.60%	-1.30%	1.26%	1.63%	0.66%	1.81%	-1.29%	-2.02%

Chapel Hill/Carrboro Student Projections

Elementary

School Year	2014-2015 (actual)	2015-2016	2016-2017	2017-2018	2018-2019	2019-2020	2020-2021	2021-2022	2022-2023	2023-2024	2024-2025
Membership	5,541	5,606	5,662	5,730	5,795	5,839	5,911	5,981	6,051	6,118	6,185
Average % Increase		1.18%	0.99%	1.21%	1.13%	0.76%	1.23%	1.18%	1.16%	1.11%	1.10%

Middle

School Year	2014-2015 (actual)	2015-2016	2016-2017	2017-2018	2018-2019	2019-2020	2020-2021	2021-2022	2022-2023	2023-2024	2024-2025
Membership	2,861	2,895	2,928	2,966	3,009	3,058	3,087	3,118	3,127	3,167	3,208
Average % Increase		1.18%	1.15%	1.28%	1.46%	1.63%	0.95%	0.99%	0.29%	1.29%	1.29%

High School

School Year	2014-2015 (actual)	2015-2016	2016-2017	2017-2018	2018-2019	2019-2020	2020-2021	2021-2022	2022-2023	2023-2024	2024-2025
Membership	3,730	3,742	3,798	3,858	3,920	3,979	4,015	4,063	4,138	4,167	4,209
Average % Increase		0.32%	1.51%	1.58%	1.59%	1.52%	0.89%	1.19%	1.86%	0.70%	1.01%

Attachment II.D.2 – Orange County and Chapel Hill/Carrboro Student Growth Rates
(Chart dates from 2016-2026 based on 11/13/15 membership numbers) (2015-16)

2015-2016

Orange County Student Projections

Elementary

School Year	2015-2016 (actual)	2016-2017	2017-2018	2018-2019	2019-2020	2020-2021	2021-2022	2022-2023	2023-2024	2024-2025	2025-2026
Membership	3,318	3,325	3,308	3,319	3,332	3,390	3,430	3,470	3,511	3,551	3,594
Average % Increase		0.21%	-0.52%	0.34%	0.39%	1.73%	1.18%	1.18%	1.17%	1.16%	1.20%

Middle

School Year	2015-2016 (actual)	2016-2017	2017-2018	2018-2019	2019-2020	2020-2021	2021-2022	2022-2023	2023-2024	2024-2025	2025-2026
Membership	1,739	1,743	1,776	1,830	1,846	1,790	1,784	1,778	1,817	1,837	1,857
Average % Increase		0.24%	1.91%	3.00%	0.90%	-3.02%	-0.36%	-0.33%	2.18%	1.09%	1.08%

High School

School Year	2015-2016 (actual)	2016-2017	2017-2018	2018-2019	2019-2020	2020-2021	2021-2022	2022-2023	2023-2024	2024-2025	2025-2026
Membership	2,469	2,504	2,539	2,517	2,559	2,604	2,616	2,669	2,635	2,608	2,609
Average % Increase		1.40%	1.42%	-0.86%	1.67%	1.73%	0.47%	2.05%	-1.30%	-1.01%	0.03%

Chapel Hill/Carrboro Student Projections

Elementary

School Year	2015-2016 (actual)	2016-2017	2017-2018	2018-2019	2019-2020	2020-2021	2021-2022	2022-2023	2023-2024	2024-2025	2025-2026
Membership	5,501	5,552	5,584	5,622	5,634	5,699	5,768	5,835	5,902	5,966	6,030
Average % Increase		0.93%	0.57%	0.69%	0.21%	1.16%	1.21%	1.15%	1.14%	1.09%	1.08%

Middle

School Year	2015-2016 (actual)	2016-2017	2017-2018	2018-2019	2019-2020	2020-2021	2021-2022	2022-2023	2023-2024	2024-2025	2025-2026
Membership	2,844	2,830	2,854	2,915	2,995	2,996	2,997	2,974	3,006	3,045	3,084
Average % Increase		-0.50%	0.86%	2.15%	2.74%	0.03%	0.00%	-0.75%	1.09%	1.28%	1.27%

High School

School Year	2015-2016 (actual)	2016-2017	2017-2018	2018-2019	2019-2020	2020-2021	2021-2022	2022-2023	2023-2024	2024-2025	2025-2026
Membership	3,701	3,757	3,820	3,842	3,857	3,883	3,917	4,013	4,041	4,045	4,058
Average % Increase		1.52%	1.68%	0.57%	0.37%	0.67%	0.89%	2.44%	0.71%	0.08%	0.32%

E. Student / Housing Generation Rate

1. ***Responsible Entity for Suggesting Change –*** The updating of this section will be conducted by Planning Directors, School Representatives, and Technical Advisory Committee (SAPFOTAC) and referred to the BOCC for certification.
   Projections will be distributed to SAPFO partners for review and comments to the BOCC prior to certification.
2. ***Definition –*** Student generation rate refers to the number of public school students per housing unit constructed in each school district, as defined in the Student Generation Rate Study completed by TisherBise on October 28, 2014. Housing units include single family detached, single family attached/duplex, multifamily, and manufactured homes.
3. ***Standard for:*** ***Standard for:***

Chapel Hill/Carrboro School District	**Orange County School District**
See Attachment II.E.1	See Attachment II.E.1

4. ***Analysis of Existing Conditions:***
   At the January 2014 SAPFOTAC meeting, members discussed the increased number of students generated in both school districts from new development, particularly multifamily housing. The SAPFOTAC recommended further evaluation of the adopted Student Generation Rates and the impacts the number of bedrooms a particular housing type may have on student generation rates. As a result, Orange County entered into a contract with TischlerBise to update the student generation rate analysis. The new student generation rates were approved on May 19, 2015 and are shown in Attachment II.E.1. New rates from the 2014 Student Generation Rates for Orange County Schools and Chapel Hill-Carrboro School District Report are based on an inventory of recently built units from January 1, 2004 to December 31, 2013.

   It should be noted that students are generated from new housing as well as from existing housing where new families have moved in. The CAPS system estimates new development impacts and associated student generation, but it is important to understand that student increases are a composite of both of these factors. This effect can be dramatic and can vary greatly between areas and districts where either new

housing is dominant or new families move into a large inventory of existing housing stock.

5. ***Recommendation:***

   No change at this time.

Attachment II.E.1 – Current Student Generation Rates (2015)

TischlerBise Student Generation Rates – 2014

Chapel Hill/Carrboro Schools				
	0-3 Bedrooms	**4 Bedrooms**	**5+ Bedrooms**	**Weighted Average**
Single-Family Detached	0.61	0.84	1.13	0.84
	0-2 Bedrooms	**3+ Bedrooms**		**Weighted Average**
Single-Family Attached	0.27	0.42		0.38
Multifamily/Other	0.11	0.47		0.18
Manufactured Home	0.268	0.86		0.78
Weight Average for Chapel Hill/Carrboro School District				**0.49**

Orange County Schools				
	0-3 Bedrooms	**4 Bedrooms**	**5+ Bedrooms**	**Weighted Average**
Single-Family Detached	0.35	0.57	0.57	0.44
	0-2 Bedrooms	**3+ Bedrooms**		**Weighted Average**
Single-Family Attached	0.07	0.17		0.15
Multifamily/Other	0.08	0.67		0.17
Manufactured Home	0.67	0.47		0.52
Weight Average for Orange County School District				0.37

Source: Student Generation Rates for Orange County School District and Chapel Hill-Carrboro School District, TischlerBise, October 28, 2014
Revised May 7, 2015

III. Flowchart of Schools Adequate Public Facilities Ordinance Process

Abstract: The Schools Adequate Public Facilities Ordinance process has two distinct components:

A. Capital Investment Plan (CIP) (Process 1)

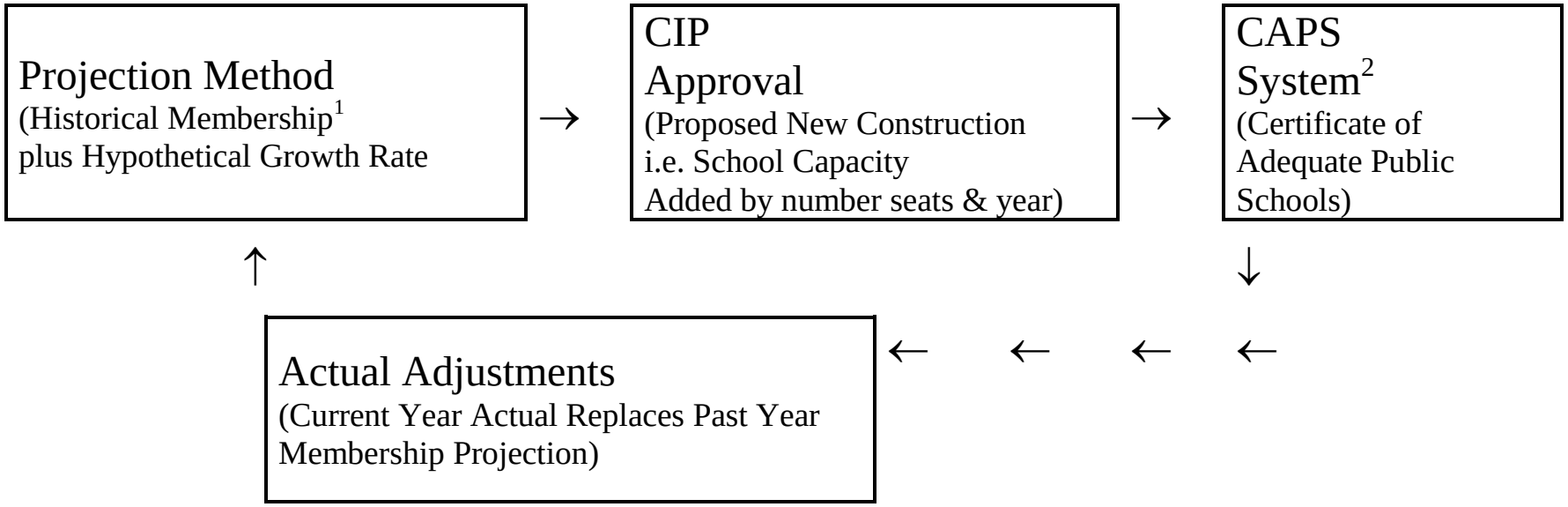
Timeframe: In November of each year, Student Membership and Building Capacity is transmitted from the school districts to the Orange County Board of Commissioners for consideration and approval and used in the following years CIP (e.g. November 15, 2015 membership numbers used to develop a CIP to be considered for adoption in June 2016).

Process Framework

1. SAPFOTAC projects future student membership from historical data, current membership and hypothetical growth rates from established methodologies.
2. School Districts and BOCC compare projections to existing capacity and proposed Capital Investment Plan.
3. SAPFOTAC forwards data and projections to all Schools APFO partners.
4. School Districts develop Capital Investment Plan Needs Assessment during this process
5. The Capital Investment Plan work sessions and Public Hearings are conducted by the BOCC in the spring of each year.
6. The adoption of CIP that sets forth monies and timeframe for school construction (future capacity) by BOCC.

School Adequate Public Facilities Ordinance

Process 1 - Capital Investment Planning (CIP)



[1]Historical Membership is a product of students generated from: (1) pre-existing/approved undeveloped lots where new housing is built, (2) existing housing stock with new families/children, and (3) newly approved housing development (in the future this component will be known as CAPS approved development)

[2]The only part of the CAPS System (i.e., computer spreadsheet subdivision tracking) that receives data from the Process 1 CIP includes the actual membership (November 15 of preceding CIP year) and new school capacity amount (seats) in a specific year pursuant to the CIP.

B. Schools Adequate Public Facilities Ordinance Certificate of Adequate Public Schools (CAPS) Update (Process 2)

Timeframe: The CAPS system is updated approximately November 15 of each year when the school districts report actual membership and 'pre-certified' capacity, whether it is CIP associated or prior 'joint action' agreement. 'Joint action' determinations of changes in capacity due to State rules or other non-construction related items are anticipated to be done prior to the November 15 capacity and membership reporting date. This update may reflect the Board of County Commissioners action on the earlier year Capital Investment Plan (CIP) as it affects capacity and addition of new actual fall membership. The Schools Adequate Public Facilities Ordinance Certificate of Adequate Public Schools (CAPS) stays in effect until the following year – (e.g.: November 15, 2005 to November 14, 2006).

New development is originally logged for a certain year. As the CAPS system is updated, each CAPS projection year is 'absorbed' by the actual estimate of a given year. Later year CAPS projections of the same development remain in the future year CAPS system accordingly. For example, if a 50-lot subdivision is issued a CAPS, 15 lots may be assigned to "Year 1," 10 lots to "Year 2," 10 lots to "Year 3," 10 lots to "Year 4," and 5 lots to "Year 5." When "Year 1" is updated, the students generated from the 15 lots are absorbed by the actual estimate. The students generated in "Years 2, 3, 4, and 5" are held in the CAPS system and added to the appropriate year when the CAPS system is updated.

As was discussed in Section II.C, The City of Mebane is not a party to the SAPFO and does not require that CAPS be issued prior to approving development activities. However, residential development within the Orange County portion of Mebane has increased dramatically prior to 2009, but has slowed considerably due to the current economic climate. Currently, there are approximately 1,000 approved undeveloped residential lots in the portion of Mebane that lies within Orange County. Increasing development within this area of the county has the potential to encumber a significant portion of the available capacity within the Orange County School District. Although the SAPFO system is not formally regulated in Mebane, staff monitors

development activity and when students enter the school system their enrollment is calculated and used in future school projection needs.

Please note that the two processes (CIP and CAPS) are on separate, but parallel tracks. However, the CIP does create a crossover of capacity information between the two processes. For example, the Schools APFO system for both school districts that will be established / initiated / certified each year in November and is based on prior year created and/or planned CIP capacity and current school year membership. The SAPFOTAC report including new current year membership and projections are to be used for upcoming CIP development as noted in Process 1.

CIP Process 1 (for CIP 2016 - 2026)
November 2015 – June 2016 (using 2016 SAPFOTAC Report)

Schools APFO CAPS Process 2 (for Schools APFO System 2016 – 2017)
November 2015 - November 2016

School Adequate Public Facilities Ordinance

Process 2 - Certificate of Adequate Public Schools (CAPS) Allocation

2016 CAPS system is effective November 15, 2015 through November 14, 2016.

The system is updated with new membership, CIP capacity changes, and any other BOCC/School District joint action approved capacity prior to November 15, 2015. This information is received within 5 days of November 15 and posted within the next 15 days. This CAPS system recalibration is retroactive to November 15, 2015.

CAPS Allocation System

1. Certified Capacity
2 LOS Capacity
3. Actual Membership
4. Year Start Available Capacity
5. Ongoing Current Available Capacity (includes available capacity decreases from approved CAPS development by year)
6. CAPS approved development
   a. Total units
   b. Single Family[1]
   c. Other Housing[1]

CAPS System

$AC^2=SC^2 - (ADM^2+ND1^2+ND2^2+\ldots)$

$AC \geq 0$ - Issue CAPS

$AC < 0$ - Defer CAPS to later date

[1]Student Generation Rates from CAPS housing type create future membership estimate. Please note that this CAPS membership future estimate is different than the projection based on historical data and projection models used in the CIP process 1. This estimate only captures new development impact, which is the component that the SAPFO can regulate.

[2]AC - Available Capacity - Starts at Annual Update Capacity and reduces as CAPS approved development is entered into the system.
SC - Certified School Level Capacity
ADM - Average Daily Membership
ND - New Development; ND1 means first approved CAPS approved development