CHAPTER 3

Enrollment, Capacity and Utilization







ADEQUATE SPACE TO SUPPORT QUALITY EDUCATION PROGRAMS

PREMISE

The Master Facilities Plan is meant to guide strategic facilities improvements so the District can provide families with a choice of high quality schools close to their homes. Currently, District families have many school choices outside of their neighborhoods, including charter schools and a variety of DC Public Schools (DCPS). This aim of the Master Facilities Plan is aligned with many existing District policies, including the following:

- The Mayor's initiative of "One City, One Future," ensuring every child in every neighborhood has access to high quality facilities.
- The policy of high quality school facilities contributing to the quality of the neighborhood.
- The concept of high quality school facilities, both DCPS and charter schools, supporting high quality education programs and offering parents more choices regardless of their income or access to transportation.

PURPOSE

This chapter on Capacity and Utilization concentrates on how much space is available, how many students are in the public education system and how much space is utilized by students. Specifically, the Capacity and Utilization chapter answers the following questions:

- Where and how many students attend DCPS and charter schools?
- What is the current capacity of charter and DCPS school facilities?
- Is there alignment between facility capacity and student enrollment?
- How much space is being utilized to support current enrollment?
- How many students could be served in the current space?
- Is space located appropriately to meet current demand?

CAPACITY BY CLUSTER

COMBINED DCPS AND CHARTER SCHOOLS: ES, MS AND HS

DCPS school capacity numbers were obtained from DCPS. Charter School capacity numbers were obtained from PCSB. When not available, a proxy for Charter School capacity numbers was created by combining the Charter School enrollment numbers plus the additional open seats available for each school (as reported by each individual charter school).

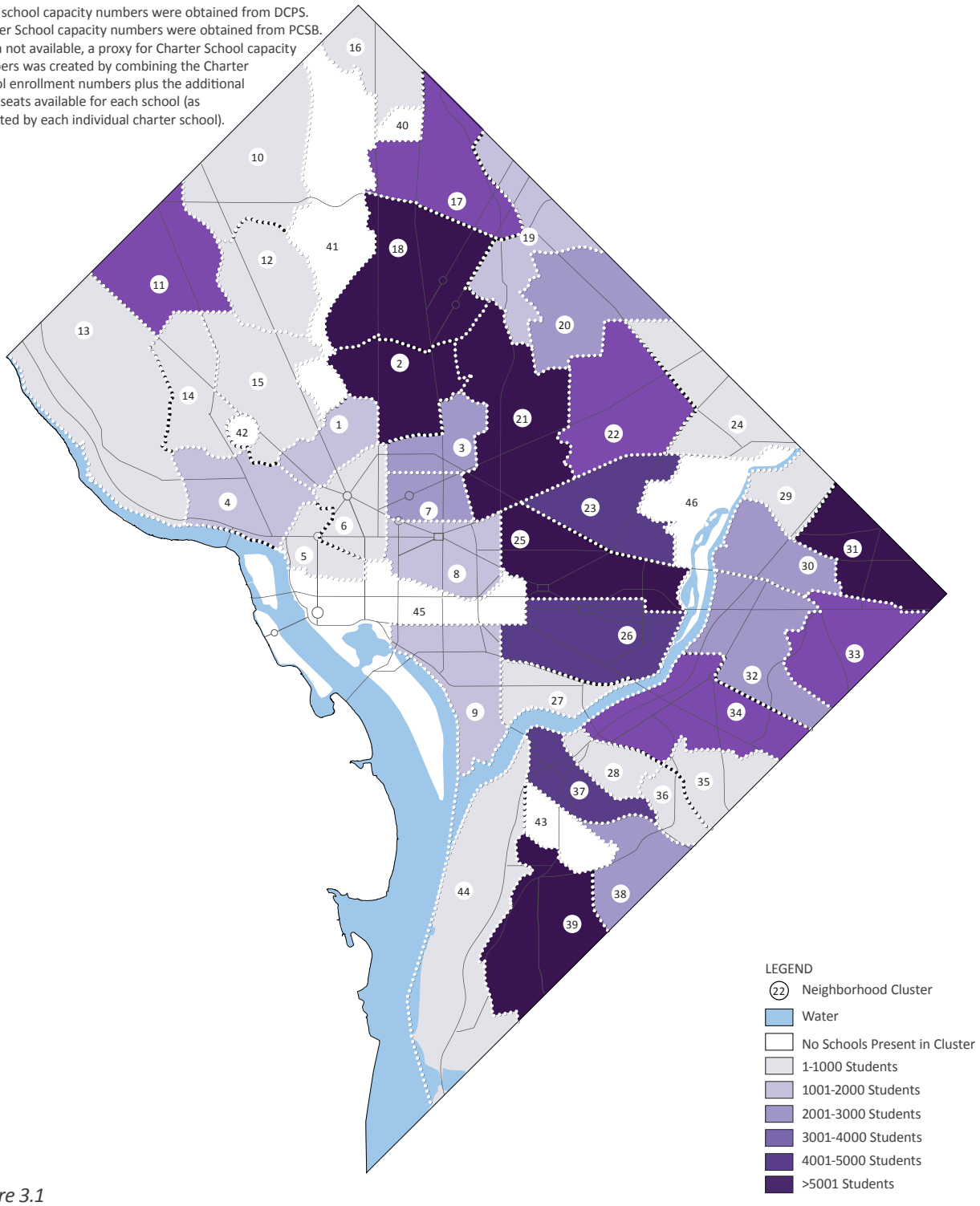

Figure 3.1

SPACE PER STUDENT

To understand the fit between student enrollment and the space available in facilities, the gross square feet per student based on current enrollment and capacity was analyzed (Figure 3.2). Gross square feet (GSF) was used as opposed to net square feet (NSF) or assignable square feet (ASF) so that a comparison could be made between the total space available in facilities, regardless of the efficiency of design or use of space.

The significance of GSF per student is both programmatic and financial. If GSF per student is too low, facilities may not have the space to support education programming, particularly specialties like art, music, science and athletics. If GSF per student is too high, the District of Columbia is paying to maintain and operate more building area than is needed.

Given the specialized space needs of DCPS special education and adult education facilities, this analysis focuses on DCPS elementary schools, middle schools, high schools and the few education campuses. For charter schools, the analysis focuses on elementary schools, middle schools, high schools, PK/K-8 education campuses and PK/K-12 education campuses, and it excludes special education and adult education facilities given their specialized space needs.

When looking at GSF per student, it is important to note that the GSF per student tends to increase for middle school and high schools, as spaces like large gymnasiums and associated support spaces become more prevalent. Gymnasiums require more GSF although they do not tend to increase a school's capacity because of their occasional use. Charter schools typically do not have access to such large spaces, so the GSF per student tends to be based on more efficient spaces like classrooms.

Additionally, given the wide range of education programming in the District in both DCPS and charter schools, there is not a single GSF per student that is ideal or appropriate for every school. However, GSF per student puts all schools on equal footing regardless of academic program, how they were designed or are being used currently. Furthermore, benchmark data is available for GSF per student from the DCPS Design Guidelines and other school districts, allowing for comparisons.

DCPS

The average GSF per enrolled student breaks down by school type as follows (Figure 3.3):

- Elementary School: 243 SF/student:
  - DCPS Standard for New Construction and Modernization[1] 150 SF/ student
  - National Average[2]: 77-147 SF/ student
- Middle School: 436 SF / student:
  - DCPS Standard for New Construction and Modernization : 170 SF/ student
  - National Average 114-212 SF/ student
  - ES-MS Education Campus: 256 SF/student
  - ES-HS Education Campus: 270 SF/ student
- High School: 408 SF / student
  - DCPS Standard for New Construction and Modernization : 192 SF/ student
  - National Average 123-211 SF/ student

[1] Design Guidelines | District of Columbia Public Schools, 2009, pg 2000-1

[2] Wohlers, Art. "Gross Square Feet per Student", Council of Education Facilities Planners, Issuetrak, November 2005.

GSF per Enrolled Student v. GSF per Student Capacity

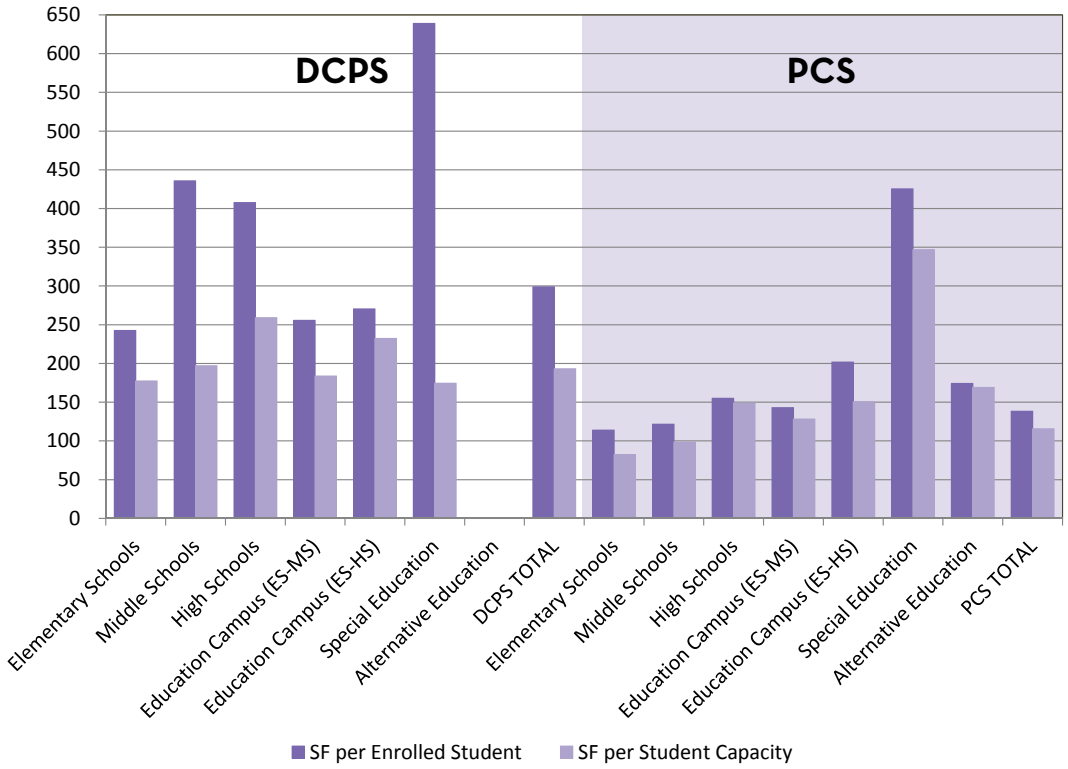

Figure 3.2

DCPS Analysis

All school types on average are well above the GSF per student identified in DCPS design guidelines. This finding suggests that either the inventory is unaligned with current enrollment or there are significant issues with the efficiency of building designs. This issue is particularly acute for middle schools. Although DCPS has only 13 middle schools and only 4,759 DCPS students enrolled in these stand alone middle schools (grades 6-8), it dedicates 1.8 million GSF to middle school education. There is more space per student in middle schools than any other type of school.

CHARTER SCHOOLS

Given the range of space needed to support the wide variety of charter education programs, it is difficult to develop a meaningful average GSF per student nationally. However, it is useful to examine the amount of space available per student for reference. The statistical average (mean) SF per enrolled student by grade configuration is as follows (Figure 3.3):

- Elementary School: 114 SF/student
- Middle School: 121 SF / student
- ES-MS Education Campus: 143 SF/student
- ES-HS Education Campus: 202 SF/ student
- High School 155 SF / student

DCPS AND CHARTER SCHOOLS COMBINED AND COMPARED

Charter facilities range from purpose-built new schools to leased commercial space and former DCPS schools to meet a wide range of educational programming with differential spatial needs. However, charter schools on a GSF per student basis are operating between 25 percent to 50 percent less space per student than is the case with DCPS schools.

ENROLLMENT

Between 2001 and 2008, total enrollment decreased by more than 2,000 students but increased by more than 5,000 students from 2009 to 2011. From 2001 to 2011, the charter schools' share of total enrollment has increased from 14 percent to more than 38 percent in 2011 (Figure 3.4).

DCPS has the greatest share of elementary and high school students, while charter schools have the greatest share of ES-MS education campuses (Figure 3.5).

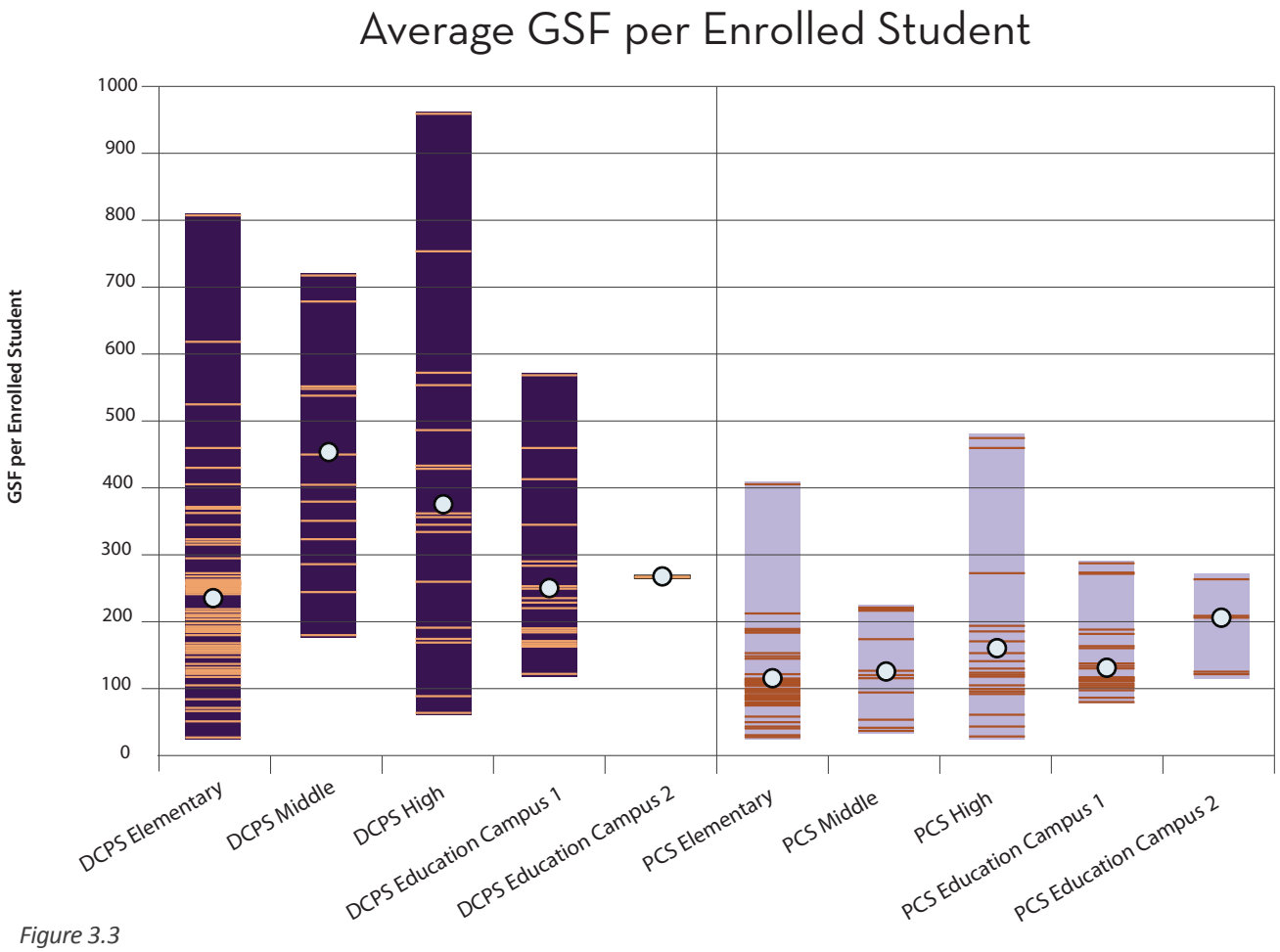

Figure 3.3

Comparison of Enrollment between DCPS and Charter Schools

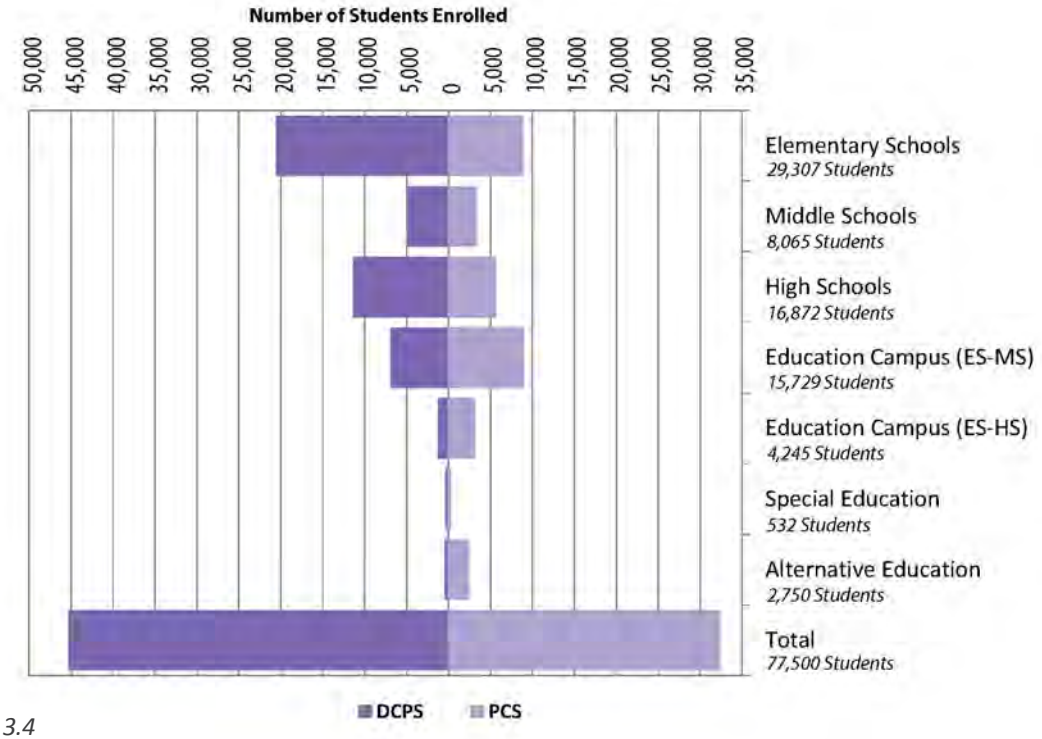

Figure 3.4

Comparison of Enrollment by Grade between DCPS and Charter Schools

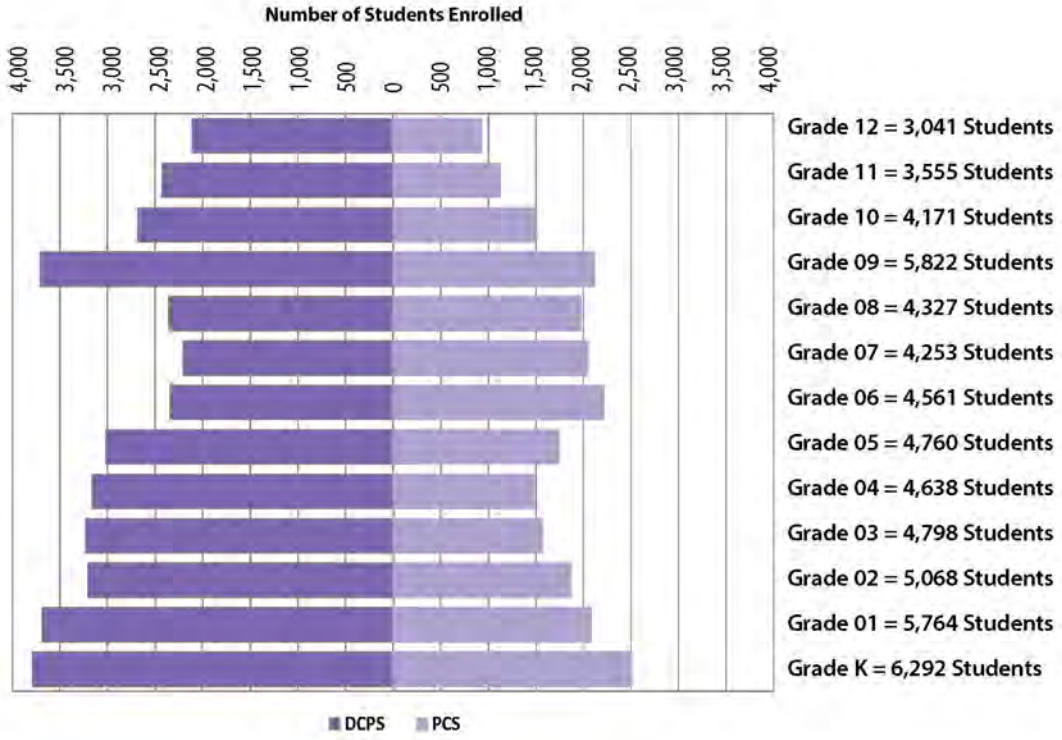

Figure 3.5

From Grade 5 to Grade 6, DCPS enrollment significantly dips according to the October 2011 Enrollment Audit in contrast to an increase in charter school enrollment for the same grades (Figure 3.5). There are 668 fewer students enrolled in DCPS Grade 6 than in Grade 5 and 469 more students enrolled in charters Grade 6 than in charters Grade 5.

This data suggests that there is a noticeable shift from DCPS to charter schools at the transition from elementary to middle school. This shift may account for part of the under-utilization of DCPS middle school inventory and the over-utilization of charter schools' middle school inventory. Together, DCPS and charters lost nearly 200 students between Grades 5 and 6 in 2011.

Enrollment significantly jumps from Grade 8 to Grade 9 in both DCPS and charter schools. The increase is considerable in DCPS schools, where there were 1,349 more students in Grade 9 than in Grade 8. For charter schools, there were 146 more students in Grade 9 than in Grade 8.

UTILIZATION

Although average utilization for both DCPS and charters shows a reasonable match between capacity and enrollment District-wide, at 75 percent and 85 percent respectively, there is wide variation among school types and neighborhood clusters. Figure 3.8 demonstrates the wide variation in utilization between neighborhood clusters in the District's schools to suggest there are enough seats in total, but the seats are not located in the right places to meet current demand.

Given the excess capacity in the DCPS middle school inventory, utilization drops dramatically in DCPS middle schools. Interestingly, DCPS utilization for middle schools drops to 53 percent and charter school utilization jumps to 82 percent. Correlating this misalignment between facility capacity at the middle school level and enrollment with a grade cohort analysis, the data suggests that there is a shift from DCPS to charters during the middle school years.

Elementary and middle schools are well utilized for both DCPS and charter schools, at 78 percent utilization and 91 percent utilization respectively. The combination of elementary and middle schools in (combined) ES-MS campuses is also more efficient on SF/student basis.

ENROLLMENT BY CLUSTER

COMBINED DCPS AND CHARTER SCHOOLS: ES, MS AND HS

Enrollment data for both DCPS and Charter Schools was gathered from the Office of the State Superintendant of Education (OSSE) October 2011 Audited Enrollment.

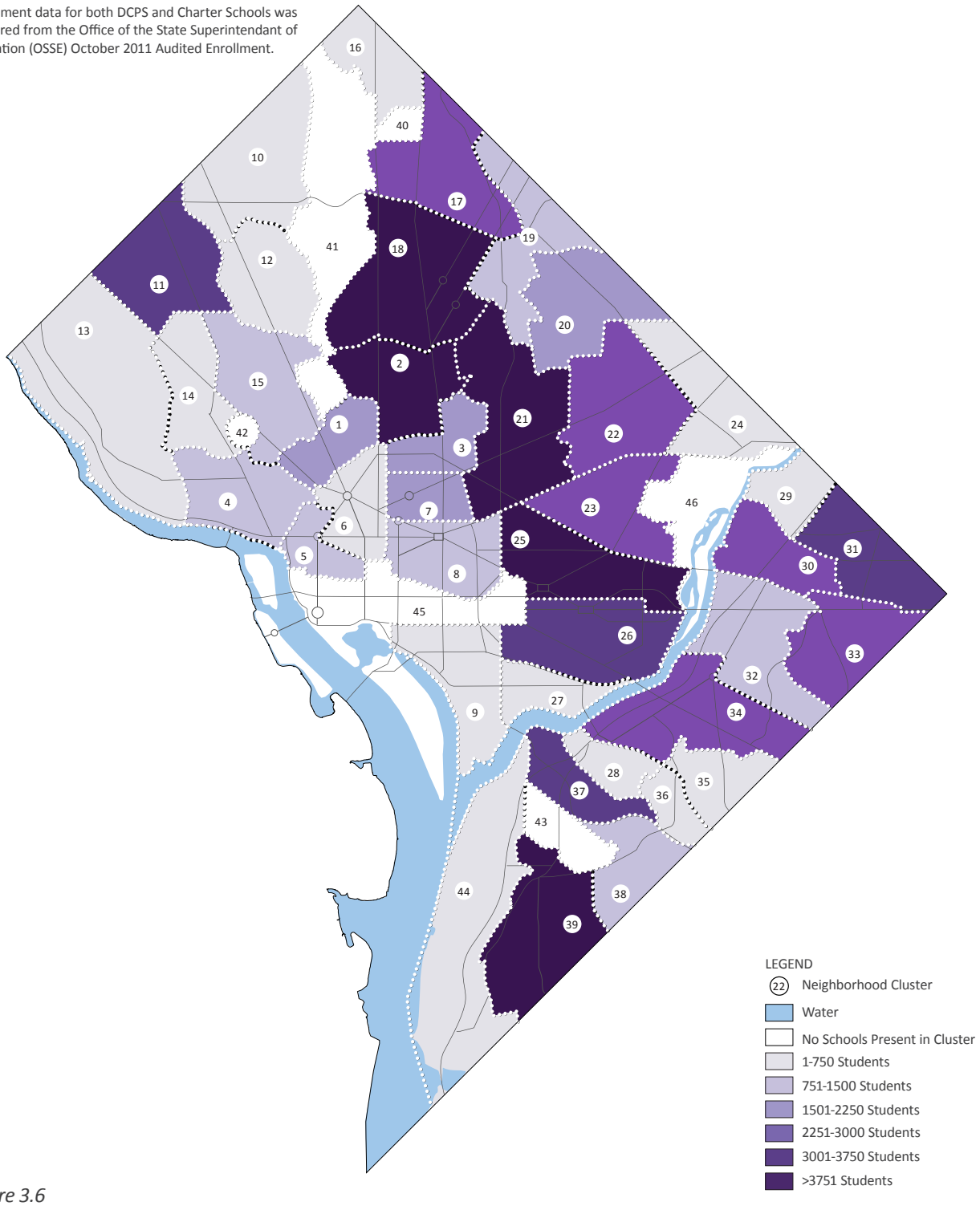

Figure 3.6

UTILIZATION BY CLUSTER

COMBINED DCPS AND CHARTER SCHOOLS: ES, MS AND HS

Cluster utilization was determined by taking each school's enrollment and dividing by the facility's capacity.

DCPS enrollment numbers are from the Office of the State Superintendant of Education (OSSE) and Charter School Enrollment numbers obtained from Public Charter School Board (PCSB).

DCPS school capacity numbers obtained from DCPS. Charter School capacity numbers obtained from PCSB. When not available, a proxy for Charter School capacity numbers was created by combining the Charter School enrollment numbers plus the additional open seats available for each school (as reported by each individual charter school).

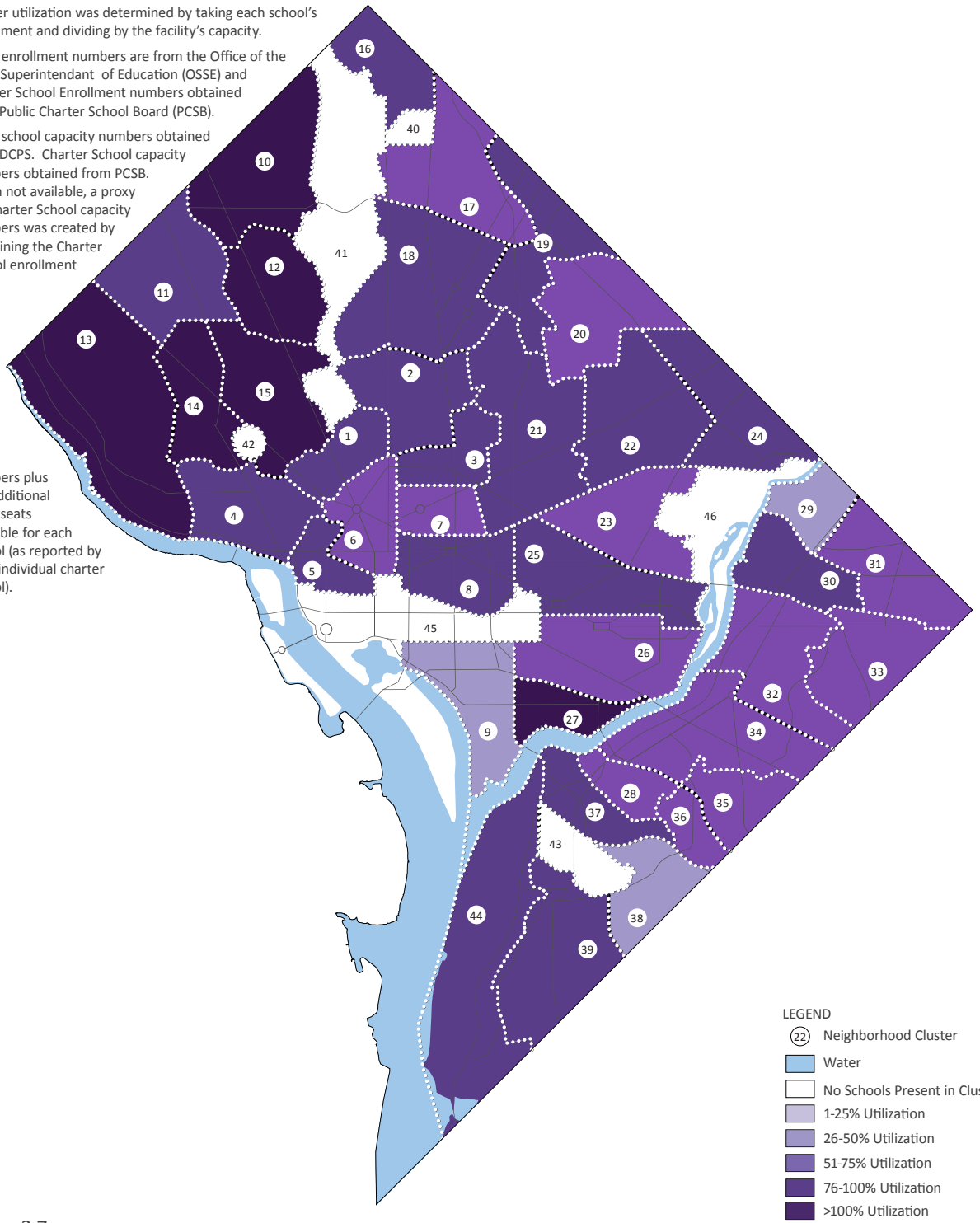

Figure 3.7

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FINDINGS

ENROLLMENT

Enrollment is fluid and dynamic. Although enrollment has decreased in recent years, enrollment trends projected for the next three to eight years may put new pressures on both DCPS and charter schools.

DCPS and charter enrollment dips considerably between Grades 5 and 6, suggesting that students and families are leaving the public education system at the middle school level.

Charter capacity and enrollment are condensed within the central and northern parts of the city (clusters 21, 18, 2, and east of the Anacostia River), even as school-aged population is expected to grow citywide.

CAPACITY

There is an excess of approximately 17,600 seats in the active DCPS inventory. This number includes buildings that have recently been proposed for consolidation, but does not include buildings that are currently used for non-instructional purposes. Adding the capacity from buildings that are vacant or used for some other purpose, there is a total of 23,500 seats in the total DCPS inventory (based on 2011 audited enrollment data).

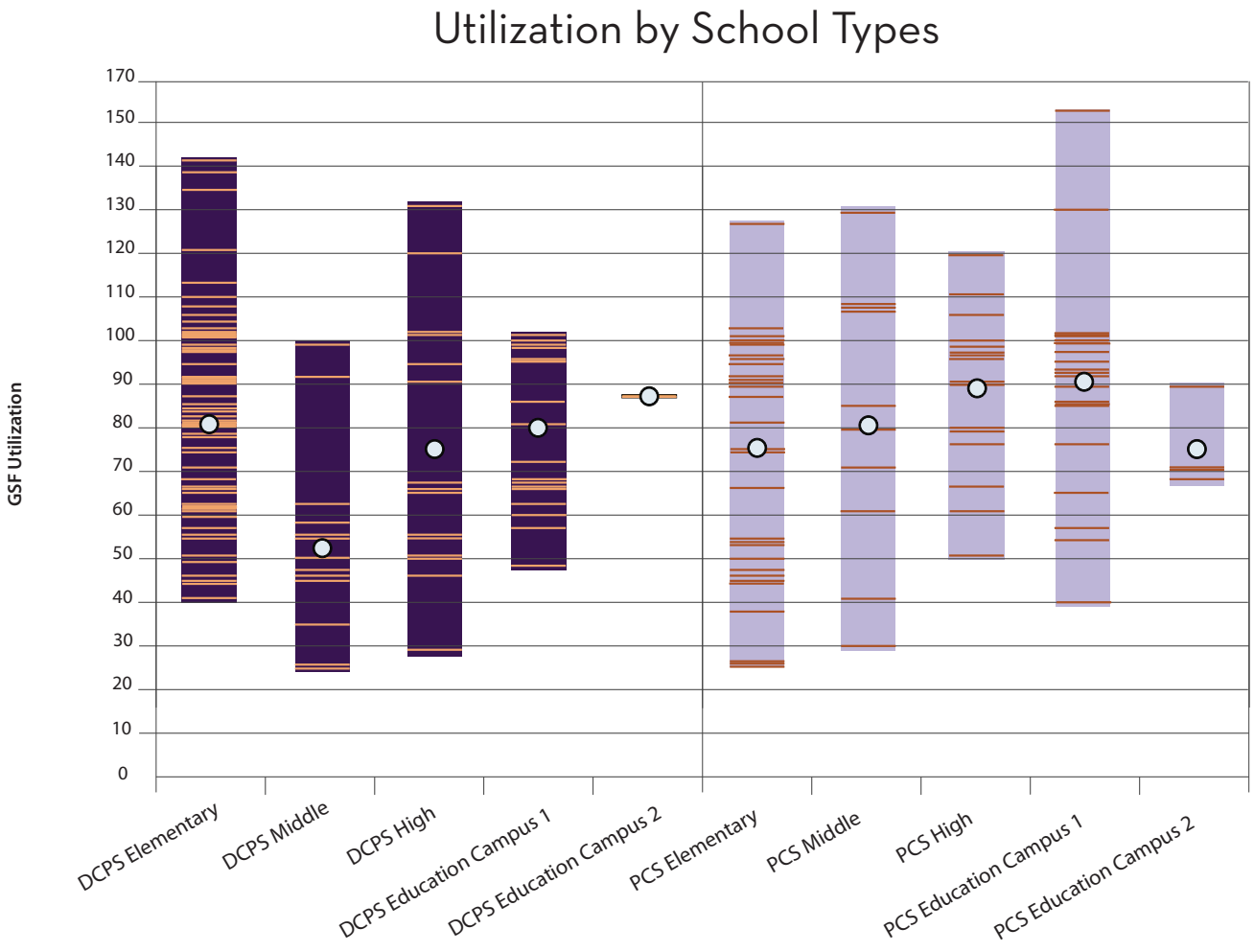


Figure 3.8

Enrollment v. Capacity with Utilization Average

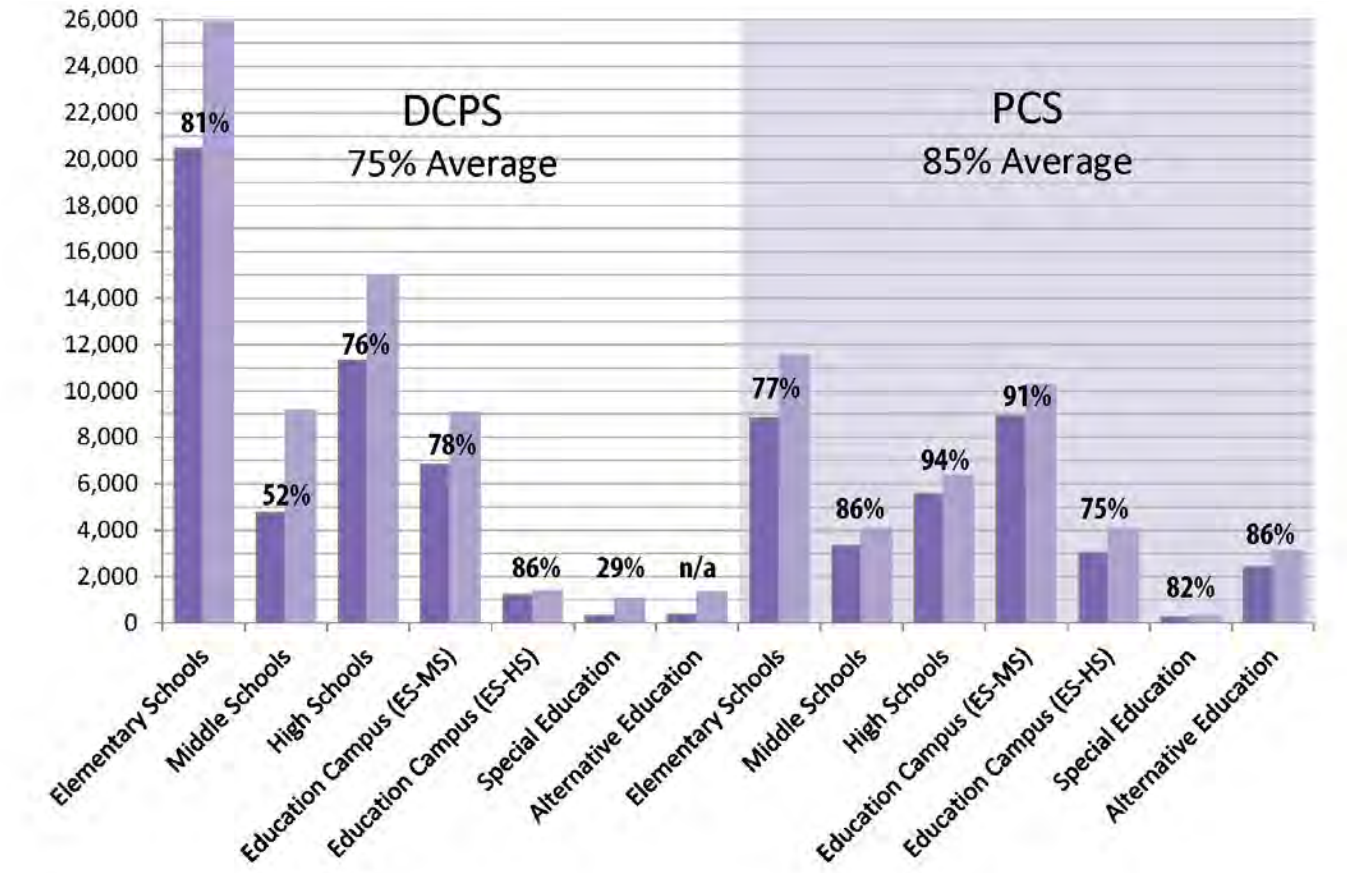


Figure 3.9

There is capacity for approximately 7,300 students in charter schools (based on charter self-reported capacities and available slots).

A challenge is to find more strategic ways to distribute capacity geographically and between DCPS and charters so that capacity aligns with demand, while also preparing for future increases in enrollment.

UTILIZATION

Although average utilization for both DCPS and charters shows a reasonable match between capacity and enrollment District-wide, at 75 percent and 85 percent respectively, utilization on a school-by-school basis varies widely. This data suggests that there are more than enough seats in total, but they are not in the right places or do not align with current demand. For example, some neighborhood clusters are well over capacity – as much 137 percent utilized, while others are as low as 35 percent utilized.

Among the most common school types (elementary schools, middle schools, K-8 education campuses, and high schools), middle school utilization is the lowest at 52 percent for DCPS and 86 percent for charter schools.

The highest DCPS utilization among the most common school types is elementary schools at 81 percent and the highest charter school utilization is high schools at 94 percent.

OPPORTUNITIES

Meetings with the working group examined the possibility of a framework developed for the strategic matching of charter schools with available DCPS space around the city, where charter school education programming and grade configuration complement a DCPS need.

Discussions with community members and the working group also focused on encouraging more mixed-use facility planning, development, and operation to take advantage of community and education-related building uses outside of DCPS and charter schools. Creative short-term leases for partner agencies, community organizations, or even small businesses would absorb excess building area while activating the facility outside of traditional school hours. This approach to facilities could enrich DCPS or charter school programming, offset facility costs and help absorb excess capacity now, without relinquishing capacity permanently, so that capacity is available when enrollment increases.

Some community members and even students requested a focus on job training and skill development. Organizations that lease space could be required to consider internships and mentoring opportunities for public education students. These types of partnerships could create jobs and economic opportunity in local communities. When enrollment increases, the lease can be terminated and capacity recaptured.

Summary Table of Enrollment, Capacity and Utilization by School Type

Agency / School Type	No. of Schools	Total Gross Square Feet	Total Enrolled	Total Capacity	Average Gross Square Feet
DC Public Schools					
Elementary Schools	64	4,594,718	20,468	25,879	71,792
Middle Schools	13	1,763,497	4,759	9,157	135,654
High Schools	16	3,878,548	11,292	14,934	242,409
Education Campus (ES-MS)	19	1,683,173	6,819	9,071	88,588
Education Campus (ES-HS)	1	325,217	1,203	1,400	325,217
Special Education	3	185,500	298	1,050	61,833
Alternative Education	2	246,228	360	1,350	123,114
Vacant Campuses	10	1,158,600	0	5,858	115,860
DCPS Total/Average	**128**	**13,835,481**	**45,199**	**68,699**	**108,090**
Charter Schools					
Elementary Schools	36	956,047	8,839	11,553	28,119
Middle Schools	10	408,983	3,306	4,052	40,898
High Schools	15	857,719	5,580	6,352	57,181
Education Campus (ES-MS)	24	1,117,585	8,910	10,261	50,799
Education Campus (ES-HS)	4	582,300	3,042	4,057	145,575
Special Education	1	99,540	234	287	99,540
Alternative Education	4	125,513	2,390	3,087	41,838
PCS Total/Average	**95**	**4,159,687**	**32,301**	**39,649**	**46,219**
DC Public Education Facilities	**223**	**17,995,168**	**77,500**	**108,348**	**82,547**

Figure 3.10

Average Enrolled	Average Capacity	Avg GSF per Enrolled Student	Minimum GSF per Enrolled Student	Maxmum GSF per Enrolled Student	Avg GSF per Student Capacity	Utilization (Enrollment/ Capacity)
320	411	243	68	811	177	81%
366	704	436	179	724	197	52%
706	933	408	68	953	259	76%
359	477	256	135	561	184	78%
1,203	1,400	270	270	270	232	86%
99	350	639	420	904	174	29%
180	n/a	1,460	n/a	n/a	n/a	n/a
n/a	586	n/a	n/a	n/a	203	n/a
383	**541**	**299**	**68**	**2,008**	**193**	**75%**
253	330	114	31	401	82	77%
331	405	121	35	224	98	86%
372	423	155	23	479	149	94%
371	428	143	74	287	128	91%
761	1,014	202	128	265	151	75%
234	287	425	425	425	347	82%
598	772	174	n/a	n/a	169	86%
347	**426**	**138**	**31**	**479**	**116**	**85%**
367	**492**	**230**	**31**	**2,008**	**161**	**79%**

CHAPTER 4

Population and Enrollment Forecast

UNDERSTANDING THE FUTURE OF STUDENT ENROLLMENT IN THE DISTRICT

PREMISES

The following premises and assumptions frame the data that was collected, methods of analyses and questions explored in this chapter:

- Both charter schools and DCPS are best located in the areas where there is an existing or forecasted high concentration of children. Based on this premise, this report analyzes school-age demographics geographically to understand their potential impact on school facilities.
- The forecasted enrollment is assumed at today's share of the total school-aged population.
- The Master Facilities Plan analyzes whether sufficient capacity in high quality facilities exists for all children, whether in DCPS or charter schools. Therefore, the total capacity of DCPS and charter schools combined is compared to the total number of school-aged children expected in future years. This analysis does not forecast the future enrollment share between DCPS and charters.
- The Master Plan's first priority is to address current school capacity. The second and parallel priority is to consider near-term anticipated changes in demand. In this analysis, these shifts respond to demographic patterns that are forecast through the next five years (to 2017). The third priority is to study potential longer term demographic patterns, which, by definition, become more speculative as they shift from historically anchored characteristics.
- Finally, while the demand for school facilities relates to parental decisions about educational experiences and services, this Master Facilities Plan does not address such school choices.

PURPOSE

This part of the Master Facilities Plan further establishes a baseline of neighborhood cluster data points and outlines future demand scenarios for school facilities. This chapter on Population and Enrollment Forecasts answers the following questions:

- What are the key demographic changes that could influence school-aged population in the future?
- How many school-aged children are forecasted to live in the District in the next five years? The next 10 years?
- In what neighborhood clusters is the population of school-aged children expected to change in five and 10 years?
- How does the existing capacity at DCPS and charter schools relate to the forecasted school-aged population?

POPULATION CHANGE BY CLUSTER

2000-2012 CHANGE IN SCHOOL-AGED CHILDREN

Population data was gathered from the Office of Planning (OP).

School Age Population for this map includes children attending DCPS, Charter Schools, and private schools aged 3 to 18 years.

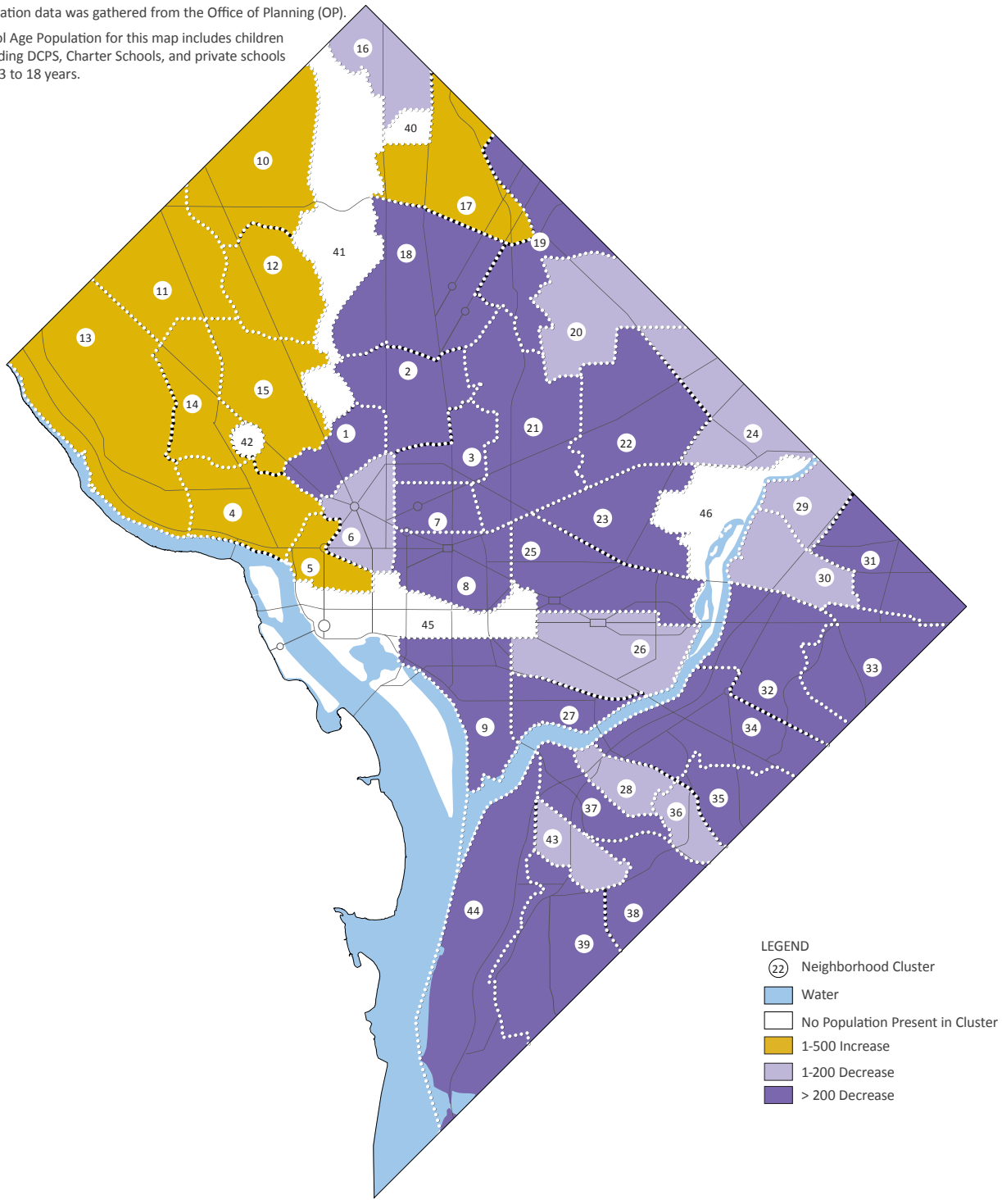


Figure 4.1

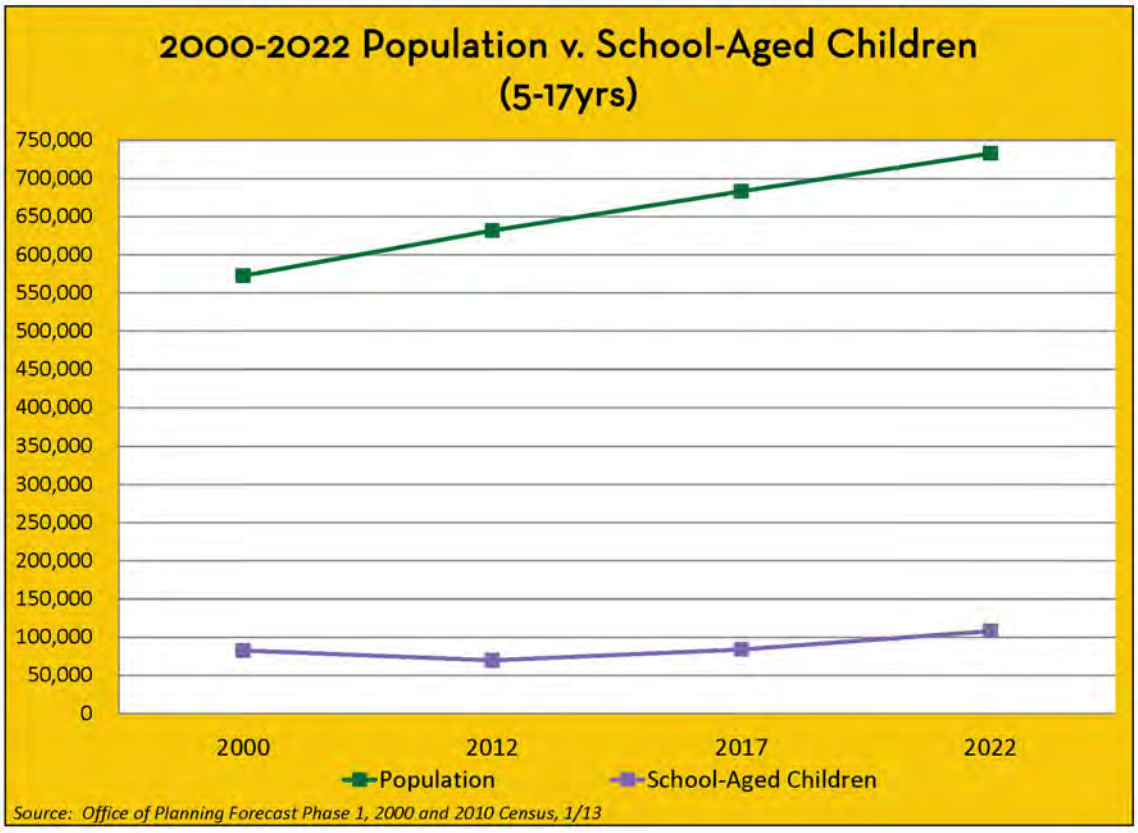


Figure 4.2

POPULATION FORECAST

The District of Columbia's Office of Planning October 2012 Phase 2 population forecasts suggest that between 2012 and 2017, the overall population for the District will increase by 8.2 percent, coupled with a 20.5 percent increase in the school-aged population associated children (5-17 year old consolidated cohorts). This growth translates into an average annual increase of approximately 2,850 additional school-aged children per year (Figure 4.2).

Forecast data from the DC Office of Planning suggests that between 2017 and 2022, the overall population for the District will increase by 7.3 percent, coupled with a 28.7 percent increase in the school-aged population associated children (Figure 4.3).

Figures 4.4 and 4.5 show how the forecasted population growth is applied across the neighborhood clusters in 2017 and 2022. Figures 4.10 and 4.11 show the student-aged population density per neighborhood cluster in 2012 and in 2017.

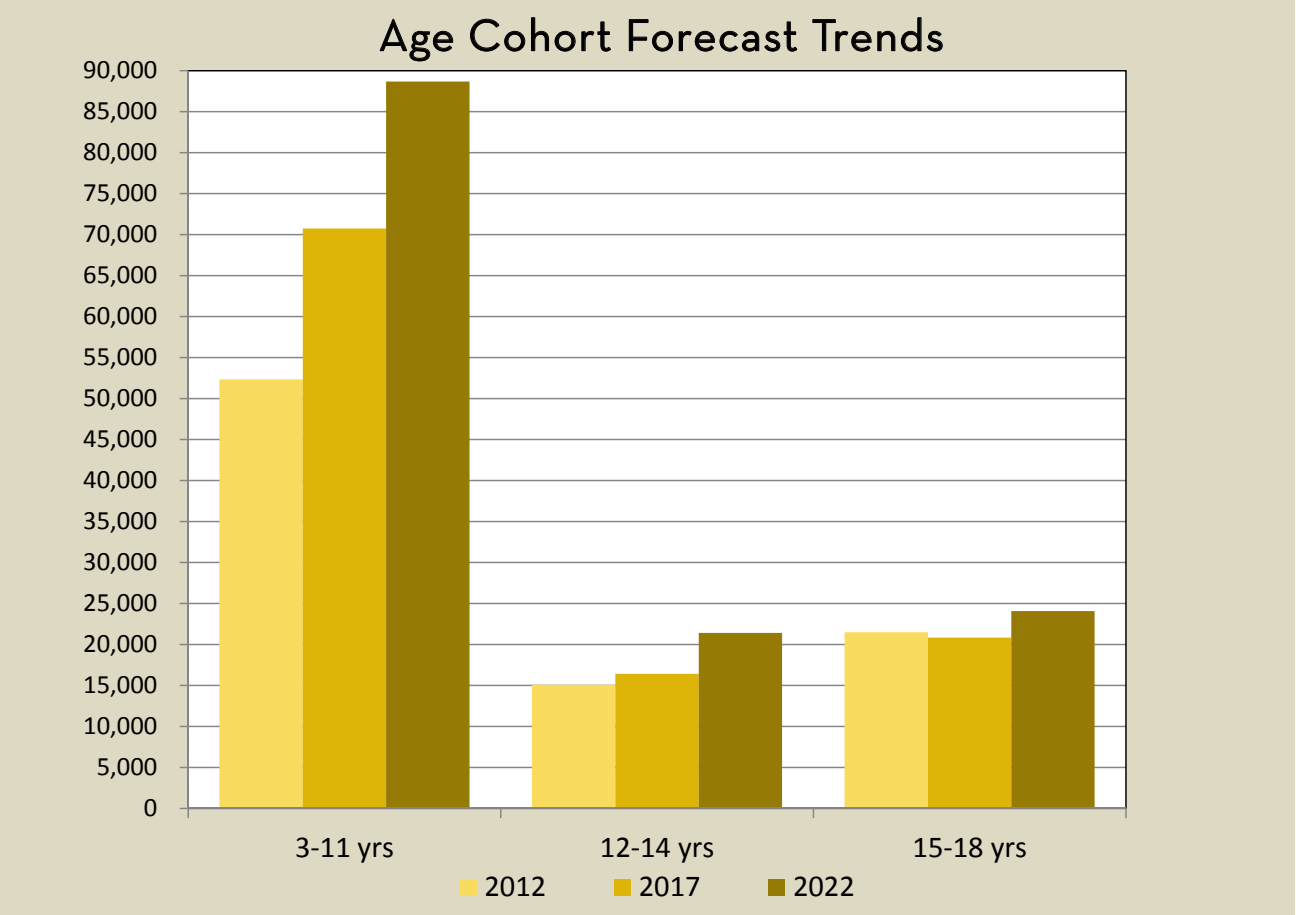
For the period of 2017 to 2022, an average of 4,810 additional school-aged children will be added per year. By 2022, the OP forecast suggests that the percentage of school-aged children as a component of total population will be 14.7 percent or approximately back to the level that prevailed in 2000.

FORECAST RANGES

Figures 4.6 - 4.7 shows two population forecasts. Figure 4.6 is an extrapolated forcast based on data obtained from the Metropolitan Washington Council of Governments (COG). The second table is from the DC Office of Planning (OP). OP's forecast data set is based on the 2012 Census estimates (recently released) as the starting point where as the COG extrapolated forecast is based on the 2011 Census data set and 2015 and 2020 COG estimates. Both are suitable forecasts to predict the District population in the years to come. They are different because of different assumptions and methodologies, and, therefore, are two forecasts for two possible futures.

The OP population forecast is being used for the purposes of this Master Facilities Plan. Understanding that in applying OP's population forecasts to school facility planning, there are a number of caveats to consider, ranging from the prospects for and capacity to absorb in-migration, to probabilities of family households starting out and staying in a given location, and to the influence of school proximity and quality regarding household location choice.

Against a backdrop of uncertain national and regional economic conditions, combined with an array of location options for families in other jurisdictions close to the District of Columbia, the facility planning process must balance school investment commitments in such a manner that resources are channeled to support known needs as well as possible new demands. A key test regarding possible school facility investment, be it



Source: Office of Planning Forecast Phase 1, 2000 and 2010 Census, 1/13

Figure 4.3

POPULATION FORECAST

2012-2017 SCHOOL-AGED CHILDREN POPULATION CHANGES

Population forecasts were prepared by the DC Office of Planning's State Planning Center with assistance from its citywide planning division.

School Age Population for this map includes children attending DCPS, Charter Schools, and private schools aged 3 to 18 years.

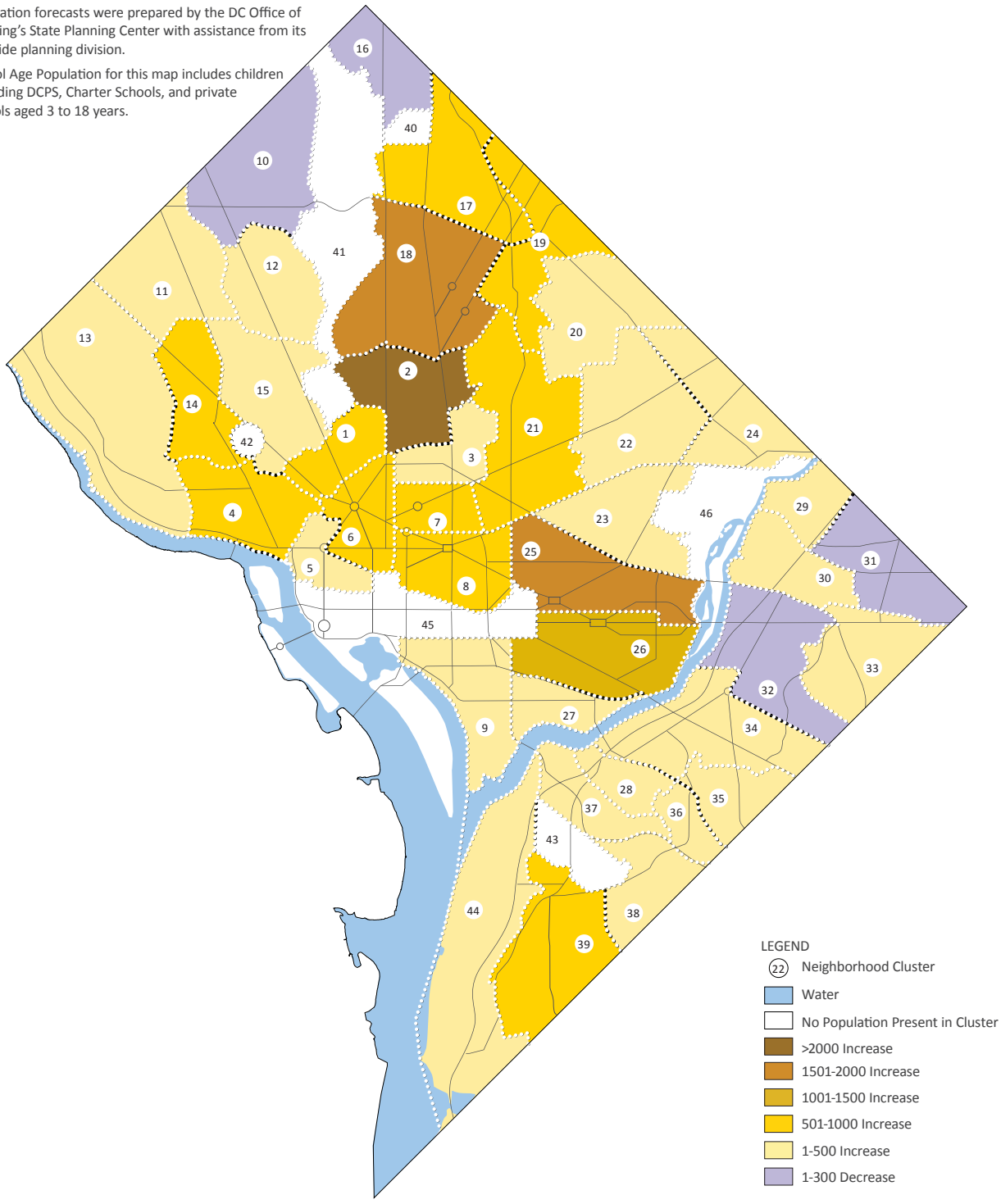


Figure 4.4

POPULATION FORECAST

2012-2022 SCHOOL-AGED CHILDREN POPULATION CHANGES

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School Age Population for this map includes children attending DCPS, Charter Schools, and private schools aged 3 to 18 years.

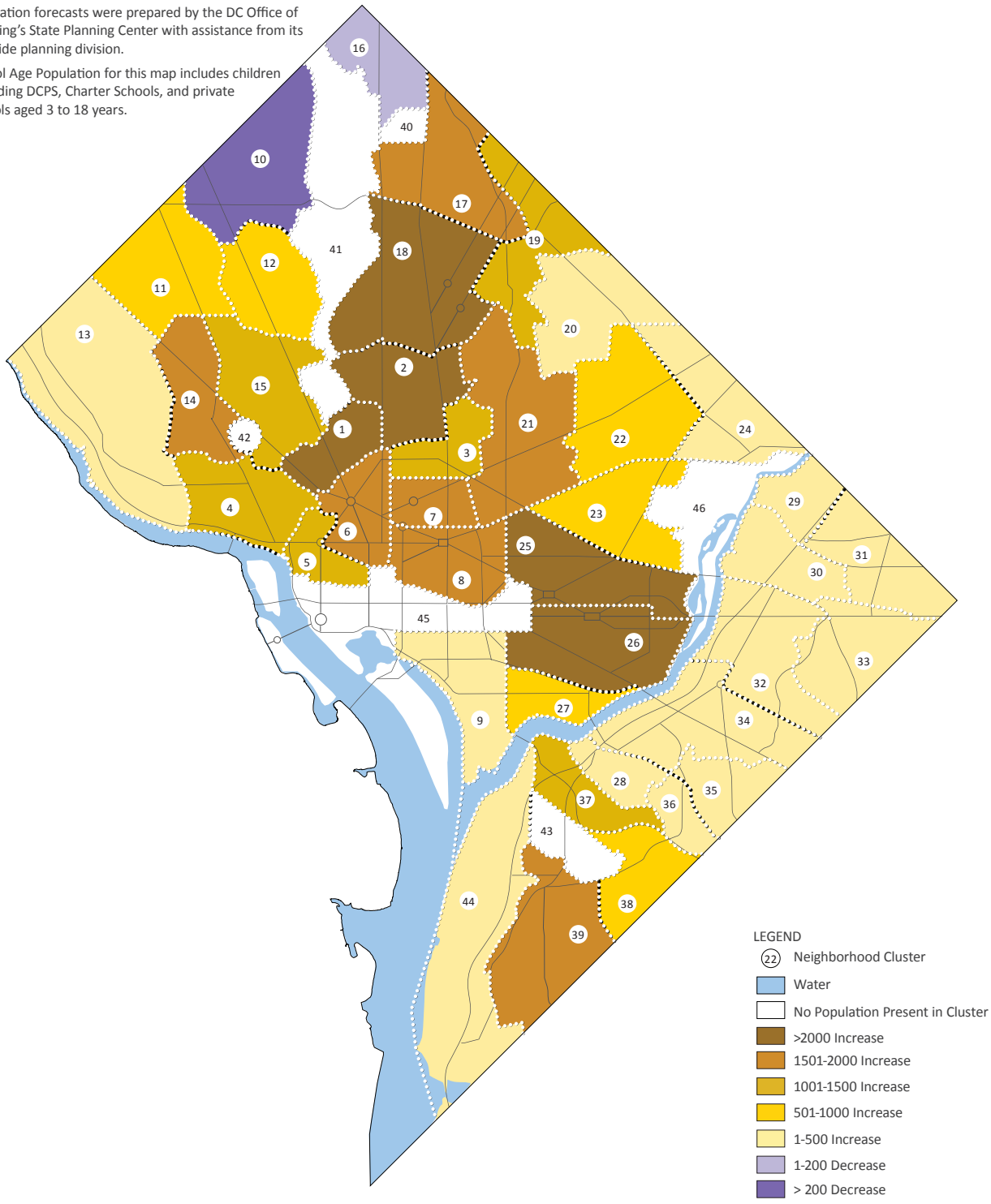

Figure 4.5

Extrapolated COG Population Forecast

	2,012			2,017			2,022		
	3-11	12-14	15-18	3-11	12-14	15-18	3-11	12-14	15-18
1	572	104	204	687	53	90	697	66	50
2	3,522	798	1,451	4,288	714	897	4,988	786	844
3	350	151	267	476	115	432	499	162	301
4	614	166	424	867	222	655	799	276	706
5	173	17	122	440	161	155	422	942	1,715
6	248	27	199	272	16	32	296	20	23
7	1,042	207	348	1,410	157	189	1,822	225	142
8	794	148	385	1,275	121	145	1,817	212	151
9	715	192	372	875	133	181	963	185	152
10	1,844	457	581	1,675	599	529	1,520	498	633
11	1,403	320	455	1,314	411	503	1,245	399	603
12	514	115	255	563	89	119	537	121	92
13	1,375	648	845	1,225	807	1,979	1,050	302	1,553
14	743	148	364	778	144	271	754	174	255
15	779	139	386	871	113	121	825	153	99
16	497	106	128	501	164	134	522	134	201
17	2,020	543	820	2,386	596	710	2,578	711	777
18	3,815	1,091	1,728	4,558	992	1,352	5,168	1,298	1,268
19	1,158	322	541	1,448	342	387	1,678	455	397
20	679	282	534	679	237	556	688	229	430
21	1,593	492	863	1,894	393	654	2,248	535	495
22	1,201	370	670	1,365	383	487	1,460	440	505
23	1,518	511	943	1,572	493	696	1,768	420	653
24	566	171	279	670	171	300	754	245	287
25	1,893	281	753	2,461	341	362	2,769	511	371
26	1,853	372	684	2,451	395	470	3,028	476	468
27	36	5	15	104	4	4	227	5	2
28	852	272	292	912	194	279	868	246	242
29	389	163	239	460	136	139	569	172	145
30	938	280	410	1,099	315	344	1,099	315	318
31	1,868	610	939	2,010	535	779	2,110	714	746
32	1,502	506	874	1,622	502	581	1,719	521	664
33	2,292	741	1,191	2,583	692	888	2,775	842	842
34	1,559	540	797	1,619	474	717	1,669	546	566
35	534	191	254	534	164	189	534	164	166
36	1,212	353	522	1,321	347	446	1,494	384	414
37	1,356	379	627	1,277	405	429	1,301	357	394
38	2,119	596	950	2,207	517	620	2,154	645	586
39	3,956	1,129	1,863	4,330	1,065	1,268	4,289	1,269	1,267
40	0	0	0	0	0	0	0	0	0
41	0	0	0	0	0	0	0	0	0
42	0	0	0	0	0	0	0	0	0
43	0	0	0	0	0	0	0	0	0
44	615	128	199	647	94	167	623	90	114
45	0	0	0	0	0	0	0	0	0
46	0	0	0	0	0	0	0	0	0
	50,709	14,074	23,776	57,725	13,804	19,256	62,330	16,244	19,637

Figure 4.6

	Population Forecast by DC Office of Planning*								
	2,012			2,017			2,022		
	3-11	12-14	15-18	3-11	12-14	15-18	3-11	12-14	15-18
1	734	141	182	1,625	190	204	2,465	426	326
2	3,760	933	1,275	6,014	1,122	1,333	7,868	1,593	1,718
3	472	125	175	976	124	168	1,526	300	207
4	959	195	241	1,382	272	291	1,931	494	425
5	177	15	43	517	46	30	1,226	120	66
6	373	62	102	976	88	88	1,727	271	157
7	955	237	320	1,684	284	329	2,334	493	407
8	1,067	262	402	1,682	331	404	2,264	541	524
9	753	234	366	964	216	323	1,035	357	356
10	1,808	507	588	1,474	642	716	1,120	538	849
11	1,230	319	331	1,421	405	456	1,645	415	606
12	655	171	215	825	222	246	1,189	250	305
13	1,402	422	472	1,285	524	605	1,384	413	660
14	803	170	264	1,474	252	272	2,399	350	350
15	789	205	233	1,162	249	280	1,723	341	374
16	410	101	143	318	142	157	228	102	205
17	2,094	573	832	2,907	649	795	3,469	804	940
18	3,727	1,084	1,593	5,512	1,084	1,505	6,837	1,483	1,605
19	941	290	414	1,455	319	395	2,184	388	436
20	928	275	447	1,084	272	366	1,145	388	404
21	1,672	507	741	2,455	538	755	3,246	803	864
22	1,209	411	671	1,624	373	529	2,051	464	541
23	1,525	498	806	1,884	498	663	2,305	495	702
24	536	166	260	708	186	260	879	244	302
25	2,139	521	764	3,689	678	752	5,303	1,099	1,048
26	2,013	410	507	3,011	573	589	3,578	1,032	883
27	118	33	48	303	69	71	427	123	175
28	838	280	302	979	252	379	1,113	296	361
29	334	133	214	418	106	171	582	107	138
30	958	281	400	1,089	295	405	1,235	381	450
31	1,561	582	947	1,851	469	731	2,236	565	676
32	1,398	497	784	1,519	478	613	1,715	443	661
33	2,401	815	1,224	2,641	743	1,092	2,896	837	1,052
34	1,504	560	790	1,815	485	730	2,087	557	646
35	496	187	223	595	156	225	649	196	228
36	1,154	372	519	1,232	381	515	1,354	406	489
37	1,492	464	709	1,857	562	662	2,427	560	746
38	2,042	613	913	2,331	623	821	2,501	746	893
39	4,199	1,303	1,911	5,106	1,323	1,702	5,721	1,573	1,942
40	0	0	0	0	0	0	50	0	0
41	0	0	0	0	0	0	0	0	0
42	0	0	0	0	0	0	0	0	0
43	4	1	2	12	5	10	0	22	23
44	708	118	120	877	181	189	607	386	325
45	1	2	1	1	0	2	0	0	1
46	0	0	0	0	0	0	0	0	0
	52,340	15,078	21,494	70,734	16,407	20,829	88,662	21,402	24,067

*The Population Forecast by DC Office of Planning is being used for the Facilities Master Plan

Figure 4.7

to expand actual capacity or to maintain or upgrade existing capacity, is to seek data measures underscoring needs regardless of the actual level of realized growth. Such a hypothetical adjustment to the suggested population forecasts (at 50 percent of forecast population change estimates) is included in the Unmet Need section of this report.

These projections do not account for several significant redevelopment projects in DC such as the St. Elizabeths East Campus and Walter Reed Army Medical Center. These projects are still in the planning stages and it is too early to predict the impact they may have on population changes.

ENROLLMENT FORECAST

There is usually some difference between actual school enrollment and the estimate of school-aged children in a given neighborhood cluster. This difference varies in degree due to numerous variables. The following maps illustrate projected enrollments by using school-aged population ratios in the population forecasts which incorporate the expected continuation of enrollment anomalies (Figures 4.8 - 4.9).

PROJECTED UNMET NEED

Figures 4.10 - 4.11 provide a visual reference for the potential interplay between forecasted school-aged enrollment changes and the impact on existing school capacity.

FINDINGS

2000-2012 POPULATION CHANGES

- The overall population of the District of Columbia grew from approximately 572,500 residents in 2000 to 631,700 in 2012, representing an increase of 10.3 percent or an estimated 59,200 residents. Calculated on an annual basis, this increase equates to 4,930 new residents each year or 0.6 percent rise per annum (Figure 4.2).
- Despite overall population gains, the school-aged children population (ages 5-17 years consolidated cohorts) decreased from approximately 82,500 in 2000 to 69,580 in 2012, representing a decrease of 15.7 percent or an estimated 12,920 school-aged children. This decrease equates to an average loss of just under 1,080 school-aged children each year or an average annual 1.3 percent loss (Figure 4.2).
- The overall decline in school-aged children occurred primarily prior to 2010. A gain of 2.0 percent (1,375) school-aged children (ages 5-17 years) occurred between 2010 and 2012.
- The percentage of school-aged children as a component of total population decreased from 14.4 percent in 2000 to 11.0 percent in 2012.
- Of the 44 neighborhood clusters that contain school-aged children, 33 clusters (75.0 percent) posted school-aged children decreases in which Clusters 2, 18 and 21 all posted the biggest losses, amounting to more than 1,000 children total per cluster. Clusters 4, 10 and 11 had the most school-aged children gains with more than 300 additional school-aged children per cluster over the 12-year time frame.

PREDICTED ENROLLMENT

2012-2017 SCHOOL-AGED CHILDREN POPULATION CHANGES

DCPS enrollment numbers are from the Office of the State Superintendant of Education (OSSE) and Charter School Enrollment numbers obtained from Public Charter School Board (PCSB).

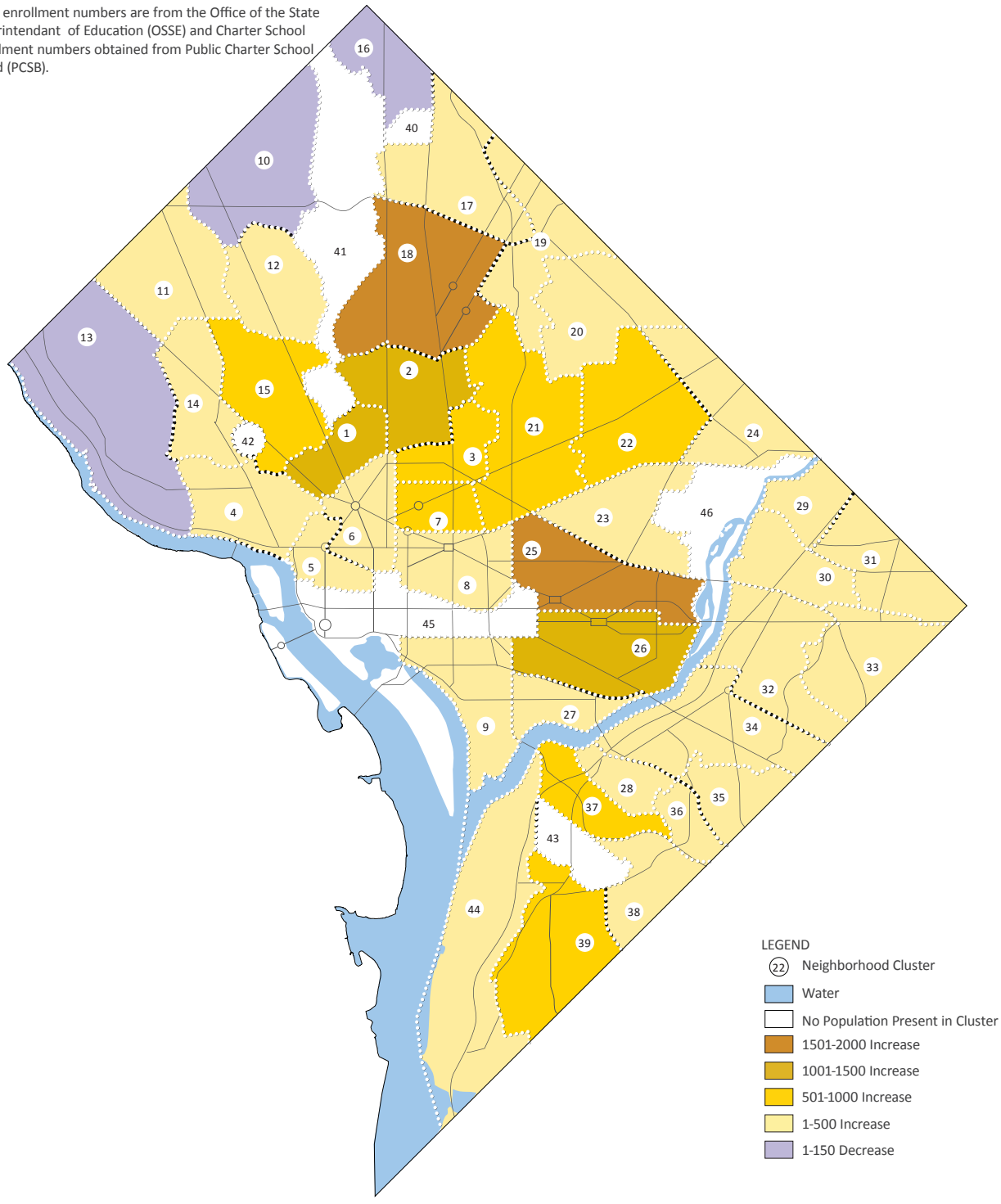

Figure 4.8

UNMET NEED

2012 NUMBER OF STUDENTS WITH UNMET NEED COMPARED AGAINST DCPS AND CHARTER SCHOOL FACILITY CAPACITY WITHIN HOME CLUSTER

Population forecasts were prepared by the DC Office of Planning's State Planning Center with assistance from its citywide planning division.

School capacity numbers were obtained from DCPS and Charter schools. When unavailable, a proxy for Charter school capacity numbers was created by combining the Charter enrollment numbers plus the additional open seats available for each school (as reported by each individual Charter school).

School Age Population for this map includes children attending DCPS, Charter Schools, and private schools aged 3 to 18 years.

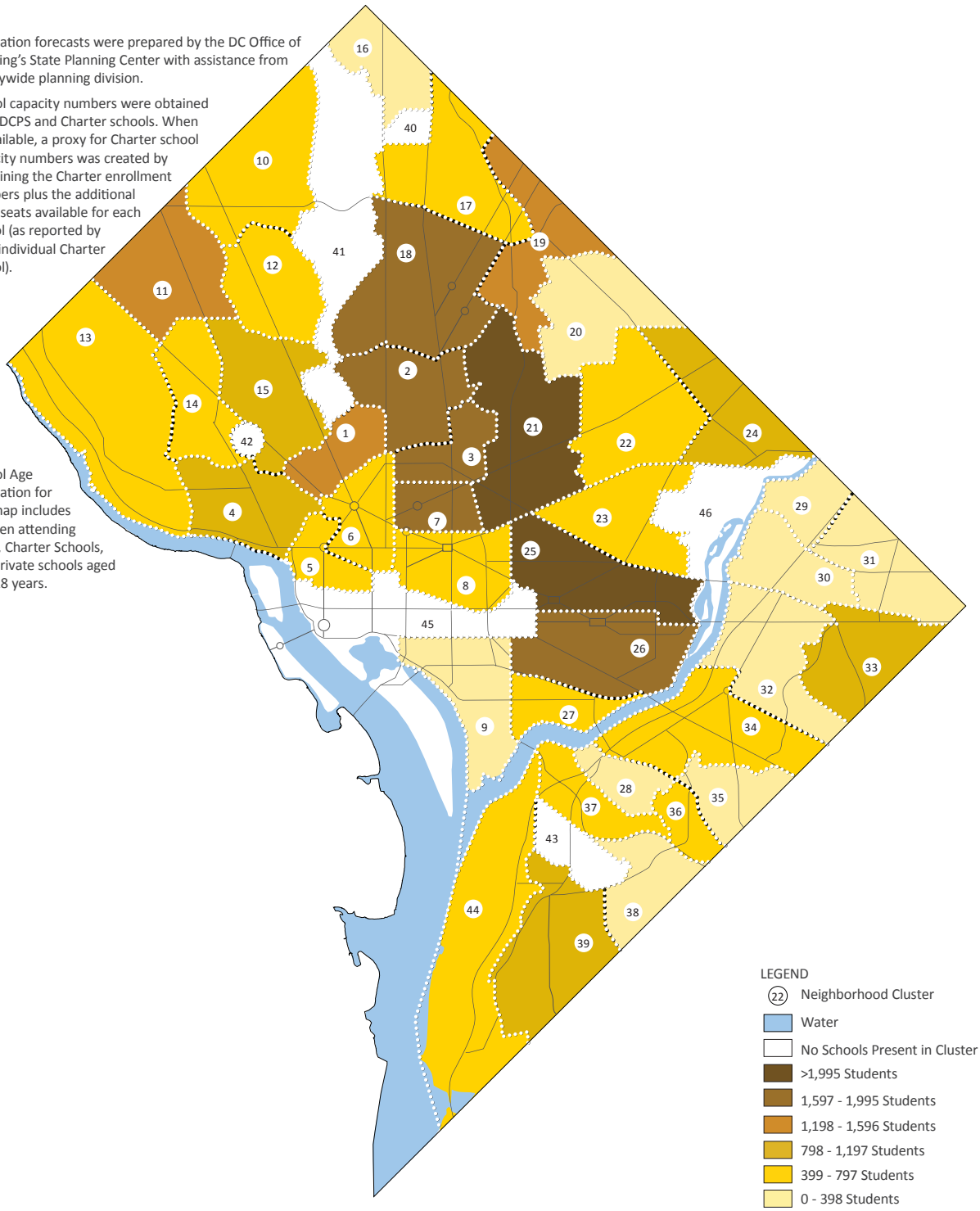

Figure 4.9

POPULATION FORECAST

2012 SCHOOL-AGE POPULATION STUDENTS PER ACRE

Data was gathered from the Office of the Chief Technology Officer (OCTO).

School Age Population for this map includes children attending DCPS, Charter Schools, and private schools aged 3 to 18 years.

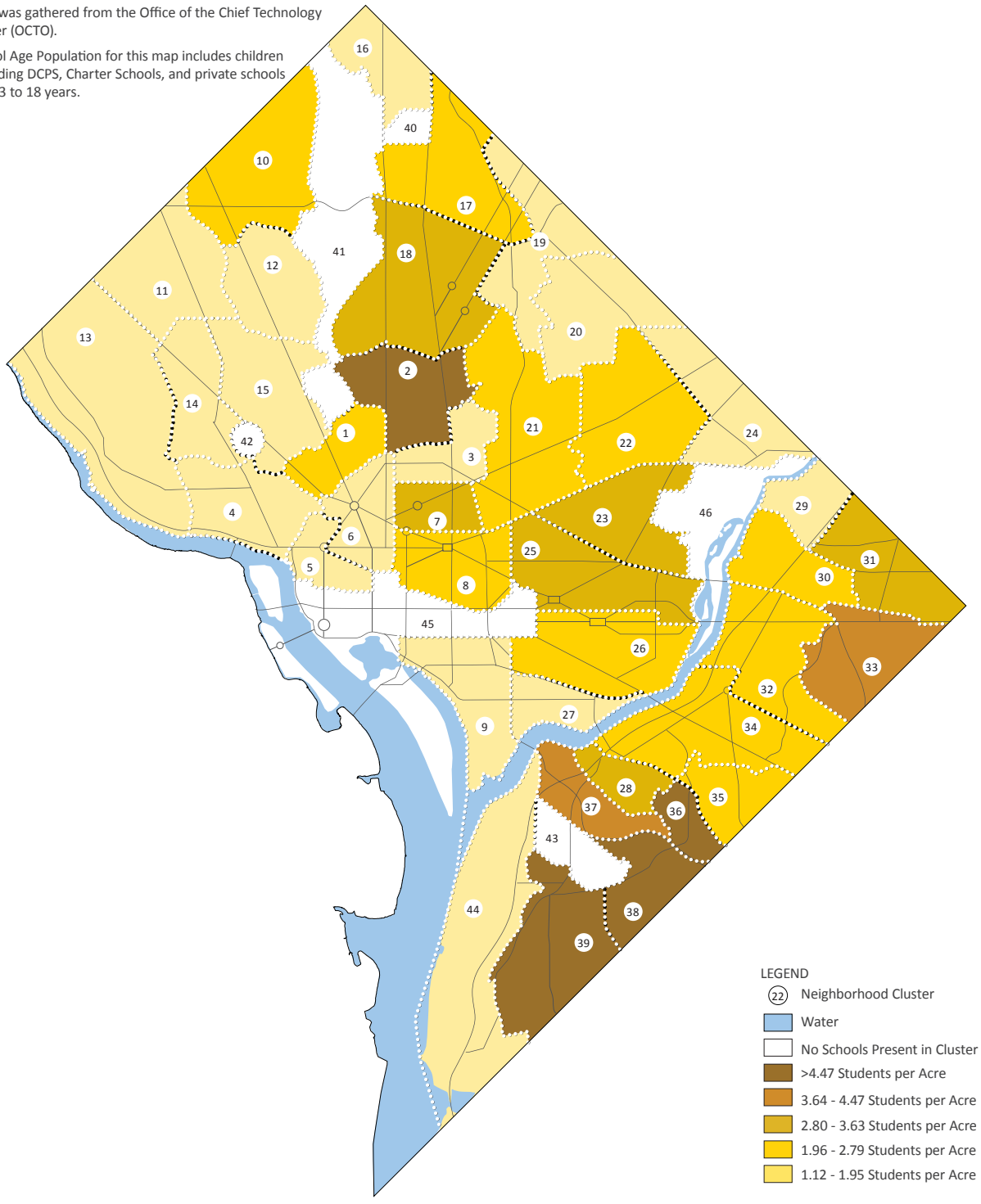

Figure 4.10

POPULATION FORECAST

2017 SCHOOL-AGE POPULATION STUDENTS PER ACRE

Data was gathered from the Office of the Chief Technology Officer (OCTO).

School Age Population for this map includes children attending DCPS, Charter Schools, and private schools aged 3 to 18 years.

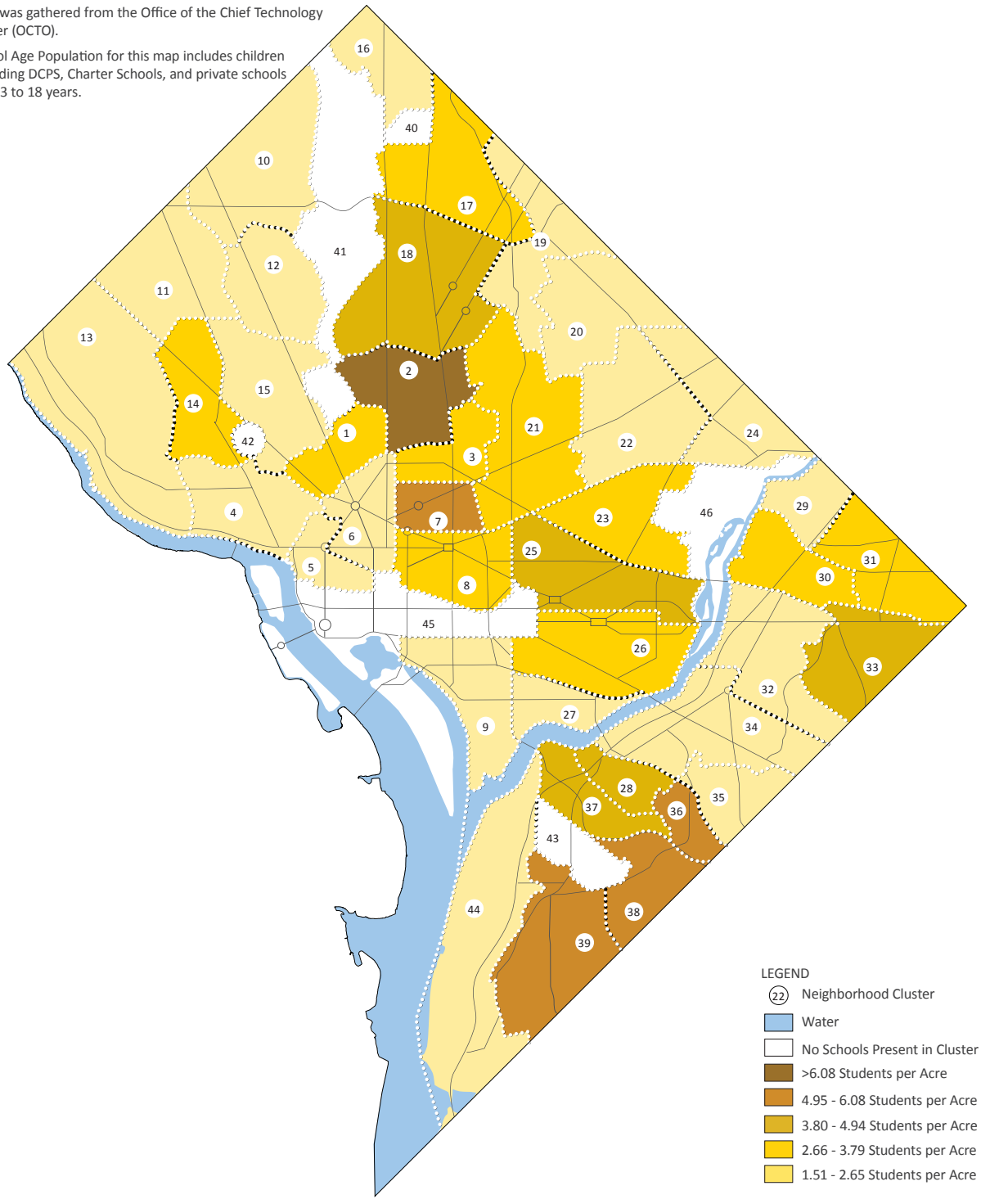

Figure 4.11

SNAPSHOT OF NEIGHBORHOOD CLUSTER DIFFERENTIATION AND DEMOGRAPHICS

- School-aged children (5-17 yrs.): In 2012, neighborhood clusters with the most school-aged children (3,500-plus) are 2, 18, 33 and 39. Clusters with the fewest school-aged children (less than 400) are 5, 6 and 27.
- Family households are defined by one or two persons related by birth, marriage or adoption: of the estimated 257,300-plus households in the District of Columbia reported in 2010, 112,715 were family households representing 43.8 percent of total households (see Appendix C).
- Higher family concentrations (65.0 percent-plus) are in neighborhood clusters 16, 29, 33, 37, 38 and 39. Conversely, the lowest family concentrations (25.2 percent or less) are in neighborhood clusters 1, 6 and 7. District-wide, the average family size is about 3.0 persons per household (see Appendix C).
- Owner-occupied households: Of the estimated 257,300-plus households in the District of Columbia reported in 2010, 110,410 are owner-occupied, representing 42.9 percent of total households. The neighborhood clusters with the highest housing tenure are 10, 11, 13, 16 and 20. Conversely, the fewest owner-occupied households are in neighborhood clusters 28 and 36-39 (see Appendix C).
- Educational attainment for population of 18-plus years: More than 50 percent of the population in 18 clusters (1, 3-16 and 25-27) have graduated from a higher educational institution with an associate degree or higher. All other clusters generally have less than 35 percent of the population with educational attainment of an associate degree or higher (see Appendix C)

UNMET NEED

Depending on the assumptions employed, it can be seen that approximately one-third of the neighborhood clusters are forecasted to have a potential 200-plus seat deficit when compared with existing facility capacity by 2017. By 2022 and beyond, closer to two-thirds of the neighborhood clusters are facing a potential seat deficit. In contrast, some combinations of clusters may continue to have excess school capacity; not so much because of any forecast of significant reduced demand from school-aged children, but from a lingering capacity overage following school population declines from years past.