BIG DATA & K-12 EDUCATION

DC PUBLIC CHARTER SCHOOL BOARD

March 9, 2016

Overview

- Big vs. precision data
- Non-academic data
- Academic data
- Publically available data

- Materials from tonight:
    - https://github.com/AdamBethke/bigdatak12education

BIG VS. PRECISION DATA

Big vs. Precision Data

- Hadley Wickham's Big Data Framework
  - Most of the current work in K-12 education fall's into Hadley's first two categories:
    - "Big data problems that are actually small data problems, once you have the right subset/sample/summary."
    - "Big data problems that are actually lots and lots of small data problems."
- Differences between commercial big data and education data and performance monitoring
- Data definitions are important!

NON-ACADEMIC DATA

Non-Academic Data

- **Inputs:**
  - Attendance
  - Discipline
  - Enrollment
- **Outputs:**
  - LearnDC Equity Reports
  - Monthly data dives; outlier analysis

Sample Equity Report

BASIS DC PCS

2014-15 Equity Report

What is an Equity Report? Equity in education refers to all students receiving the same caliber of education regardless of their race, ethnicity, economic status, special education status or other factors.

Equity Reports give our schools, families and communities transparent and comparable information related to equity across all DC schools. Equity Reports are available online so that information is easy to access, understand and use.

The Office of the State Superintendent of Education (OSSE), DC Public Schools (DCPS), the DC Public Charter School Board (PCSB) in consultation with charter schools, the Deputy Mayor for Education and NewSchools Venture Fund partnered to create these Equity Reports. **Equity Reports are a complement to OSSE's LearnDC** School Profiles, **DCPS' School Scorecards and PCSB's Performance Management** Framework.

SCHOOL CHARACTERISTICS (SY 2015-16)

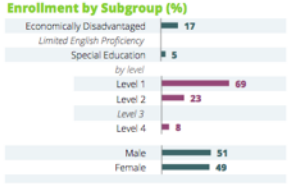
Grades	5 - 10
Ward	2
Address	410 8th Street NW Washington, DC 20004
Contact	202-393-5437 www.basisdc.org
Type	Public Charter School

STUDENT CHARACTERISTICS

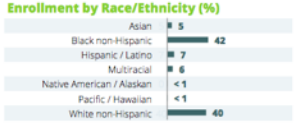
Total Enrollment (#)

551 Students

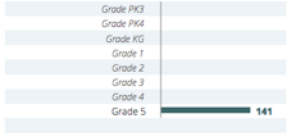
Enrollment by Subgroup (%)

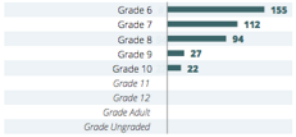


Enrollment by Race/Ethnicity (%)



Enrollment by Grade (#)



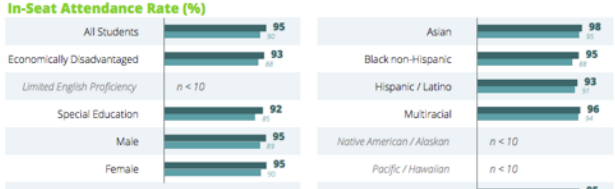


OSSE DME DC PUBLIC CHARTER SCHOOL BOARD DISTRICT OF COLUMBIA PUBLIC SCHOOLS

This Equity Report represents the joint effort of OSSE, DCPS, PCSB, and DME to improve equity across all entities.
Support provided by NewSchools Venture Fund.

ATTENDANCE

In-Seat Attendance Rate (%)



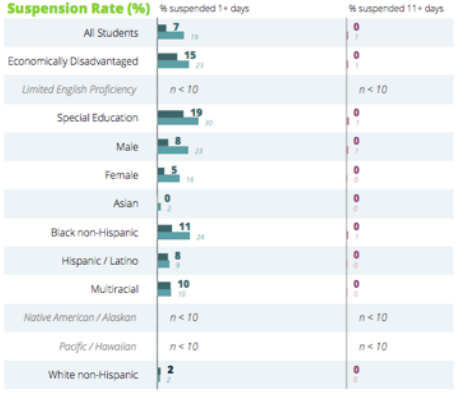
DISCIPLINE

Total Suspensions (#)
This School 58

Total Expulsions (#)
This School 0

Expulsion Rate (%)
This School 0.00
City Average * 0.29

Suspension Rate (%)

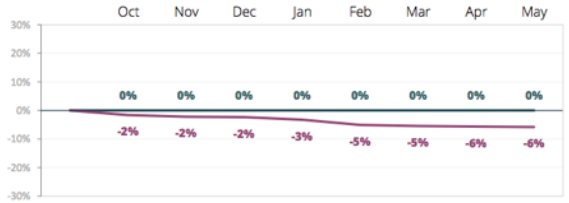


BASIS DC PCS
2014-15 Equity Report

STUDENT MOVEMENT

Mid-Year Entry and Withdrawals (%)
This School

Total Enrollment
551 Students



Net Cumulative Change (%)

This School	**-6%**
City Average *	-1%

% of Students Entering
% of Students Withdrawing

Mid-Year Entry and Withdrawals (%)
City Average *

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May
Entry	1%	2%	3%	4%	5%	5%	6%	7%
Withdrawal	-1%	-2%	-3%	-4%	-5%	-6%	-7%	-7%

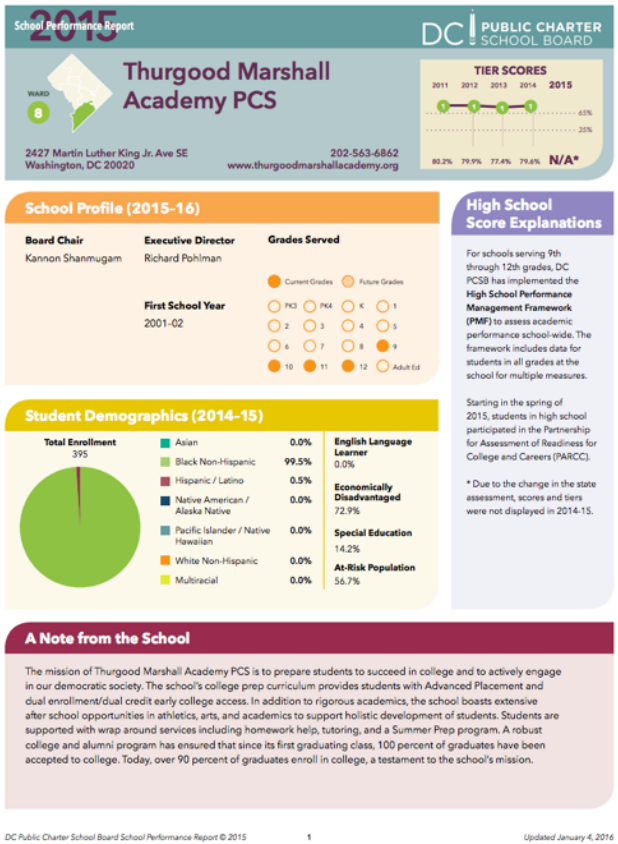
* *The City Averages displayed on this page only include the average of those grades served by this school in school year 2015-16.*

ACADEMIC DATA

Academic Data

- **Inputs:**
  - State Assessment (PARCC)
  - Early Childhood Assessments
  - High School Outcomes (PSAT, ACT/SAT, College Acceptance)
  - Reenrollment
  - … mountains of data.
- **Outputs:**
  - Performance Management Framework (PMF)
    - Common framework, schools are tiered each year
  - Reviews and Renewals
  - Subject, Content, and Subgroup Analysis

Sample PMF Scorecard



2015 School Performance Report

DC PUBLIC CHARTER SCHOOL BOARD

Thurgood Marshall Academy PCS

WARD 8

TIER SCORES

2011	2012	2013	2014	2015
1	1	1	1	
80.2%	79.9%	77.4%	79.6%	N/A*

65%
25%

2427 Martin Luther King Jr. Ave SE
Washington, DC 20020

202-563-6862
www.thurgoodmarshallacademy.org

School Profile (2015-16)

Board Chair
Kannon Shanmugam

Executive Director
Richard Pohlman

Grades Served
Current Grades / Future Grades
PK3 PK4 K 1
2 3 4 5
6 7 8 9
10 11 12 Adult Ed

First School Year
2001-02

Student Demographics (2014–15)

Total Enrollment
395

Asian	0.0%	
Black Non-Hispanic	99.5%	
Hispanic / Latino	0.5%	
Native American / Alaska Native	0.0%	
Pacific Islander / Native Hawaiian	0.0%	
White Non-Hispanic	0.0%	
Multiracial	0.0%	

English Language Learner
0.0%

Economically Disadvantaged
72.9%

Special Education
14.2%

At-Risk Population
56.7%

High School Score Explanations

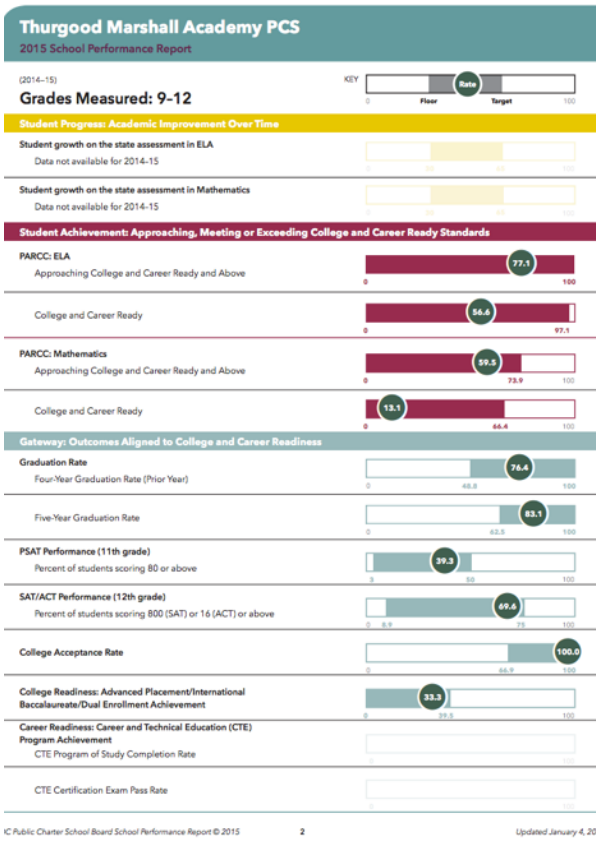
For schools serving 9th through 12th grades, DC PCSB has implemented the **High School Performance Management Framework (PMF)** to assess academic performance school-wide. The framework includes data for students in all grades at the school for multiple measures.

Starting in the spring of 2015, students in high school participated in the Partnership for Assessment of Readiness for College and Careers (PARCC).

* Due to the change in the state assessment, scores and tiers were not displayed in 2014-15.

A Note from the School

The mission of Thurgood Marshall Academy PCS is to prepare students to succeed in college and to actively engage in our democratic society. The school's college prep curriculum provides students with Advanced Placement and dual enrollment/dual credit early college access. In addition to rigorous academics, the school boasts extensive after school opportunities in athletics, arts, and academics to support holistic development of students. Students are supported with wrap around services including homework help, tutoring, and a Summer Prep program. A robust college and alumni program has ensured that since its first graduating class, 100 percent of graduates have been accepted to college. Today, over 90 percent of graduates enroll in college, a testament to the school's mission.



Thurgood Marshall Academy PCS

2015 School Performance Report

(2014–15)

Grades Measured: 9-12

KEY: Rate, Floor, Target

Student Progress: Academic Improvement Over Time

Student growth on the state assessment in ELA
Data not available for 2014-15

Student growth on the state assessment in Mathematics
Data not available for 2014-15

Student Achievement: Approaching, Meeting or Exceeding College and Career Ready Standards

PARCC: ELA
Approaching College and Career Ready and Above — 77.1

College and Career Ready — 56.6

PARCC: Mathematics
Approaching College and Career Ready and Above — 59.5

College and Career Ready — 13.1

Gateway: Outcomes Aligned to College and Career Readiness

Graduation Rate
Four-Year Graduation Rate (Prior Year) — 76.4

Five-Year Graduation Rate — 83.1

PSAT Performance (11th grade)
Percent of students scoring 80 or above — 39.3

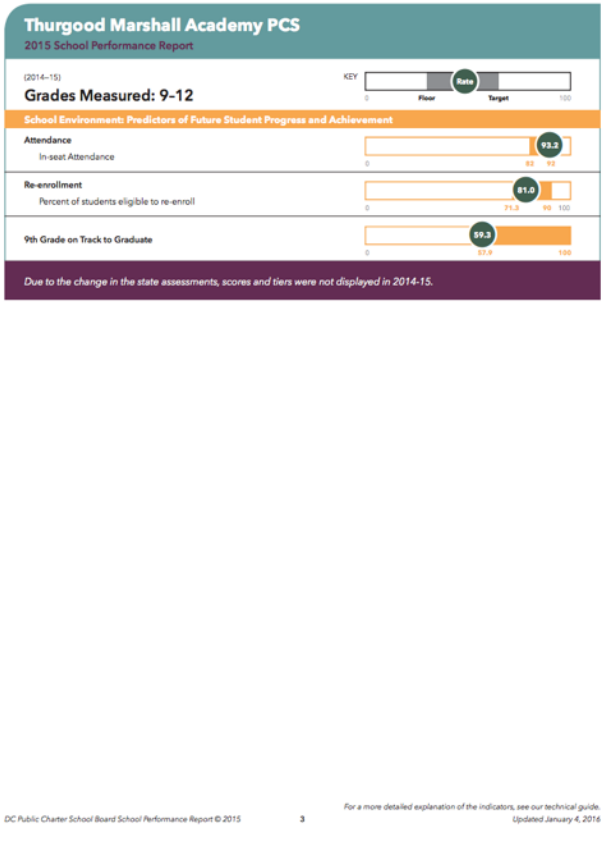
SAT/ACT Performance (12th grade)
Percent of students scoring 800 (SAT) or 16 (ACT) or above — 69.6

College Acceptance Rate — 100.0

College Readiness: Advanced Placement/International Baccalaureate/Dual Enrollment Achievement — 33.3

Career Readiness: Career and Technical Education (CTE) Program Achievement
CTE Program of Study Completion Rate

CTE Certification Exam Pass Rate



Thurgood Marshall Academy PCS

2015 School Performance Report

(2014–15)

Grades Measured: 9-12

KEY: Rate, Floor, Target

School Environment: Predictors of Future Student Progress and Achievement

Attendance
In-seat Attendance — 93.2

Re-enrollment
Percent of students eligible to re-enroll — 81.0

9th Grade on Track to Graduate — 59.3

Due to the change in the state assessments, scores and tiers were not displayed in 2014-15.

For a more detailed explanation of the indicators, see our technical guide.
Updated January 4, 2016

PUBLICALLY AVAILABLE DATA

Publically available data

- PMF Scorecards
- Equity Reports
- Attendance, Discipline and Truancy Reports
- PARCC Scores
- Shout out to Ben Robinson at the Office of the State Superintendent of Education (OSSE), who maintains the R package LearnDC

Publically available data definitions

- Equity Report Technical Guide
- PMF Policy and Technical Guide

WHAT'S NEXT?

Contact Us

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DC PUBLIC CHARTER SCHOOL BOARD

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#DCcharterPROUD