



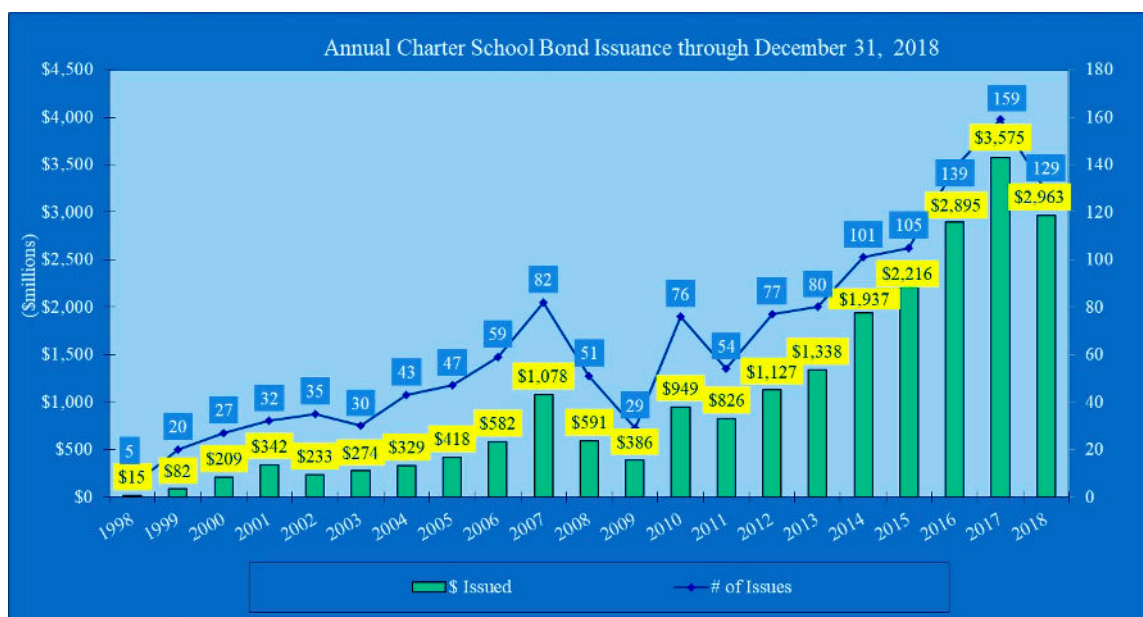
CHARTER SCHOOL BOND SECTOR: 2018 YEAR IN REVIEW \$3 Billion Annual Issuance – First Dip Since 2011

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Despite the charter school tax-exempt bond sector's record volume for each year between 2012 and 2017, last year's financing activity ended with a material decrease of 17.1%, at \$3 billion, compared to 2017's volume of just over \$3.5 billion.

For most market participants, this bond issuance trajectory reversal was expected due to the acceleration of deals that came to market in late 2017. The substantial 2017 increase in volume was primarily due to a reaction to congressional debate over tax reform that began in earnest in November and was driven by the fear of the loss of authority for private activity bonds (which ultimately did not occur) as well as advance refundings (which took effect on January 1, 2018). The extent of this sector's 2018 decline, however, was not quite as pronounced as the overall tax-exempt market reduction of 21.6%—a nod to the continued high demand for affordable fixed-rate long-term charter school facility financing.



Specifically, charter schools were responsible for 129 distinct transactions in calendar year 2018, totaling just shy of \$3 billion¹ of tax-exempt bond issuance. The range in par amount was extraordinarily wide this year—spanning from less than \$2 million to over \$350 million.

The smallest transaction was only \$1.85 million—on behalf of Cornerstone Schools, a five school network in Michigan. There were another seven very small transactions (defined as those having a par amount below \$5 million) issued in 2018.

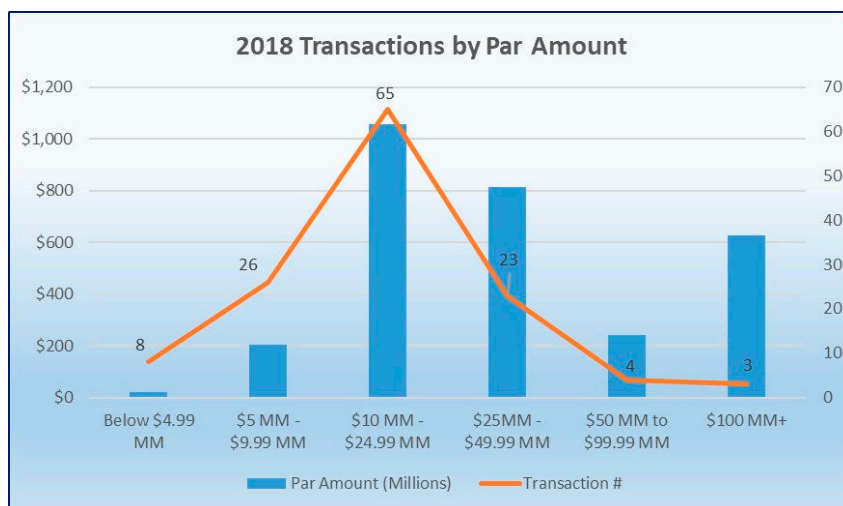
On the other end of the spectrum was the largest charter school transaction ever to come to market, the \$357.1 million deal sold by BB&T in December 2018 on behalf of International Leadership of Texas (ILT), a 33 school charter network with more than 18,000 students. Of note is that ILT accessed the capital markets twice in 2018 for an annual total of an extraordinary \$412.2 million. The first transaction, issued three months earlier in September, totaled \$55.15 million and was issued as a Cinderella structure due to the recent sunset on tax-exempt advance refundings. These Cinderella bonds were issued as taxable bonds but are expected to convert to tax-exempt at the call date on the refunded bonds.

2018: 10 LARGEST CHARTER SCHOOL TRANSACTIONS		
State	Project	\$ Par Amount (millions)
TX	International Leadership of Texas	\$357,075,000
TX	IDEA Public Schools	\$165,680,000
TX	KIPP Texas Inc.	\$102,100,000
AZ	Benjamin Franklin Charter School	\$72,330,000
NJ	Team Academy Charter School KIPP: New Jersey	\$59,250,000
CA	Green Dot Public Schools	\$56,155,000
TX	International Leadership of Texas	\$55,150,000
NV	Somerset Academy of Las Vegas	\$49,035,000
AZ	Academies of Math & Science	\$45,065,000
LA	Kenner Discovery Health Sciences Foundation	\$44,810,000

In addition to ILT's super mega deal of over \$350 million, there were two other transactions above \$100 million, IDEA Public Schools for \$165.7 million sold by Baird in September and KIPP Texas, a \$102.1 million deal sold by RBC in November. Each of the latter two issues was enhanced by a guaranty by the Texas Permanent School Fund (rated "AAA"). These three megadeal transactions combined for a total par amount of \$625 million, representing over 20% of total 2018 volume. There were also three deals issued with par amounts between \$50 million and \$100 million, totaling \$188 million. Indeed, the top 10 transactions last year totaled just shy of \$1 billion, representing one-third of the entire annual volume. Note the location of each of the networks responsible for the top three - all in Texas.

¹Figures exclude permanently fully taxable transactions as well as tax-exempt notes.

While the deals continue to get bigger, the bulk of charter school bond volume continues to range between \$10 million and \$25 million. Indeed, there were 65 distinct transactions within this range totaling just over \$1 billion and representing just over half of all transactions. Following closely behind in terms of the number of transactions issued was the category between \$5 million and \$10 million, with 26 distinct transactions totaling \$204 million of par. Next was the \$25 million to \$50 million category with 23 transactions with a par amount totaling approximately \$815 million. This broad range of dollar amounts results in an average par transaction amount of \$23 million and a materially lower median transaction amount of \$15 million.



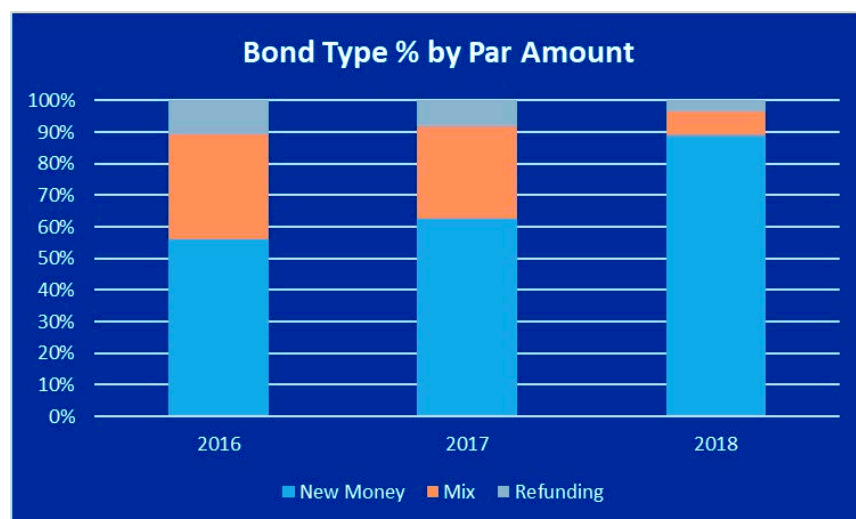
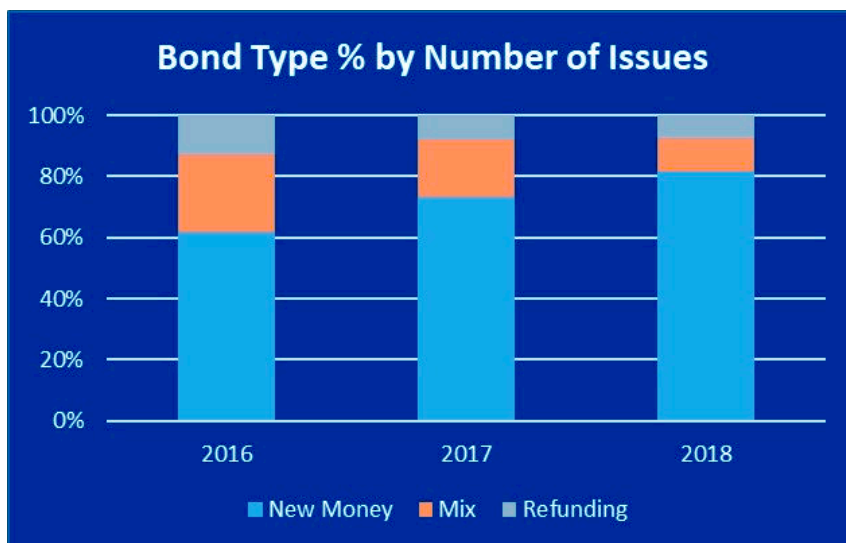
Despite the sector's first decrease in volume since 2011, market activity in 2019 is more likely to stabilize or even modestly increase rather than continue to decline for a number of reasons, including:

- 2017's activity was unique due to the consequences of tax reform, i.e., the acceleration of transactions into 2017 that would have otherwise been issued in 2018. Total volume in 2018 was slightly higher (2.3%) than 2016;
- Expected continuation of historically low long-term interest rate environment;
- 23 straight weeks of municipal bond inflows;
- Average par amount continues to trend higher—2018 ended with an all-time high per transaction average par amount of \$23 million; and
- The increased presence of repeat large borrowers accessing the market with mega-deals of more than \$100 million. 2018 saw a super mega-deal of more than \$357 million – far surpassing the previous “largest deal ever” of \$192.3 million.

Type of Bonds

Another consequence of the elimination of the advanced refunding option and the concomitant rush to close transactions in the last two months of 2017 was the change in the use of proceeds for the deals that were issued in 2018 when compared to prior years. Based on information contained in publicly available official statements, on both a transaction count basis as well as volume, not surprisingly—refunding bonds declined with the overwhelming activity focused on new money² purposes, i.e., the first time

the project was financed by tax-exempt bonds. Specifically, proceeds used exclusively for new money purposes represented 81.5% of all transactions—up from 73.2% in 2017. Another 11.1% of 2018 issuances represented a mix of new money and current refunding proceeds. Indeed, only 7.4% of all transactions last year were used exclusively for refunding prior tax-exempt bonds.



If the share of new money is analyzed on a par basis, the contrast is even more evident. Specifically, 88.8% of proceeds were for new money projects versus 62.5% and 56.2% in 2017 and 2016, respectively. And due to anemic sector bond volume back in 2009, we don't expect much refunding activity at the 10 year call dates for these bonds in the coming year. Thus, the percentage of new money bonds will likely continue to rise in 2019.

² For analytical purposes, the term "new money" bonds is defined as those bonds whose proceeds are financing the acquisition of, or capital improvements to, a school facility on a tax-exempt basis for the first time. A significant number of transactions are issued annually to refinance prior debt including outstanding bank loans, CDFI loans, and taxable bonds. Unless the new bonds refund prior tax-exempt bonds, they are included in the new money bond category.

Issuance Continues to be Concentrated in a Handful of States³

Notwithstanding the overall drop in sector issuance, charter schools in 25 states came to market in 2018, up from 24 in 2017, however, there was some variation from year to year. New states represented in 2018 were Louisiana, Ohio, Oregon, and South Carolina. Jurisdictions that had activity in 2017 but not in 2018 were the District of Columbia, and the states of Georgia and Wisconsin.

Despite the change in state participation in 2018, charter school bond issuance continued to be heavily concentrated in a handful of states. Indeed, the top five states in transaction count represented 48.8% of all activity while the top five states on a volume basis totaled 53.6% of total par. For those active states, the number of transactions and the par amount from each jurisdiction varied widely with four states, Arizona, California, Colorado, and Texas, making the top five in both number of transactions and volume.

STATE	#	% of Total Transactions	\$	% of Total Par	MEDIAN PAR
Arizona	12	9.3%	\$257,914,000	8.7%	\$21,492,833
Arkansas	1	0.8%	\$16,155,000	0.5%	\$16,155,000
California	16	12.7%	\$307,697,675	10.4%	\$19,231,105
Colorado	10	7.9%	\$181,473,000	6.1%	\$18,147,300
Florida	13	10.3%	\$172,940,000	5.8%	\$13,303,077
Idaho	3	2.4%	\$32,635,000	1.1%	\$10,878,333
Illinois	1	0.8%	\$33,885,000	1.1%	\$33,885,000
Indiana	2	1.6%	\$23,920,000	0.8%	\$11,960,000
Louisiana	1	0.8%	\$44,810,000	1.5%	\$44,810,000
Maryland	1	0.8%	\$15,000,000	0.5%	\$15,000,000
Massachusetts	4	3.2%	\$73,572,000	2.5%	\$18,393,000
Michigan	5	4.0%	\$32,120,000	1.1%	\$6,424,000
Minnesota	6	4.8%	\$88,400,000	3.0%	\$14,733,333
Nevada	6	4.8%	\$186,365,000	6.3%	\$31,060,833
New Jersey	7	5.6%	\$140,050,000	4.7%	\$20,007,143
New Mexico	1	0.8%	\$9,590,000	0.3%	\$9,590,000
New York	6	4.8%	\$117,225,000	4.0%	\$19,537,500
North Carolina	9	7.1%	\$152,710,000	5.2%	\$16,967,778
Ohio	1	0.8%	\$2,475,000	0.1%	\$2,475,000
Oregon	1	0.8%	\$12,100,000	0.4%	\$12,100,000
Pennsylvania	4	3.2%	\$87,325,000	2.9%	\$21,831,250
South Carolina	1	0.8%	\$26,895,000	0.9%	\$26,895,000
Tennessee	1	0.8%	\$10,330,106	0.3%	\$10,330,106
Texas	11	8.7%	\$837,860,000	28.3%	\$76,169,091
Utah	6	4.8%	\$99,925,000	3.4%	\$16,654,167

The top three transaction states were California, Florida, and Arizona in that order. California issued the greatest number of transactions, 16 in 2018 (down from 20⁴ in 2017), followed by Florida at 13 (down from 15 compared to 2017), and Arizona at 12 (a material decrease from the 30 transactions issued in 2017). Rounding out the top five states were Texas (11) and Colorado (10) compared to 13 for both these states in 2017.

³ Charter schools that accessed out-of-state issuers in order to access the tax-exempt market are categorized in their home state—not the state of the issuer.

⁴ Transaction number may be higher than previously reported if additional private placements were discovered since prior publications.

The state with the greatest increase in the number of transactions was New Jersey with seven transactions—up from three in 2017. North Carolina also saw a substantial increase in transactions from six in the prior year to nine in 2018. Of note is that each of these nine transactions was issued outside the State of North Carolina via Wisconsin's Public Finance Authority due to the North Carolina's stringent rating requirements for issuance by the in-state conduit.

In 2018, 15.5% of the number of transactions, or 20 deals, were for charters that had to go out of their home state to issue bonds, representing over \$375 million, or 12.7% of total volume. Charters in the following states sought out-of-state conduit issuers to access the tax-exempt bond market: Colorado (2 out of 10), Nevada (5 out of 6), New Jersey (1 out of 7), New Mexico (1 out of 1), North Carolina (9 out of 9), Texas (1 out of 11), and Utah (1 out of 6). These statistics are up from 2017 metrics where 12.7% of the number of transactions were executed out-of-state, representing only 8% of total par. In some cases, charter schools choose to utilize an out-of-state issuer due to ease or cost savings while others are forced to use an out-of-state entity due to local opposition or stringent conduit requirements, e.g., minimum rating levels.

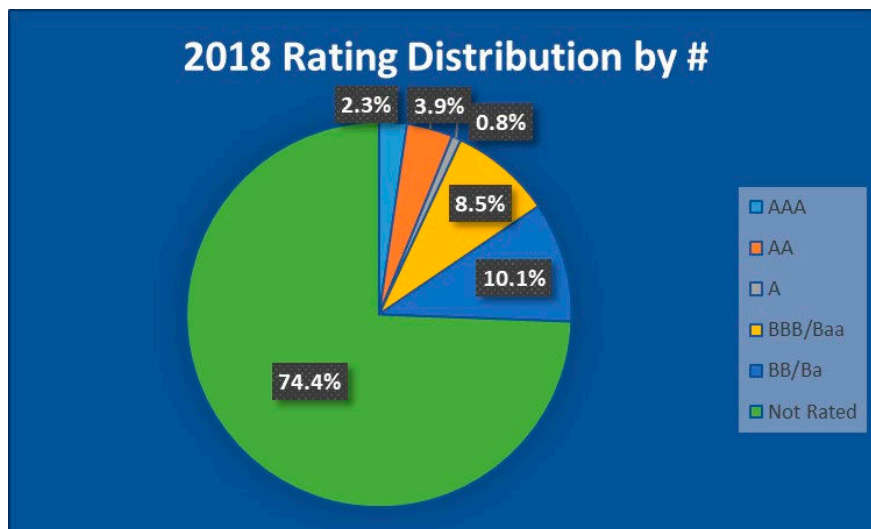
Although Texas came in fourth for the number of transactions issued, it is in a very different position on a par basis ranking first by a landslide with \$837.9 million of bonds issued. This figure represents 28.3% of the year's total volume and is significantly higher than the State's 2017 total par amount of \$492.9 million. While Texas issuance was boosted tremendously by the \$357 million super mega-deal, Texas would retain the top spot even without that transaction. It is not surprising that the Lone Star State's median par amount of \$38 million was the highest among states with multiple transactions, although Louisiana had a single tax-exempt issue of more than \$44 million.

Well behind Texas, in second place for volume, was California with just over \$307 million, representing 10.4% of total par. The top five rounded out with Arizona at \$258 million (8.7% of total par), Nevada at \$186 million (6.3% of total par), and Colorado at \$181 million (6.1% of total par). This past year, Florida and Utah fell out of the top five states for volume, replaced by Colorado and Nevada. On a combined basis, charter schools in the top five issuing states were responsible for 48.8% of the number of transactions as well as 53.6% of the total par sold in 2018.

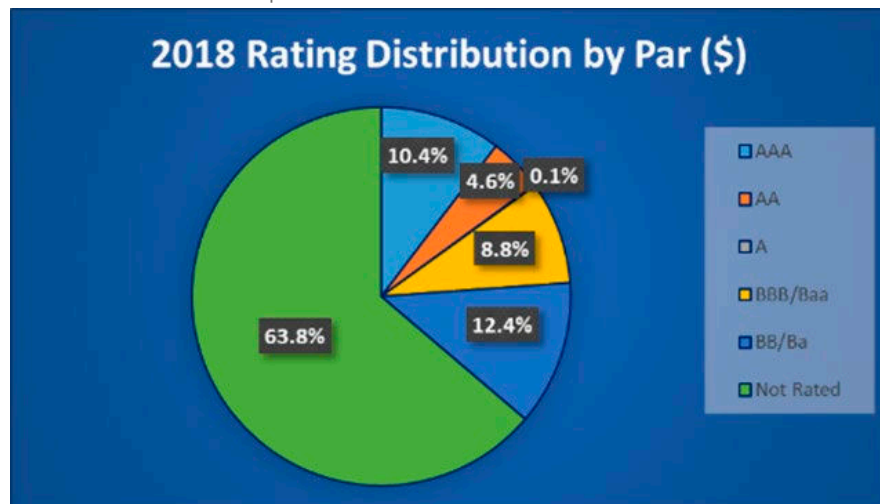
While the overall median par amount was \$15 million, individual state medians varied greatly depending on jurisdiction. Charter schools in the 25 states that accessed the municipal market in 2018 had medians that ranged from a low of \$2.5 million for a single charter school in Ohio to a high of \$44.8 million for Louisiana, however, this median is based on only a single transaction. Other states that had a median par amounts of more than \$20 million were: Texas at \$38 million (9 issues); Illinois at \$33.9 million (single issue); South Carolina at \$26.9 million (single issue); Nevada at \$26.4 million (7 issues); Massachusetts at \$22.8 million (four issues); and Pennsylvania at \$21.9 million (four issues).

Sector Continues to Be Mostly Unrated

The charter school sector continues to see the vast majority of its transactions go to market without ratings. Only 25.6% of 2018 transactions were assigned credit ratings, down from 33.5% in 2017. This volume represents the highest unrated percentage for the sector since 1999, the second year of charter school bond issuance and highlights the continued solid investor appetite for unrated paper that prevails in today's market.



On a volume basis, the numbers were similarly low, although not quite as dramatic as the results by transaction count, 36.2% of total par went to market unrated. More than \$1 billion, or approximately 36%, was rated, while



almost \$1.9 billion, or 64%, was unrated. This unrated metric was substantially higher than the 2017 unrated portion which stood at 54.3%. Of course, this particularly low percentage of rated debt was influenced by the largest deal to come to market as the ILT transaction with a par amount of \$357 million was sold without a rating assigned to the bonds.

One of the primary reasons why so many charter school transactions borrow on an unrated basis is simply because strong demand exists for high yield municipal debt. As a result, investors continue to purchase unrated charter school bonds at relatively reasonable interest rates. Evidence that this demand continued to be high in 2018 is the spread to Municipal Market Data (MMD) benchmarks—the difference between the bond yield of any particular bond versus the yield a natural “AAA/Aaa” borrower would expect to pay with the same maturity date and sale date. While the resulting difference in yield is also based on other factors such as state tax treatment and par size, the primary difference is credit quality. As the chart shows, for each rating

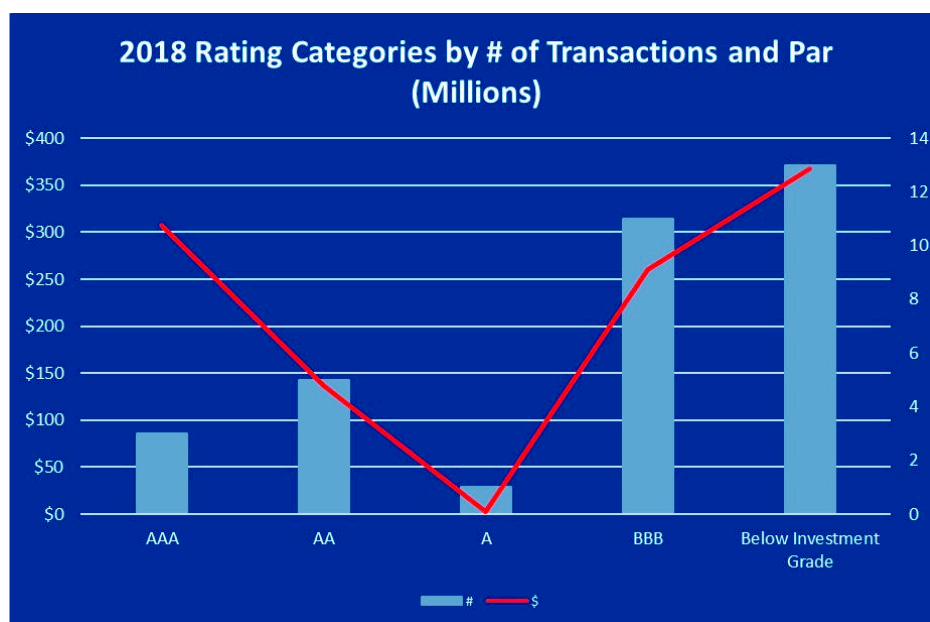
category in the charter sector, the median difference ranged from a low of 71 basis points in the “triple A”

Rating	AAA	AA	A	BBB	BB	NR
Median	71	95	87	131	220	291.1
Low	50	65	87	69	136	104
High	88	113	87	204.5	297	836
Median Yield	4.10%	3.95%	3.30%	4.29%	5.20%	5.99%

category to a high of 291.1 basis points in the unrated category. As expected, the median spread goes up as credit quality declines, however, it is interesting to note that the median yield is actually lowest at the “single A”

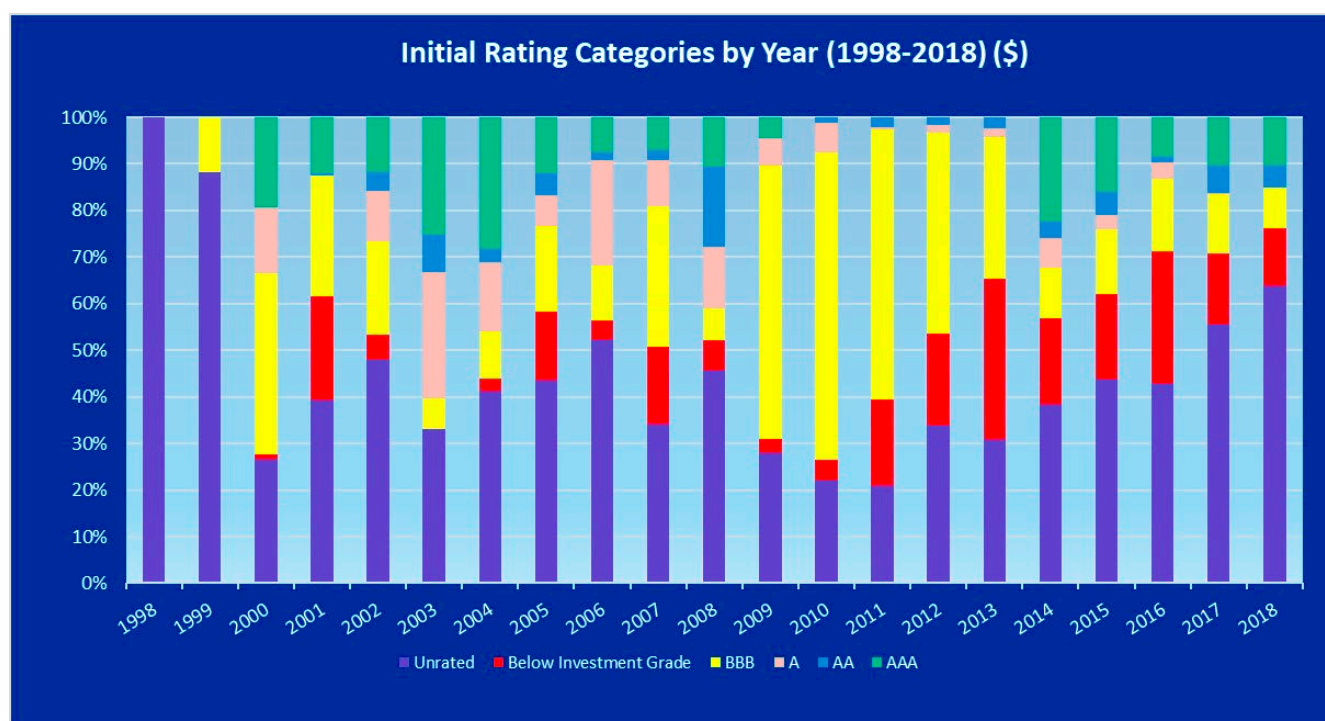
level at 3.30%, however, that was based on only a single transaction. The “double A” category is also lower than the “triple A” category due in large part to the fact that residents in those states with “double A” paper must pay state income taxes while the sole “triple A” state, Texas, has no state income tax. Finally, the difference between stated yields and “yield to maturity” may also skew spreads in some cases.

Further confirming the market’s strong appetite for high yield paper and the relative ease with which bankers can place low-rated or unrated paper, 84.5% of transactions were either rated below investment grade (10.1%) or unrated (74.4%)—up from 2017’s percentages of 12.3% and 66.5%, respectively. Of the rated issues, the below investment grade category once again represented the most prevalent rating category based on both the number of transactions as well as par amount. A total of approximately \$367 million was issued with below investment grade ratings, representing 13 offerings. All of these ratings were in the “BB”/“Ba” class. Specifically, six were in the highest “double B” level of “BB+”/“Ba1” and the remaining seven were at the “BB”/“Ba2” level. None was rated at the lowest level of “BB-”/“Ba3”.



Virtually all of the 2018 ratings in the “triple A”, “double A”, and “single A” categories were due to the presence of state credit enhancement programs, including the ‘AAA’-rated Texas Permanent School Fund (PSF) that guaranteed three transactions totaling \$307.2 million. As with recent prior years, this highest rating category of “triple A” was based exclusively on transactions enhanced by the PSF.

The “double A” rated category included two deals totaling \$35 million enhanced by the recently established (2017) State of Arizona Public School Credit Enhancement Program as well as two transactions enhanced by the State of Colorado Moral Obligation Program, totaling \$59.4 million, and one by Utah’s Moral Obligation Program, representing \$41.9 million. Of note is that in 2018, the Colorado program was assigned a rating of “Aa3” by Moody’s—higher than S&P’s rating of “A+”, resulting in separate rating categories. Based on this split between the two credit rating agencies, virtually all future Colorado moral obligation program transactions will be rated by Moody’s rather than S&P given the likely interest rating savings that will accrue to schools that a higher bond rating can produce. Finally, the only rated transaction in the “A” category was a small Ohio issue for just under \$2.5 million that is partially secured by a letter of credit.



As the chart above demonstrates, the rating profile of the charter school sector over the past 21 years has been highly cyclical and clearly shows the trends in initial rating assignments over time. The first three years, 1998 to 2000, were characterized by an almost exclusively unrated sector. During the next period, from 2000 to the 2008 credit crisis, there was a heavy presence of private credit enhancers, including bond insurers, particularly ACA, as well as banks offering letters of credit. From 2009 to 2013, the private credit enhancers exited the market (and with this trend, virtually no highly-rated transactions) and the vast majority of transactions was in the low investment grade category of triple-B as investors demanded higher quality, investment grade credits.

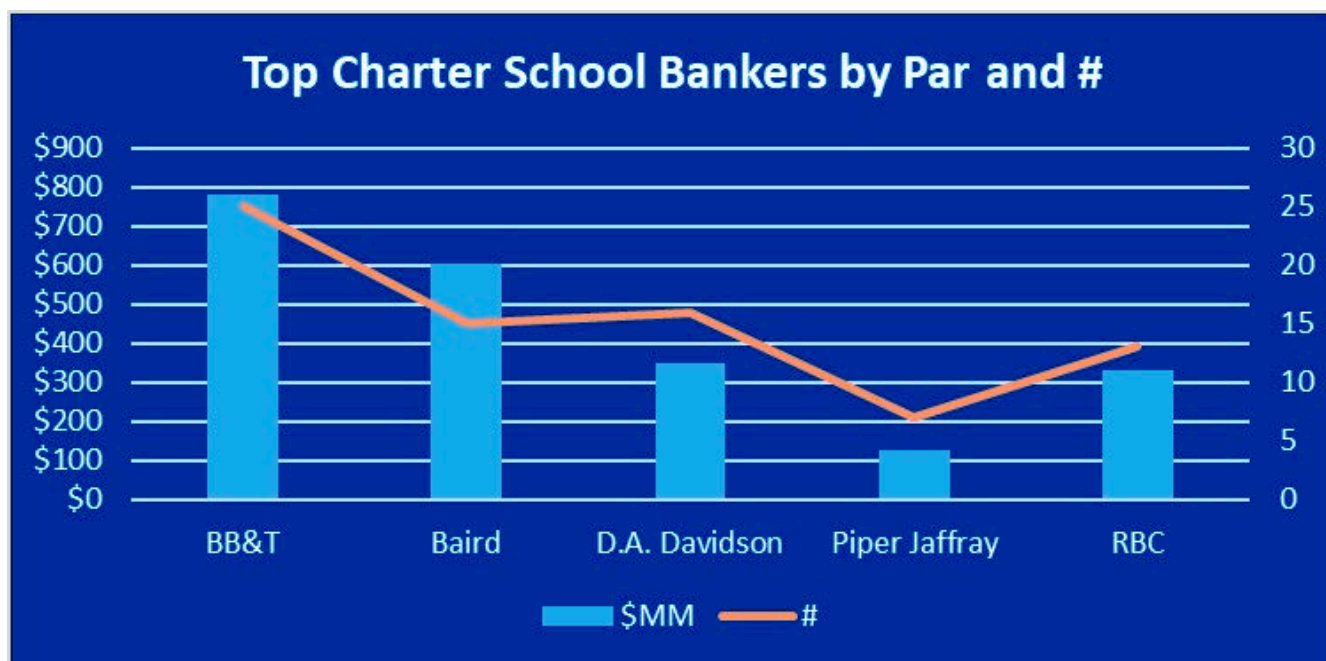
Starting in 2014—with the formal eligibility for charter schools to benefit from the Texas PSF Guarantee Program, a much higher percentage of initial ratings was assigned in solid investment grade categories, including the highest levels of “AAA”/“Aaa” and “AA”/“Aa”. Credit-worthy schools in Colorado, Utah, and Texas (with underlying credit profiles of “BBB-/Baa3” or higher)

as well as eligible, high-achieving schools in Arizona—all states with significant charter school activity—can now access their individual state’s credit enhancement program, resulting in material higher ratings ranging from categories “A” to “AAA”, thereby significantly reducing interest costs. As a result, there are fewer “BBB” ratings than there would otherwise be, replaced with credit-enhanced ratings.

Standard & Poor’s (S&P) continued to rate the lion’s share of transactions in 2018 at 75.8%, however, after reentering the sector in 2016, Moody’s is garnering greater market share, i.e., 24.2% for 2018—up from less than 15% in 2017. On a par basis, Moody’s rated 19.6% of total rated volume versus 80.4% for S&P. Fitch had no new assigned ratings in 2018 and unlike in past years, 2018 saw no transactions with dual ratings.

Underwriting Activity Becoming More Concentrated in Handful of Highly Experienced Firms

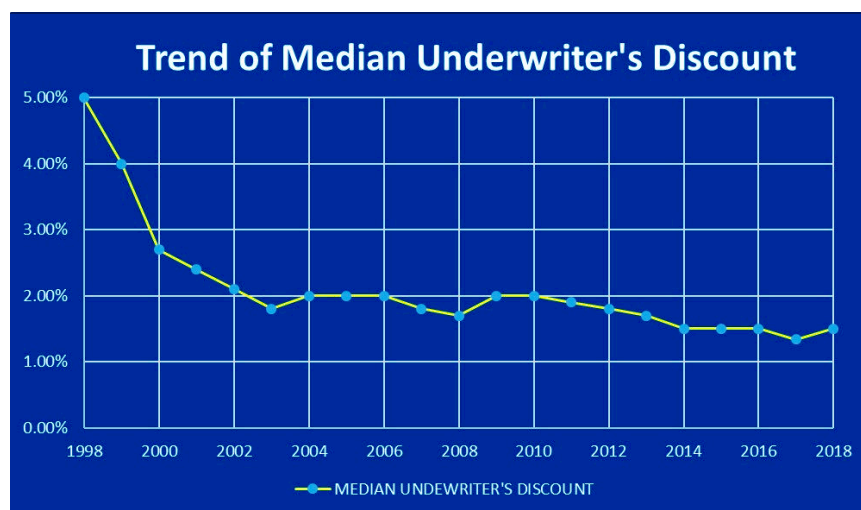
In 2018, charter schools and their affiliated organizations relied on 19 separate investment banking firms to underwrite or place their tax-exempt bonds. This figure is down from 23 firms in 2017. And while banker competition is a plus for charter school borrowers, this shrinkage in participating firms is viewed positively, as the ones that have fallen away are generally not known as having sector expertise. Despite this recent decline in the number of firms executing charter school transactions, there were still a number of firms that executed only a few charter school deals in 2018. Indeed, five of the 19 firms underwrote only two transactions while another four firms underwrote only a single deal in the sector in 2018. Other banks that have been fairly active in the sector in prior years saw a significant decline in 2018, including Dougherty, George K. Baum, Raymond James, Stifel, and Ziegler. As a result, underwriting charter school transactions has become more concentrated in only a handful of firms. The chart below shows the top five bankers by both number of transactions and total par amount.



On a transactional basis, BB&T Capital was the top underwriter with 25 distinct transactions. This is the highest annual deal count by a single firm in the sector's history—an accomplishment made despite a year of heavy turnover of BB&T senior bankers. Following BB&T was D.A. Davidson with 16 transactions, Baird at 15, RBC at 13, and Piper Jaffray at 7. All other firms had fewer than six deals.

On a volume basis, BB&T also came out on top with \$780 million in bonds helped in large part by two of the 10 largest transactions of the year—International Leadership of Texas for \$357 million and Kenner Discovery (LA) for \$44.8 million. Baird came in second with \$605.1 million of par sold, due in part to three of the largest deals issued in 2018, i.e., IDEA at \$165.7, Benjamin Franklin (AZ) at \$72.3 million, and Green Dot (CA) for \$56.2 million. D.A. Davidson rounded out the top three with \$348.4 million of par sold. Other firms with more than \$100 million of volume were RBC at \$332.1 million and Piper Jaffray at \$124.5 million.

Based on publicly available data for 103 transactions, 2018 showed a reversal of modest decline in the median



underwriter's discount. While 2017's median was 1.34%, last year's median stood at 1.50% which is in-line with the benchmark metrics of 2014, 2015, and 2016. Contributing to this increase was the overall smaller pool of participating banking firms, along with the dominance of a handful of bankers, the decline in credit-enhanced deals, particularly from the State of Utah, as well as the significantly higher percentage of non-rated transactions.

Municipal Advisor Activity Makes Further Inroads into Sector

2018 saw the continuation of the increasing trend of charter school borrowers engaging Registered Municipal Advisors ("MAs") to assist them with the execution of their bond transactions. Of the 105 transactions with publicly available information, i.e., official statements that generally disclose the existence of a financial advisor, 56 issues—or 53.3%, reported financial advisors representing charter schools or their affiliated organizations. This figure is up materially from approximately 40% in 2017. On a par basis, the influence of municipal advisors is even higher—assisting on almost \$1.7 billion of bonds, representing 62.4%—up slightly from 60% in 2017.

Nineteen separate Registered Municipal Advisors ("MAs") assisted charter schools—down from 20 in 2017. Of these 19, the range in the number of engagements ranged from a low of one to a high of nine. Indeed, eight of these 19 firms participated in only a single transaction. The lead financial advisor in this sector in 2018 was Specialized Public Finance (SPF), which advised on nine tax-exempt transactions, totaling approximately \$245 million.

Following SPF were Buck Financial Advisors (\$378.2 million) and Charter School Services Corporation (\$100 million), each with seven transactions. On a par basis, however, Masterson Advisors topped the list with \$397 million of par over four tax-exempt transactions, including the year's largest, ILT at \$357 million.

Of the 10 firms that had multiple transactions in 2018, four of them used a single investment bank to underwrite the transactions for which they served as advisor. Of course, one of the primary reasons why a borrower uses a MA is the legally binding fiduciary relationship between the borrower and MA that is established. The use of a single investment bank—particularly over many transactions and many years—calls into question the full observance of the fiduciary commitment.

Conclusion

While the 2018 tax-exempt bond market was notable in that it represented the first dip in volume since 2011, it is perhaps likely that this past year may actually be repeated in 2019 and even a few years beyond. Absent tax law changes or major interest rate movement, this sector's annual issuance profile appears to be roughly \$3 billion, highlighted by a handful of megadeals each year. Expectations for 2019 include total par that is relatively flat, a typically slow start to the year sector, and far fewer refunding transactions due to the reduced issuance in 2009 caused by the credit crisis that lowers the number transactions eligible to be currently refunded at their 10 year call date.

We also expect that more statutory changes are likely to be implemented, including positive legislative amendments in North Carolina, Tennessee, and a possible approval to establish charter schools in West Virginia. These advances may get overshadowed and countered, however, by heightened controversy in certain large charter jurisdictions, including California, Illinois, and New York. Changes in the political landscapes of these states include two new governors as well as numerous newly-seated legislators, many of whom are generally more liberal and less charter friendly and who may seek to shift state policy away from the supportive charter laws currently in place, including legislation to slow charter school growth.

The sector also saw its first-ever charter school teacher strike in Chicago. District teachers in other cities also went on strike prompted, in part, by union grievances regarding charter schools. In 2019, the sector is poised to face increased anti-charter discourse by activists, as well as more unionization efforts after some wins in Los Angeles and Chicago.

Despite these potential headwinds, the overall charter school bond sector will likely to continue to see the strengthening of average credit quality due to increased investor sophistication in assessing credit quality of borrowers, the expanded use of Municipal Advisors in the sector, the continued use of state-sponsored credit enhancement programs, improved authorizer quality, as well as the greater expansion of, and issuance by, strong charter management organizations.