

Credit Rating Presentation

GO Bonds, Series 2018A and GO Refunding Bonds, Series 2018B
Certificates of Participation, Series 2018A



Presentation Participants

Denver Public Schools

Rating and Financing Contacts

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Additional Key DPS Personnel

- **Erik Johnson**, Executive Director of Finance
- **Chuck Carpenter**, Director of Financial Planning and Analysis
- **Steve Clawson**, Controller
- **Samantha Gallagher**, Director of Technical Accounting and Treasury

Financial Advisors

- **David Paul**, Fiscal Strategies Group, Inc.
- **Louis Choi**, Public Resources Advisory Group

GO Bonds – Co-Senior Managing Underwriters

- **Josh Benninghoff**, Managing Director, Stifel
- **Dan O’Connell**, Managing Director, RBC Capital Markets LLC

Additional Transaction Participants

- **Loop Capital Markets**, Underwriter for the COPs
- **Butler Snow**, Bond and Disclosure Counsel
- **Stradling Yocca Carlson & Rauth**, Underwriters’ Counsel

Overview of Denver Public Schools

DPS is the Largest School District in Colorado

Mission Statement:	“To provide all students the opportunity to achieve the knowledge and skills necessary to become contributing citizens in our diverse society.”
Board of Education:	Seven elected members (two of which are elected at-large)
Superintendent:	Tom Boasberg – appointed in January 2009, renewed contract in December 2016
Student Base:	Fall 2017 enrollment of 92,686 students
Employees:	14,058 total employees – 10,110 full-time and 3,948 part-time
Facilities:	98 elementary schools, 19 K-8 schools, 42 high schools, 38 middle schools (note that some middle and high schools may operate as a combined 6-12), 25 alternative schools, and seven other support buildings
Charter Schools:	60 charter schools, including five new charter schools in school year 2017-18
Tax Base:	Largest and most diverse tax base in the State of Colorado: <ul style="list-style-type: none">• 2017 net assessed valuation of \$16,576,650,104• 2017 total actual value of all taxable property of \$129,040,583,782• Identical tax base and security structure as City and County of Denver (rated Aaa/AAA/AAA)

Summary of Transactions

General Obligation Bonds

Series 2018A (New Money)

- The Series 2018A Bonds represent the remaining authorization from the District’s November 2016 election that approved \$572 million of general obligation bonds
- Together with the previously issued Series 2017 Bonds, the Series 2018A Bonds will support the following projects:
 - Approximately \$252 million investment in maintaining facilities, including funding for critical maintenance items that are necessary for the safe operation of schools; such as HVAC and LED lighting
 - Approximately \$142 million investment in constructing new schools and creating additions to existing schools to support the projected 4,000-student enrollment increase by 2020
 - Approximately \$108 million to upgrade learning environments as the District’s older facilities that have received minimal visible updates or remodels in recent decades; includes Abraham Lincoln, Thomas Jefferson, John F. Kennedy, and George Washington high schools
 - Approximately \$70 million of investment to increase student technology access

Series 2018B (Taxable Refunding)

- The Series 2018B Bonds will refund the following bond issues and maturities:
 - Series 2009F Refunding
 - Maturities 2020 – 2023
 - Refunded Par: \$8,735,000
 - Series 2012A Refunding
 - Maturities 2024 – 2025
 - Refunded Par: \$36,465,000
 - Series 2012B
 - Maturities 2028 and 2032
 - Refunded Par: \$50,755,000

	Series 2018A*	Series 2018B*
Par Amount	\$105,325,000	\$107,250,000
Structure	Serial Bonds	Serial Bonds
Tax Status	Tax-Exempt	Taxable
Optional Redemption	December 1, 2027	December 1, 2027
Final Maturity	December 1, 2042	December 1, 2032

* Preliminary, subject to change

Summary of Transactions

Certificates of Participation

Series 2018A COPs

- In September, the Board approved the acquisition of 1617 S. Acoma Street as well as the acquisition of a cold storage facility in a central location of the district
- The Acoma Street location will cost approximately \$8.5 million and is being acquired to provide storage capacity at a lower cost than current practices
- The cold storage facility's cost of acquisition and renovation is estimated at \$3.5 million with the goal of reducing the District's operating costs and establishing a predictable and long-term fixed cost for this function
- The Board has approved the following parameters for this financing:
 - Single lease for both assets, with the financed assets serving as collateral
 - \$12 million par
 - 25 year financing term with a site lease not to exceed 35 years

Series 2018A COPs	
Fiscal Year	Estimated Base Rentals*
2018	\$290,625
2019	940,775
2020	932,900
2021	935,750
2022	940,625
2023	939,375
2024	937,125
2025	933,875
2026	934,500
2027	933,875
2028	936,875
2029	938,375
2030	933,500
2031	932,250
2032	934,375
2033	934,750
2034	938,250
2035	934,875
2036	934,625
2037	937,250
2038	932,750
Total	\$19,007,300

Series 2018A COPs*	
Par Amount	\$11,845,000
Structure	Serial Bonds
Tax Status	Tax-Exempt
Optional Redemption	December 1, 2027
Final Maturity	December 1, 2037

* Preliminary, subject to change

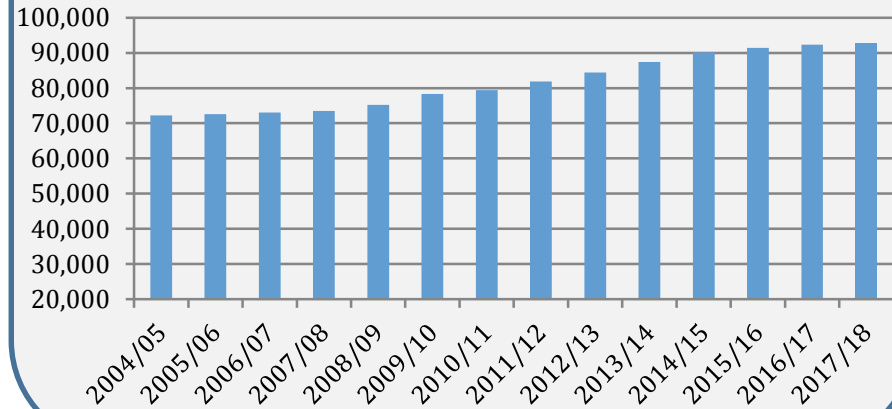
District Overview

Tax Base Comparison

- Largest tax base of any Colorado School District
- Tax Base is the security behind ULTGO pledge
- Identical Tax Base and Security Structure as City and County of Denver (rated Aaa/AAA/AAA)
- Estimated population: 693,292
- 2017 net assessed value: \$16,576,650,104
 - Direct debt to 2017 assessed value: 10.77%
- 2017 statutory “actual” value: \$129,040,583,782
 - Direct debt to 2017 statutory “actual” value: 1.38%

District Enrollment

- DPS added over 17,400 students since 2008; 23% growth
- 2017-18 enrollment of 92,686



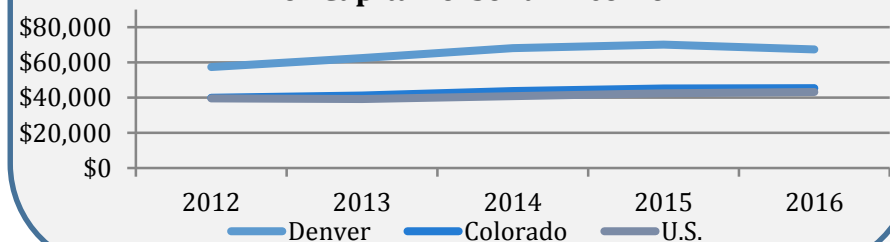
Charter Schools

- Funding for DPS charter schools does not adversely affect traditional public schools
- DPS charter schools are non-profit schools chartered by DPS
- DPS approves charter school locations and facilities to optimize use of District assets
- Over 75% of charter schools are in district facilities
- Charter Schools pay full O&M costs of facilities and pro-rata share of other costs
- Charter Schools alleviate growth pressures where neighborhood schools are at capacity
- 20% of total District enrollment is within charter schools

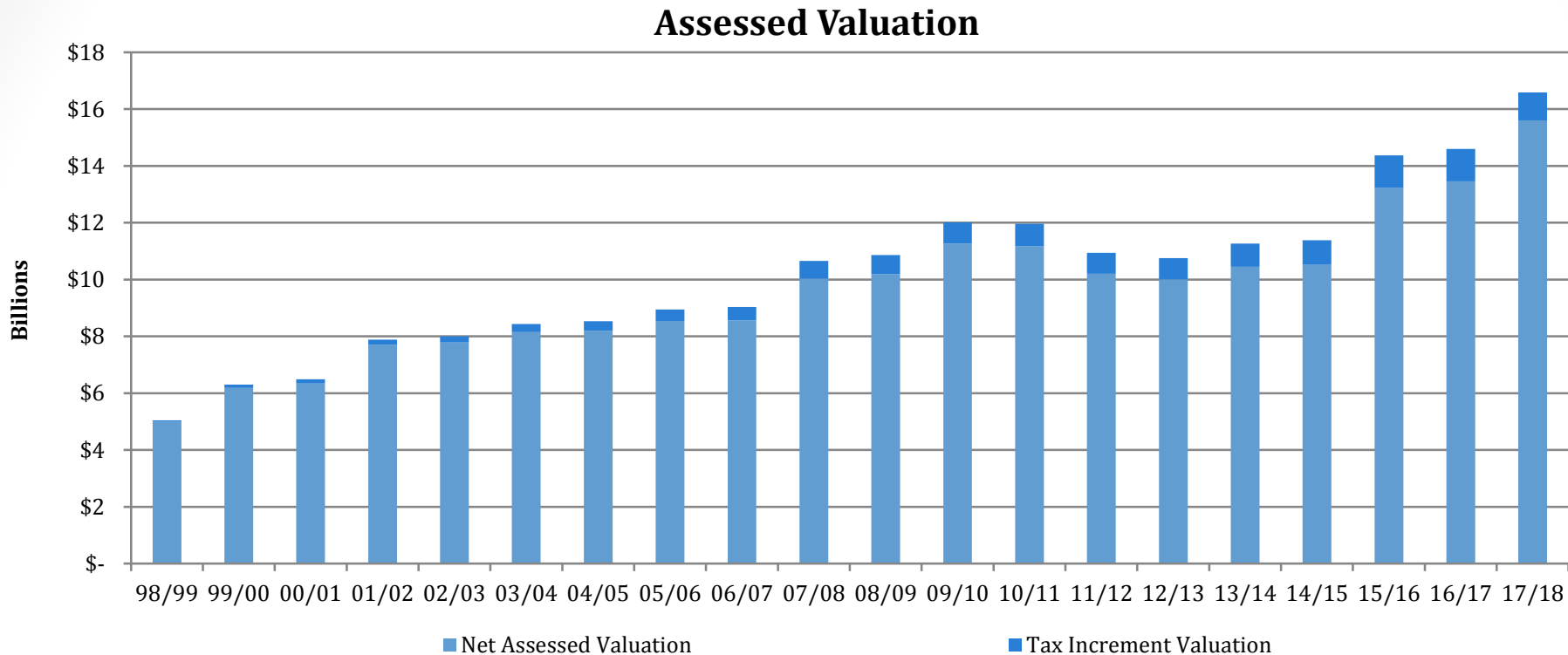
Economics & Demographic Trends

- October 2017 unemployment rate in Denver (2.6%) is lower than October 2016 rate (2.7%)
- Unemployment rate in Denver is below the State and national levels
- Denver per capita income is higher than State and national averages

Per Capita Personal Income



Assessed Value History



- 47% assessed value growth from 2013 to 2017 reflects Denver’s status as among fastest growing region in country
- In 2017 (collection year 2018) Colorado will see the first decrease in residential assessment rates under Gallagher since 2003, with the residential assessment rate falling from 7.96% to 7.20%
 - Growth of 23.15% includes reduction to 7.2%; based on the 2016 classes of assessed valuation, without the reduction, the District’s AV growth would have been 28%
- The tax increment valuation (“TIF”) rolls into the District’s overall assessed valuation, and overall remains a small component of the District’s overall assessed valuation as the TIFs expire

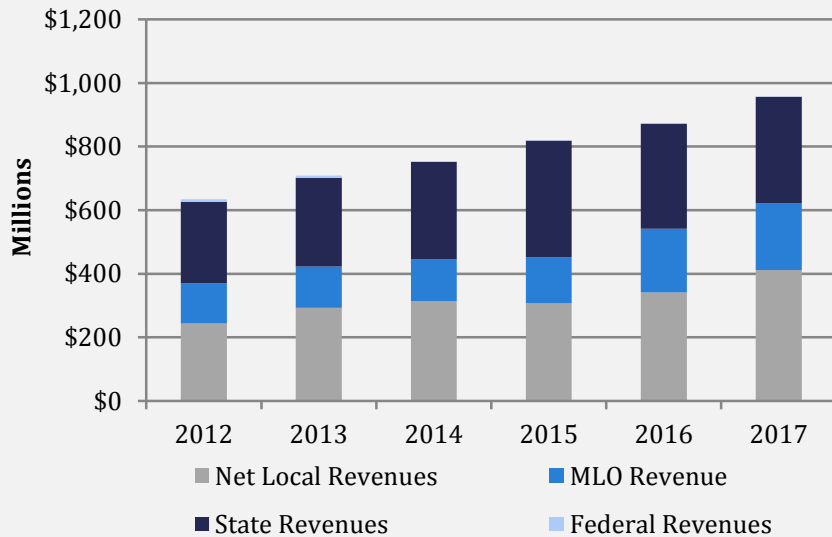
MLO Funding Matches District Growth

General Fund Revenue and Fund Balance

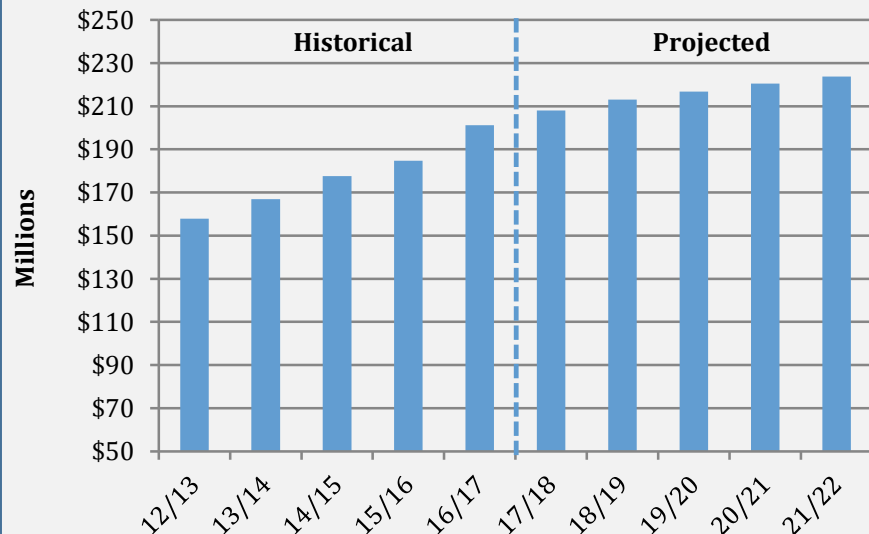
FY Year	General Fund Revenue	GAAP Fund Balance	GAAP Fund Balance as a % of GF Revenue
2008	608,361,819	34,883,716	5.73%
2009	625,758,568	28,625,407	4.57%
2010	667,351,646	63,251,930	9.48%
2011	669,438,042	116,513,738	17.40%
2012	634,318,574	101,669,568	16.03%
2013	709,140,225	109,539,445	15.45%
2014	753,189,921	98,297,852	13.05%
2015	820,085,259	106,552,800	12.99%
2016	872,998,622	94,542,480	10.83%
2017	957,457,665	122,149,875	12.76%
2018*	968,719,056	113,772,420	11.74%

- DPS controls its own funding with MLO, decreasing reliance on the State (not tied to 25% of TPF; the rate moves with the State's maximum rate¹)
- The District retains many other revenue enhancement options, including specific override mills, fees and charges, and tax options
- Reserves have been stable at or above a \$100 million level
- DPS built excess fund balance post 2008 and continues to view 10% fund balance as a percentage of expenditures as a floor; as was formally adopted at the District's March 16, 2017 Board Meeting
- The District's budgeted 17/18 fund balance is 11.74%

History of State and Local Revenues



25% of Total Program Funding

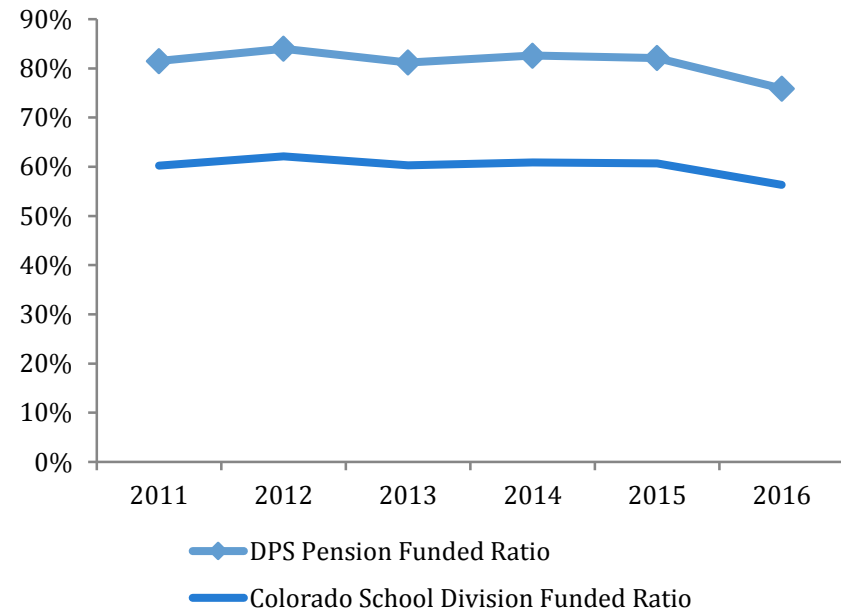


*Budgeted.

¹ Subject to confirmation.

Pension Funding Progress

- At 75.9%, the DPS Division has PERA's highest funding ratio
 - Using the market value of assets, the funded ratio is 73.2% versus 75.9% for the actuarial value
- In September, the PERA Board endorsed a comprehensive package of reforms designed to reduce the plan's risk profile and improve the funded status
- On November 1st, the Governor's Office released their proposed budget for FY 2018-2019, which included a set of recommended adjustments to PERA
- The DPS Division employer contribution rate is currently 10.15%, as reset effective January 1, 2015, and remains subject to true-up calculations every 5 years in order to equalize the funding status of the DPS Division and the School Division over a 30-year period



	CY 2011	CY 2012	CY 2013	CY 2014	CY 2015	CY 2016
Actuarial valuation date	12/31/2011	12/31/2012	12/31/2013	12/31/2014	12/31/2015	12/31/2016
Actuarial value of assets (a)	2,804,706	2,936,695	3,075,895	3,151,456	3,207,327	3,220,935
Actuarial accrued liability (b)	3,442,527	3,495,549	3,785,872	3,816,093	3,905,420	4,246,430
Total unfunded actuarial accrued liability ("UAAL")(b-a)	637,821	558,854	709,977	664,637	698,093	1,025,495
Funded ratio (a/b)	81.5%	84.0%	81.2%	82.6%	82.1%	75.9%
Covered payroll	491,646	510,872	547,660	584,319	621,115	642,177
UAAL as a % of covered payroll	129.7%	109.4%	129.6%	113.7%	112.4%	159.7%
Pension COP Payments	49,982	52,345	56,706	59,248	60,588	64,598
DPS Division Employer Contributions	12,859	14,703	25,157	18,478	8,494	17,071
Total Pension Contributions	62,841	67,048	81,863	77,726	69,082	81,669

*Note: Dollars in thousands

Source: PERA Comprehensive Annual Financial Reports for the year ended December 31, 2016, and the District.

Current GO Bonds and COPs

DPS has \$1.78 billion in Outstanding GO Bonds

	Amount Outstanding
GO Refunding Bonds, Series 2005A	\$129,510,000
GO QSCBs, Series 2009B	24,022,000
GO BABs, Series 2009C	250,000,000
GO Refunding Bonds, Series 2009F ⁽²⁾	6,925,000
GO Refunding Bonds, Series 2009G	16,040,000
GO QSCBs, Series 2010A	29,260,000
GO BABs, Series 2010B	1,545,000
GO Refunding Bonds, Series 2010C	85,390,000
GO Refunding Bonds, Series 2012A ⁽²⁾	61,215,000
GO Bonds, Series 2012B ⁽²⁾	187,245,000
GO QZABS, Series 2012C ⁽¹⁾	16,000,000
GO Refunding Bonds, Series 2012D	8,295,000
GO Bonds, Series 2014A	19,385,000
GO Refunding Bonds, Series 2014B	130,805,000
GO Refunding Bonds, Series 2016	139,825,000
GO Bonds, Series 2017	466,675,000
GO Bonds, Series 2018A ⁽²⁾	105,325,000
GO Refunding Bonds, Series 2018B ⁽²⁾	107,250,000
Total	\$1,784,712,000

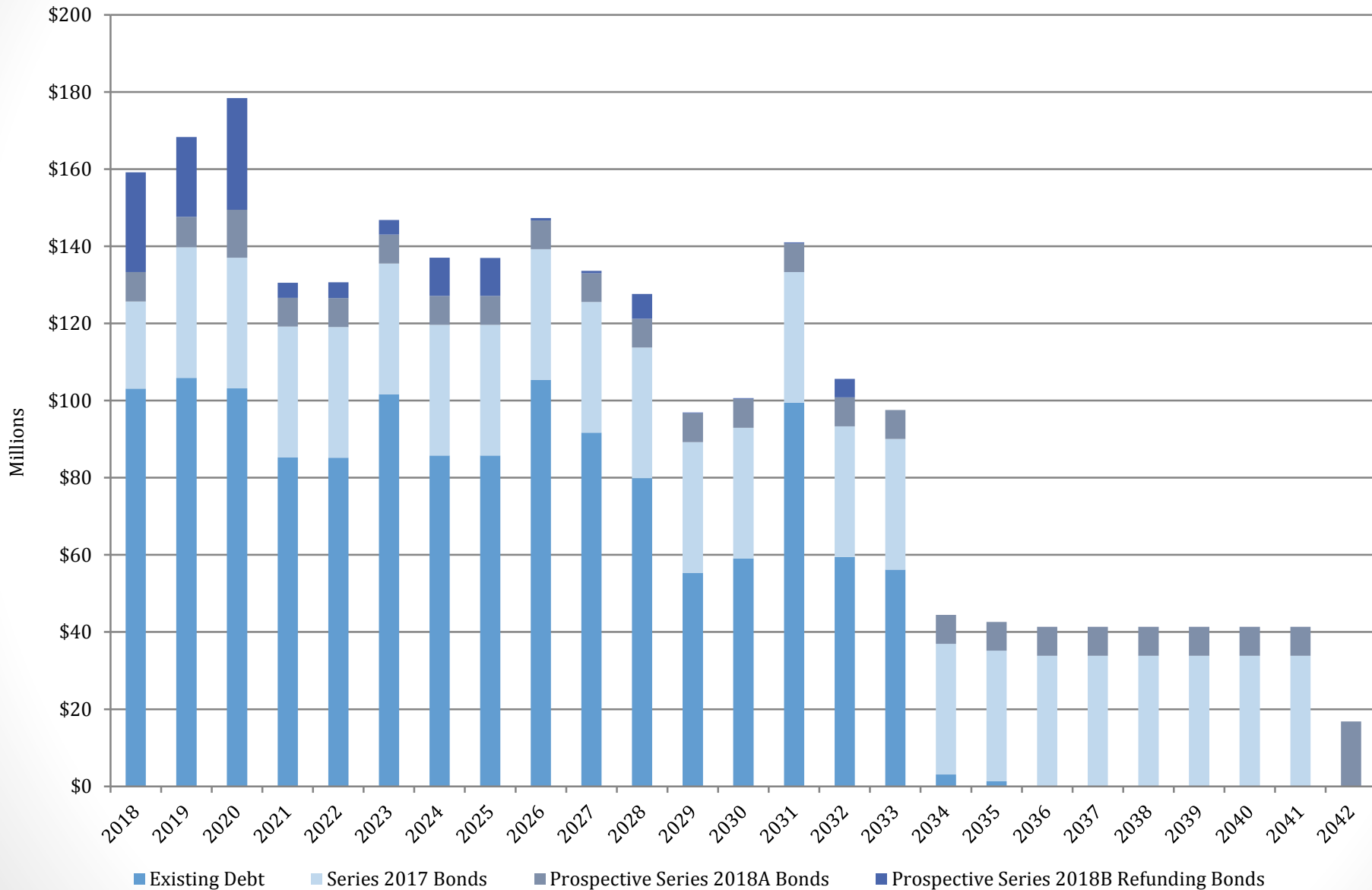
DPS has \$1.02 billion in Outstanding COPs

	Amount Outstanding
Taxable COPs, Series 2011B	\$391,945,000
Taxable COPs, Series 2013B	503,860,000
COPs, Series 2013C	56,790,000
COPs, Series 2015A&B	8,600,000
COPs, Series 2017A	29,960,000
COPs, Series 2017B	13,335,000
COPs, Series 2017C	10,000,000
COPs, Series 2018A ⁽²⁾	11,845,000
Total	\$1,026,335,000

(1) Not adjusted for sinking fund payments.

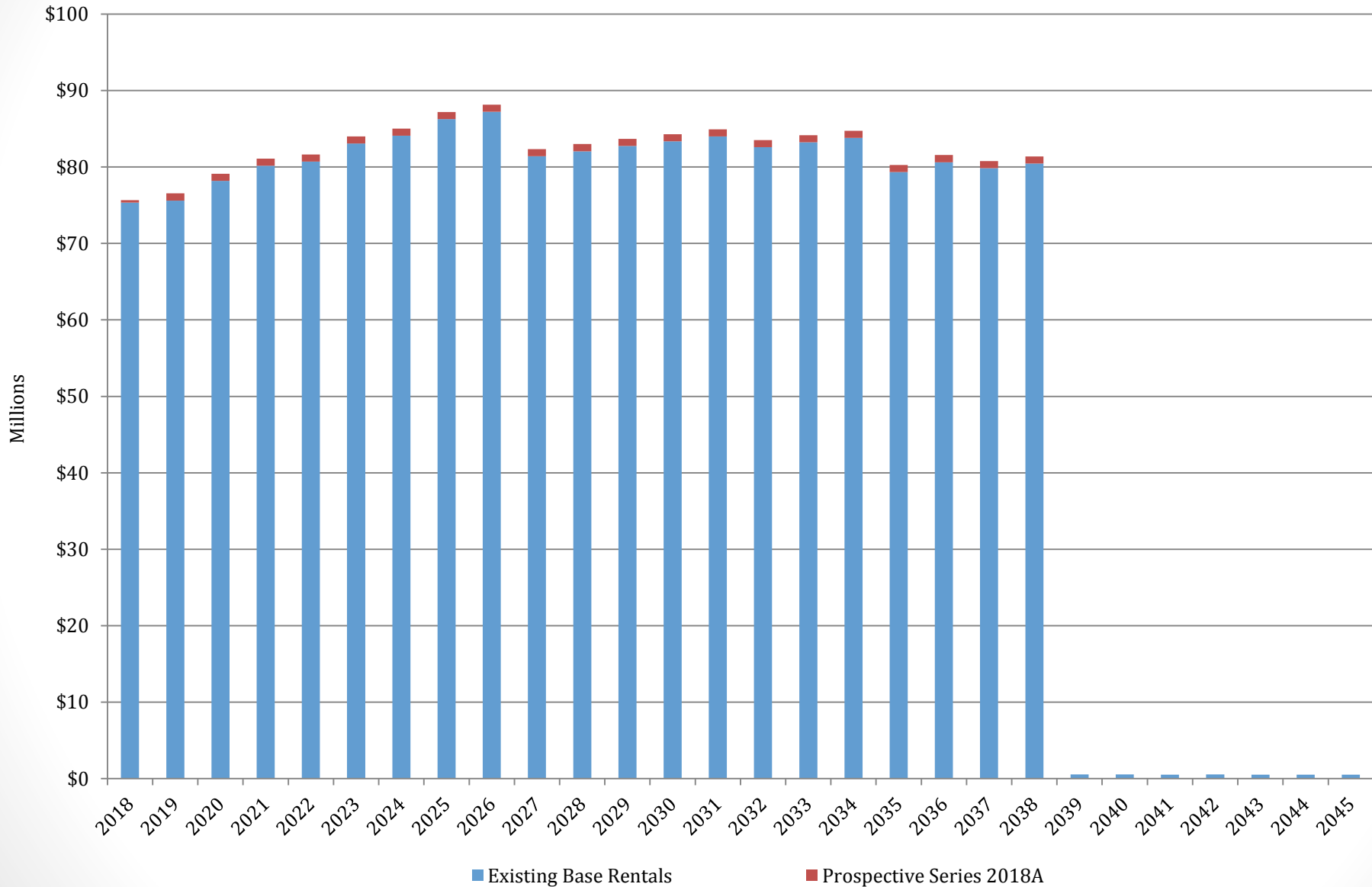
(2) Preliminary; subject to change. Series 2009F, 2012A and 2012B assume partial refundings with the Series 2018B Refunding Bonds.

DPS Aggregate Debt Service (1)



(1) Subject to change; includes prospective numbers for the Series 2018A Bonds and refundings of portions of the Series 2009F, 2012A and 2012B Bonds. Debt service is shown on a calendar year basis.

DPS Aggregate COP Base Rentals (1)



(1) Includes prospective numbers for the Series 2018A COPs; subject to change. Base rentals are shown on a fiscal year basis.

DPS Credit Summary & Timeline

Credit Summary

Tax Base

- Largest and most diverse tax base in the State of Colorado
- \$16.57 billion of Assessed Value

Continuing Growth

- Denver is the fastest growing large city in the U.S. (source: June 2016 U.S. Census Bureau)
- DPS is the fastest growing school district in the U.S.

Fund Balance

- General Fund balance consistently above \$100MM
- 10% General Fund balance floor, per formal policy

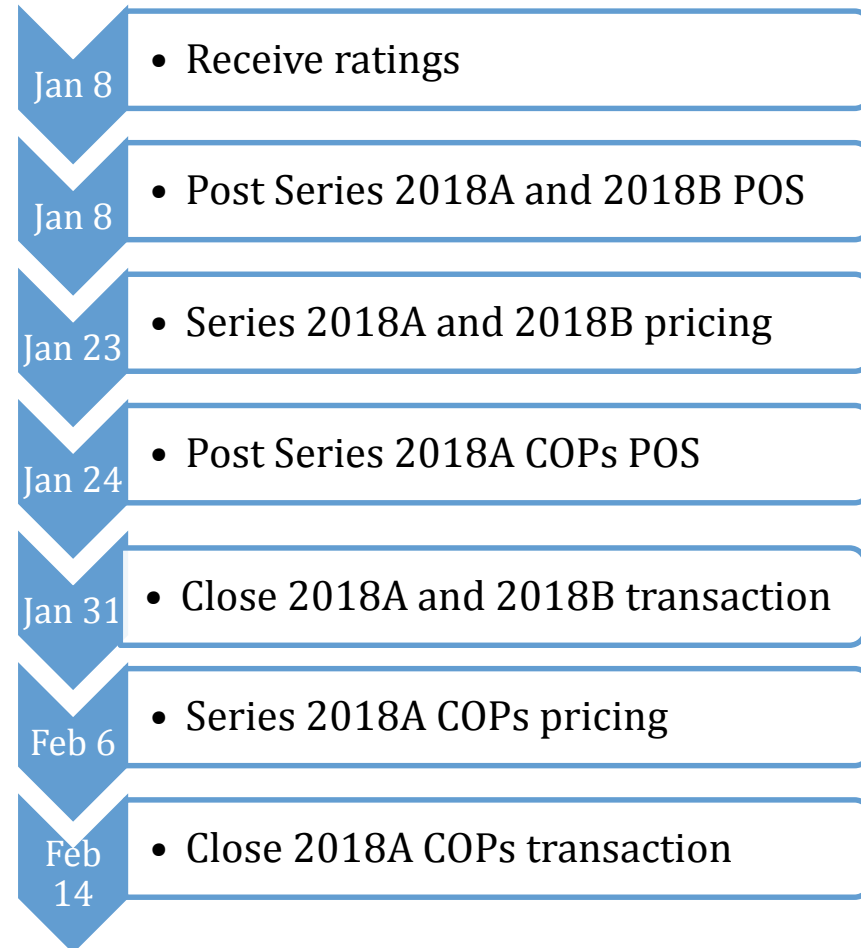
General Fund Flexibility

- Mill levy override at 25% of total program funding will provide ongoing flexibility and growth in the General Fund

Constituent Support

- Consistent voter support for the past 20 years
- 2016 Bond passed with 65% of voter support
- 2016 MLO passed with 67% of voter support

Transaction Timeline*



*Subject to change