Section IX: Dayton City – District and Charter Analysis

Summary

Dayton Public Schools (DPS) and Dayton's charter schools continued their long run mediocrity in the 2011-12 school year. Anywhere from one-third to over one-half of DPS students failed Ohio's standardized exam, depending on the grade and subject. In Dayton's charter schools, the failure rate was slightly less, but still no less troubling. By sixth grade, many Dayton students are well on the pathway toward illiteracy: 39 percent of DPS students and 27 percent of Dayton charter students failed to pass the sixth grade reading exam (below proficient). Math test scores are even worse than reading.

The symptoms of poor academic performance may be most evident in this fact: Dayton's public school system—charter schools and DPS together—had *zero* school buildings rated excellent (A) or excellent with distinction (A+). Of the eight cities profiled in this report, Dayton is the only city that failed to have a single public school building rated excellent or above. In contrast, over half of Dayton's students (13,000 kids) attended a school building either in academic watch (D) or academic emergency (F).

These data indicate that Dayton has a long, hard road ahead to create a school system where all students can thrive. There are a few schools that do so, such as Dayton Early College Academy, a charter school, and Dayton Public Schools' Stivers School for the Arts. Both these schools were rated effective (B) in 2011-12. Yet, these schools are few in Dayton—and even they face challenges in readying their students for the rigors of college and career. It'll take transformational change and Herculean efforts to ensure that Dayton's schools—and the students they serve—are able to succeed.

1. Key Takeaways

- Approximately 5,800 students, or 29 percent of all Dayton public school students, attended a charter in 2011-12

- Between 30 and 60 percent of Dayton's students failed the state's math and reading exams in 2011-12 (tested below proficient).

- One out 54 school buildings, charter and district combined, met the statewide goal of having a performance index score of 100 or better.

- Zero schools in Dayton, charter and district combined, received an excellent (A) or excellent with distinction (A+) rating.

- A majority of Dayton public school students, over 13,000 students (53 percent), attended a school building rated in academic watch (D) or academic emergency (F).
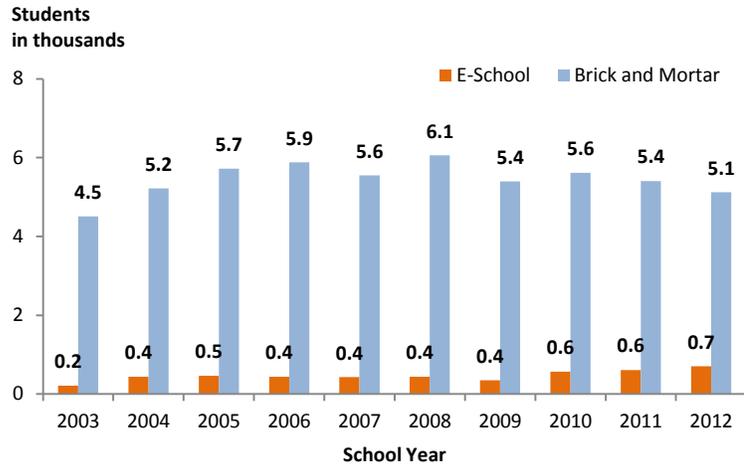
2. Enrollment

Overall public student enrollment in Dayton—charter and traditional district combined—has declined in the past decade. In 2002-03, 22,900 students in Dayton attended a public school (district and charter); in 2011-12, 20,100 students (district and charter) attended a public school, a decline of 12 percent.

Dayton Public Schools has lost nearly 4,000 students or 20 percent of its student enrollment since 2002-03 (figure 9.1). Meanwhile, Dayton's charter enrollment has increased over this time period, most rapidly from 2002-03 to 2004-05. Since then Dayton's charter enrollment growth has flattened with enrollment fluctuating between 5,800 and 6,500 students. In 2011-12, 14,300 students attended Dayton Public Schools and 5,800 students attended a public charter school. See note 1 at the end of this section for more information on enrollment data.
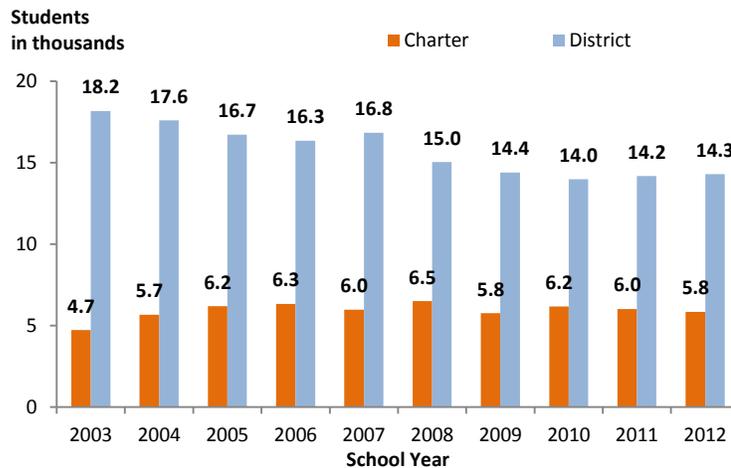
Figure 9.1. Dayton K-12 public school enrollment, charter versus district schools, 2002-03 to 2011-12.

The majority of charter students attend a physical, brick and mortar school. In 2011-12, 700 students attended an e-school charter, while 5,100 students attended a physical school (figure 9.2). The number of Dayton e-school students was the highest on record in 2011-12, yet still represents only 12 percent of all charter school students in Dayton.

Figure 9.2. Dayton K-12 charter enrollment, e-school versus brick and mortar, 2002-03 to 2011-12.

The top charters schools by enrollment of Dayton students are listed in table 9.1. Emerson Academy led charters with an enrollment of 623 students, and Dayton Leadership Academies – Dayton View (a Fordham-sponsored charter) followed with an enrollment of 440 students. Of the e-schools, Electronic Classroom of Tomorrow enrolled the most Dayton students with 351 students.

Table 9.1. Top ten charters by enrollment of Dayton-resident students, 2011-12. (e) denotes e-school.

Charter school	Enrollment	Charter school	Enrollment
Emerson Academy	623	Electronic Classroom Of Tomorrow (e)	351
Dayton Leadership Academies-Dayton View	440	Klepinger Community School	349
Dayton Early College Academy, Inc	397	Pathway School of Discovery	283
North Dayton School Of Science & Discovery	370	Horizon Science Academy Dayton H.S.	228
Richard Allen Academy II	366	Life Skills Center of Dayton	214

3. Math and Reading Proficiency

In 2011-12, Dayton's charters, as a group, outperformed Dayton Public Schools (DPS) in Ohio's fourth, sixth, and tenth grade math and reading exams. The percentage of charter students who scored proficient or above exceeded the percentage of DPS students at proficient or above in all the grades and subjects shown in figure 9.3. A higher percentage of charter students passed the exams than district students, by anywhere between 3 (tenth grade math) and 18 percentage points (sixth grade math). See note 2 at the end of the section for more information on the method of calculating the aggregate charter school proficiency rate.

In all grades and subjects, except in charters' tenth grade reading, both charter schools and DPS failed to reach the statewide goal of 75 percent proficiency. DPS' fourth and sixth grade math proficiency rates fell further from the statewide goal (45 and 44 percent, respectively).

Dayton proficiency rate
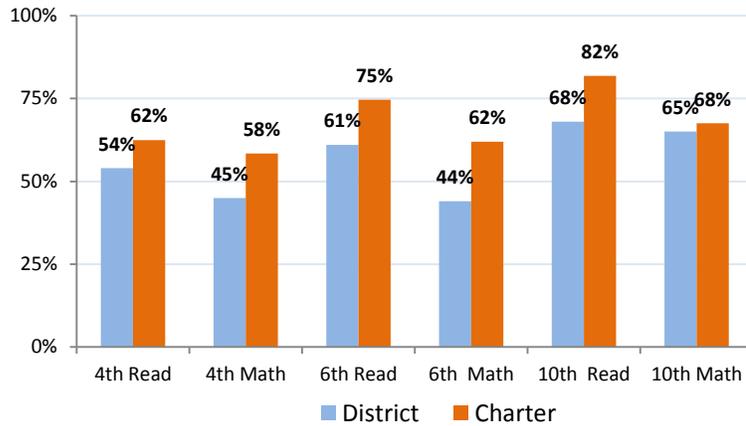
Figure 9.3. Percentage of tested student proficient or above in fourth, sixth, and tenth grade math and reading exams, charter versus district, 2011-12. **Note:** Statewide proficiency rate goal is 75 percent.

Figure 9.4 shows the ten-year trend in fourth, sixth, and tenth grade math and reading proficiency rates. As a group, charter schools tend to outperform the DPS proficiency rate—in fourth and sixth grade especially. In fourth grade, Dayton's charter school proficiency rates have exceeded district rates in reading and math in every year since 2004. Sixth grade charter proficiency rates have surpassed district proficiency rates since 2006. In tenth grade, Dayton's charter proficiency rate has exceeded the district's proficiency rate in reading since 2008; however, charter proficiency rates in math have lagged or matched the district's proficiency rate.
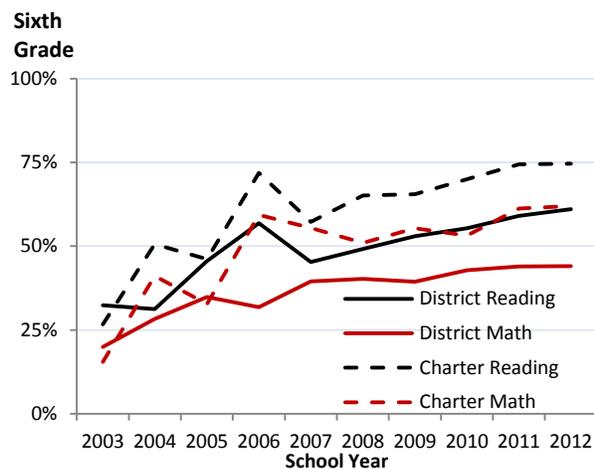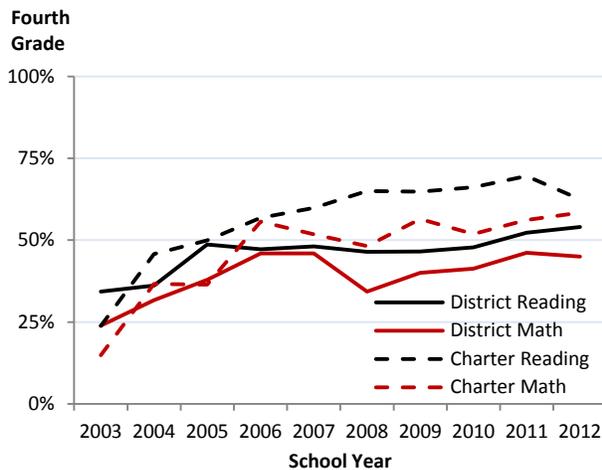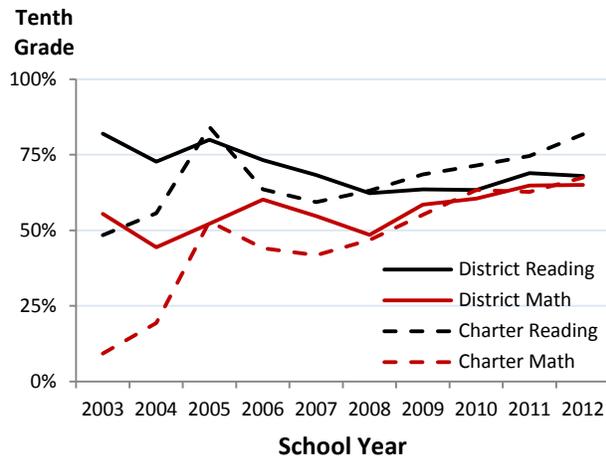
Figure 9.4. Percentage of students tested who scored proficient or above in fourth, sixth, and tenth grade reading and math, Dayton district and charter schools, 2002-03 to 2011-12.

Note: Statewide proficiency rate goal is 75 percent for fourth, sixth, and tenth grades.

4. Performance Index

The performance index (PI) is a measure of aggregate student achievement in a school building or school district. It's a weighted average of proficiency rates, with greater weight given to students who perform at higher performance levels.

In the 2011-12 school year, Dayton's charters performed better than DPS along the PI dimension. The majority of charters received a PI score within the range of 70 and 90 (17 out of 24 buildings), while the majority of DPS school buildings received a PI score within the range of 60 and 80 (20 out of 30 buildings). Figure 9.5 below shows the distribution of PI scores for DPS' and Dayton's charter school buildings.

The average (unweighted by student enrollment) PI for charters was 82.5, while the average PI for DPS school buildings was 72.5. Both average PI scores fell well short of the state goal of building-wide PI scores of 100 or more. In fact, only one Dayton school building received a PI score of 100 or greater: The ISUS Institute of Manufacturing, a small charter school (enrollment, 31).
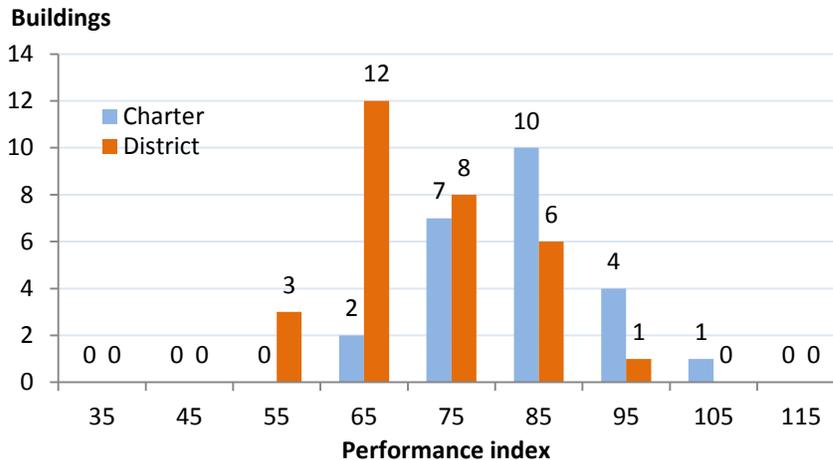
Figure 9.5. Distribution of performance index scores, charter versus district, 2011-12. PI scores tabulated by intervals of 10 (e.g., 70-79.9) with the middle of the interval displayed on the horizontal axis (e.g., 75). **Note:** Statewide goal for building's performance index is 100. Charter data includes charters with more than 30 percent of enrollment coming from DPS.

5. Value-Added Growth

Ohio designates schools as "below," "met," or "above" to indicate whether a district or building has provided less than (below), equal to (met), or more than (above) a year's worth of student growth. In contrast to the PI, which is a measure of raw student achievement, value-added is a measure of impact that a school has on student learning. Value-added is calculated through a statistical model based on students' current and past test scores.

As a district, DPS received a below value-added designation, with none of its 23 eligible school buildings receiving the top rating, above. Figure 9.6(A) shows that 9 of DPS' buildings received a below rating, 14 of its buildings received a met rating. Of Dayton's charters, 2 were rated below, 8 were rated met, and 3 were rated above.

Figure 9.6(B) shows the percentage of students who enroll in each type of school building, according to its value-added designation. Of DPS' students, nearly 40 percent attended a below building and just over 60 percent attended a met building. Of Dayton's charter students, 17 percent attended a below charter, 49 percent attended a met charter, and 33 percent attended an above charter. Along the value-added dimension, Dayton's charters outperform the district schools.

(A) Number of school buildings


(B) Percentage of students
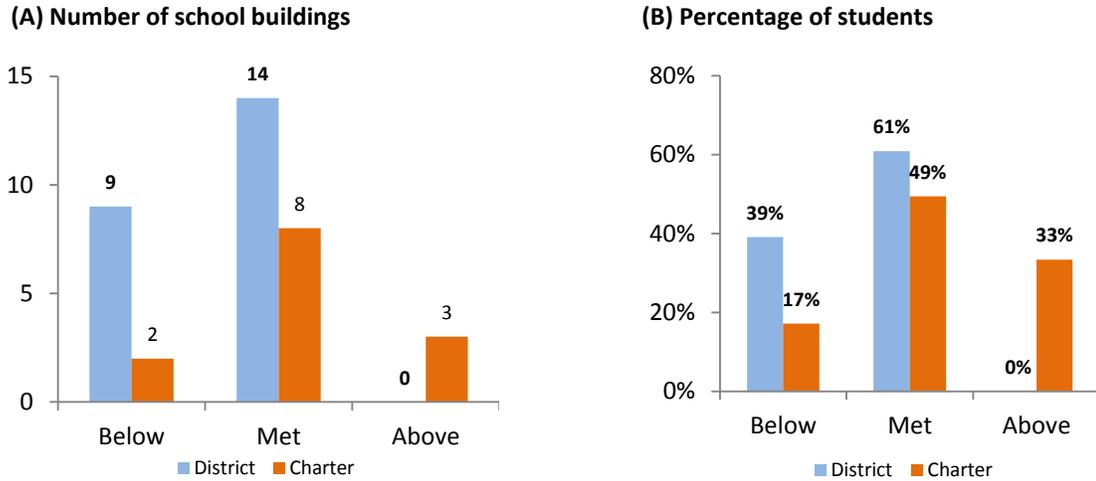
Figure 9.6. (A) Number of school buildings by value-added growth designation, district versus charter, 2011-12. (B) Percentage of students enrolled in school building by value-added growth designation, district versus charter, 2011-12. **Note:** Charter data includes charters with more than 30 percent of enrollment coming from DPS. Student enrollment count is not adjusted for the proportion of student enrollment that comes from DPS.

6. Ratings

Based on multiple performance indicators, Ohio gives each public school building and district an overall academic rating. There are six rating categories (from lowest to highest): academic emergency, academic watch, continuous improvement, effective, excellent, and excellent with distinction.

In the 2011-12 school year, no school buildings in Dayton—charter and DPS together—received a top-tier rating: either excellent with distinction (A+) or excellent (A). In contrast, most of Dayton's school buildings received a failing grade for 2011-12. Of DPS' 29 school buildings, 13 were rated in academic emergency (F) and 8 more were in academic watch (D). Of Dayton's 23 charter school buildings, 4 were in academic emergency and 4 in academic watch. Figure 9.7 shows the distribution of school buildings by state rating.

Figure 9.8 shows the number of students enrolled by the state rating of the school building they attended. As figure 9.8 indicates, a plurality of Dayton students (7,784 students)—charter and district students combined—attended a school rated academic emergency (F). A majority of Dayton students (13,414 or 53 percent) attended a school rated academic emergency (F) or academic watch (D). Most Dayton public school students, therefore, attend a failing school.
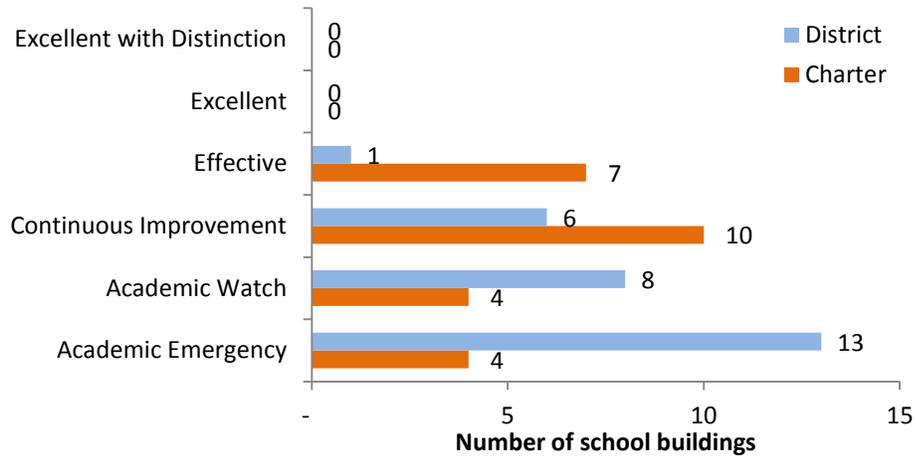
Figure 9.7. Distribution of school buildings, Dayton charter and DPS, by state rating category, 2011-12.

Figure 9.8. Distribution of Dayton student enrollment, charter and DPS, by state rating category, 2011-12.
Note: Charter data includes only charters with more than 30 percent of enrollment coming from DPS.
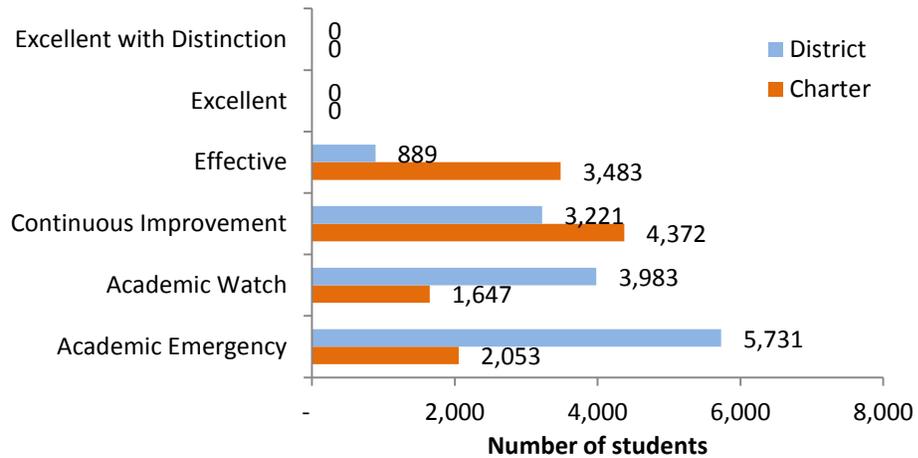Student enrollment is not adjusted for the proportion of student enrollment that comes from the DPS.

7. Notes

Note 1: **Enrollment data**

Enrollment data for Dayton Public Schools can be obtained through the Ohio Department of Education's Power User database[1] or through its October enrollment spreadsheets.[2] Overall enrollment data for charter schools can also be obtained through both of the webpages cited above. However, charter enrollment is not disaggregated by the district of student residence. For charter enrollment, the District Payment[3] and Community School Payment Reports[4] were used to determine the number of students from DPS' attendance area that attend a Dayton-area charter school or statewide e-school.

Table 9.3 below shows the ten-year enrollment data for Dayton Public Schools and Dayton charter schools, which are also represented in figures 9.1 and 9.2.

Table 9.3. Dayton's K-12 public student enrollment by charter and district, 2002-03 to 2011-12.

School Type	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Dayton Public Schools	18,163	17,593	16,710	16,348	16,825	15,023	14,393	13,987	14,174	14,295
Dayton Charters										
Brick and Mortar	4,506	5,217	5,720	5,879	5,552	6,057	5,397	5,612	5,406	5,125
E-School	210	439	467	442	430	435	353	566	611	705
Total Charter	4,716	5,657	6,188	6,322	5,982	6,493	5,751	6,177	6,017	5,830
Total Dayton Students	22,879	23,250	22,898	22,670	22,807	21,516	20,144	20,164	20,191	20,125
Charter Share	20.6%	24.3%	27.0%	27.9%	26.2%	30.2%	28.5%	30.6%	29.8%	29.0%

Note 2: Charter school proficiency calculation

To make a fair comparison between Dayton's traditional district and the charter schools, we include only charter students who would have otherwise attended Dayton Public Schools (DPS).

The Ohio Department of Education (ODE) does not sort charter test results by students' home district. We have to approximate the number of students, whose home district is DPS, tested in each grade, subject, and charter. The approximation should be relatively precise, but it does assume that the overall building proportion of students coming from Dayton is equal and uniform across all grades within the charter school building. The adjustment steps are as follows:

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[1] Ohio Department of Education, "Power User Reports," http://ilrc.ode.state.oh.us/Power_Users.asp.
[2] Ohio Department of Education, "Enrollment Data," http://ode.state.oh.us/GD/Templates/Pages/ODE/ODEDetail.aspx?page=3&TopicRelationID=3&ContentID=12261&Content=128420.
[3] Ohio Department of Education, "District Payment Reports," http://www.ode.state.oh.us/GD/Templates/Pages/ODE/ODEDetail.aspx?page=3&TopicRelationID=990&ContentID=10849&Content=132707.
[4] Ohio Department of Education, "Community School Payment Reports," http://www.ode.state.oh.us/GD/Templates/Pages/ODE/ODEDetail.aspx?page=3&TopicRelationID=878&ContentID=12925&Content=133802.

1. Obtain the number of students tested for each grade, subject, and charter.[5]
2. Obtain the proficiency rate for each grade, subject, and charter.[6] Obtain the proportion of students in each charter school (Montgomery County) whose home district is Dayton Public Schools.[7]
3. Multiply the proportion of students whose home district is Dayton Public Schools by the number of students tested in each grade, subject, and charter. This gives an approximate number of tested Dayton students in each grade, subject, and charter.
4. Multiply the adjusted number of tested students by the proficiency rate in each grade, subject, and charter. This gives an approximate number of proficient or above Dayton students in each grade, subject, and charter.
5. Sum the number of adjusted number of tested students in all charters, and sum the number of adjusted proficient or above in all charters.
6. Divide the adjusted number of proficient student by the adjusted number of tested students to determine the aggregate Dayton charter proficiency rate.

The data from Dayton Leadership Academies: Dayton View Campus' 2011-12 fourth grade reading is used to illustrate.

- *N Tested$_{4read}$* = 52
- *Proficiency rate$_{4read}$* = 0.46
- *Building proportion* of student enrollment from DPS = 0.86
- *N Tested, adjusted$_{4read}$* = 52 * 0.86 = 45
- *N Proficient, adjusted$_{4read}$* = 45 * 0.46 = 21

This procedure was repeated for all charter schools located in Montgomery County and for statewide e-schools. The N Tested (adjusted) and N Proficient (adjusted) are summed across all charters. The totals are divided to obtain the aggregate charter proficiency rate for Dayton. The adjusted results are shown in table 9.4.

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[5] ODE's Power Users Reports (2002-03 to 2010-11) and June 2012 preliminary release of the test data for 2011-12. (As of the writing of this report, 2011-12 official number tested data by grade, subject, and school building were not publically available.) Ohio Department of Education, "Test Results," http://www.ode.state.oh.us/GD/Templates/Pages/ODE/ODEPrimary.aspx?page=2&TopicRelationID=263.

[6] ODE Power Users Report (2002-03 to 2010-11), and in the official release of Report Card data for 2011-12, which is found at Ohio Department of Education, "Preliminary District and School Report Card Data, http://education.ohio.gov/GD/Templates/Pages/ODE/ODEDetail.aspx?page=3&TopicRelationID=1&ContentID=131230.

[7] This can be calculated via ODE's Community School Payment Report. See above, "Note 1: Enrollment data."

Table 9.4. Aggregate Dayton charter test data. Approximate total number of charter students from Dayton Public Schools' attendance area tested, number of students who test proficient or above, proportion of students who test proficient or above.

	Grade and Subject	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
N Tested[1]	4th Grade Mathematics	450	383	398	425	384	377	378	403	459	413
	4th Grade Reading	435	386	392	417	385	378	378	400	459	414
	6th Grade Mathematics	423	358	385	396	337	333	321	357	368	421
	6th Grade Reading	424	359	386	396	337	336	321	357	370	422
	10th Grade Mathematics	83	116	26	120	234	281	237	266	211	224
	10th Grade Reading	35	103	26	116	242	271	230	261	210	210
N Proficient[2]	4th Grade Mathematics	67	140	145	236	199	182	213	209	258	241
	4th Grade Reading	104	177	196	237	231	245	245	265	319	259
	6th Grade Mathematics	65	147	126	235	187	170	178	190	226	261
	6th Grade Reading	113	182	178	285	193	219	210	250	275	315
	10th Grade Mathematics	8	22	14	53	98	131	130	169	132	151
	10th Grade Reading	17	57	22	74	143	171	158	187	157	172
Proficiency Rate	4th Grade Mathematics	0.15	0.37	0.36	0.56	0.52	0.48	0.56	0.52	0.56	0.58
	4th Grade Reading	0.24	0.46	0.50	0.57	0.60	0.65	0.65	0.66	0.70	0.62
	6th Grade Mathematics	0.15	0.41	0.33	0.59	0.55	0.51	0.55	0.53	0.61	0.62
	6th Grade Reading	0.27	0.51	0.46	0.72	0.57	0.65	0.65	0.70	0.74	0.75
	10th Grade Mathematics	0.09	0.19	0.53	0.44	0.42	0.47	0.55	0.63	0.63	0.68
	10th Grade Reading	0.48	0.56	0.84	0.64	0.59	0.63	0.69	0.71	0.75	0.82

[1] Total number of Dayton-resident charter students tested per grade, which is estimated based on overall proportion of Dayton-resident students attending the school.

[2] Number of proficient Dayton-resident charter students calculated by multiplying the proficiency rate by the number of Dayton-resident students who were tested.

Note 3: Dayton Public Schools (district and charter), select achievement results, sorted alphabetically, 2011-12

School Name	School Type	State Indicators Met	State Indicators Apply	Percent State Indicators Met	Performance Index	Adequate Yearly Progress	Value Added Growth	Preliminary Report Card Rating	Enrollment
Belle Haven PreK-8 School	District	1	15	6.7	64.6	Not Met	Below	Academic Emergency	450
Belmont High School	District	0	17	0.0	81.7	Not Met	Met	Continuous Improvement	720
Charity Adams Earley Girls Academy	District	5	12	41.7	87.1	Met	Met	Continuous Improvement	383
Cleveland PreK-8 School	District	0	15	0.0	74.3	Not Met	Met	Academic Watch	459
David H. Ponitz Career Technology Center	District	5	12	41.7	89.0	Not Met	--	Continuous Improvement	671
Dayton Boys Preparatory Academy	District	3	15	20.0	76.7	Not Met	Below	Academic Emergency	381
Dunbar High School	District	1	12	8.3	79.4	Not Met	--	Academic Watch	535
E. J. Brown PreK-8 School	District	0	15	0.0	60.9	Not Met	Below	Academic Emergency	437
Eastmont Park PreK-8 School	District	1	15	6.7	78.9	Not Met	Met	Academic Watch	480
Edison PreK-8 School	District	1	15	6.7	65.9	Not Met	Below	Academic Emergency	469
Fairview PreK-8 School	District	0	15	0.0	63.0	Not Met	Below	Academic Emergency	446
Gardendale Academy	District	0	1	0.0	56.6	Not Met	--	Not Rated	58
Gorman School @ Jackson Center	District	0	1	0.0	66.8	Not Met	--	Not Rated	52
Horace Mann PreK-8 School	District	6	15	40.0	89.4	Not Met	Met	Continuous Improvement	475
Kemp PreK-8 School	District	1	15	6.7	65.9	Not Met	Met	Academic Emergency	432
Kiser PreK-8 School	District	1	15	6.7	69.4	Not Met	Met	Academic Emergency	476
Longfellow Alternative School	District	4	10	40.0	52.9	Not Met	--	Academic Watch	304
Louise Troy PreK-8 School	District	0	15	0.0	61.4	Not Met	Met	Academic Emergency	339
Meadowdale High School	District	0	12	0.0	72.4	Not Met	--	Academic Watch	567
Meadowdale PreK-8 School	District	1	15	6.7	65.4	Not Met	Below	Academic Emergency	517

School Name	School Type	State Indicators Met	State Indicators Apply	Percent State Indicators Met	Performance Index	Adequate Yearly Progress	Value Added Growth	Preliminary Report Card Rating	Enrollment
River's Edge Montessori PreK-8 School	District	1	15	6.7	68.7	Not Met	Below	Academic Emergency	545
Rosa Parks PreK-8 School	District	0	15	0.0	62.7	Not Met	Met	Academic Emergency	404
Ruskin PreK-8 School	District	1	15	6.7	76.1	Not Met	Met	Academic Watch	500
Stivers School For The Arts	District	14	17	82.4	98.1	Not Met	Met	Effective	889
Thurgood Marshall High School	District	0	12	0.0	78.8	Not Met	--	Academic Watch	648
Valerie PreK-8 School	District	7	15	46.7	86.9	Met	Below	Continuous Improvement	478
Westwood PreK-8 School	District	0	15	0.0	58.1	Not Met	Met	Academic Emergency	367
Wogaman PreK-8 School	District	0	15	0.0	64.6	Not Met	Below	Academic Emergency	468
World of Wonder PreK-8 School	District	3	15	20.0	76.2	Not Met	Met	Academic Watch	490
Wright Brothers PreK-8 School	District	2	15	13.3	81.6	Not Met	Met	Continuous Improvement	494
City Day Community School	Charter	2	15	13.3	70.4	Not Met	Below	Academic Watch	160
Dayton Early College Academy, Inc	Charter	14	17	82.4	99.1	Not Met	Below	Effective	411
Dayton Leadership Academies-Dayton Liberty Campus	Charter	3	15	20.0	72.5	Not Met	Met	Academic Watch	330
Dayton Leadership Academies-Dayton View Campus	Charter	1	15	6.7	75.4	Not Met	Below	Academic Emergency	483
Dayton Technology Design High School	Charter	3	12	25.0	78.6	Not Met	--	Continuous Improvement	138
Emerson Academy	Charter	3	15	20.0	89.2	Not Met	Above	Effective	733
General Chappie James Leadership Academy	Charter	0	2	0.0	--	Not Met	--	Not Rated	104
Horizon Science Academy Dayton Downtown	Charter	4	12	33.3	80.9	Met	Met	Continuous Improvement	171
Horizon Science Academy Dayton High School	Charter	4	17	23.5	84.0	Not Met	Met	Continuous Improvement	196
Horizon Science Academy-Dayton	Charter	3	10	30.0	83.1	Not Met	Met	Continuous Improvement	151
Klepinger Community School	Charter	1	15	6.7	61.5	Not Met	Met	Academic Emergency	434
Life Skills Center of Dayton	Charter	0	12	0.0	71.8	Not Met	--	Continuous	315

School Name	School Type	State Indicators Met	State Indicators Apply	Percent State Indicators Met	Performance Index	Adequate Yearly Progress	Value Added Growth	Preliminary Report Card Rating	Enrollment
								Improvement	
Miami Valley Academies	Charter	7	19	36.8	84.4	Met	Met	Continuous Improvement	164
Miamisburg Secondary Academy	Charter	0	7	0.0	72.5	Not Met	--	Academic Watch	95
Mound Street Health Careers Acadmy	Charter	1	7	14.3	81.3	Not Met	--	Continuous Improvement	133
Mound Street IT Careers Academy	Charter	4	7	57.1	98.5	Not Met	--	Effective	86
Mound Street Military Careers Academy	Charter	5	7	71.4	99.3	Not Met	--	Effective	65
North Dayton School Of Science & Discovery	Charter	1	15	6.7	75.6	Not Met	Met	Academic Watch	523
Pathway School of Discovery	Charter	11	15	73.3	95.2	Not Met	Met	Effective	785
Richard Allen Academy	Charter	3	6	50.0	85.9	Met	Met	Continuous Improvement	117
Richard Allen Academy II	Charter	6	10	60.0	86.3	Met	Above	Effective	484
Richard Allen Preparatory	Charter	1	1	100.0	--	Met	--	Not Rated	224
Summit Academy Community School - Dayton	Charter	0	15	0.0	65.2	Not Met	Met	Academic Emergency	104
Summit Academy Transition High School Dayton	Charter	2	12	16.7	82.9	Met	--	Continuous Improvement	71
Tech Con Institute	Charter	0	7	0.0	--	Not Met	--	Academic Emergency	53
The ISUS Institute of Construction Technology	Charter	0	2	0.0	--	Not Met	--	Not Rated	42
The ISUS Institute of Health Care	Charter	0	7	0.0	--	Met	--	Continuous Improvement	67
The ISUS Institute of Manufacturing	Charter	0	2	0.0	103.3	Met	--	Not Rated	31
Trotwood Fitness & Prep Acad	Charter	5	15	33.3	83.1	Not Met	Above	Effective	332