BLACKROCK MUNIENHANCED FUND, INC.

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UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM N-CSR

CERTIFIED SHAREHOLDER REPORT OF REGISTERED MANAGEMENT

INVESTMENT COMPANIES

Investment Company Act file number: 811-05739

Name of Fund: BlackRock MuniEnhanced Fund, Inc. (MEN)

Fund Address: 100 Bellevue Parkway, Wilmington, DE 19809

Name and address of agent for service: John M. Perlowski, Chief Executive Officer, BlackRock MuniEnhanced Fund,

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Registrant s telephone number, including area code: (800) 882-0052, Option 4

Date of fiscal year end: 04/30/2018

Date of reporting period: 04/30/2018

Item 1 Report to Stockholders

APRIL 30, 2018

ANNUAL REPORT

BlackRock MuniAssets Fund, Inc. (MUA)

BlackRock MuniEnhanced Fund, Inc. (MEN)

BlackRock MuniHoldings Fund, Inc. (MHD)

BlackRock MuniHoldings Fund II, Inc. (MUH)

BlackRock MuniHoldings Quality Fund, Inc. (MUS)

BlackRock Muni Intermediate Duration Fund, Inc. (MUI)

BlackRock MuniVest Fund II, Inc. (MVT)

Not FDIC Insured May Lose Value No Bank Guarantee The Markets in Review

Dear Shareholder,

In the 12 months ended April 30, 2018, the strongest corporate profits in seven years drove the equity market higher, while rising interest rates constrained bond returns. While the market s appetite for risk remained healthy, risk taking varied by asset class, as bond investors cautiously shifted to higher-quality securities, and stock investors continued to embrace risk by investing abroad.

The largest global economies experienced sustained, synchronized growth for the first time since the financial crisis, leading to strong equity performance worldwide. Emerging markets stocks posted the highest return, as accelerating growth in China, the second-largest economy in the world, improved the outlook for corporate profits in most developing nations.

Short-term U.S. Treasury interest rates rose the fastest, while longer-term rates slightly increased, leading to a substantial flattening of the yield curve. The annual return for the three-month Treasury bill surpassed 1.0%, but remained well below the annual headline inflation rate of 2.5%. In contrast, the ten-year U.S. Treasury a bellwether of the bond market posted a negative return, as rising inflation expectations drove yields higher. In credit markets, the investment-grade and high-yield bond markets posted modest returns in a relatively benign credit environment.

Even though it faced rising pressure to boost interest rates in 2017, the U.S. Federal Reserve (the Fed) increased short-term interest rates just three times during the reporting period. The Fed also announced plans to reduce its \$4.4 trillion balance sheet by \$420 billion in 2018, which began the process of gradually reversing its unprecedented stimulus measures after the financial crisis. The economy continued to gain momentum despite the Fed s modest reduction of economic stimulus, as unemployment dipped below 4.0%, wages increased, and job openings reached a record high. Strong economic performance may justify a more rapid pace of rate hikes in 2018, as the headline inflation rate and investors expectations for inflation surpassed the Fed s target of 2.0%.

By contrast, the European Central Bank (ECB) and the Bank of Japan (BoJ) continued to expand their balance sheets despite nascent signs of sustained economic growth. Rising global growth, as well as limited bond supply, pressured other central banks to follow in the Fed s footsteps. In October 2017, the ECB pledged to cut its bond purchases in half for 2018, while the BoJ reiterated its commitment to economic stimulus, even though the size of its balance sheet almost matched the total output of the Japanese economy.

The Fed s measured pace of stimulus reduction could lead to moderately higher inflation, steadily rising interest rates, and improving real growth in 2018. We continue to believe the primary risks to economic expansion are trade protectionism, rapidly rising interest rates, and geopolitical tension. In particular, we are closely monitoring trade protectionism and the rise of populism in Western nations.

In December 2017, Congress passed a sweeping tax reform bill. The U.S. tax overhaul is likely to accentuate the existing reflationary themes, including corporate spending on stock buybacks, mergers & acquisitions and capital investment, which could extend the economic cycle if inflation and interest rates rise at a relatively modest pace.

In this environment, investors need to think globally, extend their scope across a broad array of asset classes, and be nimble as market conditions change. We encourage you to talk with your financial advisor and visit **blackrock.com** for further insight about investing in today s markets.

Sincerely,

Rob Kapito

President, BlackRock Advisors, LLC

Rob Kapito

President, BlackRock Advisors, LLC

Total Returns as of April 30, 2018

	6-month	12-month
U.S. large cap equities	3.82%	13.27%
(S&P 500 [®] Index)		
U.S. small cap equities	3.27	11.54
(Russell 2000 [®] Index)		
International equities	3.41	14.51
(MSCI Europe, Australasia,		
Far East Index)		
Emerging market equities	4.80	21.71
(MSCI Emerging Markets Index)		
3-month Treasury bills	0.68	1.17
(ICE BofAML 3-Month U.S. Treasury Bill Index)		
U.S. Treasury securities	(3.79)	(3.64)
(ICE BofAML 10-Year U.S. Treasury Index)		
U.S. investment grade bonds	(1.87)	(0.32)
(Bloomberg Barclays U.S.		
Aggregate Bond Index)		
Tax-exempt municipal bonds	(0.76)	1.44
(S&P Municipal Bond Index)		
U.S. high yield bonds	(0.17)	3.27
(Bloomberg Barclays U.S. Corporate High Yield 2% Issuer		
Capped Index)		

Past performance is no guarantee of future results. Index performance is shown for illustrative purposes only. You cannot invest directly in an index.

THIS PAGE IS NOT PART OF YOUR FUND REPORT

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Municipal Market Overview For the Reporting Period Ended April 30, 2018

Municipal Market Conditions

Municipal bonds experienced positive performance during the period despite rising interest rates resulting from continued Fed monetary policy normalization, firmer economic data, and the anticipated impacts of fiscal stimulus. Ongoing reassurance from the Fed that rates would be increased gradually and would likely remain low overall resulted in continued demand for fixed income investments. More specifically, investors favored the tax-exempt income, diversification, quality, and value of municipal bonds amid fiscal policy uncertainty, which saw tax reform ultimately lower the top individual tax rate just 2.6% while eliminating deductions and increasing demand for tax shelter. During the 12 months ended April 30, 2018, municipal bond funds experienced net inflows of approximately \$26 billion (based on data from the Investment Company Institute).

For the same 12-month period, total new issuance was moderate from a historical perspective at \$385 billion (well below the robust \$424 billion issued in the prior 12-month period), but displayed significant month to month volatility. Notably, issuance in December posted the highest monthly total on record at \$56 billion, as issuers rushed deals to market ahead of the expected elimination of the tax-exemption for advanced refunding bonds and possibly private activity bonds (PABs). Ultimately, the final version of the Tax Cuts and Jobs Act left PABs unchanged, though the elimination of advanced refundings has suppressed supply in 2018, providing a powerful technical tailwind.

S&P Municipal Bond Index

Total Returns as of April 30, 2018

6 months: (0.76)%

12 months: 1.44%

A Closer Look at Yields

From April 30, 2017 to April 30, 2018, yields on AAA-rated 30-year municipal bonds increased by 7 basis points (bps) from 3.02% to 3.09%, while 10-year rates increased by 35 bps from 2.14% to 2.49% and 5-year rates increased by 78 bps from 1.41% to 2.19% (as measured by Thomson Municipal Market Data). The municipal yield curve bear flattened significantly over the 12-month period with the spread between 2- and 30-year maturities flattening by 82 bps, led by 54 bps of flattening between 2- and 10-year maturities.

During the same time period, on a relative basis, tax-exempt municipal bonds strongly outperformed U.S. Treasuries with the greatest outperformance experienced in the front and intermediate portions of the yield curve. The relative positive performance of municipal bonds was driven largely by a supply/demand imbalance within the municipal market as investors sought income and incremental yield in an environment where opportunities became increasingly scarce. The asset class is known for its lower relative volatility and preservation of principal with an emphasis on income as tax rates rise.

Financial Conditions of Municipal Issuers

The majority of municipal credits remain strong, despite well-publicized distress among a few issuers. Four of the five states with the largest amount of debt outstanding California, New York, Texas and Florida have exhibited markedly improved credit fundamentals during the slow national recovery. However, several states with the largest unfunded pension liabilities have seen their bond prices decline noticeably and remain vulnerable to additional price deterioration. On the local level, Chicago s credit quality downgrade is an outlier relative to other cities due to its larger pension liability and inadequate funding remedies. BlackRock maintains the view that municipal bond defaults will remain minimal and in the periphery while the overall market is fundamentally sound. We continue to advocate careful credit research and believe that a thoughtful approach to structure and security selection remains imperative amid uncertainty in a modestly improving economic environment.

The opinions expressed are those of BlackRock as of April 30, 2018, and are subject to change at any time due to changes in market or economic conditions. The comments should not be construed as a recommendation of any individual holdings or market sectors. Investing involves risk including loss of principal. Bond values fluctuate in price so the value of your investment can go down depending on market conditions. Fixed income risks include interest-rate and credit risk. Typically, when interest rates rise, there is a corresponding decline in bond values. Credit risk refers to the possibility that the bond issuer will not be able to make principal and interest payments. There may be less information on the financial condition of municipal issuers than for public corporations. The market for municipal bonds may be less liquid than for taxable bonds. Some investors may be subject to Alternative Minimum Tax (AMT). Capital gains distributions, if any, are taxable.

The Standard & Poor s Municipal Bond Index, a broad, market value-weighted index, seeks to measure the performance of the U.S. municipal bond market. All bonds in the index are exempt from U.S. federal income taxes or subject to the AMT. Past performance is no guarantee of future results. Index performance is shown for illustrative purposes only. It is not possible to invest directly in an index.

2018 BLACKROCK ANNUAL REPORT TO SHAREHOLDERS

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The Benefits and Risks of Leveraging

The Funds may utilize leverage to seek to enhance the distribution rate on, and net asset value (NAV) of, their common shares (Common Shares). However, there is no guarantee that these objectives can be achieved in all interest rate environments.

In general, the concept of leveraging is based on the premise that the financing cost of leverage, which is based on short-term interest rates, is normally lower than the income earned by a Fund on its longer-term portfolio investments purchased with the proceeds from leverage. To the extent that the total assets of the Funds (including the assets obtained from leverage) are invested in higher-yielding portfolio investments, the Funds—shareholders benefit from the incremental net income. The interest earned on securities purchased with the proceeds from leverage is paid to shareholders in the form of dividends, and the value of these portfolio holdings is reflected in the per share NAV.

To illustrate these concepts, assume a Fund s Common Shares capitalization is \$100 million and it utilizes leverage for an additional \$30 million, creating a total value of \$130 million available for investment in longer-term income securities. If prevailing short-term interest rates are 3% and longer-term interest rates are 6%, the yield curve has a strongly positive slope. In this case, a Fund s financing costs on the \$30 million of proceeds obtained from leverage are based on the lower short-term interest rates. At the same time, the securities purchased by a Fund with the proceeds from leverage earn income based on longer-term interest rates. In this case, a Fund s financing cost of leverage is significantly lower than the income earned on a Fund s longer-term investments acquired from such leverage proceeds, and therefore the holders of Common Shares (Common Shareholders) are the beneficiaries of the incremental net income.

However, in order to benefit Common Shareholders, the return on assets purchased with leverage proceeds must exceed the ongoing costs associated with the leverage. If interest and other costs of leverage exceed the Funds—return on assets purchased with leverage proceeds, income to shareholders is lower than if the Funds had not used leverage. Furthermore, the value of the Funds—portfolio investments generally varies inversely with the direction of long-term interest rates, although other factors can influence the value of portfolio investments. In contrast, the value of the Funds—obligations under their respective leverage arrangements generally does not fluctuate in relation to interest rates. As a result, changes in interest rates can influence the Funds—NAVs positively or negatively. Changes in the future direction of interest rates are very difficult to predict accurately, and there is no assurance that the Funds intended leveraging strategy will be successful.

The use of leverage also generally causes greater changes in each Fund s NAV, market price and dividend rates than comparable portfolios without leverage. In a declining market, leverage is likely to cause a greater decline in the NAV and market price of a Fund s Common Shares than if the Fund were not leveraged. In addition, each Fund may be required to sell portfolio securities at inopportune times or at distressed values in order to comply with regulatory requirements applicable to the use of leverage or as required by the terms of leverage instruments, which may cause the Fund to incur losses. The use of leverage may limit a Fund s ability to invest in certain types of securities or use certain types of hedging strategies. Each Fund incurs expenses in connection with the use of leverage, all of which are borne by Common Shareholders and may reduce income to the Common Shares. Moreover, to the extent the calculation of the Funds investment advisory fees includes assets purchased with the proceeds of leverage, the investment advisory fees payable to the Funds investment adviser will be higher than if the Funds did not use leverage.

To obtain leverage, each Fund has issued Variable Rate Demand Preferred Shares (VRDP Shares) and Variable Rate Muni Term Preferred Shares (VMTP Shares) (collectively, Preferred Shares) and/or leveraged its assets through the use of tender option bond trusts (TOB Trusts) as described in the Notes to Financial Statements.

Under the Investment Company Act of 1940, as amended (the 1940 Act), each Fund is permitted to issue debt up to 33 1/3% of its total managed assets or equity securities (e.g., Preferred Shares) up to 50% of its total managed assets. A Fund may voluntarily elect to limit its leverage to less than the maximum amount permitted under the 1940 Act. In addition, a Fund may also be subject to certain asset coverage, leverage or portfolio composition requirements imposed by the Preferred Shares governing instruments or by agencies rating the Preferred Shares, which may be more stringent than those imposed by the 1940 Act.

If a Fund segregates or designates on its books and records cash or liquid assets having a value not less than the value of a Fund sobligations under the TOB Trust (including accrued interest), then the TOB Trust is not considered a senior security and is not subject to the foregoing limitations and requirements imposed by the 1940 Act.

Derivative Financial Instruments

The Funds may invest in various derivative financial instruments. These instruments are used to obtain exposure to a security, commodity, index, market, and/or other assets without owning or taking physical custody of securities, commodities and/or other referenced assets or to manage market, equity, credit, interest rate, foreign currency exchange rate, commodity and/or other risks. Derivative financial instruments may give rise to a form of economic leverage and involve risks, including the imperfect correlation between the value of a derivative financial instrument and the underlying asset, possible default of the counterparty to the transaction or illiquidity of the instrument. The Funds—successful use of a derivative financial instrument depends on the investment adviser—s ability to predict pertinent market movements accurately, which cannot be assured. The use of these instruments may result in losses greater than if they had not been used, may limit the amount of appreciation a Fund can realize on an investment and/or may result in lower distributions paid to shareholders. The Funds—investments in these instruments, if any, are discussed in detail in the Notes to Financial Statements.

THE BENEFITS AND RISKS OF LEVERAGING / DERIVATIVE FINANCIAL INSTRUMENTS

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Fund Summary as of April 30, 2018

BlackRock MuniAssets Fund, Inc.

Investment Objective

BlackRock MuniAssets Fund, Inc. s (MUA) (the Fund) investment objective is to provide high current income exempt from U.S. federal income taxes by investing primarily in a portfolio of medium- to lower-grade or unrated municipal obligations, the interest on which, in the opinion of bond counsel to the issuer, is exempt from U.S. federal income taxes. The Fund seeks to achieve its investment objective by investing, under normal market conditions, at least 80% of its assets in municipal bonds exempt from U.S. federal income taxes (except that the interest may be subject to the U.S. federal alternative minimum tax). The Fund invests at least 65% of its assets in municipal bonds that are rated in the medium to lower rating categories by nationally recognized rating services (for example, Baa or lower by Moody s Investors Service, Inc. (Moody s) or BBB or lower by Standard & Poor s Corporation (S&P), or securities that are unrated but are deemed by the investment adviser to be of comparable quality at the time of investment. The Fund may invest directly in such securities or synthetically through the use of derivatives.

No assurance can be given that the Fund s investment objective will be achieved.

Fund Information

Symbol on New York Stock Exchange (NYSE)	MUA
Initial Offering Date	June 25, 1993
Yield on Closing Market Price as of April 30, 2018 (\$13.21) ^(a)	4.95%
Tax Equivalent Yield ^(b)	8.36%
Current Monthly Distribution per Common Share ^(c)	\$0.0545
Current Annualized Distribution per Common Share ^(c)	\$0.6540
Economic Leverage as of April 30, 2018 ^(d)	12%

- (a) Yield on closing market price is calculated by dividing the current annualized distribution per share by the closing market price. Past performance does not guarantee future results.
- (b) Tax equivalent yield assumes the maximum marginal U.S. federal tax rate of 40.8%, which includes the 3.8% Medicare tax. Actual tax rates will vary based on income, exemptions and deductions. Lower taxes will result in lower tax equivalent yields.
- (c) The distribution rate is not constant and is subject to change.
- (d) Represents TOB Trusts as a percentage of total managed assets, which is the total assets of the Fund, including any assets attributable to TOB Trusts, minus the sum of its accrued liabilities. For a discussion of leveraging techniques utilized by the Fund, please see The Benefits and Risks of Leveraging on page 5.

Performance

Returns for the 12 months ended April 30, 2018 were as follows:

	Returns Bas	Returns Based On		
	Market Price	NAV		
$MUA^{(a)(b)}$	(6.48)%	4.47%		
Lipper High Yield Municipal Debt Funds ^(c)	(0.77)	4.04		

- (a) All returns reflect reinvestment of dividends and/or distributions at actual reinvestment prices.
- (b) The Fund moved from a premium to NAV to a discount during the period, which accounts for the difference between performance based on market price and performance based on NAV.
- (c) Average return. Returns reflect reinvestment of dividends and/or distributions at NAV on the ex-dividend date as calculated by Lipper.

Performance results may include adjustments made for financial reporting purposes in accordance with U.S. generally accepted accounting principles.

Past performance is not indicative of future results.

The following discussion relates to the Fund s absolute performance based on NAV:

Municipal bonds generated positive returns, with income offsetting a modest downturn in prices. The reporting period began on a strong note, with a favorable balance of supply and demand driving prices higher in the summer of 2017. By autumn, however, accelerating economic growth and emerging inflation pressures sparked concerns that the Fed would need to tighten monetary policy more aggressively than expected. In addition, the prospect of tax reform led to a pick-up in new-issue supply prior to year-end. These factors drove municipal bond prices lower in late 2017, and the selloff picked up speed in late January/early February due to a spike in U.S. Treasury yields. (Prices and yields move in opposite directions.) The tax-exempt market subsequently stabilized at these lower levels, and it traded largely flat with low volatility through the end of the period.

The Fund s positions in the tobacco and health care sectors, as well as in select development district and single-site project-financing issues, contributed to performance. Holdings in unrated securities and bonds in the B, BB and BBB rating categories, which performed well amid investors hearty appetite for higher-yielding securities, also aided results. Portfolio holdings with the longest maturity dates (typically 20 years and longer) added value given that longer-term bonds outperformed.

Conversely, the Fund s performance was hurt by positions in shorter-dated holdings including higher-quality, pre-refunded bonds that were most affected by the prospect of tighter Fed policy. Intermediate-term holdings, specifically those in the five- to 10-year range, also lagged somewhat.

The Fund sought to manage interest rate risk using U.S. Treasury futures. Given that Treasury yields rose, as prices fell, this aspect of the Fund s positioning had a positive effect on returns.

The views expressed reflect the opinions of BlackRock as of the date of this report and are subject to change based on changes in market, economic or other conditions. These views are not intended to be a forecast of future events and are no guarantee of future results.

Fund Summary as of April 30, 2018 (continued)

BlackRock MuniAssets Fund, Inc.

Market Price and Net Asset Value Per Share Summary

	04/30/18	04/30/17	Change	High	Low
Market Price	\$ 13.21	\$ 14.82	(10.86)%	\$ 15.84	\$13.14
Net Asset Value	14.01	14.07	(0.43)	14.29	13.98

Market Price and Net Asset Value History For the Past Five Years

Overview of the Fund s Total Investments*

SECTOR ALLOCATION

Sector	04/30/18	04/30/17
Health	22%	22%
County/City/Special District/School District	17	13
Tobacco	16	16
Transportation	15	19
Education	10	10
Utilities	9	8
Corporate	6	7
State	3	3
Housing	2	2

For Fund compliance purposes, the Fund s sector classifications refer to one or more of the sector sub-classifications used by one or more widely recognized market indexes or rating group indexes, and/or as defined by the investment adviser. These definitions may not apply for purposes of this report, which may combine such sector sub-classifications for reporting ease.

CALL/MATURITY SCHEDULE (c)

Calendar Year Ended December 31,	
2018	18%
2019	5
2020	12
2021	18
2022	6

- (c) Scheduled maturity dates and/or bonds that are subject to potential calls by issuers over the next five years.
- * Excludes short-term securities.

CREDIT QUALITY ALLOCATION (a)

Credit Rating	04/30/18	04/30/17
AAA/Aaa	1%	%
AA/Aa	18	19
A	7	8
BBB/Baa	21	21
BB/Ba	12	9
B/B	19	11
CCC/Caa	1	1
N/R ^(b)	21	31

- (a) For financial reporting purposes, credit quality ratings shown above reflect the highest rating assigned by either S&P or Moody s if ratings differ. These rating agencies are independent, nationally recognized statistical rating organizations and are widely used. Investment grade ratings are credit ratings of BBB/Baa or higher. Below investment grade ratings are credit ratings of BB/Ba or lower. Investments designated N/R are not rated by either rating agency. Unrated investments do not necessarily indicate low credit quality. Credit quality ratings are subject to change.
- (b) The investment adviser evaluates the credit quality of unrated investments based upon certain factors including, but not limited to, credit ratings for similar investments and financial analysis of sectors and individual investments. Using this approach, the investment adviser has deemed certain of these unrated securities as investment grade quality. As of April 30, 2018 and April 30, 2017, the market value of unrated securities deemed by the investment adviser to be investment grade represents less than 1% and 5%, respectively, of the Fund s total investments.

Fund Summary 7

Fund Summary as of April 30, 2018

BlackRock MuniEnhanced Fund, Inc.

Investment Objective

BlackRock MuniEnhanced Fund, Inc. s (MEN) (the Fund) investment objective is to provide shareholders with as high a level of current income exempt from U.S. federal income taxes as is consistent with its investment policies and prudent investment management. The Fund seeks to achieve its investment objective by investing at least 80% of its assets in municipal bonds exempt from U.S. federal income taxes (except that the interest may be subject to the U.S. federal alternative minimum tax). Under normal market conditions, the Fund invests primarily in long-term municipal bonds that are rated investment grade quality or, if unrated, are deemed to be of comparable quality by the investment adviser at the time of investment and invests primarily in long-term municipal bonds with maturities of more than ten years at the time of investment. The Fund may invest directly in such securities or synthetically through the use of derivatives.

No assurance can be given that the Fund s investment objective will be achieved.

Fund Information

Symbol on NYSE	MEN
Initial Offering Date	March 2, 1989
Yield on Closing Market Price as of April 30, 2018 (\$10.48) ^(a)	5.50%
Tax Equivalent Yield ^(b)	9.29%
Current Monthly Distribution per Common Share ^(c)	\$0.0480
Current Annualized Distribution per Common Share ^(c)	\$0.5760
Economic Leverage as of April 30, 2018 ^(d)	38%

- (a) Yield on closing market price is calculated by dividing the current annualized distribution per share by the closing market price. Past performance does not guarantee future results.
- (b) Tax equivalent yield assumes the maximum marginal U.S. federal tax rate of 40.8%, which includes the 3.8% Medicare tax. Actual tax rates will vary based on income, exemptions and deductions. Lower taxes will result in lower tax equivalent yields.
- (c) The distribution rate is not constant and is subject to change.
- (d) Represents VRDP Shares and TOB Trusts as a percentage of total managed assets, which is the total assets of the Fund, including any assets attributable to VRDP Shares and TOB Trusts, minus the sum of its accrued liabilities. For a discussion of leveraging techniques utilized by the Fund, please see The Benefits and Risks of Leveraging on page 5.

Performance

Returns for the 12 months ended April 30, 2018 were as follows:

	Returns Based On		
	Market Price	NAV	
$MEN^{(a)(b)}$	(5.23)%	2.93%	
Lipper General & Insured Municipal Debt Funds (Leveraged)(c)	(2.37)	2.65	

- (a) All returns reflect reinvestment of dividends and/or distributions at actual reinvestment prices.
- (b) The Fund s discount to NAV widened during the period, which accounts for the difference between performance based on market price and performance based on NAV.
- (c) Average return. Returns reflect reinvestment of dividends and/or distributions at NAV on the ex-dividend date as calculated by Lipper.

Performance results may include adjustments made for financial reporting purposes in accordance with U.S. generally accepted accounting principles.

Past performance is not indicative of future results.

The following discussion relates to the Fund s absolute performance based on NAV:

Municipal bonds generated positive returns, with income offsetting a modest downturn in prices. The reporting period began on a strong note, with a favorable balance of supply and demand driving prices higher in the summer of 2017. By autumn, however, accelerating economic growth and emerging inflation pressures sparked concerns that the Fed would need to tighten monetary policy more aggressively than expected. In addition, the prospect of tax reform led to a pick-up in new-issue supply prior to year-end. These factors drove municipal bond prices lower in late 2017, and the selloff picked up speed in late January/early February due to a spike in U.S. Treasury yields. (Prices and yields move in opposite directions.) The tax-exempt market subsequently stabilized at these lower levels, and it traded largely flat with low volatility through the end of the period.

During the reporting period, the Fund produced a gain at net asset value. Its return was primarily derived from income given that bond prices fell slightly.

The lower end of the investment-grade segment outperformed higher-quality securities in the period. As a result, the Fund s holdings in bonds rated A and BBB aided returns. Consistent with this trend, allocations to sectors with lower average credit ratings including transportation and health care were additive to results.

The Fund benefited from its allocation to longer-term bonds, which outpaced short-term issues. Conversely, holdings in pre-refunded securities experienced poor relative performance due to their shorter maturities.

The Fund sought to manage interest rate risk using U.S. Treasury futures. Given that Treasury yields rose, as prices fell, this aspect of the Fund s positioning had a positive effect on returns.

The Fund s position in New Jersey appropriated debt, which benefited from meaningful yield spread tightening, further contributed to results.

Investments in bonds subject to the AMT helped performance. Yield spreads tightened due to legislation in the Tax Cuts and Jobs Act which was passed in December 2017 that eliminated the corporate AMT and significantly limited the reach of the individual AMT.

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2018 BLACKROCK ANNUAL REPORT TO SHAREHOLDERS

Fund Summary as of April 30, 2018 (continued)

BlackRock MuniEnhanced Fund, Inc.

The Fund s use of leverage, while amplifying the impact of weak price performance, was a net contributor since it provided additional income. However, the cost of leverage increased due to rising short-term interest rates.

Although yields rose during the period, reinvestment had an adverse effect on the Fund s income as the proceeds of higher-yielding bonds that matured or were called needed to be reinvested at lower prevailing rates.

The views expressed reflect the opinions of BlackRock as of the date of this report and are subject to change based on changes in market, economic or other conditions. These views are not intended to be a forecast of future events and are no guarantee of future results.

Market Price and Net Asset Value Per Share Summary

	04/30/18	04/30/17	Change	High	Low
Market Price	\$ 10.48	\$ 11.69	(10.35)%	\$ 12.45	\$ 10.34
Net Asset Value	11.46	11.77	(2.63)	12.11	11.42

Market Price and Net Asset Value History For the Past Five Years

Overview of the Fund s Total Investments*

SECTOR ALLOCATION

Sector	04/30/18	04/30/17
Transportation	24%	24%
County/City/Special District/School District	17	18
State	16	15
Health	14	12
Utilities	13	15
Education	9	11
Corporate	3	3
Housing	2	1