



**NEW ISSUES (TWO)
(Book-Entry Only)**

Ratings (see “RATINGS”)

**Fitch: AA+
Moody’s: Aa1
S&P: AAA**

In the opinion of Calfee, Halter & Griswold LLP, Bond Counsel, under existing law and assuming continuing compliance with certain covenants and the accuracy of certain representations, the interest on the Highway Bonds is excluded from gross income for federal income tax purposes, and is not treated as an item of tax preference for purposes of the alternative minimum tax imposed on individuals and corporations under the Internal Revenue Code of 1986, as amended. Interest on, any transfer of, and any profit made on the sale, exchange, or other disposition of, the Highway Bonds are exempt from the Ohio corporation franchise tax (to the extent computed on the net income basis), the Ohio personal income tax, and income taxes imposed by municipalities and other political subdivisions in Ohio. Interest on the Highway Bonds, as is the case with most other forms of interest on debt obligations, is not subject to the Ohio commercial activity tax imposed under Chapter 5751 of the Ohio Revised Code. Interest on the Highway Bonds may be subject to certain federal taxes imposed only on certain corporations, and certain taxpayers may have other federal income tax consequences as a result of owning the Highway Bonds. For a more complete discussion of tax aspects, see “TAX MATTERS.”

\$340,685,000

STATE OF OHIO

**General Obligation Highway Capital Improvements Bonds
(Full Faith and Credit/Highway User Receipts)**

consisting of

\$204,420,000

STATE OF OHIO

**General Obligation Highway Capital
Improvements Bonds
Series T**

(Full Faith and Credit/Highway User Receipts)

\$136,265,000

STATE OF OHIO

**General Obligation Highway Capital
Improvements Refunding Bonds
Series U**

(Full Faith and Credit/Highway User Receipts)

Dated: Date of Initial Delivery

Due: As shown on the inside cover

Purpose: The \$204,420,000 General Obligation Highway Capital Improvements Bonds, Series T (the “Series T Highway Bonds”) are general obligations of the State of Ohio (the “State”), issued to pay (i) costs of highway capital improvements, including capitalized interest, and (ii) certain costs of issuance of the Series T Highway Bonds. The \$136,265,000 General Obligation Highway Capital Improvements Refunding Bonds, Series U (the “Series U Highway Bonds,” and together with the Series T Highway Bonds, the “Highway Bonds”) are general obligations of the State, issued to (i) refund bonds previously issued to pay costs of highway capital improvements and (ii) pay certain costs of issuance of the Series U Highway Bonds.

Security and Sources of Payment: The full faith and credit, revenue and taxing power (excluding net State lottery proceeds) of the State, including, specifically, fees, excise and license taxes relating to the registration, operation or use of vehicles on the public highways or to fuels used for propelling such vehicles, are pledged to the payment of the principal of and interest and any premium on the Highway Bonds. (See **THE HIGHWAY OBLIGATIONS GENERALLY – Sources of Payment.**)

Payment: (See **MATURITY SCHEDULES** on inside cover.) Principal of and interest on the Highway Bonds will be payable to the registered owner of Highway Bonds (initially, The Depository Trust Company or its nominee (“DTC”). The principal is payable on presentation and surrender of a Highway Bond to the principal office of the bond registrar, initially the State Treasurer of Ohio (the “Treasurer”). Interest will be transmitted on each interest payment date (May 1 and November 1, beginning May 1, 2018).

Optional Redemption: The Series T Highway Bonds maturing on or after November 1, 2028, are subject to optional redemption on any date on or after May 1, 2027, in whole or in part, at 100% of the principal amount thereof, plus accrued interest to the redemption date. The Series U Highway Bonds are not subject to optional redemption. (See **THE HIGHWAY BONDS – Optional Redemption of Series T Highway Bonds.**)

Form and Denomination; Book-Entry: The Highway Bonds will be initially issued only as fully registered bonds under a book-entry only method in denominations of \$5,000 or any multiple of \$5,000 in excess thereof. DTC is the securities depository. There will be no distribution of bond certificates to others. (See **APPENDIX B – BOOK-ENTRY SYSTEM; DTC.**)

This cover page is for reference only. It is not a summary of the Highway Bonds. Prospective purchasers should read the entire Official Statement.

The Highway Bonds are offered when, as and if issued by the State, acting by and through the Treasurer, and accepted by the Underwriters, subject to the opinion on certain legal matters relating to their issuance by Calfee, Halter & Griswold LLP, Bond Counsel, and certain other conditions. Certain legal matters will be passed upon for the Underwriters by their counsel, Dinsmore & Shohl LLP. PFM Financial Advisors LLC is serving as Municipal Advisor to the Treasurer. The Highway Bonds are expected to be available for delivery through DTC on or about October 3, 2017.

GOLDMAN SACHS & CO. LLC

**Academy Securities
Huntington Capital Markets**

**Fidelity Capital Markets
Loop Capital Markets**

The date of this Official Statement is September 19, 2017.

MATURITY SCHEDULES

\$204,420,000
STATE OF OHIO
General Obligation Highway Capital Improvements Bonds, Series T
(Full Faith and Credit/Highway User Receipts)

Maturity (November 1)	Principal Amount	Interest Rate	Yield	CUSIP No.† 677522
2018	\$13,630,000	5.000%	0.810%	QS6
2019	13,630,000	5.000	0.920	QT4
2020	13,630,000	5.000	1.020	QU1
2021	13,630,000	5.000	1.160	QV9
2022	13,625,000	5.000	1.310	QW7
2023	13,625,000	5.000	1.460	QX5
2024	13,625,000	5.000	1.640	QY3
2025	13,630,000	5.000	1.810	QZ0
2026	13,630,000	5.000	1.950	RA4
2027	13,630,000	5.000	2.050	RB2
2028	13,630,000	5.000	2.180 ^C	RC0

Maturity (May 1)	Principal Amount	Interest Rate	Yield	CUSIP No.† 677522
2030	\$13,630,000	5.000%	2.290% ^C	RD8
2031	13,625,000	5.000	2.370 ^C	RE6
2032	13,625,000	5.000	2.440 ^C	RF3
2033	13,625,000	5.000	2.500 ^C	RG1

\$136,265,000
STATE OF OHIO
General Obligation Highway Capital Improvements Refunding Bonds, Series U
(Full Faith and Credit/Highway User Receipts)

Maturity (May 1)	Principal Amount	Interest Rate	Yield	CUSIP No.† 677522
2023	\$10,270,000	5.000%	1.400%	RH9
2024	10,785,000	5.000	1.570	RJ5
2025	27,925,000	5.000	1.750	RK2
2026	28,490,000	5.000	1.890	RL0
2027	29,085,000	5.000	2.000	RM8
2028	29,710,000	5.000	2.190	RN6

^C Yield to call date May 1, 2027.

† CUSIP © is a registered trademark of the American Bankers Association. CUSIP Global Services is managed on behalf of the American Bankers Association by S&P Capital IQ. CUSIP data appearing in this Official Statement is assigned by CUSIP Global Services, an independent company not affiliated with the State or the Treasurer. The State and the Treasurer are not responsible for the selection or uses of these CUSIP numbers, and no representation is made as to their correctness. These CUSIP numbers may also be subject to change after the issuance of the Highway Bonds identified on the cover, and none of the State, the Treasurer or the Underwriters have agreed to, and there is no duty or obligation to, update this Official Statement to reflect any change or correction to the CUSIP numbers.

REGARDING THE USE OF THIS OFFICIAL STATEMENT

This Official Statement does not constitute an offering of any security, other than the original offering of the State of Ohio General Obligation Highway Capital Improvements Bonds, Series T and the State of Ohio General Obligation Highway Capital Improvements Refunding Bonds, Series U (together, the "Highway Bonds") identified on the cover. No dealer, broker, salesman or other person has been authorized by the State or the Underwriters to give any information or to make any representations other than those contained herein and, if given or made, such other information or representations must not be relied upon as having been authorized by any of the foregoing. This Official Statement does not constitute an offer to sell or the solicitation of an offer to buy, nor shall there be any sale of the Highway Bonds, by any person in any jurisdiction in which it is unlawful for such person to make such offer, solicitation or sale. Information set forth herein has been furnished by the State and other sources which are believed to be reliable but is not guaranteed as to accuracy or completeness by, and is not to be construed as a representation of, the Underwriters. References in this Official Statement to statutes, laws, rules, regulations, resolutions, agreements, reports and documents do not purport to be comprehensive or definitive, and all such references are qualified in their entirety by reference to the particular document, the full text of which may contain qualifications of and exceptions to statements made herein.

This Official Statement is submitted in connection with the sale of the Highway Bonds referred to herein and may not be reproduced or used, in whole or in part, for any other purpose. This Official Statement has been approved by the State, acting by and through the Treasurer, and its use and distribution for the purpose set forth above have been authorized by the State and the Treasurer.

The information and expressions of opinion herein are subject to change without notice. Neither the delivery of this Official Statement nor any sale made hereunder, under any circumstances, shall create any implication that there has been no change in the affairs of the State since the date hereof.

The Underwriters have provided the following sentence for inclusion in this Official Statement: The Underwriters have reviewed the information in this Official Statement in accordance with, and as part of, their respective responsibilities to investors under the federal securities laws as applied to the facts and circumstances of this transaction, but the Underwriters do not guarantee the accuracy or completeness of such information.

The information approved and provided by the State in this Official Statement is the information relating to the particular subjects provided by the State or State agencies for the purpose of this Official Statement. Reliance for such purpose should not be placed on any other information publicly provided, in any format including electronic, by any State agency for other purposes, including general information provided to the public or to portions of the public.

This Official Statement contains statements that the State or the Treasurer believes may be "forward-looking statements." Words such as "plan," "estimate," "project," "budget," "anticipate," "expect," "intend," "believe" and similar terms are intended to identify forward-looking statements. The achievement of results or other expectations expressed or implied by such forward-looking statements involve known and unknown risks, uncertainties and other factors that are difficult to predict, may be beyond the control of the State or the Treasurer and could cause actual results, performance or achievements to be materially different from any results, performance or achievements expressed or implied by such forward-looking statements. The State and the Treasurer undertake no obligation, and do not plan, to issue any updates or revisions to any of the forward-looking statements in this Official Statement.

Upon issuance, the Highway Bonds will not be registered under the Securities Act of 1933, as amended, or any state securities law and will not be listed on any stock or other securities exchange. Neither the Securities and Exchange Commission nor any other federal, state, municipal or other governmental entity or agency, except the Treasurer, will have passed upon the accuracy or adequacy of this Official Statement or approved the Highway Bonds for sale.

In connection with the offering of the Highway Bonds, the Underwriters may over-allot or effect transactions which stabilize or maintain the market price of the Highway Bonds at a level above that which might otherwise prevail in the open market. Such stabilizing, if commenced, may be discontinued at any time.

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SELECTED SUMMARY STATEMENT

\$204,420,000
STATE OF OHIO
General Obligation Highway Capital
Improvements Bonds
Series T
(Full Faith and Credit/Highway User Receipts)

\$136,265,000
STATE OF OHIO
General Obligation Highway Capital
Improvements Refunding Bonds
Series U
(Full Faith and Credit/Highway User Receipts)

The following summary supplements certain of the information on the cover page and summarizes selected other information in this Official Statement relating to the General Obligation Highway Capital Improvements Bonds, Series T (the "Series T Highway Bonds") and the General Obligation Highway Capital Improvements Refunding Bonds, Series U (the "Series U Highway Bonds," and together with the Series T Highway Bonds, the "Highway Bonds") of the State of Ohio (the "State"). It is not intended as a substitute for the more detailed discussions in this Official Statement, to which reference should be made.

ISSUER. The State, by the State Treasurer of Ohio (the "Treasurer").

AUTHORIZATION. The Series T Highway Bonds and the Series U Highway Bonds, which are each authorized and issued on behalf of the State by the Treasurer, are the twentieth and twenty-first, respectively, series of bonds (collectively, the "Highway Obligations") issued pursuant to Section 2m of Article VIII, Ohio Constitution, and are being issued under Ohio Revised Code Sections 151.01 and 151.06.

SECURITY AND SOURCES OF PAYMENT. The Highway Bonds are general obligations of the State. Principal of and interest on the Highway Bonds are payable from and secured by a pledge of the full faith and credit, revenue and taxing power (excluding net State lottery proceeds) of the State, and fees, excises and license taxes levied by the State relating to registration, operation or use of vehicles on public highways, or to fuels used for propelling such vehicles. As long as the Highway Bonds are outstanding, the State has covenanted that the State shall maintain statutory authority for and cause to be levied, collected and applied sufficient pledged excises, taxes, and revenues of the State so that the revenues shall be sufficient in amounts to pay debt service when due of the Highway Obligations, including the Highway Bonds.

PURPOSE. The Highway Bonds are issued to pay, or refund bonds previously issued to pay, costs of highway capital improvements, including capitalized interest, and to pay costs of issuing the Highway Bonds.

OPTIONAL REDEMPTION. The Series T Highway Bonds maturing on or after November 1, 2028, are subject to optional redemption on any date on or after May 1, 2027, in whole or in part, at 100% of the principal amount thereof, plus accrued interest to the redemption date. The Series U Highway Bonds are not subject to optional redemption.

FORM AND MANNER OF MAKING PAYMENTS. The Highway Bonds will be initially issued as one fully registered bond for each interest rate within a maturity, under a book entry system and registered in the name of Cede & Co. as nominee of The Depository Trust Company, New York, New York ("DTC"). There will be no distribution of Highway Bonds to the ultimate purchasers. Highway Bonds in certificated form as such will not be transferable or exchangeable, except for transfer to another nominee of DTC or as otherwise described in this Official Statement.

Principal and interest will be payable to the registered owner. The principal of the Highway Bonds will be payable on May 1 or November 1 during the years listed on the inside front cover upon presentation and surrender at the office of the Bond Registrar. Interest will be transmitted by the Bond Registrar on each interest payment date (May 1 and November 1, beginning May 1, 2018) to the registered owner as of the 15th day of the month preceding the interest payment date.

TAX MATTERS. In the opinion of Calfee, Halter & Griswold LLP, Bond Counsel, under existing law and assuming continuing compliance with certain covenants and the accuracy of certain representations, the interest on the Highway Bonds is excluded from gross income for federal income tax purposes and is not treated as an item of tax preference for purposes of the alternative minimum income tax imposed on individuals and corporations under the Internal Revenue Code of 1986, as amended (the "Code"). Interest on, any transfer of, and any profit made on the sale, exchange or other disposition of, the Highway Bonds are exempt from certain taxes imposed by the State of Ohio and municipalities and other political subdivisions in Ohio. Interest on the Highway Bonds may be subject to certain federal income taxes imposed on certain corporations, and certain taxpayers may have certain other adverse federal income tax consequences as a result of owning the Highway Bonds. See "**TAX MATTERS**" herein.

BOND REGISTRAR. The Treasurer.

BOND COUNSEL. Calfee, Halter & Griswold LLP.

UNDERWRITERS. Goldman Sachs & Co. LLC, as representative of the Underwriters shown on the cover (collectively, the "Underwriters"). The Highway Bonds have been purchased by the Underwriters at a price of \$411,798,203.59.

MUNICIPAL ADVISOR. PFM Financial Advisors LLC.

Questions regarding this Official Statement or the Highway Bonds should be directed to the Office of Debt Management, State Treasurer of Ohio, 30 East Broad Street, 9th Floor, Columbus, Ohio 43215-3461 (telephone 614-466-6903). For additional information concerning the Treasurer and the Treasurer's bond programs, visit www.ohiotreasurerbonds.com. The information contained on that website is not incorporated as part of this Official Statement.

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INTRODUCTION

This Official Statement has been prepared by the State, acting by and through the Treasurer, to provide certain information in connection with the original issuance and sale of the General Obligation Highway Capital Improvements Bonds, Series T (the "Series T Highway Bonds") and the General Obligation Highway Capital Improvements Refunding Bonds, Series U (the "Series U Highway Bonds," and together with the Series T Highway Bonds, the "Highway Bonds"). The Series T Highway Bonds are to be issued for the purpose of (i) paying costs of highway capital improvements, including capitalized interest, and (ii) paying costs of the issuance of the Series T Highway Bonds. The Series U Highway Bonds are to be issued for the purpose of (i) refunding bonds previously issued to pay costs of highway capital improvements, and (ii) paying costs of the issuance of the Series U Highway Bonds.

All financial and other information presented in this Official Statement has been provided by the State from its official records, except for information expressly attributed to other sources. The presentation of information, including tables of receipts from taxes and other sources, is intended to show recent historical information and is not intended to indicate future or continuing trends in the financial or other positions of the State. No representation is made that financial and other historical data will be the same in the future.

Reference to provisions of Ohio law, whether codified in the Ohio Revised Code or uncodified, or of the Ohio Constitution, are to those provisions as now in effect. Those provisions may from time to time be amended, repealed or supplemented.

As used in this Official Statement, "Fiscal Year" means the State's Fiscal Year, currently the twelve-month period from July 1 through June 30.

THE HIGHWAY BONDS

General

The Highway Bonds will be issued pursuant to the Ohio Constitution, Ohio Revised Code Sections 151.01 and 151.06 (the "Act"), and the Series T Bond Order and Series U Bond Order, each issued by the Treasurer on September 19, 2017 (together, the "Highway Bond Orders").

The Highway Bonds will be initially issued as one fully registered bond for each interest rate within a maturity under a book-entry system (see **THE HIGHWAY BONDS – Registration, Payment and Transfer** and **APPENDIX B – BOOK-ENTRY SYSTEM; DTC**), will be dated the date of their issuance, will be issued in denominations of \$5,000 or any multiple of \$5,000 in excess thereof, and will bear interest at the rates per annum and mature as set forth on the inside front cover of this Official Statement. Interest will be computed on the basis of a 360-day year consisting of twelve 30-day months.

The Treasurer will initially serve as the authenticating agent, bond registrar and paying agent for the Highway Bonds (the "Bond Registrar"), and the Highway Bond Orders provide that the Treasurer may designate a successor Bond Registrar.

The principal of the Highway Bonds will be payable to the holder upon presentation and surrender at the principal office of the Bond Registrar.

Interest on the Highway Bonds will be payable by the Bond Registrar by check or draft, mailed on each May 1 and November 1 (each an "Interest Payment Date"), beginning May 1, 2018, to the holder of record on the Register as of the 15th day of the month next preceding the Interest Payment Date. The

Highway Bonds are issuable in the form and denominations, and will be dated and mature, as described in this Official Statement. So long as the Highway Bonds are immobilized in the custody of a depository pursuant to a book-entry system, interest on the Highway Obligations may be paid by wire transfer to the depository on each Interest Payment Date.

The Treasurer as Bond Registrar will be responsible for the payment of the principal and interest on the Highway Bonds (the "Bond Service Charges"). The Bond Registrar will maintain and keep at his principal office all books and records necessary for the registration, exchange, transfer and authentication of the Highway Bonds.

No Optional Redemption of Series U Highway Bonds

The Series U Highway Bonds are not subject to optional redemption prior to maturity.

Optional Redemption of Series T Highway Bonds

The Series T Highway Bonds maturing on or after November 1, 2028, are subject to optional redemption on any date on or after May 1, 2027, in whole or in part, at 100% of the principal amount thereof, plus accrued interest to the redemption date.

Selection of Series T Highway Bonds to be Redeemed

If fewer than all outstanding Series T Highway Bonds are called for optional redemption at one time, the maturity or maturities of those Series T Highway Bonds to be called (in denominations of \$5,000 or whole multiples of \$5,000) will be selected by, and in a manner determined by, the Treasurer.

If less than all of the outstanding Series T Highway Bonds of one maturity held under a book-entry system are to be called for redemption, the Bond Registrar will give notice of redemption only to DTC as registered owner. The selection of the book-entry interests in such Series T Highway Bonds to be redeemed, and notice of call to the owners of those interests called, is the sole responsibility of DTC and its Direct Participants and those working through those Direct Participants.

If there is to be a partial redemption when Series T Highway Bonds of denominations greater than \$5,000 are then outstanding, each \$5,000 unit of principal will be treated by the Bond Registrar as if it were a separate bond of the denomination of \$5,000.

Notice of Redemption; Effect

The Bond Registrar (initially the Treasurer) is to cause notice of the call for redemption, identifying the Series T Highway Bonds or portions of Series T Highway Bonds to be redeemed, to be sent by first class mail, at least thirty (30) days prior to the redemption date, to the registered owner of each Series T Highway Bond to be redeemed at the address shown on the register on the 15th day preceding that mailing. Any defect in the notice or any failure to receive notice by mailing will not affect the validity of any proceedings for the redemption of Series T Highway Bonds. On the date designated for redemption, the Series T Highway Bonds or portions of the Series T Highway Bonds called for redemption shall become due and payable. If the Bond Registrar then holds sufficient moneys for payment of debt charges payable on that redemption date, interest on each Series T Highway Bond (or portion of a Series T Highway Bond) so called for redemption will cease to accrue on that date. So long as all Series T Highway Bonds are held under a book-entry system by a depository (DTC), the call notice is to be sent by the Bond Registrar only to the depository (i.e., DTC) or its nominee. Selection of book-entry interests in the Series T Highway Bonds called, and giving notice of the call to the owners of those

interests called, is the sole responsibility of the depository. Any failure of the depository to advise any book-entry interest owners of any such notice and in its content or effect will not affect the validity of any proceedings for the redemption of any Series T Highway Bonds or portions of Series T Highway Bonds. (See **APPENDIX B –BOOK ENTRY SYSTEM; DTC.**)

Registration, Payment and Transfer

The Highway Bonds will be issued and issuable only as one fully registered bond for each maturity bearing the same interest rate in the name of Cede & Co., as nominee for The Depository Trust Company ("DTC"), New York, New York, as holder of all the Highway Bonds. The fully registered Highway Bonds will be retained and immobilized in the custody of DTC. For discussion of the book-entry system and DTC, see **APPENDIX B – BOOK-ENTRY SYSTEM; DTC.** DTC (or any successor securities depository), or its nominee, for all purposes under the Highway Bond proceedings (except the Continuing Disclosure Commitments under which others as well as DTC may be considered an owner or holder of the Highway Bonds, see **CONTINUING DISCLOSURE COMMITMENT**), will be and will be considered by the Treasurer and the Bond Registrar to be the owner or holder of the Highway Bonds. The Highway Bonds will be initially issued in denominations of \$5,000 or any multiple of \$5,000 in excess thereof.

Revision of Book-Entry System; Replacement Highway Bonds

The proceedings for the Highway Bonds provide for issuance of fully-registered Highway Bonds (the "Replacement Highway Bonds") directly to owners of Highway Bonds other than DTC only in the event that DTC (or a successor securities depository) determines not to continue to act as securities depository for the Highway Bonds. Upon occurrence of this event, the Treasurer may in its discretion attempt to have established a securities depository book-entry relationship with another securities depository. If the Treasurer does not do so, or is unable to do so, and after the Bond Registrar has made provision for notification of the Beneficial Owners of the Highway Bonds by appropriate notice to DTC, the Treasurer and the Bond Registrar will authenticate and deliver Replacement Highway Bonds of any one maturity, in authorized denominations, to or at the direction of any persons requesting such issuance, and, if the event is not the result of the Treasurer's action or inaction, at the expense (including legal and other costs) of those requesting.

Bond Service Charges on Replacement Highway Bonds will be payable when due without deduction for the services of the Bond Registrar as paying agent. Principal of and any premium on Replacement Highway Bonds, will be payable when due to the registered owner upon presentation and surrender to the Bond Registrar. Interest on Replacement Highway Bonds will be payable on the interest payment date by the Bond Registrar by transmittal to the registered owner of record on the Trust Agreement as of the 15th day of the calendar month preceding the interest payment date. Replacement Highway Bonds will be exchangeable for other Replacement Highway Bonds of authorized denominations, and transferable, at the designated corporate trust office of the Bond Registrar without charge (except taxes or governmental fees). Exchange or transfer of then-redeemable Replacement Highway Bonds is not required to be made: (i) between the 15th day preceding the mailing of notice of redemption of Replacement Highway Bonds and the date of that mailing, or (ii) of a particular Replacement Highway Bond selected for redemption (in whole or part).

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PURPOSE AND APPLICATION OF PROCEEDS AND PLAN OF REFUNDING

The Highway Bonds are to be issued for the purpose of (i) paying, or refunding bonds previously issued to pay, the cost of highway capital improvements projects, and (ii) paying certain costs of issuance of the Highway Bonds.

Refunded Bonds

The following outstanding General Obligation Highway Capital Improvements Bonds (the "Refunded Bonds") are being refunded using the proceeds of the Series U Highway Bonds:

<u>Series</u>	<u>Dated Date</u>	<u>Bonds Maturing (May 1) in the years</u>	<u>Interest Rate</u>	<u>Earliest Permitted Redemption Date</u>	<u>Redemption Price</u>
Series Q	October 24, 2012	2023	5.00%	May 1, 2022	100.00%
Series Q	October 24, 2012	2023	4.00	May 1, 2022	100.00
Series Q	October 24, 2012	2024	5.00	May 1, 2022	100.00
Series Q	October 24, 2012	2025	5.00	May 1, 2022	100.00
Series Q	October 24, 2012	2026	5.00	May 1, 2022	100.00
Series Q	October 24, 2012	2027	5.00	May 1, 2022	100.00
Series Q	October 24, 2012	2028	5.00	May 1, 2022	100.00
Series R	June 11, 2014	2025	5.00	May 1, 2024	100.00
Series R	June 11, 2014	2026	5.00	May 1, 2024	100.00
Series R	June 11, 2014	2027	5.00	May 1, 2024	100.00
Series R	June 11, 2014	2028	5.00	May 1, 2024	100.00

Defeasance Obligations and Mathematical Verification

On the date of delivery of the Series U Highway Bonds, proceeds of the Series U Highway Bonds will be used to purchase non-callable direct obligations of the United States of America (the "Defeasance Obligations") to be held in trust by U.S. Bank National Association (the Treasurer's agent for the purpose) to provide for payment of principal of an interest on the Refunded Bonds until the redemption date. The arithmetical accuracy of certain computations included in the schedules provided by or on behalf of the Treasurer relating to (a) computation of anticipated receipts of principal of and interest on the Defeasance Obligations to pay the regularly scheduled debt service on the Refunded Bonds until the redemption date and to redeem the Refunded Bonds on the redemption date, and (b) computation of yields on the Series U Highway Bonds, will be verified by Robert Thomas CPA, LLC.

Upon the purchase and deposit of the cash and the Defeasance Obligations and receipt of the verification report, the Refunded Bonds will be deemed to have been paid and will no longer be considered outstanding debt of the State, and will be called for redemption on their respective Earliest Permitted Redemption Dates and at the Redemption Prices shown above.

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Sources and Uses of Funds

The proceeds of the Highway Bonds will be applied for the following uses and in the respective estimated amounts:

	Series T <u>Highway Bonds</u>	Series U <u>Highway Bonds</u>
Sources of Funds:		
Par Amount of Highway Bonds	\$204,420,000.00	\$136,265,000.00
Original Issue Premium	<u>39,483,748.55</u>	<u>33,093,654.95</u>
 Total Sources of Funds	 <u>\$243,903,748.55</u>	 <u>\$169,358,654.95</u>
Uses of Funds:		
Deposit to Highway Capital Improvement Fund	\$240,000,000.00	-0-
Deposit to Escrow Account	-0-	\$168,469,967.00
Capitalized Interest	2,766,298.24	2,606.80
Costs of Issuance*	<u>1,137,450.31</u>	<u>886,081.15</u>
 Total Uses of Funds	 <u>\$243,903,748.55</u>	 <u>\$169,358,654.95</u>

*Includes Underwriters' discount, Municipal Advisor fees, certain legal fees, printing costs and other costs of issuance of the Highway Bonds.

THE HIGHWAY OBLIGATIONS GENERALLY

Constitutional and Statutory Authorization

Constitutional Authorization. Section 2m of Article VIII, Ohio Constitution, adopted by the electors on November 7, 1995, is the constitutional authority for the issuance of Highway Obligations, including the Highway Bonds. Section 2m provides that the General Assembly may provide by law for the issuance of tax-supported Highway Obligations the holders of which are given the right to have excises and taxes levied by the General Assembly for the payment of the Bond Service Charges thereon. Section 2m further provides that moneys referred to in Section 5a of Article XII of the Ohio Constitution (being "Highway User Receipts" as defined and described below, see **THE HIGHWAY OBLIGATIONS GENERALLY – Sources of Payment – Pledged Excises and Taxes; Covenant**) may be pledged to the payment of debt service on Highway Obligations. Section 2m further provides that such Highway Obligations shall be incurred for the purpose of financing or assisting in the financing of the cost of highway capital improvements of the State. Outstanding series of Highway Obligations, the Highway Bonds and any subsequently issued Highway Obligations have been, are and will be issued pursuant to this constitutional authorization and implementing legislation. Section 2m further provides that not more than \$220,000,000 principal amount of Highway Obligations, plus the principal amount of Highway Obligations that in any prior Fiscal Years could have been but were not issued within the \$220,000,000 Fiscal Year limit, may be issued in any Fiscal Year pursuant to Section 2m and that the total principal amount of Highway Obligations outstanding under Section 2m may not exceed \$1,200,000,000; provided, however, that the principal amount of Highway Obligations issued to retire or refund Highway Obligations previously issued shall not be counted against the Fiscal Year or total issuance limitations to the extent that such principal amount does not exceed the principal amount of Highway Obligations to be refunded.

Section 2m further provides that each series of Highway Obligations issued under Section 2m must mature in not more than 30 years from the date of issuance, or, if issued to retire or refund Highway

Obligations previously issued under Section 2m, within 30 years from the date the Highway Obligations to be retired or refunded were originally contracted.

Statutory Authorization. The General Assembly implemented Section 2m of Article VIII, Ohio Constitution, by enacting the Act, and, from time to time, the General Assembly enacts laws authorizing the issuance of Highway Obligations and appropriating the proceeds for purposes for which those Highway Obligations may be issued. The Act authorizes the Treasurer, on behalf of the State, to issue the Highway Obligations authorized by the General Assembly.

The Act provides that the net proceeds of Highway Obligations (including the Highway Bonds) are to be deposited in the Highway Capital Improvement Fund, created by Ohio Revised Code Section 5528.53 (the "Highway Capital Improvement Fund"). (See **PURPOSE AND APPLICATION OF PROCEEDS AND PLAN OF REFUNDING.**) The Highway Capital Improvement Fund, and the moneys in it, are not pledged to the payment of Bond Service Charges on the Highway Obligations.

The General Assembly has authorized the issuance of Highway Obligations pursuant to Section 2m of Article VIII in an aggregate principal amount not to exceed \$255,000,000 in the 2018-2019 biennium, plus any carry-over in amounts authorized but not issued in prior Fiscal Years, the net proceeds of which are to be deposited in the Highway Capital Improvement Fund. In total, the General Assembly has authorized \$3,683,000,000 of Highway Obligations, of which and excluding the Highway Bonds, \$2,921,410,000 has heretofore been issued, leaving a remaining statutory authorization of \$761,590,000, all subject to the constitutional limitation that not more than \$1,200,000,000 original principal amount of such obligations may be outstanding at any one time. The principal amount of Highway Obligations currently outstanding is \$815,350,000. The Treasurer has determined, based on a certification of the Director of Transportation of the State, that the Series T Highway Bonds must be issued in a principal amount of \$204,420,000 in order to assure sufficient moneys to the credit of the Highway Capital Improvement Fund to pay expected costs of highway capital improvements. Finally, pursuant to the Series T Bond Order, the Treasurer has authorized the issuance of the Series T Highway Bonds in the aggregate principal amount of \$204,420,000 for the purpose of making a deposit in the Highway Capital Improvement Fund, and, pursuant to the Series U Bond Order, the Treasurer has authorized the issuance of the Series U Highway Bonds in the aggregate principal amount of \$136,265,000 for the purpose of refunding bonds previously issued to pay costs of highway capital improvements. Upon issuance of the Highway Bonds, \$1,013,085,000 of Highway Obligations will be outstanding (excludes refunded bonds and includes refunding bonds).

The Highway Capital Improvements Program

The proceeds of the Highway Bonds and other moneys from time to time in the Highway Capital Improvement Fund (including proceeds of other Highway Obligations) will be used to pay costs of highway capital improvements authorized by the General Assembly.

Specifically, proceeds of Highway Obligations are issued for the purpose of paying costs of construction, reconstruction, or other improvements of highways, including those on the state highway system and urban extensions thereof, those within or leading to public parks or recreation areas and those within or leading to municipal corporations and shall include, without limitation, the cost of acquisition, construction, reconstruction, expansion, improvement, planning and equipping thereof.

The Series T Highway Bonds and the Series U Highway Bonds are the twentieth and twenty-first series, respectively, of Highway Obligations issued pursuant to Section 2m of Article VIII, Ohio Constitution. After the issuance of the Highway Bonds, \$3,125,830,000 of new money Highway Obligations will have been issued pursuant to Section 2m of Article VIII, Ohio Constitution. Additional Highway Obligations are expected to be issued from time to time.

Sources of Payment

The Highway Bonds are general obligations of the State. The full faith and credit, revenue, and taxing power of the State and the Highway User Receipts, all as described below, are pledged to the timely payment of Bond Service Charges. Payment of Bond Service Charges is not dependent on, or subject or related in any manner to, progress on or the completion or operation of projects financed by the Highway Bonds.

Pledged Excises and Taxes; Covenant. Bond Service Charges are payable from and secured by (i) the pledge by the General Assembly of the full faith and credit, revenue and taxing power of the State (except for net State lottery proceeds), (ii) a pledge of all fees, excises, or license taxes relating to the registration, operation, or use of vehicles on the public highways or to fuels used for propelling those vehicles, but excluding statutory refunds and adjustments ("Highway User Receipts"), and (iii) moneys deposited in the State Highway Capital Improvement Bond Service Fund (the "Bond Service Fund") and the respective Cost of Issuance Funds (see **PURPOSE AND APPLICATION OF PROCEEDS AND PLAN OF REFUNDING**), including all accounts in those funds and all moneys deposited therein and the investment earnings thereon (collectively, and subject to the stated exceptions, the "Pledged Excises and Taxes"). The Act covenants that so long as any of the Highway Obligations are outstanding, the State and applicable officers and governmental agencies of the State, including the General Assembly, shall maintain statutory authority for and cause to be levied, collected and applied sufficient pledged excises, taxes, and revenues of the State in amounts sufficient to pay the Bond Service Charges when due. The Pledged Excises and Taxes exclude 50% of the State income, estate and inheritance tax receipts which, pursuant to Section 9 of Article XII of the Ohio Constitution, must be returned to the county, school district, city, village or township in which such taxes originate. Additionally, Section 2 of Article XII of the Ohio Constitution limits the amount of the aggregate levy for all State and local purposes of ad valorem property taxes, without a vote of the electors or municipal charter provision, to 1% of the property's true value in money, and Ohio Revised Code Section 5705.02 further limits the amount of such aggregate levy to 1% of the property's tax valuation (presently 35% of its true or "market" value). The State itself currently does not levy any ad valorem taxes on real or tangible personal property.

Otherwise, the Pledged Excises and Taxes are unlimited as to amount to the extent required to pay the Bond Service Charges.

Substitution of Fees, Excises and Taxes. The General Assembly may from time to time repeal or reduce any excise, tax, or other source of revenue pledged to the payment of Bond Service Charges, and may levy any new or increased excise, tax, or revenue source to meet the pledge of the State's full faith and credit, revenue, and taxing power to the payment of debt service on outstanding obligations. However, the General Assembly cannot impair the State's obligation to levy, charge, and collect sufficient pledged excises, taxes, and revenues to pay debt service on such obligations.

No Diversion of Highway User Receipts. Section 5a of Article XII, Ohio Constitution, prohibits the use of Highway User Receipts for other than the costs of administration of the laws levying such taxes; statutory refunds and adjustments; payments of Highway Obligations; construction, reconstruction, maintenance and repair of public highways and bridges and other statutory highway purposes; traffic enforcement by the State; and hospitalization of indigent persons injured in motor vehicle accidents on the public highways. Highway User Receipts are not and cannot be used, or pledged to the payment of bonds or any other obligations issued, for any other purpose.

Segregation of Highway User Receipts from General Revenue Fund of the State. Highway User Receipts are segregated from the operating funds of the State, including from the time of their collection through their deposit in the Bond Service Fund in September through February. (See **THE**

HIGHWAY OBLIGATIONS GENERALLY – Sources of Payment – Highway Capital Improvement Bond Service Fund – Pledge.)

History of Highway User Receipts and Debt Service Coverage. The following table sets forth the amounts of the Highway User Receipts available in recent Fiscal Years for the payment of Bond Service Charges on the Highway Bonds and Highway Obligations previously issued and applies historical and current program debt service against available Highway User Receipts to derive coverage ratios for State Fiscal Years 2008 through and including 2017.

<u>Fiscal Year</u>	<u>Highway User Receipts Available for Debt Service Requirements*</u>	<u>Total Fiscal Year Debt Service</u>	<u>Coverage Ratio</u>
2008	\$2,703,698,759	\$205,977,409	13.13x
2009	2,576,368,324**	197,451,814	13.05x
2010	2,585,478,680	170,263,970	15.19x
2011	2,642,695,323	149,309,581	17.70x
2012	2,593,933,652**	140,859,293	18.42x
2013	2,726,651,064***	135,452,052	20.13x
2014	2,835,136,025***	132,542,874	21.39x
2015	2,860,617,590***	140,205,176	20.40x
2016	2,857,781,052***	119,839,303	23.85x
2017	2,904,202,443***	127,398,654	22.80x

Source: State of Ohio

* Reflects total Highway User Receipts minus permissible statutory deductions or refunds.

** The decreases in Highway User Receipts in 2009 and 2012 were due in large part to the timing of motor fuel tax receipts that were received at the end of those Fiscal Years, but not recorded until the following Fiscal Year.

*** Fiscal Years 2013, 2014, 2015, 2016 and 2017 include \$75.6 million, \$81.1 million, \$94.8 million, \$72.2 million and \$56.3 million, respectively, of commercial activity and/or petroleum activity tax receipts attributable to the sales of motor fuel in the State of Ohio that, beginning December 7, 2012, are required to be expended on public highways.

Based on the most recent annual data (FY2017), approximately 66% of Highway User Receipts are generated by Motor Fuel and Use Taxes while the remaining 34% is primarily from Registration and License fees.

The State, acting pursuant to Section 2i of Article VIII, Ohio Constitution and acts of the General Assembly, has issued and expects to issue in the future, special obligations of the State (that are not general obligation bonds) for the purpose of providing funds to pay the cost of capital facilities for the Ohio Department of Transportation. In addition, the State has, and expects to, commit to provide "availability payments" in support of certain State highway improvement projects (see **STATE DEBT in APPENDIX A**). The Bond Service Charges on these special obligations and those availability payments may be paid from biennial appropriations of Highway User Receipts remaining after the payment of Bond Service Charges on the Highway Bonds and other Highway Obligations, but these special obligations and availability payments will not be secured by a pledge of the full faith and credit, revenue and taxing power of the State, and their owners or holders will have no right to have taxes or excises levied by the General Assembly for the payment of Bond Service Charges.

Highway Capital Improvement Bond Service Fund – Pledge. The Bond Service Fund has been established pursuant to Ohio Revised Code Section 151.06 as a trust fund in the State Treasury

pledged to the payment of Bond Service Charges on all Highway Obligations (including the Highway Bonds). The Act provides that moneys in the Bond Service Fund are immediately subject to the lien of that pledge without further action. The Act provides that moneys in the Bond Service Fund shall be disbursed on the order of the Treasurer; provided that no further order is required for the payment of Bond Service Charges on the Highway Obligations (including the Highway Bonds) when due.

The Act further provides that a sufficient amount of moneys of the State is committed and, without necessity for further appropriation, shall be paid into the Bond Service Fund for the purpose of paying when due the Bond Service Charges on the Highway Obligations (including the Highway Bonds). The Act requires the Treasurer, by July 15 of each Fiscal Year, to certify or cause to be certified to the Office of Budget and Management of the State ("OBM") the total amount of moneys required during that Fiscal Year to meet in full all Bond Service Charges on outstanding Highway Obligations that are not payable from the proceeds of refunding or renewal obligations. The Treasurer is also required to make supplemental certifications to OBM for each date Bond Service Charges are due and at such other times during each Fiscal Year as may be provided in the bond proceedings or requested by OBM. Pursuant to current State law, moneys from Highway User Receipts are required to be deposited in the Bond Service Fund in September through February in monthly amounts equal to one-sixth of the certified annual amount of Bond Service Charges on Highway Obligations. If on the 10th calendar day prior to their due date, moneys to the credit of the Bond Service Fund are insufficient to meet in full all payments of Bond Service Charges on that due date, no fewer than eight days before that due date, OBM is to transfer to that Bond Service Fund from the Pledged Excises and Taxes sufficient revenues to pay those Bond Service Charges when due.

Moneys to the credit of the Bond Service Fund may be invested in notes, bonds or other direct obligations of the United States or of any agency or instrumentality of the United States, or in no-front-end-load money market mutual funds consisting exclusively of those obligations, or in repurchase agreements (including those issued by any fiduciary) secured by those obligations, or in collective investment funds consisting exclusively of those obligations; obligations of the State or any political subdivision of the State; certificates of deposit of any national bank located in Ohio and any State bank subject to inspection by the State superintendent of financial institutions; or the Treasurer's pooled investment program. The income from those investments is to be credited to the Bond Service Fund.

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Bond Debt Service Requirements

The following table sets forth the annual debt service requirements on a Fiscal Year basis for (i) the Highway Bonds, (ii) other outstanding Highway Obligations, and (iii) total outstanding Highway Obligations, all as of the issuance date.

Fiscal Year	Series T Highway Bonds Debt Service			Series U Highway Bonds Debt Service			Outstanding Highway Obligations Debt Service*			Total Highway Obligations Debt Service**		
	Principal	Interest	Total	Principal	Interest	Total	Principal	Interest	Total	Principal	Interest	Total
2018		\$5,905,467	\$5,905,467		\$3,936,544	\$3,936,544	\$73,735,000	\$31,026,330	\$104,761,330	\$73,735,000	\$40,868,341	\$114,603,341
2019	13,630,000	9,880,250	23,510,250		6,813,250	6,813,250	75,215,000	28,073,183	103,288,183	88,845,000	44,766,683	133,611,683
2020	13,630,000	9,198,750	22,828,750		6,813,250	6,813,250	76,565,000	24,657,712	101,222,712	90,195,000	40,669,712	130,864,712
2021	13,630,000	8,517,250	22,147,250		6,813,250	6,813,250	78,345,000	21,230,692	99,575,692	91,975,000	36,561,192	128,536,192
2022	13,630,000	7,835,750	21,465,750		6,813,250	6,813,250	79,485,000	17,736,302	97,221,302	93,115,000	32,385,302	125,500,302
2023	13,625,000	7,154,375	20,779,375	\$10,270,000	6,813,250	17,083,250	69,725,000	14,040,931	83,765,931	93,620,000	28,008,556	121,628,556
2024	13,625,000	6,473,125	20,098,125	10,785,000	6,299,750	17,084,750	70,830,000	10,750,152	81,580,152	95,240,000	23,523,027	118,763,027
2025	13,625,000	5,791,875	19,416,875	27,925,000	5,760,500	33,685,500	40,700,000	7,388,520	48,088,520	82,250,000	18,940,895	101,190,895
2026	13,630,000	5,110,500	18,740,500	28,490,000	4,364,250	32,854,250	15,200,000	5,367,800	20,567,800	57,320,000	14,842,550	72,162,550
2027	13,630,000	4,429,000	18,059,000	29,085,000	2,939,750	32,024,750	15,200,000	4,607,800	19,807,800	57,915,000	11,976,550	69,891,550
2028	13,630,000	3,747,500	17,377,500	29,710,000	1,485,500	31,195,500	15,200,000	3,847,800	19,047,800	58,540,000	9,080,800	67,620,800
2029	13,630,000	3,066,000	16,696,000				31,800,000	3,087,800	34,887,800	45,430,000	6,153,800	51,583,800
2030	13,630,000	2,725,250	16,355,250				15,200,000	1,520,000	16,720,000	28,830,000	4,245,250	33,075,250
2031	13,625,000	2,043,750	15,668,750				15,200,000	760,000	15,960,000	28,825,000	2,803,750	31,628,750
2032	13,625,000	1,362,500	14,987,500							13,625,000	1,362,500	14,987,500
2033	13,625,000	681,250	14,306,250							13,625,000	681,250	14,306,250
Total	204,420,000	83,922,592	288,342,592	136,265,000	58,852,544	195,117,544	672,400,000	174,095,022	846,495,022	1,013,085,000	316,870,158	1,329,955,158

*Does not reflect any Direct Payments received on Build America Bonds provided in Section 6431 of the Internal Revenue Code of 1986, as amended.

** Does not include debt service on refunded bonds.

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DEFEASANCE

The Highway Bonds will be deemed to have been paid or caused to be paid and no longer deemed outstanding if there is held in trust, by the Bond Register or the Bond Register's agent, for and irrevocably committed to the purpose either or a combination of the following: moneys or direct obligations of or obligations guaranteed as to payment of principal and interest by the United States or senior debt obligations of the U.S. government-sponsored enterprises rated on the date of purchase in the highest category for short-term or long-term debt as, applicable, by any two nationally recognized rating organizations, verified by an independent public accounting firm of national reputation (or equivalent expert) to be of such maturities and interest payment dates and to bear such interest or other investment income as will be, without further investment or reinvestment of either the principal or the investment earnings (likewise to be held in trust and committed, except as described below) sufficient for the payment at and to maturity of all applicable Bond Service Charges.

Any moneys held in cash may be invested only in direct obligations of the United States, any obligations guaranteed as to principal and interest by the United States, the maturities or redemption (at the holder's option) dates of which will coincide as nearly as practicable with, but will not be later than, the times at which those moneys will be required for those payment purposes.

Any income or interest earned by, or increment to, those investments, to the extent not required for those payment purposes, may be transferred to the applicable bond service fund or the State's General Revenue Fund.

TAX MATTERS

In the opinion of Calfee, Halter & Griswold LLP, Bond Counsel, under existing law the interest on the Highway Bonds is excluded from gross income for federal income tax purposes under Section 103(a) of the Code, and is not treated as an item of tax preference under Section 57 of the Code for purposes of the alternative minimum tax imposed on individuals and corporations. Further, the Highway Bonds are not "private activity bonds" as defined in Section 141(a) of the Code.

Interest on, any transfer of, and any profit made on the sale, exchange, or other disposition of, the Highway Bonds are exempt from the Ohio corporation franchise tax (to the extent computed on the net income basis), the Ohio personal income tax, and income taxes imposed by municipalities and other political subdivisions in Ohio. Interest on the Highway Bonds, as is the case with most other forms of interest on debt obligations, is not subject to the Ohio commercial activity tax imposed under Chapter 5751 of the Ohio Revised Code. Bond Counsel will express no opinion and make no representation regarding other federal, state or local income tax consequences resulting from the receipt or accrual of interest on the Highway Bonds.

The opinion on tax matters will be based on and will assume the accuracy of certain representations and certifications of the Treasurer, on behalf of the State, and continuing compliance with certain covenants by the Treasurer contained in the transcript of proceedings and that are intended to evidence and assure the foregoing, including that the Highway Bonds are and will remain obligations the interest on which is excluded from gross income for federal income tax purposes. Bond Counsel will not independently verify the accuracy of the Treasurer's certifications and representations or the continuing compliance with the Treasurer's covenants.

The opinion of Bond Counsel is based on current legal authority and covers certain matters not directly addressed by such authority. It represents Bond Counsel's legal judgment as to the exclusion of interest on the Highway Bonds from gross income for federal income tax purposes but is not a guaranty of

that conclusion. The opinion is not binding on the Internal Revenue Service (the "IRS") or any court. Bond Counsel expresses no opinion about (i) the effect of future changes in the Code and the applicable regulations under the Code or (ii) the interpretation and the enforcement of the Code or those regulations by the IRS or a reviewing court.

The Code prescribes a number of qualifications and conditions for the interest on state and local government obligations to be and to remain excluded from gross income for federal income tax purposes, some of which require future or continued compliance after issuance of the obligations. Noncompliance with these requirements may cause the loss of such status and result in the interest on the Highway Bonds being included in gross income for federal income tax purposes retroactively to the date of issuance of the Highway Bonds. The Treasurer has covenanted to take all actions required for the interest on the Highway Bonds to be and to remain excluded from gross income for federal income tax purposes, and not to take any actions that would adversely affect such exclusion. After the date of issuance of the Highway Bonds, Bond Counsel will not undertake to determine (or to so inform any person) whether any actions taken or not taken, or any events occurring or not occurring, or any other matters coming to Bond Counsel's attention, may adversely affect the exclusion from gross income for federal income tax purposes of interest on the Highway Bonds or the market prices of the Highway Bonds.

A portion of the interest on the Highway Bonds earned by certain corporations may be subject to a federal corporate alternative minimum tax. In addition, interest on the Highway Bonds may be subject to a federal branch profits tax imposed on certain foreign corporations doing business in the United States and to a federal tax imposed on excess net passive income of certain S corporations. Under the Code, the exclusion of interest from gross income for federal income tax purposes may have certain adverse federal income tax consequences on items of income, deduction or credit for certain taxpayers, including financial institutions, certain insurance companies, recipients of Social Security and Railroad Retirement benefits, those that are deemed to incur or continue indebtedness to acquire or carry tax-exempt obligations, and individuals otherwise eligible for the earned income tax credit. The applicability and extent of these and other tax consequences will depend upon the particular tax status or other tax items of the holder of the Highway Bonds. Bond Counsel will express no opinion regarding those consequences.

Payments of interest on tax-exempt obligations, including the Highway Bonds, are generally subject to IRS Form 1099-INT information reporting requirements. If a holder of Highway Bonds is subject to backup withholding under those requirements, then payments of interest will also be subject to backup withholding. Those requirements do not affect the exclusion of such interest from gross income for federal income tax purposes.

Legislation affecting tax-exempt obligations is regularly considered by the United States Congress, and may also be considered by the State legislature. Court proceedings may also be filed, the outcome of which could modify the tax treatment of obligations such as the Highway Bonds. There can be no assurance that legislation enacted, or actions by a court, after the date of issuance of the Highway Bonds will not have an adverse effect on the tax status of interest or other income on the Highway Bonds or the market value of the Highway Bonds.

Prospective purchasers of the Highway Bonds should consult their own tax advisors regarding pending or proposed federal and state tax legislation and court proceedings, and prospective purchasers of the Highway Bonds at other than their original issuance at the price indicated on the inside front cover should also consult their own tax advisors regarding other tax considerations such as the consequences of market discount, as to all of which Bond Counsel expresses no opinion.

Bond Counsel's engagement with respect to the Highway Bonds ends with the issuance of the Highway Bonds, and, unless separately engaged, Bond Counsel is not obligated to defend the State or the

Beneficial Owners regarding the tax status of interest on the Highway Bonds in the event of an audit examination by the IRS. The IRS has a program to audit tax-exempt obligations to determine whether the interest thereon is includible in gross income for federal income tax purposes. If the IRS does audit the Highway Bonds, under current IRS procedures, the IRS will treat the State as the taxpayer and the Beneficial Owners will have only limited rights, if any, to obtain and participate in judicial review of such audit. Any action of the IRS, including but not limited to selection of the Highway Bonds for audit, or the course or result of such audit, or an audit of other obligations presenting similar tax issues, may affect the market prices for the Highway Bonds.

Original Issue Premium

All of the Highway Bonds ("Premium Bonds") as shown on the inside front cover were offered and sold to the public at a price in excess of their stated redemption price at maturity (the principal amount). That excess constitutes bond premium. For federal income tax purposes, bond premium is amortized over the period to maturity of a Premium Bond, based on the yield to maturity of that Premium Bond (or, in the case of a Premium Bond callable prior to its stated maturity, the amortization period and yield may be required to be determined on the basis of an earlier call date that results in the lowest yield on that Premium Bond), compounded semiannually. No portion of that bond premium is deductible by the owner of a Premium Bond. For purposes of determining the owner's gain or loss on the sale, redemption (including redemption at maturity) or other disposition of Premium Bond, the owner's tax basis in the Premium Bond is reduced by the amount of bond premium that is amortized during the period of ownership. As a result, an owner may realize taxable gain for federal income tax purposes from the sale or other disposition of a Premium Bond for an amount equal to or less than the amount paid by the owner for that Premium Bond. A purchaser of a Premium Bond in the initial public offering at the price for that Premium Bond stated on the inside front cover who holds that Premium Bond to maturity (or, in the case of a callable Premium Bond, to its earlier call date that results in the lowest yield on that Premium Bond) will realize no gain or loss upon the retirement of that Premium Bond.

Owners of Premium Bonds should consult their own tax advisors as to the determination for federal income tax purposes of the amount of bond premium properly accruable or amortizable in any period with respect to the Premium Bonds and as to other federal tax consequences and the treatment of bond premium for purposes of state and local taxes on, or based on, income.

LITIGATION

There is no litigation pending contesting the validity of the Highway Bonds or the proceedings for their authorization, issuance, sale, execution and delivery. An opinion of the Attorney General of the State to the effect that, to the best of the knowledge of the Attorney General, no litigation is pending contesting the validity of the Highway Bonds or the proceedings for the authorization, issuance, sale, execution and delivery thereof, will be delivered to the Underwriters at the time of original delivery of the Highway Bonds.

The State is a party to various legal proceedings seeking damages or injunctive or other relief and generally incidental to its operations, but unrelated to the Highway Bonds or the security for the Highway Bonds. The ultimate disposition of these proceedings is not now determinable, but in the opinion of the Attorney General will not have a material adverse effect on the Highway Bonds or the security for the Highway Bonds.

LEGAL OPINIONS

Legal matters incident to the issuance of the Highway Bonds and with regard to their tax-exempt status (see **TAX MATTERS**) are subject to the legal opinions of Calfee, Halter & Griswold LLP, Bond Counsel. Signed legal opinions dated as of, and premised on the transcript of proceedings examined and the law in effect on, the date of original delivery of the Highway Bonds will be delivered to the Underwriters at the time of that original delivery.

The proposed text of the legal opinions for the Series T Highway Bonds and the Series U Highway Bonds is included as **EXHIBIT A** and **EXHIBIT B**, respectively, hereto. Such opinions will speak only as of their dates, and subsequent distribution of such opinions by recirculation of this Official Statement or otherwise shall create no implication that Bond Counsel has reviewed or expresses any opinion concerning any of the matters referred to in its opinions subsequent to the date of such opinions.

Certain legal matters will be passed upon for the Underwriters by their counsel, Dinsmore & Shohl LLP.

RATINGS

In response to the Treasurer's application, the Highway Bonds have been rated AA+ (stable outlook) by Fitch Ratings ("Fitch"), Aa1 (stable outlook) by Moody's Investors Service, Inc. ("Moody's") and AAA (stable outlook) by S&P Global Ratings ("S&P").

The ratings in effect from time to time reflect only the views of the rating organization. The explanation of its views of its rating's meaning and significance may be obtained from the respective rating agency. The State furnished to each rating agency certain information and materials relating to the Highway Bonds, the State and the Treasurer, some of which may not be included in this Official Statement. Generally, rating agencies base their ratings on that information and materials, and on their own investigations, studies, and assumptions.

There can be no assurance that the ratings assigned will continue for any given time, or that a rating will not be lowered or withdrawn by a rating agency if in its judgment circumstances so warrant. Any downward change in or withdrawal of a rating, or change in rating outlook or other actions of a rating agency, may have an adverse effect on the marketability and market price of the Highway Bonds.

UNDERWRITING

Goldman Sachs & Co. LLC, as representative of the Underwriters, has agreed in the Bond Purchase Agreement, subject to certain conditions, to purchase the Highway Bonds from the State at the following price:

The Series T Highway Bonds at a price of \$243,068,557.68 (consisting of the par amount thereof, plus original issue premium of \$39,483,748.55, less underwriting discount of \$835,190.87).

The Series U Highway Bonds at a price of \$168,729,645.91 (consisting of the par amount thereof, plus original issue premium of \$33,093,654.95, less underwriting discount of \$629,009.04).

The Underwriters are obligated to purchase all the Highway Bonds if any are purchased. The Highway Bonds may be offered and sold by the Underwriters to certain dealers at prices lower than the public offering prices, and the public offering prices may be changed from time to time.

The Underwriters and their respective affiliates are full service financial institutions engaged in various activities, which may include securities trading, commercial and investment banking, Municipal Advisory, investment management, principal investment, hedging, financing and brokerage services. Certain of the Underwriters and their respective affiliates have, from time to time, performed, and may in the future perform, various municipal advisory and investment banking services for the Treasurer, for which they received or will receive customary fees and expenses. The Treasurer intends to use a portion of the proceeds from this offering to refund the Refunded Bonds. Goldman Sachs & Co. LLC, an underwriter for this offering, or an affiliate thereof, holds certain of those Refunded Bonds that are being refunded and, as a result, will receive a portion of the proceeds from this offering in connection with the refunding of such Refunded Bonds

In the ordinary course of their various business activities, the Underwriters and their respective affiliates may make or hold a broad array of investments and actively trade debt and equity securities (or related derivative securities, which may include credit default swaps) and financial instruments (including bank loans) for their own account and for the accounts of their customers and may at any time hold long and short positions in such securities and instruments. Such investment and securities activities may involve securities and instruments of the Treasurer.

The Underwriters and their respective affiliates may also communicate independent investment recommendations, market color or trading ideas and/or publish or express independent research views in respect of such assets, securities or instruments and may at any time hold, or recommend to clients that they should acquire, long and/or short positions in such assets, securities and instruments.

MUNICIPAL ADVISOR

PFM Financial Advisors LLC (the "Municipal Advisor") is serving as the municipal advisor to the Treasurer in connection with the issuance and sale of the Highway Bonds. The Municipal Advisor is not obligated to undertake, and has not undertaken to make, an independent verification or to assume responsibility for the accuracy, completeness, or fairness of the information contained in the Official Statement. The Municipal Advisor is an independent advisory firm and is not engaged in the business of underwriting, trading or distributing municipal securities or other public securities.

TRANSCRIPT AND CLOSING CERTIFICATES

A complete transcript of proceedings and no-litigation certificate (as described above) will be delivered by the Treasurer when the Highway Bonds are delivered to the original purchaser. At that time the Treasurer will furnish to the original purchaser a certificate relating to the accuracy and completeness of this Official Statement (including matters set forth in or contemplated by it).

CONTINUING DISCLOSURE COMMITMENT

The State, acting by and through the Treasurer and Director of OBM, has committed, for the benefit of the holders and Beneficial Owners of each series of the Highway Bonds, in accordance with SEC Rule 15c2-12 (the "Rule"), to provide or cause to be provided such financial information and operating data (the "Annual Information"), audited financial statements and notices, in such manner, as may be required for purposes of paragraph (b)(5)(i) of the Rule (the "Continuing Disclosure Commitments"), as described below.

The State will provide to the Municipal Securities Rulemaking Board (the "MSRB") through its Electronic Municipal Market Access ("EMMA") system:

- Annual Information for each State Fiscal Year (beginning with Fiscal Year 2018) not later than the 90th day following the end of the Fiscal Year (or, if that is not a State business day, the next State business day), consisting of annual financial information and operating data of the type included under the heading **THE HIGHWAY OBLIGATIONS GENERALLY – Sources of Payment – History of Highway User Receipts and Debt Service Coverage** and in **APPENDIX A** of this Official Statement under the captions **FISCAL MATTERS, STATE DEBT, STATE EMPLOYEES AND COLLECTIVE BARGAINING AGREEMENTS, RETIREMENT SYSTEMS** and **TAX LEVELS AND TAX BASES**. The Annual Information may be provided in part by cross-reference to other documents, such as the State's Comprehensive Annual Financial Report, and subsequent final official statements.
- When and if available, audited general purpose financial statements of the State for each Fiscal Year. The Treasurer expects that those financial statements will be prepared, that they will be available separately from the Annual Information, and that the accounting principles to be applied in their preparation will, except as may otherwise then be stated, be as described under and by reference in **APPENDIX A** under **FISCAL MATTERS – Accounts and Controls; Financial Reports**.
- Notice of the occurrence of any of the following events, within the meaning of the Rule, with respect to the Highway Bonds, within 10 business days of the occurrence of the event:
 - principal and interest payment delinquencies
 - non-payment related defaults, if material
 - unscheduled draws on any debt service reserves or on credit enhancements reflecting financial difficulties
 - substitution of credit or liquidity providers, or their failure to perform
 - adverse tax opinions, the issuance by the IRS of proposed or final determinations of taxability, Notice of Proposed Issue (IRS Form 5701-TEB) or other material notices or determinations with respect to the tax status of the Highway Bonds, or other material events affecting the tax status of the Highway Bonds
 - modifications to rights of registered owners or Beneficial Owners, if material
 - Highway Bond calls, if material, and tender offers
 - defeasances
 - release, substitution, or sale of property securing repayment of the Highway Bonds, if material
 - rating changes
 - bankruptcy, insolvency, receivership or similar event of the obligated person

- the consummation of a merger, consolidation or acquisition involving an obligated person or the sale of all or substantially all of the assets of the obligated person, other than in the ordinary course of business, the entry into a definitive agreement to undertake such an action or the termination of a definitive agreement relating to any such actions, other than pursuant to its terms, if material
- appointment of a successor or additional trustee or the change of name of a trustee, if material
- Notice of the failure to provide the Annual Information within the specified time.
- Notice of any material change in the accounting principles applied in the preparation of the annual financial statements or in the Fiscal Year, any failure of the General Assembly to appropriate moneys for the purpose of paying costs to be incurred by the State in performing the Continuing Disclosure Commitments for the applicable fiscal period (biennium), and termination of the Continuing Disclosure Commitments.

There are no debt service reserves, or credit enhancements or credit or liquidity providers, for the Highway Bonds or any property (except the Bond Service Fund) securing their repayment.

The Treasurer reserves the right to modify the Continuing Disclosure Commitments, and to obtain the waiver of noncompliance with any provision of the Continuing Disclosure Commitments, as may be necessary or appropriate:

- To achieve its compliance with any applicable federal securities law or rule.
- To cure any ambiguity, inconsistency or formal defect or omission.
- To address any change in circumstances arising from a change in legal requirements, change in law, or change in the identity, nature, or status of the Treasurer.

Any such amendment or waiver will not be effective unless the Continuing Disclosure Commitments (as amended or taking into account the waiver) would have complied with the requirements of the Rule at the time of the primary offering of the Highway Bonds, after taking into account any applicable amendments to or official interpretations of the Rule, as well as any change in circumstances, and until the Treasurer shall have received either:

- A written opinion of bond, disclosure or other qualified independent special counsel selected by the Treasurer that the amendment or waiver would not materially impair the interest of holders or Beneficial Owners of the Highway Bonds; or
- The written consent to the amendment, or waiver, by the holders of at least a majority of the aggregate outstanding principal amount of the Highway Bonds.

The Continuing Disclosure Commitments will be solely for the benefit of the holders and Beneficial Owners of each series of the Highway Bonds, including holders of book-entry interests in them. The right to enforce the provisions of each Continuing Disclosure Commitment may be limited to a right of the holders or Beneficial Owners of the respective series of the Highway Bonds to enforce to the extent permitted by law (by mandamus, or other suit, action or proceedings at law or in equity) the obligations and duties under it.

In order to provide certain continuing disclosure with respect to the Highway Bonds in accordance with the Rule, the State has entered into a Disclosure Dissemination Agent Agreement (the "Disclosure Dissemination Agreement") for the benefit of the holders of the Highway Bonds with Digital Assurance Certification, L.L.C. (DAC), under which the State has designated DAC as Disclosure Dissemination Agent (the "Disclosure Dissemination Agent").

The Disclosure Dissemination Agent has only the duties specified in the Disclosure Dissemination Agreement. The Disclosure Dissemination Agent's obligation to deliver the information at the times and with the contents described in the Disclosure Dissemination Agreement is limited to the extent the State has provided that information to the Disclosure Dissemination Agent as required by that Disclosure Dissemination Agreement. The Disclosure Dissemination Agent has no duty with respect to the content of any disclosures or notice made pursuant to the terms of the Disclosure Dissemination Agreement or duty or obligation to review or verify any information in the Annual Report, Audited Financial Statements, notice of Notice Event or Voluntary Report (each as defined in the Disclosure Dissemination Agreement), or any other information, disclosure or notices provided to it by the State, and the Disclosure Dissemination Agent shall not be or be deemed to be acting in any fiduciary capacity for the State, the holders of the Highway Bonds or any other party. The Disclosure Dissemination Agent has no responsibility for any failure to report to the Disclosure Dissemination Agent a Notice Event or a duty to determine the materiality thereof, or to determine or liability for failing to determine whether the State has complied with the Disclosure Dissemination Agreement, and the Disclosure Dissemination Agent may conclusively rely upon certification of the State at all times.

The performance by the State, as the only obligated person with respect to the Highway Bonds, of the Continuing Disclosure Commitments will be subject to the biennial appropriation by the General Assembly of moneys for that purpose.

Each Continuing Disclosure Commitment will remain in effect only for such period that the respective series of the Highway Bonds are outstanding and the State remains an obligated person with respect to the respective series of the Highway Bonds within the meaning of the Rule.

During the past five years the State has complied in all material respects with its prior continuing disclosure agreements under the Rule relating to the State's general obligation bonds (including Highway Obligations).

ELIGIBILITY FOR INVESTMENT AND AS PUBLIC FUNDS SECURITY

Provided that the matter as to a particular investor is governed by Ohio law, and subject to any applicable limitations under other provisions of Ohio law, the Highway Bonds are lawful investments for banks, savings and loan associations, credit union share guaranty corporations, trust companies, trustees, fiduciaries, insurance companies, including domestic for life and domestic not for life, trustees or other officers having charge of sinking and bond retirement or other special funds of the State and its political subdivisions and taxing districts, the sinking fund of the State, the administrator of workers' compensation subject to the approval of the workers' compensation board, and State retirement systems (Teachers, Public Employees, Public School Employees, and Police and Fire).

The Act also provides that the Highway Bonds are acceptable under Ohio law as security for repayment of the deposit of public moneys.

Holders and Beneficial Owners should make their own determination as to such matters as the legality of investment in, or the ability to pledge, book-entry interests.

CONCLUDING STATEMENT

All quotations in this Official Statement from, and summaries and explanations of, the Ohio Constitution, the Ohio Revised Code, the Highway Bond Orders and any other documents or laws, do not purport to be complete. Reference is made to the pertinent provisions of the Constitution, Ohio Revised Code, the Highway Bond Orders and any other documents or laws for complete statements of their provisions. Copies of the Highway Bond Orders are available upon request from the Office of Debt Management, 30 East Broad Street, 9th Floor, Columbus, Ohio 43215-3461 (telephone 614-466-6903).

To the extent that any statements in this Official Statement involve matters of opinion or estimates, whether or not expressly stated to be such, those statements are made as such and not as representations of fact or certainty, and no representation is made that any of those statements will be realized. Information in this Official Statement has been derived by the Treasurer from official and other sources and is believed by the Treasurer to be reliable, but information other than that obtained from official records of the State has not been independently confirmed or verified by the Treasurer, and its accuracy is not guaranteed. This Official Statement is not to be construed as a contract or agreement between the State or the Treasurer and the holders or Beneficial Owners of any of the Highway Bonds.

This Official Statement has been prepared, approved, executed and delivered by the Treasurer in his official capacity for and on behalf of the State.

STATE OF OHIO

By: /s/ Josh Mandel

Josh Mandel
State Treasurer of Ohio

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Appendix A

INFORMATION CONCERNING THE STATE OF OHIO

The following discusses certain matters relating to general State finances and debt, and the State's economy and employment, population, agriculture, resources, tax bases and related subjects. This information is from the State's official records, except for information expressly attributed to other sources, and summarizes and describes current and recent historical information. It is not intended to indicate future or continuing trends in the financial or other positions of the State. No representation is made that past experience, as might be shown by this financial and other information, will necessarily continue in the future.

FISCAL MATTERS

General

Consistent with the constitutional provision that no appropriation may be made for a period longer than two years, the State operates on the basis of a fiscal biennium for its appropriations and expenditures. Under current law that biennium for operating purposes runs from July 1 in an odd-numbered year to June 30 in the next odd-numbered year (e.g., the current fiscal biennium began July 1, 2017 and ends June 30, 2019). Within a fiscal biennium, the State operates on the basis of a July 1 to June 30 Fiscal Year. The biennium for general capital appropriations purposes runs from July 1 in an even-numbered year to June 30 in the next even-numbered year. Consistent with the fiscal biennium for operating purposes, the Governor is generally required to submit the Executive Budget to the General Assembly in February of each odd-numbered year. Appropriations legislation reflecting that Executive Budget is then introduced for extended committee hearings and review first in the House and then in the Senate, with that appropriations legislation as approved by the General Assembly then presented to the Governor for his approval (with possible line item vetoes). See **FISCAL MATTERS – Recent and Current Finances – Current Biennium** for discussion of the enacted budget the 2018-19 fiscal biennium.

Authority for appropriating State moneys subject to appropriation rests in the bicameral General Assembly, which consists of a 99-member House of Representatives (elected to two-year terms) and a 33-member Senate (elected to overlapping four-year terms). Members of both houses are subject to term limits, with a maximum of eight consecutive years in either. The Governor has veto power, including the power to make line-item vetoes in bills making appropriations. Vetoes may be overridden by a three-fifths vote of each house.

The Constitution requires the General Assembly to "provide for raising revenue, sufficient to defray the expenses of the state, for each year, and also a sufficient sum to pay the principal and interest as they become due on the state debt." The State is effectively precluded by law from ending a Fiscal Year or a biennium in a "deficit" position. State borrowing to meet casual deficits or failures in revenues or to meet expenses not otherwise provided for is limited by the Constitution to \$750,000.

Most State operations are financed through the General Revenue Fund (GRF). Personal income and sales and use taxes are the major sources of GRF tax revenue. The last complete fiscal year ended June 30, 2017 with a GRF fund balance (after year-end transfers) of \$170.9 million. The State has a "rainy day" fund (the Budget Stabilization Fund (BSF)) which for Fiscal Year 2017 and until used is intended to carry a balance of up to 8.5% of the GRF revenue for the preceding Fiscal Year (this amount was 5% for Fiscal Year 2016 and prior years). The current BSF balance is \$2.034 billion, which equals 6.0% of Fiscal Year 2017 GRF revenue. Recent Fiscal Year-end BSF balances and their percent of GRF revenue for that Fiscal Year were:

Fiscal Year-Ending	BSF Balance ^(a)	% of GRF Revenue
2012	\$482,000,000	1.8%
2013	1,477,934,000	5.0
2014	1,477,934,000	5.1
2015	2,004,569,000	6.4
2016	2,034,051,000	6.0
2017	2,034,051,000	6.0

(a) Reflects balance after year-end transfer into BSF; actual cash transfers into the BSF occur early in the following Fiscal Year.

The Revised Code provides that if the Governor ascertains that the available revenue receipts and balances for the GRF or other funds for the then current Fiscal Year will in all probability be less than the appropriations for that Fiscal Year, the Governor shall issue such orders to State agencies as will prevent their expenditures and incurred obligations from exceeding those revenue receipts and balances. As discussed under **Recent and Current Finances**, the Governor implemented this directive in the 2008-09 biennium as also had been done several times in prior fiscal biennia.

Listed in the tables below under **Recent Receipts and Disbursements** are the major categories of State revenue sources, including taxes and excises, and the amounts received from those categories. There is no present constitutional limit on the rates of those State levied taxes and excises (except for taxes on intangible property which the State does not currently levy).

At present the State itself does not levy ad valorem taxes on real or tangible personal property. Ad valorem taxes on tangible personal property of public utilities and on real property are levied by political subdivisions and local taxing districts, and State law does not currently allow the imposition of a general ad valorem tax on tangible personal property. The Constitution has since 1934 limited the amount of the aggregate levy of ad valorem property taxes on particular property, without a vote of the electors or municipal charter provision, to 1% of true value in money, and statutes limit the amount of that aggregate levy without a vote or charter provision to 10 mills per \$1 of assessed valuation -- commonly referred to in the context of Ohio local government finance as the "ten-mill limitation." See **TAX LEVELS AND TAX BASES** for a discussion of the phase-out of local tangible personal property taxes in 2006 through 2009.

The Constitution directs or restricts the use of certain revenues. Highway fees and excises, including gasoline taxes, are limited in use to highway-related purposes. Not less than 50% of the receipts from State income taxes must be returned to the originating political subdivisions and school districts. State net lottery profits are allocated to elementary, secondary, vocational and special education program purposes, including application to debt service on obligations issued to finance capital facilities for a system of common schools.

Constitutional amendments relating to taxation, revenues, expenditures, debt or other subjects may be proposed by action of three-fifths of the members elected to each house of the General Assembly or by initiative petition signed by electors numbering at least 10% of the total number of votes last cast for the office of Governor. Adoption of a proposed amendment requires approval by a majority of electors voting on it at a statewide election. The Ohio Constitution expressly provides that the General Assembly has no power to pass laws impairing the obligation of contracts.

Accounts and Controls; Financial Reports

With each office performing specific functions relating to State expenditures, the Office of Budget and Management (OBM) and the Treasurer of State account for and report on the State's fiscal affairs.

OBM maintains records of the appropriations made by the General Assembly, and its Director, appointed by the Governor, certifies the availability of unencumbered appropriations as a condition of contract validity. OBM fiscal functions include the development and oversight of operating and capital budgets as well as the review, processing, and reporting of financial transactions for most State departments and agencies (excluding, among others, higher education institutions). The OBM Director's certification is required for all expenditure vouchers before OBM may issue State warrants. Upon certification, OBM updates its accounting records to reflect the level of vouchered expenditures. The Treasurer of State maintains the cash and investments that comprise the State treasury and invests State funds. The Treasurer redeems the warrants issued by OBM when presented for payment by financial institutions and monitors the timing and amount of payments to determine the State's cash flow position for investment purposes.

State financial reporting practices have been and are in accordance with generally accepted accounting principles (GAAP basis). Each Comprehensive Annual Financial Report (CAFR) includes the State's Basic Financial Statements (BFS) for that Fiscal Year as examined by the Auditor of State. The most recent CAFRs are accessible via OBM's web page at <http://obm.ohio.gov/stateaccounting/financialreporting/cafr.aspx>, and copies may be obtained by contacting OBM, 30 E. Broad Street, 34th Floor, Columbus, Ohio 43215, phone (614) 466-4034. The Fiscal Year 2016 CAFR received the Government Finance Officers Association certificate of achievement for excellence in financial reporting.

The BFS are presented in accordance with a fund classification system prescribed by the Governmental Accounting Standards Board. The GAAP basis financial statement presentation is comprehensive in scope and

includes organizations and activities defined within Ohio's reporting entity that are not subject to the State's appropriation process. The "General Fund" as reported in the BFS includes more than just the GRF; it also encompasses the Budget Stabilization Fund and those reimbursement-supported funds that account for activities administered by State agencies and departments and for which special revenue or proprietary fund classifications are considered inappropriate.

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Recent Receipts and Disbursements

The following summary statements, prepared by OBM based on its accounting records, include (i) governmental and proprietary appropriated funds, cash receipts and cash disbursements, and (ii) GRF cash basis activity. The governmental and proprietary appropriated funds encompass the General Fund (which includes the GRF and BSF), as well as special revenue, debt service, capital projects, and enterprise fund types.

SUMMARY STATEMENT GOVERNMENTAL AND PROPRIETARY APPROPRIATED FUNDS (\$ in Millions)

Cash Receipts

SOURCE OF RECEIPTS	Fiscal Year				
	2013	2014	2015	2016	2017
Taxes:					
Personal Income ^(a)	\$9,869.8	\$8,425.1	\$8,883.2	\$8,169.4	\$7,981.1
Sales and Use ^(b)	8,851.5	9,549.9	10,417.8	10,807.7	11,070.5
Corporate Franchise ^(c)	262.2	(11.2)	2.6	33.2	(1.2)
Financial Institutions Tax ^(c)	n.a.	197.8	182.1	213.5	187.3
Commercial Activity Tax ^(d)	1,594.9	1,684.7	1,752.6	1,689.1	1,750.8
Gasoline	1,725.0	1,825.5	1,800.6	1,740.4	1,817.4
Public Utilities and Kilowatt Hour	702.0	742.5	809.8	796.0	796.9
Cigarette ^(e)	827.4	814.0	808.2	1,007.6	980.5
Foreign Insurance	292.5	308.0	287.3	316.4	321.4
Highway Use	36.1	16.7	35.2	36.2	39.1
Estate ^(f)	105.2	39.4	3.1	2.2	0.8
Alcoholic Beverages	57.6	56.6	57.7	55.6	58.4
Liquor Gallonage	40.7	41.8	43.4	45.1	46.5
Domestic Insurance Franchise	211.6	202.3	257.2	263.5	273.9
Other	<u>84.1</u>	<u>44.3</u>	<u>60.0</u>	<u>75.7</u>	<u>83.7</u>
Total Taxes	24,660.6	23,937.5	25,400.7	25,251.6	25,407.1
Licenses, Permits and Fees	3,284.4	3,225.5	3,072.0	3,641.3	3,284.5
Sales, Services and Charges	1,682.7	1,262.9	1,392.1	1,749.2	1,512.1
Federal Government	19,685.3	21,047.1	22,692.1	22,953.9	22,911.5
Other ^(g)	4,626.4	4,179.6	4,702.8	5,655.3	5,889.9
Proceeds from Sale of Bonds and Notes	<u>732.2</u>	<u>1,468.6</u>	<u>1,103.8</u>	<u>1,214.9</u>	<u>1,507.8</u>
Total Cash Receipts	\$54,671.6	\$55,121.1	\$58,363.4	\$60,466.2	\$60,512.9

(a) The personal income tax rate was reduced by 8.5% in calendar year 2013, 1.5% in calendar year 2014 and 6.3% in calendar year 2015, and a deduction commenced in tax year 2013 for small businesses of 50%, increasing to 75% in tax years 2014 and 2015, and to 100% for tax years 2016 and beyond, of annual business net income up to \$250,000 (see **FISCAL MATTERS – Recent and Current Finances – Recent Biennia – 2014-15 and 2016-17**).

(b) Beginning September 1, 2013, the sales and use tax rate was increased one-quarter percent to 5.75% (see **FISCAL MATTERS – Recent and Current Finances – Recent Biennia - 2014-15**).

(c) Beginning in calendar year 2006, except for financial institutions, the corporate franchise tax was phased-out in even annual increments over five years; 2014 and 2017 reflects refunds. Beginning in tax year 2014, the financial institutions component was replaced with new financial institutions tax.

(d) See **TAX LEVELS AND TAX BASES – Commercial Activity Tax** for discussion of the commercial activity tax (CAT) on gross receipts from doing business in Ohio.

(e) Beginning July 1, 2015, the cigarette tax was increased from \$1.25 per pack (of 20 cigarettes) to \$1.60 per pack (see **FISCAL MATTERS – Recent and Current Finances – Recent Biennia - 2014-15**).

(f) Eliminated effective January 1, 2013.

(g) Largest components consist of various reimbursements, loan repayments, unclaimed funds, and investment income.

Cash Disbursements

FUND TYPE	Fiscal Year				
	2013	2014	2015	2016	2017
General Fund:					
General Revenue Fund	\$27,439.3	\$28,901.8	\$30,831.6	\$33,593.1	\$34,503.5
General Services Fund	4,557.1	4,591.6	4,758.6	4,712.1	4,809.3
Special Revenue Fund ^(h)	18,251.0	19,204.9	20,644.3	19,356.1	19,005.7
Capital Projects Fund ⁽ⁱ⁾	273.5	318.0	412.0	607.0	601.2
Debt Service Fund ⁽ⁱ⁾	996.3	1,064.8	1,116.7	1,136.0	1,168.2
Enterprise Fund ^(k)	<u>1,115.9</u>	<u>699.7</u>	<u>825.0</u>	<u>844.4</u>	<u>775.1</u>
Total Cash Disbursements	\$52,633.1	\$54,780.9	\$58,588.3	\$60,248.8	\$60,863.0

^(h) Includes local government support disbursements.

⁽ⁱ⁾ Includes amounts disbursed from proceeds of special obligation bonds and highway general obligation bonds.

^(j) Includes the several bond retirement funds for bonds secured by a pledge of taxes and excises.

^(k) Fiscal Year 2014 reduction reflects the transfer of the State's spirituous liquor system in February 2013 to JobsOhio (see **FISCAL MATTERS - Recent and Current Finances – Recent Biennia - 2012-13**).

**SUMMARY STATEMENT
GENERAL REVENUE FUND CASH BASIS ACTIVITY
(\$ in Millions)**

	Fiscal Year				
	2013	2014	2015	2016	2017
Beginning Cash Balance.....	\$973.4	\$2,639.2	\$1,700.1	\$1,711.7	\$1,193.3
Cash Receipts:					
Taxes:					
Personal Income ^(a)	9,507.8	8,064.9	8,506.7	7,799.3	7,606.5
Sales and Use ^(b)	8,444.9	9,165.8	9,960.2	10,348.0	10,614.6
Corporate Franchise ^(c)	261.9	(11.4)	2.5	33.2	(1.2)
Financial Institutions Tax ^(c)	n.a.	197.8	182.1	213.5	187.3
Commercial Activity Tax ^(d)	790.0	794.2	854.0	1,255.3	1,301.5
Public Utilities and Kilowatt Hour.....	461.7	488.4	464.5	502.0	516.1
Cigarette ^(e)	827.4	814.0	808.2	1,007.6	980.5
Domestic Insurance.....	206.4	196.9	251.6	258.3	268.6
Foreign Insurance.....	274.6	286.5	266.6	293.5	301.5
Other.....	<u>241.0</u>	<u>137.5</u>	<u>109.3</u>	<u>110.8</u>	<u>110.4</u>
Total Taxes.....	21,015.7	20,134.7	21,405.8	21,821.6	21,885.8
Federal Government.....	7,525.8	8,575.6	9,301.3	11,645.7	11,761.2
Licenses, Permits and Fees.....	70.2	57.3	57.5	56.0	57.4
Investment Income.....	10.5	17.3	23.1	35.1	48.7
Other.....	<u>534.5</u>	<u>42.2</u>	<u>43.7</u>	<u>49.8</u>	<u>69.1</u>
Total Cash Receipts.....	29,156.7	28,827.1	30,831.4	33,608.3	33,822.1
Cash Disbursements:					
Primary, Secondary and Other Education ^(f)	6,574.3	6,813.2	7,299.5	7,624.1	7,945.9
Higher Education.....	2,044.3	2,085.0	2,139.6	2,222.8	2,294.8
Public Assistance and Medicaid ^(g)	12,581.7	13,570.5	14,863.2	16,995.9	17,437.4
Health and Human Services ^(g)	1,151.8	1,235.8	1,249.8	1,283.6	1,289.6
Justice and Public Protection.....	1,804.6	1,837.0	1,850.3	1,983.8	2,052.8
Environmental Protection and Natural Resources.....	64.8	63.1	62.6	63.0	66.0
General Government and Transportation ^(h)	231.0	232.1	235.1	249.1	247.8
Community and Economic Development.....	52.2	53.4	42.4	50.2	56.4
Property Tax Reimbursements ⁽ⁱ⁾	1,746.5	1,785.2	1,801.5	1,786.7	1,790.3
Debt Service.....	<u>1,188.2</u>	<u>1,226.4</u>	<u>1,287.7</u>	<u>1,333.9</u>	<u>1,322.7</u>
Total Cash Disbursements.....	27,439.3	28,901.8	30,831.6	33,593.1	34,503.5
Cash Transfers:					
Transfers-in ^(j)	402.0	405.7	641.6	322.2	355.9
Transfers-out ^(k)	<u>(453.6)</u>	<u>(1,270.2)</u>	<u>(629.9)</u>	<u>(855.8)</u>	<u>(310.8)</u>
Ending Cash Balance.....	\$2,639.2	\$1,700.1	\$1,711.7	\$1,193.3	\$557.1

(a) The personal income tax rate was reduced by 8.5% in calendar year 2013, 1.5% in calendar year 2014 and 6.3% in calendar year 2015, and a deduction commenced in tax year 2013 for small businesses of 50%, increasing to 75% in tax years 2014 and 2015, and to 100% for tax years 2016 and beyond, of annual business net income up to \$250,000 (see **FISCAL MATTERS – Recent and Current Finances – Recent Biennia – 2014-15 and 2016-17**).

(b) Beginning September 1, 2013, the sales and use tax rate was increased one-quarter percent to 5.75% (see **FISCAL MATTERS – Recent and Current Finances – Recent Biennia - 2014-15**).

(c) Beginning in calendar year 2006, except for financial institutions, the corporate franchise tax rate was phased out annually over five years; 2014 and 2017 reflects refunds. Beginning in tax year 2014, the financial institutions component was replaced with a new financial institutions tax

(d) See **TAX LEVELS AND TAX BASES – Commercial Activity Tax** for discussion of the commercial activity tax (CAT) on gross receipts from doing business in Ohio and on the increased share of CAT receipts being deposited into the GRF.

(e) Beginning July 1, 2015, the cigarette tax was increased from \$1.25 to \$1.60 per pack (see **FISCAL MATTERS – Recent and Current Finances – Recent Biennia - 2014-15**).

(f) Mainly subsidies to local school districts for primary and secondary education and to colleges and universities for higher education.

(g) Beginning in Fiscal Year 2013, disbursements for Medicaid were consolidated into a separate program and the portion attributed to Public Assistance was moved into the Health and Human Services Program.

(h) Transportation amounts are for non-highway transportation purposes, including mass transit, rail, and aviation.

(i) State reimbursements to taxing subdivisions for the 12.5% property tax rollback granted to homeowners of real property, for partial real property homestead tax exemptions for the elderly and handicapped (expanded commencing in July 2007), and for revenue reductions resulting from phase-out of local taxes on tangible personal property. (see **FISCAL MATTERS – Recent and Current Finances – Recent Biennia - 2014-15**).

(j) Includes in Fiscal Years 2013, 2014, 2015 and 2017 transfers from the School District Property Tax Replacement Fund, in Fiscal Year 2013 transfer from liquor profits, and in Fiscal Year 2015 transfer from the Small Business Augmentation Fund.

(k) Fiscal Years 2013, 2014, 2016 and 2017 transfers out include \$235.1 million, \$995.9 million, \$526.6 million and \$29.5 million to the BSF, respectively. In Fiscal Year 2015, includes \$330.0 million transfer to the Medicaid reserve fund and \$229 million to the Small Business Augmentation Fund.

Recent and Current Finances

Introductory Information

The summary statements above identify receipts from specific taxes and excises that are sources of significant amounts of revenue to the State, and particularly to the GRF. As noted, there are constitutional limitations on the use of some taxes and excises, and mandated allocations of portions of some others. As the statements portray, a substantial amount of total State-level revenue is distributed to local governments and school districts under ongoing programs, including local property tax relief.

Economic activity in Ohio, as in other industrially-developed states, tends to be somewhat more cyclical than in some other states and in the nation as a whole. The GRF ending (June 30) fund balance tends to be reduced during less favorable national economic periods and then increases during more favorable economic periods. Recent biennium-ending GRF balances were:

Biennium	Cash Balance	Fund Balance ^(a)	Fund Balance less Designated Transfers ^(b)
2008-09	\$734,526,000	\$389,103,000	\$389,103,000
2010-11	844,467,000	430,707,000	138,816,000
2012-13	2,639,249,000	2,278,202,000	1,110,942,000
2014-15	1,711,679,000	1,286,469,000	550,366,000
2016-17	557,089,900	170,872,600	170,872,600

(a) Reflects the ending cash balance less amounts encumbered to cover financial commitments made prior to the end of the Fiscal Year.

(b) Reflects the ending fund balance less any amounts designated for transfer to other funds, including the BSF.

Actions have been and may be taken by the State during less favorable economic periods to ensure resource/expenditure balance (particularly in the GRF), some of which are described below. None of those actions have been applied to appropriations or expenditures needed for debt service or lease payments relating to any State obligations.

The appropriations acts for the 2018-19 biennium included all necessary appropriations for debt service on State obligations and for lease payments relating to lease rental obligations issued by the Treasurer of State and certificates of participation (see **State Debt – General**).

The Revised Code imposes a limitation on most GRF appropriations commencing with the 2008-09 fiscal biennium. This statutory limitation initially used Fiscal Year 2007 GRF appropriations as a baseline (excluding appropriations for debt service, tax relief and refunds, and certain appropriations reflecting moneys received from the federal government) and then applies an annual growth factor equal to the greater of 3.5% or the sum of the inflation rates and rate of State population change. Every fourth Fiscal Year thereafter becomes a new base year. All GRF appropriations since have complied with this limitation.

The following is a selective general discussion of State finances, particularly GRF receipts and expenditures, for recent and the current biennia. As evidenced by the actions discussed, the State administrations and both houses of the General Assembly have been and are committed to, and have taken and are taking, actions that ensure a balance of GRF resources and expenditures.

Recent Biennia

2008-09

2008-09 Biennial Budget and Appropriations. Ongoing and rigorous consideration was given by the Governor and the General Assembly to revenues and expenditures throughout Fiscal Years 2008-09, primarily as a result of the Ohio economy being negatively affected by the national economic downturn. Budgetary pressures during this period were primarily due to continuing lower than previously estimated levels of receipts from certain major revenue sources.

Consideration came in three general time frames – winter 2007, fall/winter 2008, and spring 2009. Significant measures were taken including use of the entire Budget Stabilization Fund (BSF) balance and expenditure reductions and spending controls on State agencies and departments.

Consistent with State law, the Governor's Executive Budget for the 2008-09 biennium was released in March 2007 and introduced in the General Assembly. After extended hearings and review, the GRF appropriations Act for the biennium was passed by the General Assembly and signed (with selective vetoes) by the Governor on June 30, 2007. Reflecting the continued implementation of the restructuring of State taxes that commenced in 2006-07, that Act was based upon then estimated total GRF biennial revenues of approximately \$53.5 billion (a 3.9% increase over the 2006-07 biennial revenue) and contained total GRF biennial appropriations of approximately \$52.4 billion. Spending increases for major program categories over the 2006-07 actual expenditures were: 2.2% for Medicaid (the Act also included a number of Medicaid reform and cost containment initiatives); 13.2% for higher education; 5.2% for elementary and secondary education; 4.9% for corrections and youth services; and 4.7% for mental health and mental retardation. The Executive Budget, the GRF appropriations Act and the separate appropriations acts for the biennium included all necessary debt service and lease rental payments related to State obligations.

The original GRF expenditure authorizations for the 2008-09 biennium reflected and were supported by tax law changes contained in the Act, including:

- Restructuring the nonresident tax exemption for Ohio motor vehicle purchases projected to produce approximately \$54.0 million for the biennium.
- Restoring local government fund support by committing a specified percentage of all tax revenues deposited into the GRF, with local governments to receive 3.7% of total GRF tax revenues annually and local libraries to receive 2.22% of total GRF tax revenues annually (see **FISCAL MATTERS – Recent and Current Finances – Recent Biennia - 2012-13** below for discussion of changes to these allocations).
- Eliminating the \$300 per month cigarette and tobacco product importation exemption projected to produce approximately \$25.0 million annually.

The GRF appropriations Act also created the Buckeye Tobacco Settlement Financing Authority (BTSFA) to securitize tobacco settlement receipts payable to the State under the November 1998 national tobacco settlement. On October 29, 2007, the Authority issued \$5.53 billion of tobacco settlement asset-backed bonds to fund capital expenditures for higher education (\$938 million) and common school (\$4.112 billion) purposes over three years in lieu of the State issuing GRF-backed general obligation bonds to fund those capital expenditures. The resulting debt service savings to the GRF partially funded the expansion of the homestead exemption property tax relief program in the Act. The Act reprogrammed all prior General Assembly allocations of anticipated tobacco settlement receipts to enable the pledge of 100% of those receipts to the payment of debt service on the Authority's obligations. The State had previously enacted legislation allocating its anticipated share of those receipts through Fiscal Year 2012 and making a partial allocation thereafter through Fiscal Year 2025, with the largest allocations to elementary and secondary school capital expenditures, and with other amounts allocated for smoking cessation and health-related purposes, biomedical research and technology transfer, and assistance to the tobacco growing areas in the State.

Winter 2007. With the Ohio economy expected to be negatively affected by the national economic downturn, in January 2008 OBM reduced its original GRF revenue projections by \$172.6 million for Fiscal Year 2008 and \$385.1 million for Fiscal Year 2009. Based on those lower GRF revenue estimates and increased costs associated with rising Medicaid caseloads, OBM projected a budgetary shortfall for the 2008-09 biennium of \$733 million.

Executive and legislative actions taken in response to those OBM estimates, included:

- On January 31, 2008, the Governor issued an executive order directing expenditure reductions and spending controls totaling approximately \$509 million (of which about \$402 million was realized) for the 2008-09 biennium, as well as limitations on major purchases, hiring and travel, based primarily on the transfers of unspent agency appropriations and the June 2008 action described below. Allocation of those reductions was determined by the OBM Director in consultation with the affected agencies and departments, with annual expenditure reductions ranging up to 10%. An employee reduction plan was also announced aimed at reducing the State's workforce by up to 2,700 through selective elimination of positions, attrition, unfilled vacancies and an early retirement incentive program. Expressly excluded from the cutbacks were appropriations for or relating to debt service on State obligations, State higher education instructional support, foundation formula support for primary and secondary education, Medicaid entitlement programs, and ad valorem property tax relief payments.

- Transfer of unspent agency appropriations then expected to total \$120 million in Fiscal Year 2008 and \$78 million in Fiscal Year 2009.
- Authorizing expansion of the State-run lottery system to include "keno" games then projected to generate \$65 million in Fiscal Year 2009 of which approximately \$25 million was realized.

In June 2008, the General Assembly also passed legislation that provided for, among other things, transfers to the GRF (after a selective line-item veto) of up to \$63.3 million from the BSF for the State's share of increased Medicaid costs, \$55 million from rotary funds and \$25 million in uncommitted interest earnings from proceeds of BTSFA's Tobacco Settlement Asset-Backed Bonds issued in October 2007.

Fall/Winter 2008. With the Ohio economy continuing to be negatively affected by the national economic downturn, OBM on September 10, 2008 announced a \$540 million further reduction in its GRF revenue projections for Fiscal Year 2009 and a projected Fiscal Year budgetary shortfall of the same amount. Executive actions announced to offset the projected shortfall included:

- Use of additional planned Fiscal Year-end lapses and GRF carry forward totaling \$126.4 million.
- Use of balances in various non-GRF "rotary funds" totaling \$112 million.
- Transfer to the GRF of an additional \$40 million of interest earnings on the proceeds of the tobacco securitization referred to above.
- As authorized by June 2008 legislation referred to above, a transfer to the GRF of \$63.3 million to pay for previously authorized Medicaid expenditures.

The \$198.3 million remainder of the projected shortfall was offset by a 4.75% reduction in most agency appropriations, which did not apply to appropriations for debt service or tax relief, Medicaid and disability financial assistance, Department of Education aid to local school districts, the Departments of Rehabilitation and Corrections and Youth Services, and selected others.

On December 1, 2008, OBM announced a further \$640.4 million reduction in GRF revenue projections for Fiscal Year 2009 expected to result in a projected Fiscal Year shortfall of the same amount. Executive actions announced to offset much of that further projected shortfall included:

- Reducing total GRF Medicaid spending by \$311.1 million by using cash from non-GRF Medicaid accounts and the corresponding federal share previously planned for use in Fiscal Year 2010.
- Reducing total Medicaid program spending by \$21.3 million by enhanced focus on use of other third-party liability sources and other program savings exceeding original estimates.
- Reducing other GRF expenditures by \$180.5 million through a further 5.75% reduction in most agency appropriations, which did not apply to appropriations for debt service or tax relief, Medicaid and disability financial assistance, Department of Education aid to local school districts, or the Departments of Rehabilitation and Corrections and Youth Services, among others. These reductions were in addition to the approximately \$1.27 billion of 2008-09 biennium budget adjustments previously undertaken.

The \$131.9 million remainder of the shortfall was offset by additional Federal Medical Assistance Payments (FMAP) received under the American Recovery and Reinvestment Act of 2009 (ARRA), which increased federal Medicaid match to the GRF by that amount (after taking into account loss of federal match from the two Medicaid related actions outlined above). Based on these expenditure reductions, spending controls and other measures – and before the revised revenue estimates referred to below – OBM was then projecting a positive GRF fund balance at June 30, 2009.

Spring 2009. Based on the Administration's continuing monitoring of revenues, and as an anticipated step in the then ongoing 2010-11 biennial budget and appropriations process, OBM reported revised revenue estimates to the General Assembly on June 11, 2009. Those estimates revised Fiscal Year 2009 revenues downward by an additional \$912 million over OBM's December 2008 adjusted baseline, based primarily on updated income and sales tax receipts through May 31, 2009. To address this additional Fiscal Year 2009 revenue shortfall, the Governor received General Assembly approval for and used the entire remaining BSF balance of \$949 million for Fiscal Year 2009. Additional measures taken to address this shortfall included the restructuring of \$52.8 million of Fiscal Year 2009 general revenue fund debt service into Fiscal Years 2012 through 2021 and expenditure reductions of \$98 million in addition to the expenditure controls previously ordered by the Governor.

The State ended Fiscal Year 2009 with GRF cash and fund balances of \$734.5 million and \$389.1 million respectively, and a \$-0- balance in the BSF. Of the ending GRF fund balance, the State reserved \$133.4 million to maintain the statutory target of one-half of one percent of Fiscal Year 2009 GRF revenues as an ending fund balance.

2010-11

Rigorous consideration was given by the General Assembly to the Governor's Executive Budget proposed for the 2010-11 fiscal biennium in light of the difficult economic and fiscal conditions resulting from the national recession. The final GRF appropriations Act for the 2010-11 biennium, which was preceded by three seven-day interim appropriations acts, was passed by the General Assembly and signed (with selective vetoes) by the Governor on July 17, 2009. All necessary debt service and lease-rental payments related to State obligations for the entire 2010-11 biennium were fully appropriated for the three-week interim appropriations periods and under that final Act. Reflecting the final implementation of the restructuring of State taxes that commenced in 2006-07 and a conservative underlying economic forecast, that Act provided for total GRF biennial appropriations of approximately \$50.5 billion based on total GRF expected biennial revenue of approximately \$51.1 billion (a 4.2% decrease from 2008-09 fiscal biennium revenues). GRF appropriations for major program categories compared to 2008-09 actual GRF spending reflected increases of 3.4% for Medicaid (excluding ARRA funding referred to below) and 0.7% for corrections and youth services; and decreases of 13.8% for mental health and developmental disabilities, 8.3% for higher education, and 5.15% for elementary and secondary education. Among other expenditure controls, the Act included a number of Medicaid reform and cost containment initiatives and also reflected the restructuring of \$736 million of Fiscal Years 2010 and 2011 general revenue fund debt service into Fiscal Years 2012 through 2025.

Major new sources of revenues or savings reflected in the 2010-11 appropriations Act included:

- \$2.4 billion of "Federal Stimulus" funding received under the ARRA, including \$1.464 billion for elementary and secondary education, \$628 million for Federal Medical Assistance Payments (FMAP), and \$326 million for other purposes.
- \$933 million in gaming and license revenues from the Ohio Lottery Commission's implementation of video lottery terminals (VLTs) at the seven horse racing tracks in the State. OBM estimated the VLTs would result in an approximate \$851 million net increase in revenues for the biennium (\$285 million in Fiscal Year 2010 and \$566 million in Fiscal Year 2011) after taking into account offsetting effects of the VLTs on other lottery revenues. On September 21, 2009, the Ohio Supreme Court ruled that the statutory provisions in the biennial appropriations Act for the implementation of VLTs were subject to voter referendum. In October 2011 a complaint was filed in the Court of Common Pleas of Franklin County, Ohio challenging that 2009 law authorizing the VLTs, with those challenges being asserted under various provisions of the Ohio Constitution, and also under the Equal Protection Clause of the Fourteenth Amendment to the United States Constitution for granting a monopoly to only the gaming operators approved in that 2009 law. The trial court on May 30, 2012 granted defendants' motions to dismiss the case after finding that the plaintiffs did not have legal standing to bring these challenges, and the plaintiffs appealed this trial court ruling to the Tenth District Court of Appeals of Franklin County, Ohio. Since the trial court dismissed the case based on plaintiffs' lack of standing, it did not address or decide the merits of the plaintiffs' challenges. On March 14, 2013, the Court of Appeals upheld the trial court's dismissal of the case based on the plaintiffs' lack of standing, and on July 24, 2013, the Ohio Supreme Court announced that it was accepting plaintiffs' appeal of this case but holding it for review after it decided a separate case involving the question of an activist group's standing to bring challenges relating to JobsOhio (see **FISCAL MATTERS – Recent and Current Finances – Recent Biennia – 2012-13**). After the Supreme Court released its decision in that separate case involving JobsOhio on June 10, 2014, the defendants on July 2 filed a motion to dismiss the appeal pending before the Supreme Court in the VLT case as improvidently granted based on that June 10 decision. On September 3, 2014, the Supreme Court ruled on that motion to dismiss and ordered the parties to file merit briefs relating to the standing issues the Court accepted for appeal. Those briefs were filed, and oral argument was held by the Court on June 23, 2015. On March 24, 2016, the Court affirmed the dismissal for lack of legal standing of all but one of the plaintiff-appellants' claims. With respect to the claim that the 2009 law granted a monopoly in violation of the Equal Protection Clause of the Fourteenth Amendment to the United States Constitution, the Court found the plaintiff had legal

standing to bring this challenge, reversed the Tenth District's judgment affirming the dismissal of this claim, and remanded this claim to the Franklin County Court of Common Pleas for further proceedings. On September 27, 2016, the Court of Common Pleas ruled on motions for judgment on the pleadings filed by the parties addressing the remanded equal protection claim, upholding the constitutionality of the 2009 law authorizing the VLTs and dismissing that equal protection claim.

- \$259 million from the Ohio Tobacco Use Prevention and Control Foundation Endowment Fund (TUPAC) to be deposited into a special State fund (non-GRF) and then intended to be used for various health care initiatives. After a trial court in August 2009 ordered these monies must remain in that endowment fund and be used for the purpose of reducing tobacco use, the State immediately appealed and in December 2009 the court of appeals ruled in favor of the State and reversed the trial court's order. The Ohio Supreme Court in December 2010 affirmed the court of appeals decision in favor of the State.
- \$1.036 billion of "one-time" revenues or savings (\$640 million in Fiscal Year 2010 and \$396 million in Fiscal Year 2011), including \$364 million from the spend-down of carry-forward balances, \$250 million transferred from a cash account at the Ohio School Facilities Commission, \$272 million savings from subjecting State employees to a two-week unpaid "furlough" during each year of the biennium, \$84 million from a reduction in State funding to public libraries, and \$65 million from the transfer to the GRF of interest on the proceeds of the State's 2007 tobacco securitization.
- \$530 million from transfers to the GRF of unclaimed funds and from other non-GRF funds.

In September 2010 the State also received from the federal government an award of \$518.6 million of enhanced Federal Medical Assistance Payments funding ("eFMAP"), and \$361.2 million of federal funding was also received by Ohio school districts for teacher salaries and personnel costs for primary and secondary education ("Ed Jobs").

In response to the September 2009 decision of the Ohio Supreme Court declaring the VLT provisions in the biennial appropriations Act subject to referendum, the Governor proposed for General Assembly consideration postponing for two years the final installment of the personal income tax reduction then scheduled to take effect in tax year 2009 (for returns filed in 2010). After extended hearings and review, the General Assembly approved, and the Governor signed into law on December 22, 2009, legislation keeping personal income tax rates at 2008 levels through tax year 2010 (see **FISCAL MATTERS – Recent and Current Finances – Recent Biennia - 2012-13** for discussion of implementation of the final phase of that personal income tax reduction).

The State ended Fiscal Year 2011 with GRF cash and fund balances of \$844.5 million and \$430.7 million, respectively. Of that ending GRF fund balance, the State reserved \$138.8 million in the GRF to maintain the statutory target of one-half of one percent of Fiscal Year 2011 GRF revenues the State is required to maintain as an ending fund balance and transferred \$45.0 million into disaster services/emergency funds. The remaining \$246.9 million was deposited into the BSF. These ending balances reflect the use of approximately \$680 million in Fiscal Year 2011 GRF revenue to make payments for Medicaid managed care, the State's share of instruction for higher education, payroll and other commitments that were previously scheduled to be deferred into Fiscal Year 2012.

2012-13

2012-13 Biennial Budget and Appropriations. Consistent with State law, the Governor's Executive Budget for the 2012-13 biennium was released in March 2011 and introduced in the General Assembly. After extended hearings and review, the 2012-13 biennial appropriations Act was passed by the General Assembly and signed (with selective vetoes) by the Governor on June 30, 2011. To address the use of non-recurring funding sources in the prior 2010-11 fiscal biennium including federal stimulus amounts received under ARRA, the Act included targeted spending cuts across most State agencies and major new Medicaid reform and cost containment measures. Reflecting the tax law changes described below and a conservative underlying economic forecast, that Act provided for total GRF biennial appropriations of approximately \$55.8 billion. This reflected a 10.5% increase over the 2010-11 GRF biennial appropriations, based on total expected GRF biennial revenue of approximately \$56.07 billion (a 6% increase from 2010-11 GRF biennial revenues). GRF appropriations for major program categories compared to 2010-11 actual GRF biennial spending reflected increases of 30.2% for Medicaid (due in large part to the absence of ARRA funding in the 2012-13 biennium and the redirection of 2012-13 biennial spending from non-GRF to GRF sources); decreases of 3% for elementary and secondary

education, 9.1% for higher education, and 8.1% for mental health and developmental disabilities (due to the transfer of community mental health Medicaid services to the Department of Job and Family Services); and flat funding for corrections and youth services. That Act also reflected the restructuring of \$440 million of Fiscal Year 2012 general revenue fund debt service into Fiscal Years 2013 through 2025, approximately three-quarters of which was accomplished by the July 2011 issuance by the Ohio Public Facilities Commission of \$488.8 million in refunding bonds, with the remainder accomplished by the September 2011 issuance by the Ohio Building Authority of \$149.3 million in refunding bonds.

The Executive Budget, the GRF appropriations Act and the separate appropriations acts for the biennium included all necessary debt service and lease rental payments related to State obligations (after the restructuring of Fiscal Year 2012 GRF debt service payments).

Major new sources of revenues or expenditure savings reflected in the 2012-13 appropriations Act included:

- Transfer of the State's spirituous liquor system to JobsOhio. On February 1, 2013, the State granted a 25-year franchise on its spirituous liquor system to JobsOhio Beverage System, a nonprofit corporation the sole member of which is JobsOhio, itself a nonprofit corporation created to promote economic development, job creation and retention, job training and the recruitment of business to the State. In exchange for the franchise, the State received a payment of \$1.464 billion, \$500 million of which was deposited in the GRF, \$863.5 million was used to make provision for payment of all debt service on \$725.0 million of then outstanding State bonds and notes secured by a pledge of the State's profits from the sale of spirituous liquor, and \$100 million for funding certain revitalization projects. With that transfer, the State is forgoing deposits to the GRF from net liquor profits (those deposits totaled \$153.0 million in Fiscal Year 2011, \$92.5 million in Fiscal Year 2012 and \$167.0 million in Fiscal Year 2013 (\$88 million of which was generated through the February 1 granting of the franchise to JobsOhio Beverage System). Litigation commenced in April 2011 and August 2014 that challenged, under various provisions of the Ohio Constitution, certain aspects of both JobsOhio and the General Assembly's February 2011 law that authorized its creation and the 2012-13 appropriations Act that amended various statutes applying to JobsOhio. In August 2011, the Ohio Supreme Court dismissed the first case, and in June 2014, the Ohio Supreme Court affirmed prior judgments of the lower courts relating to the second case and concluded that the plaintiffs lacked standing to bring this suit. Plaintiffs in the second case subsequently filed additional actions and appeals with the Court of Appeals and the Ohio Supreme Court in an attempt to revive these challenges to JobsOhio and the laws authorizing its creation and the transfer of the State's spirituous liquor system. The Supreme Court ultimately denied plaintiffs' motion for reconsideration in November 2016.
- Sale of five State-owned prison facilities to private operators expected to result in a net payment to the GRF of \$75 million. (Based on the proposals it received for the five prisons, the State opted to sell only one of those facilities that accomplished most of the desired financial result for the 2012-13 biennium.) Litigation commenced in August 2011, and then again in July 2012, challenging the authorization in the 2012-13 appropriations Act to sell these prison facilities. Specifically, this litigation alleged that the provisions in that Act authorizing the sale of these prisons, as well as that entire Act, were enacted in violation of the "one subject rule" of the Ohio Constitution and violated the constitutional right to referendum, and that the sale of the prisons would create a joinder of private and public property interests violating the constitutional prohibition against the State entering into a joint venture. In February 2016, the Supreme Court upheld the prison sale provisions of the Act, finding their enactment did not violate the "one subject rule" of the Ohio Constitution or its prohibition against the State entering into a joint venture with private enterprise.
- Reduction of local government fund allocations by \$111 million in Fiscal Year 2012 and \$340 million in Fiscal Year 2013. Beginning in Fiscal Year 2014, allocations are made by committing to the local government fund a set percentage of annual tax revenues deposited into the GRF (beginning with Fiscal Year 2013 GRF tax revenues).
- Reduction of public library fund allocations to 95% of Fiscal Year 2011 levels resulting in expenditure reductions of \$52.3 million in Fiscal Year 2012 and \$102.8 million in Fiscal Year 2013. Beginning in Fiscal Year 2014, allocations to public libraries are made by committing to the public library fund a set percentage of annual tax revenues deposited into the GRF (beginning with Fiscal Year 2013 GRF tax revenues).

- Accelerated phase-out of reimbursement payments to local governments and school districts in connection with the elimination of the tangible personal property tax resulting in an increased share (estimated at \$293.5 million in Fiscal Year 2012 and \$597.7 million in Fiscal Year 2013) of the commercial activity tax being deposited into the GRF (see **TAX LEVELS AND TAX BASES – Property Tax**).
- Accelerated phase-out of reimbursement payments to local governments and school districts for electric power generation deregulation and natural gas deregulation resulting in a larger share (estimated at \$141.6 million in Fiscal Year 2012 and \$147.4 million in Fiscal Year 2013) of the kilowatt-hour tax and the entire (approximately \$66.0 million in Fiscal Year 2012 and \$66.0 million in Fiscal Year 2013) natural gas consumption tax being reallocated to the GRF.
- \$235 million from transfers to the GRF of unclaimed funds and from other non-GRF funds, and \$12 million from a tax amnesty program.

The 2012-13 appropriations Act also reflected the following tax law changes:

- Implementation of the previously postponed final 4.2% annual decrease in State personal income tax rates (see **FISCAL MATTERS – Recent and Current Finances – Recent Biennia – 2010-11**).
- Elimination of the estate tax beginning January 1, 2013, previously levied at a rate of 6% on estates over \$338,333 and 7% on estates over \$500,000. In Fiscal Year 2010, estate tax collections totaled \$285.8 million of which \$230.8 million was distributed to the local government jurisdictions from which it was collected and with \$55.0 million retained by the State and deposited into the GRF.
- Establishment of the InvestOhio income tax credit program under which investors in small businesses based in Ohio who hold their investments for at least two years may receive 10% income tax credits limited to a maximum of \$10 million per investor per biennium with no more than \$100 million of those credits to be issued over two years.

The 2012-13 biennial appropriations Act created a Medicaid reserve fund and authorized the OBM Director to transfer up to \$130 million from the GRF, if necessary, to provide for the payment of Medicaid costs above the enacted level of appropriations. That Act also created a \$104 million Unemployment Compensation Contingency Fund to pay interest on federal advances to the State Unemployment Compensation Fund, \$70.7 million of which was used to make the interest payment due in September 2011, with the remaining amount applied to the September 2012 interest payment of \$65.8 million. The September 2012 interest payment was also funded by a \$25 million GRF supplemental appropriation and a contribution from the State's Unemployment Compensation Administration Fund.

2012 Mid-Biennium Review. On March 14, 2012, the Governor announced a series of policy proposals resulting from a "mid-biennium review" (2012 MBR), with a stated focus on job creation as a priority. The Governor's 2012 MBR included proposals for General Assembly consideration in the areas of: *energy* (including shale oil and gas production opportunities in the Marcellus and Utica fields in the State, and modernizing the State's oil and gas severance tax; electric generation and transmission; coal; cogeneration, alternative fuels and renewables; energy efficiency; and regulatory reform); *personal income tax reduction* (proposing that any new revenue from shale oil and gas production and the MBR proposal to modernize the State's oil and gas severance tax system be used to reduce personal income tax rates by a commensurate amount); *bank and financial institutions tax reform* (including a modernization, intended to be revenue-neutral, of Ohio's taxes on banks and financial institutions replacing the corporate franchise and dealers in intangibles tax with a new financial institutions tax more accurately reflecting modern banking practices, closing loopholes and reducing the overall tax burden on most banks); *education* (including proposals for strengthening Ohio's "third grade reading guarantee", career education, a new school performance measuring system, expansion of digital and online learning, flexibility for teacher evaluations, new standards for dropout recovery schools, assessments of all publicly funded early childhood programs, and supporting adoption of a school reform plan for the City of Cleveland schools); *workforce development* (creating job opportunities for the developmentally disabled; an improved workforce development program; allowing those undergoing training with an employer to continue collecting unemployment benefits; linking energy companies with trained workers; and matching skilled veterans to in demand jobs); and achieving more *management efficiency* with associated State and local government budgetary savings (including combining the separate Offices of the State Architect and Engineer and the Office of Energy Services into an Ohio Facilities Construction Commission (OFCC) to administer the

design and construction of state public facilities, with the Ohio School Facilities Commission retained as an independent agency within the OFCC but sharing employees and facilities). Those 2012 MBR proposals were considered by the General Assembly commencing in March in twelve separate pieces of legislation, and the General Assembly in May and June passed seven pieces of legislation addressing the subjects of energy (not including the 2012 MBR proposed changes to the State's oil and gas severance tax), tax reform (not including the 2012 MBR personal income tax reduction proposal), education, workforce development, and management efficiency for both state and local governments.

As further implementation of the 2012 MBR, the General Assembly enacted and the Governor signed into law on December 20, 2012, a new financial institutions tax that first applied to tax year 2014. This new tax applies to many companies that were previously subject to Ohio's corporate franchise tax (primarily banks and other corporations classified as financial institutions) and also generally subjects "dealers in intangibles" (e.g., mortgage brokers, stockbrokers, finance and loan companies not classified as financial institutions) to the commercial activity tax. This new financial institutions tax replaced the prior corporate franchise tax on financial institutions and the prior dealers in intangibles tax. The proceeds from the new financial institutions tax are deposited in the GRF like the proceeds from the taxes it replaced. Based on revenue targets and mechanisms established in the legislation, OBM projected the effect of these tax changes to be revenue neutral to the GRF.

Fiscal Year 2013 Results. The State ended Fiscal Year 2013 with GRF cash and fund balances of \$2.64 billion and \$2.28 billion, respectively. These ending balances reflect approximately \$1.15 billion in Fiscal Year 2013 underspending due largely to actual Medicaid expenditures \$883.0 million below the original Fiscal Year 2013 spending estimate. Of that ending GRF fund balance, the State deposited \$995.9 million into the Budget Stabilization Fund (BSF) increasing its balance to \$1.48 billion which was the then statutorily designated five percent of Fiscal Year 2013 GRF revenues; carried-forward \$963.2 million to offset the one-time cost of accelerating the phase-in of reductions in State personal income tax withholding rates (see **FISCAL MATTERS – Recent and Current Finances - Current Biennium**), and transferred \$120 million into the Unemployment Compensation Contingency Fund to pay interest on federal advances to the State Unemployment Compensation Fund and \$51.3 million into disaster services/emergency funds. The remaining \$147.8 million was reserved in the GRF to maintain the statutory target of one-half of one percent of Fiscal Year 2013 GRF revenues as an ending fund balance.

2014-15

2014-15 Biennial Budget and Appropriations. Consistent with State law, the Governor's Executive Budget for the 2014-15 biennium was released in February 2013 and introduced in the General Assembly. After extended hearings and review, the 2014-15 biennial appropriations Act was passed by the General Assembly and signed (with selective vetoes) by the Governor on June 30, 2013. With a stated focus on job creation and continued spending restraint, and based on a conservative economic forecast, that Act provided for total GRF biennial appropriations of approximately \$62.0 billion. This reflected an 11.1% increase over 2012-13 GRF biennial appropriations, and was based on expected total GRF biennial revenue (not including the \$963.2 million carried-forward from the 2012-13 biennium) of approximately \$61.1 billion (a 7.7% increase from 2012-13 GRF biennial revenues).

GRF major program categories reflected the following changes in spending: for Medicaid, increases of 16.8% in Fiscal Year 2014 appropriations over Fiscal Year 2013 expenditures (attributable in part to federal Affordable Care Act induced enrollment of previously eligible individuals and federally mandated physician rate increases) and 6.2% for Fiscal Year 2015 appropriations over Fiscal Year 2014 appropriations; for elementary and secondary education, increases of 5.0% for Fiscal Year 2014 appropriations over Fiscal Year 2013 expenditures and 5.8% for Fiscal Year 2015 appropriations over Fiscal Year 2014 appropriations (due largely to enhancements in the K-12 school funding formula); for higher education, increases of 14.0% for Fiscal Year 2014 appropriations over Fiscal Year 2013 expenditures and 2.1% for Fiscal Year 2015 appropriations over Fiscal Year 2014 appropriations; for corrections and youth services, increases of 0.1% for Fiscal Year 2014 appropriations over Fiscal Year 2013 expenditures and 0.2% for Fiscal Year 2015 appropriations over Fiscal Year 2014 appropriations; and for mental health and developmental disabilities, a decrease of 3.3% for Fiscal Year 2014 appropriations over Fiscal Year 2013 expenditures and an increase of 13.0% for Fiscal Year 2015 appropriations over Fiscal Year 2014 appropriations.

The Act also implemented a new school funding formula (see **SCHOOLS AND MUNICIPALITIES – Schools**), allocated a portion of State public higher education funding to institutions based on their graduation rates, and eliminated the Ohio Cultural Facilities Commission by moving the administration of cultural facilities projects to the Ohio Facilities Construction Commission to achieve efficiencies and budgetary savings.

The Executive Budget, the 2014-15 appropriations Act and separate appropriations acts for the biennium included all necessary debt service and lease rental payments related to State debt obligations.

The 2014-15 biennial appropriations Act reflected the following reductions and related adjustments of major State taxes (primarily the personal income and sales and use taxes), resulting in an estimated net reduction in GRF revenues of \$1.16 billion in Fiscal Year 2014 and \$771 million in Fiscal Year 2015, including:

- A 10% reduction in State personal income tax rates phased-in over three years (8.5% in calendar year 2013, 0.5% in calendar year 2014, and 1.0% in calendar year 2015), coupled with a freeze on the indexing of the State income tax brackets and the personal exemption for tax years 2013 through 2015 until these rate reductions are fully implemented.
- Creation of a non-refundable earned income tax credit equal to 5% of the federal earned income credit that is limited to 50% of liability for gross income that exceeds \$20,000.
- A new deduction for small businesses of 50% of annual adjusted business net income up to \$250,000.
- Elimination of the \$20 personal income tax exemption for filers with a gross income greater than \$30,000 and of the gambling loss deduction.
- An increase in the State sales and use tax by one-quarter percent (from 5.5% to 5.75%) beginning September 1, 2013.
- Authorization of full membership for the State in the streamlined sales tax project for the collection of State sales taxes on out-of-state companies for catalog and internet purchases.
- Expansion of the State sales tax base to include digital goods such as e-books, music and video downloads and repeal of the exemption for magazine purchases.
- Elimination of the corporate franchise tax (and dealers in intangibles tax) and the initial implementation and collection of the new financial institutions tax in tax year 2014.
- Elimination of the 12.5% property tax roll back for owner-occupied residential property for new voter-approved local property tax levies.
- Reinstating income requirements for eligibility for new applicants for the State's homestead tax exemption (this exemption was expanded in 2007 to include all senior citizens and disabled Ohioans regardless of income).
- Establishing a variable minimum for the commercial activity tax for businesses with gross receipts greater than \$1 million and an exemption from the CAT for grain handlers.

Medicaid Expansion. Subsequent to the passage of the GRF appropriations Act, the seven member State Controlling Board on October 21, 2013 voted 5 to 2 to increase federal Medicaid appropriations by approximately \$562 million in Fiscal Year 2014 and approximately \$2.0 billion in Fiscal Year 2015. These additional federal appropriations were to support the federally-authorized expansion of the Medicaid program to cover those with incomes up to 138% of the federal poverty level using 100% federal funds in fiscal years 2014 and 2015. On October 22, 2013, six State Representatives and two local right to life organizations filed an action in the Ohio Supreme Court against the Controlling Board and the Ohio Department of Medicaid requesting that Court vacate the Controlling Board's October 21 action. The Controlling Board and State Department of Medicaid filed their initial answer to the complaint on November 5 and, after all evidence and briefs of the parties were submitted on the expedited schedule set for this case, the Court on December 20, 2013 issued its decision upholding the Controlling Board's action.

2014 Mid-Biennium Review. On March 12, 2014, the Governor announced a series of initiatives across a range of topics resulting from a "mid-biennium review" for 2014-15 (2014 MBR). The Governor's 2014 MBR included a range of proposals in the areas of: *elementary and secondary education* (including proposals for dropout prevention and recovery and making technical and vocational education accessible by more students as early as the seventh grade); *higher education* (including proposals for reforming Ohio's dual credit programming to encourage more students to earn college credit while in high school; extending to two-year community colleges a funding formula tied to successful student outcomes; tying state funding for technical centers to the

percentage of their students that find a job and other outcome-based benchmarks; increased use of technology and distance learning; increasing enrollment of international students and their retention in Ohio post-graduation; providing community colleges the option to offer a guaranteed tuition rate; and providing veterans college credit for their military training and experience); *income tax reductions and other tax adjustments* (including proposals to lower income tax rates across all income levels by 8.5% over the next three years; increasing the state's earned income tax credit for low-income Ohioans from 5% to 15% of the federal earned income tax credit; increasing the state income tax personal exemptions for those with annual incomes up to \$80,000; raising the tax on cigarettes by 60 cents to \$1.85 per pack with equivalent taxes on other tobacco products including e-cigarettes; increasing the oil and gas severance tax to 2.75% of producer gross receipts while eliminating that tax for small conventional gas producers and exempting from that tax up to \$8 million of gross receipts per well during the first three years to help producers recoup their start-up drilling costs, with approximately 20% of severance tax revenue directed to local governments in shale oil and gas producing regions of the state; and updating the commercial activity tax rate from its initial 0.26% rate established in 2005 to 0.30%); *workforce* (aligning the three main federal workforce programs through a single, integrated plan to provide faster and improved training; and expediting professional licensing and certification for veterans and their spouses); and *human services* (including increased access to crisis intervention and safe places for those with mental illness and addictions; allocating \$26.9 million of non-GRF funds to support tobacco prevention and cessation programs; and expanding drug and substance abuse prevention in schools and prioritizing statewide funding for prevention initiatives). The 2014 MBR also proposed increasing appropriations to the Department of Rehabilitation and Correction by \$53.5 million to address a rise in the prison population, and reducing local property tax reimbursement and debt service appropriations for the biennium by \$35 million and \$92 million, respectively, due to lower than expected payments, while continuing all necessary appropriations for debt service and lease rental payments for State obligations.

Those 2014 MBR proposals were introduced in the General Assembly in March as fourteen separate pieces of legislation, seven of which were enacted by the General Assembly in May and June addressing the subjects of elementary and secondary education (including \$5 million for alternative education programs), higher education (including \$3.1 million for the State share of instruction), workforce and human services (including \$16 million for early education and child care, \$16.8 million for adult and child protection services, and \$3.2 million for Family and Children Services). As further implementation of the biennial appropriations Act and due to positive Fiscal Year 2014 financial results, the 2014 MBR legislation passed by the General Assembly also included the following additional reductions and adjustments to the State personal income tax resulting in an estimated net reduction in GRF revenues of \$402 million in Fiscal Year 2015:

- Acceleration into calendar year 2014 of the remaining 1% reduction in State personal income tax rates previously scheduled to be effective in calendar year 2015.
- An increase in the non-refundable earned income tax credit from 5% to 10% of the federal earned income credit that is limited to 50% of liability for gross income that exceeds \$20,000.
- A temporary increase in the deduction for small businesses from 50% up to 75% of annual business net income up to \$250,000 for tax year 2014.
- An increase in the State income tax personal exemption from \$1,700 to \$2,200 for gross income less than \$40,000, and from \$1,700 to \$1,950 for gross income between \$40,000 and \$80,000.

The 2014 MBR legislation passed by the General Assembly also authorized the OBM Director to transfer to a Medicaid reserve fund up to \$300 million from the GRF, if necessary, to provide for the payment of Medicaid costs above the enacted level of appropriations. The full amount of this transfer was made at the end of Fiscal Year 2014 (see next paragraph for further transfers out of the Medicaid reserve fund at the end of Fiscal Year 2015).

Fiscal Year 2015 Financial Results. The State ended Fiscal Year 2015 with GRF cash and fund balances of \$1.71 billion and \$1.29 billion, respectively. Of that ending GRF fund balance, the State reserved \$157.4 million to maintain the statutory target of one-half of one percent of State Fiscal Year 2015 GRF revenues as an ending fund balance, carried-forward \$393.0 million to cover the planned for and modest variance of Fiscal Year 2016 GRF appropriations over estimated revenue, transferred \$425.5 million to the BSF, \$50 million to the health and human services fund (see **2016-17** below for discussion on the creation of this fund), \$42 million to the Straight A fund, \$40 million to pay unemployment compensation loan interest and \$20 million for disaster services. The State also made 14 other smaller transfers totaling \$149.3 million with the remaining \$9.1 million transferred to

the income tax reduction fund. Of the \$331.1 million Fiscal Year 2015 ending balance in the Medicaid reserve fund, the State transferred \$72.0 million to a school district tangible personal property tax supplement fund, \$101.1 million to the BSF (bringing its balance to \$2.005 billion), and \$158.0 million to the GRF.

2016-17

Consistent with State law, the Governor's Executive Budget for the 2016-17 biennium was released on February 2, 2015 and introduced in the General Assembly. After extended hearings and review, the 2016-17 biennial appropriations Act was passed by the General Assembly and signed (with selective vetoes) by the Governor on June 30, 2015. Reflecting a stated continuing focus on job creation, and based on a conservative economic forecast, that Act provided for total GRF biennial appropriations of approximately \$71.2 billion reflecting a 14.9% increase over the 2014-15 GRF biennial appropriations. Those appropriations were based upon then estimated total expected GRF revenue of \$34.9 billion in Fiscal Year 2016, which excluded the \$393.0 million carried-forward from Fiscal Year 2015 (reflecting a 10.8% increase over Fiscal Year 2015 revenue), and \$36.5 billion in Fiscal Year 2017 (reflecting a 4.6% increase over expected Fiscal Year 2016 revenues) (see discussion below of Fiscal Year 2017 GRF revenue revisions in July 2016 and January 2017). Total estimated GRF revenues across the 2016-17 biennium reflected a 17.5% increase from 2014-15 GRF biennial revenues.

GRF major program categories (excluding debt service) reflected the following increases: for Medicaid, 21.8% in Fiscal Year 2016 appropriations over Fiscal Year 2015 expenditures (driven in large part to the shift in funding to the GRF from non-GRF sources beginning in Fiscal Year 2016 for the Medicaid expansion population), and 5.1% for Fiscal Year 2017 appropriations over Fiscal Year 2016 appropriations; for elementary and secondary education, 5.0% for Fiscal Year 2016 appropriations over Fiscal Year 2015 expenditures, and 4.2% for Fiscal Year 2017 appropriations over Fiscal Year 2016 appropriations; for higher education, 4.5% for Fiscal Year 2016 appropriations over Fiscal Year 2015 expenditures, and 3.3% for Fiscal Year 2017 appropriations over Fiscal Year 2016 appropriations; for mental health and developmental disabilities, 9.1% for Fiscal Year 2016 appropriations over Fiscal Year 2015 expenditures, and 7.3% for Fiscal Year 2017 appropriations over Fiscal Year 2016 appropriations; for corrections and youth services, 4.8% for Fiscal Year 2016 appropriations over Fiscal Year 2015 expenditures, and 3.0% for Fiscal Year 2017 appropriations over Fiscal Year 2016 appropriations. The Act also modified the school funding formula to distribute new resources to districts with less capacity to raise revenues locally (see **SCHOOLS AND MUNICIPALITIES – Schools**) and froze tuition and fees for two- and four year higher education institutions.

The Executive Budget, the 2016-17 biennial appropriations Act and separate appropriations acts for the biennium included all necessary debt service and lease rental payment appropriation authority related to State debt obligations.

The 2016-17 biennial appropriations Act reflected the following tax reductions and related adjustments, resulting in an estimated net reduction in GRF revenues relative to prior law of \$869.0 million in Fiscal Year 2016 and \$952.0 million in Fiscal Year 2017, including:

- An across-the-board 6.3% reduction in State personal income tax rates in calendar year 2015.
- Continuation of the 75% exemption on the first \$250,000 of business net income for small businesses in tax year 2015 (previously increased on a temporary basis for tax year 2014 (see **FISCAL MATTERS – Recent and Current Finances – Recent Biennia - 2014-15**)) and completely exempting the first \$250,000 of business net income in tax year 2016 and beyond.
- Beginning in tax year 2015, replaced the multi-bracket tax system for small businesses with a low flat rate of 3% on the amount of business net income. Legislation subsequently passed by the General Assembly clarifying this provision was estimated by OBM to reduce GRF revenues in Fiscal Year 2016 by up to \$81 million.
- Beginning in tax year 2015, limited certain retirement income credits to taxpayers whose individual or joint adjusted gross income is less than \$100,000 (this exemption was previously available to all taxpayers aged 65 years and older).
- Increased the cigarette tax from \$1.25 per pack (of 20 cigarettes) to \$1.60 pack, effective July 1, 2015.

The 2016-17 biennial appropriations Act also reflected:

- The resumption of the phase-out of reimbursements to local governments and school districts in connection with the elimination of the tangible personal property tax, resulting in an increased share (estimated at \$428.7 million in Fiscal Year 2016 and \$445.3 million in Fiscal Year 2017) of the commercial activity tax being deposited into the GRF (see **TAX LEVELS AND TAX BASES – Property Tax**).
- The continuing phase-out of reimbursements to local governments and school districts for electric power generation deregulation and natural gas deregulation resulting in an increased share (estimated at \$56.3 million in Fiscal Year 2016 and \$56.0 million in Fiscal Year 2017) of the kilowatt-hour tax being reallocated to the GRF.

The 2016-17 biennial appropriations Act also created a health and human services fund to pay for public health programs or services and authorized the OBM Director to transfer from the GRF \$150 million in Fiscal Year 2017 into the fund, which amount is in addition to the \$50 million transferred from the GRF at the end of Fiscal Year 2015 into the fund.

As is customary at the beginning of the second year of a fiscal biennium, OBM in July 2016 revised its Fiscal Year 2017 GRF revenue forecast to reflect updated economic assumptions, actual Fiscal Year 2016 revenue performance, and tax law adjustments enacted by General Assembly after adoption of the 2016-17 biennial appropriations Act. As part of this revision, OBM reduced its estimated Fiscal Year 2017 GRF tax revenue forecast by \$282.0 million, a 1.2% reduction compared to the original Fiscal Year 2017 tax revenue forecast. This reduction in forecasted tax revenues was largely within the personal income and commercial activity taxes. As part of the Governor's Executive Budget proposal for the 2018-19 fiscal biennium (see **Current Biennium** below), and based on tax revenue underperformance, in January 2017 OBM further reduced its estimated Fiscal Year 2017 GRF tax revenue forecast by \$592.2 million, a 2.7% reduction compared to the July 2016 revision. The largest variances (compared to the July 2016 revision) were in the personal income tax (reduced by \$333.9 million or 4.0%), the sales and use tax (reduced by \$259.3 million or 2.4%), and the commercial activity tax (reduced by \$32.0 million or 2.5%).

Fiscal Year 2017 Financial Results. The State ended Fiscal Year 2017 with a GRF cash balance of \$557.1 million and an ending fund balance of \$170.9 million that was reserved to maintain the statutory target of one-half of one percent of State Fiscal Year 2017 GRF revenues as an ending fund balance.

Current Biennium

Consistent with State law, the Governor's Executive Budget for the 2018-19 fiscal biennium was released on January 30, 2017, and introduced in the General Assembly. After extended hearings and review, the 2018-19 biennial appropriations Act was passed by the General Assembly and signed by the Governor (with selective vetoes) on June 30, 2017. To date, the General Assembly has overridden six gubernatorial vetoes including vetoes of provisions relating to the legislative approval of new Medicaid optional eligibility groups, Medicaid rates for neonatal and newborn services, Medicaid rates for skilled nursing facilities, the delay by six months of the State's behavioral health Medicaid redesign, a limitation on the amount of additional appropriations that may be approved by the Controlling Board, and authorization by the Controlling Board of certain Medicaid appropriations in the 2018-19 fiscal biennium. None of the veto overrides has a material impact on the GRF in the 2018-19 fiscal biennium. The General Assembly may consider additional veto overrides.

To address lower GRF revenue estimates for the 2018-19 fiscal biennium, the Act included both across-the-board and targeted spending cuts across most State agencies and programs. Reflecting a stated continuing focus on job creation, and based on a conservative economic forecast, that Act provides for the following GRF appropriations:

GRF Appropriations 2018-19 Biennium (\$ in billions)

Fiscal Year 2017 Expenditures	Fiscal Year 2018 Appropriations	% Change Over Fiscal Year 2017 Expenditures	Fiscal Year 2019 Appropriations	% Change Over Fiscal Year 2018 Appropriations	2018-19 Biennium Total	% Change Over 2016-17 Biennial Appropriations
\$34.5	\$32.2	-6.7%	\$33.3	3.5%	\$65.5	-8.1%

GRF major program categories (excluding debt service) reflect the following appropriation changes:

- Medicaid - Fiscal Year 2018 appropriations decrease 15.0% over Fiscal Year 2017 expenditures (as discussed below, driven largely by the replacement of the Medicaid managed care organization sales tax, the receipts of which were being deposited into the GRF, by a new health insuring corporation provider assessment, the receipts of which are being deposited into a dedicated non-GRF fund), and Fiscal Year 2019 appropriations increase 5.7% over Fiscal Year 2018 appropriations.
- Elementary and secondary education - Fiscal Year 2018 appropriations increase 1.5% over Fiscal Year 2017 expenditures, and Fiscal Year 2019 appropriations increase 1.6% over Fiscal Year 2018 appropriations.
- Higher education – Fiscal Year 2018 appropriations increase 0.8% over Fiscal Year 2017 expenditures, and Fiscal Year 2019 appropriations increase 1.4% over Fiscal Year 2018 appropriations.
- Mental health and developmental disabilities – Fiscal Year 2018 appropriations decrease 0.9% over Fiscal Year 2017 expenditures (driven by the shift in funding of certain Medicaid expenditures to the Medicaid program category), and Fiscal Year 2019 appropriations increase 2.1% over Fiscal Year 2018 appropriations.
- Corrections and youth services – Fiscal Year 2018 appropriations increase 4.2% increase over Fiscal Year 2017 expenditures, and Fiscal Year 2019 appropriations increase 1.6% over Fiscal Year 2018 appropriations.

The Act also modifies the certain components of the school funding formula to better distribute resources to districts with less capacity to raise revenues locally (see **SCHOOLS AND MUNICIPALITIES – Schools**) and limits increases in tuition and fees for two- and four year higher education institutions.

The Executive Budget, the 2018-19 biennial appropriations Act and separate appropriations acts for the biennium include all necessary debt service and lease rental payment appropriation authority related to State debt obligations.

The foregoing appropriations are based upon estimated total expected GRF revenue as follows:

Estimated GRF Revenue 2018-19 Biennium (\$ in billions)

Fiscal Year 2017 Actual Revenue	Fiscal Year 2018 Est. Revenue	% Change Over Fiscal Year 2017 Actual Revenue	Fiscal Year 2019 Est. Revenue	% Change Over Fiscal Year 2018 Est. Revenue	2018-19 Biennium Total	% Change Over 2016-17 Biennium Actual Revenue
\$34.2	\$32.3	-5.5%	\$33.3	3.2%	\$65.6	-3.7%

Potentially non-recurring sources of revenues reflected in the 2018-19 biennial appropriations Act include \$84.5 million in transfers to the GRF from non-GRF funds, \$200 million from unclaimed funds, \$31 million from the sale of prison farmland, and \$20 million from a tax amnesty program.

The 2018-19 biennial appropriations Act reflects certain tax law changes, resulting in an estimated net GRF revenue increase of \$12.8 million in Fiscal Year 2018 and an estimated net GRF revenue decrease of \$30.8 million in Fiscal Year 2019, including, among others:

- Reduces the number of personal income tax brackets from nine to seven in tax year 2017 and for certain low income taxpayers completely exempts the first \$10,500 of taxable income, with the new brackets ranging from \$77.96 plus 1.98% on taxable incomes more than \$10,500 but less than \$15,800, with increasing bracketed base rates and percentages up to a maximum on incomes over \$210,600 of \$8,072.59 plus 4.997% on the amount over \$210,600. (See **TAX LEVELS AND TAX BASES – Personal Income Tax.**)
- Increases on a temporary basis the percent of GRF tax revenues deposited into the public library fund to 1.68% from 1.66% in each of Fiscal Years 2018 and 2019.
- Increases the State personal income tax deduction from \$2,000 to \$4,000 for contributions to accounts for college savings and care for disabled individuals.
- Authorizes a one-time sales tax holiday on the purchase of clothing and school supplies in August 2018 (separate legislation enacted by the General Assembly authorized a sales tax holiday in August 2017).

The 2018-19 biennial appropriations Act also reflects:

- The creation of a new health insuring corporation provider assessment, the revenues of which are deposited into a non-GRF dedicated purpose fund, to fully replace the forgone GRF sales tax revenue resulting from the federal policy ruling by the Centers for Medicare and Medicaid Services (CMS) that Ohio's sales tax on Medicaid managed care organizations was impermissible as a means of generating revenues to draw federal matching dollars. The GRF revenue loss is estimated to be approximately \$600 million in each of Fiscal Years 2018 and 2019.
- Increases the portion of the commercial activity tax deposited into the GRF (estimated at \$175 million in Fiscal Year 2018 and \$179 million in Fiscal Year 2019) from 75% to 85% to more closely match the amounts needed to make compensating payments to school districts and local governments in connection with the phase-out of the tangible personal property tax. The requirement to transfer funds in excess of the compensating payments formula to the GRF at the end of each Fiscal Year remains unchanged. (See **TAX LEVELS AND TAX BASES – Property Tax.**)

OBM is currently projecting a positive GRF fund balance at the end of Fiscal Year 2018. As discussed above, the State is effectively precluded by its Constitution from ending a Fiscal Year or a biennium in a "deficit" position. OBM continually monitors and analyzes revenues and expenditures and related developments (including pending litigation) and prepares at the end of each month a financial report, the most recent of which is accessible via OBM's home page at <http://obm.ohio.gov> with copies also available upon request to OBM.

Cash Flow

Because GRF cash receipts and disbursements do not precisely coincide, temporary GRF cash flow deficiencies often occur in some months, particularly the middle months, of a Fiscal Year. Statutory provisions provide for effective management of cash flow by permitting the adjustment of payment schedules (as was done during some prior Fiscal Years) and the use of the Total Operating Fund (TOF). The State has not done and does not do external revenue anticipation borrowing.

The TOF includes the total consolidated cash balances, revenues, disbursements and transfers of the GRF and several other specified funds (including the BSF). The TOF cash balances are consolidated only for the purpose of meeting cash flow requirements, and, except for the GRF, a positive cash balance must be maintained for each discrete fund included in the TOF. The GRF is permitted to incur a temporary cash deficiency by drawing upon the available consolidated cash balance in the TOF. The amount of that permitted GRF cash deficiency at any time is limited by statute to 10% of GRF revenues for the then preceding Fiscal Year.

The State plans for and manages monthly GRF cash flow deficiencies within each Fiscal Year. GRF cash flow deficiencies have been within the TOF limitations discussed above.

STATE DEBT

General

The incurrence or assumption of debt by the State without a popular vote is, with limited exceptions, prohibited by the State Constitution. The State is authorized to incur debt limited in amount to \$750,000 to cover casual deficits or to address failures in revenues or to meet expenses not otherwise provided for. The Constitution expressly precludes the State from assuming the debts of any county, city, town or township, or of any corporation. (An exception in both cases is for debts incurred to repel invasion, suppress insurrection, or defend the State in war.) The Constitution provides that "Except the debts above specified . . . no debt whatever shall hereafter be created by, or on behalf of the state."

By 20 constitutional amendments approved from 1921 to present, Ohio voters have authorized the incurrence of State general obligation debt and the pledge of taxes or excises to its payment, all related to the financing of capital facilities, except for three that funded bonuses for veterans, one to fund coal technology research and development, and one to fund specified research and development activities. Currently, tax supported general obligation debt of the State is authorized to be incurred for the following purposes: highways, local infrastructure, coal development, natural resources and parks, higher education, common schools, conservation, research and development, site development, and veterans compensation. Although supported by the general obligation pledge, highway debt is also backed by a pledge of and has always been paid from the

State's motor fuel taxes and other highway user receipts that are constitutionally restricted in use to highway related purposes.

State special obligation debt, the owners or holders of which are not given the right to have excises or taxes levied by the General Assembly to pay principal and interest, is authorized for purposes specified by Section 2i of Article VIII of the Constitution. The Treasurer of State currently issues the special obligations authorized under that Section 2i for parks and recreation and mental health facilities, and for facilities to house branches and agencies of State government and their functions, including: State office buildings and facilities for the Department of Administrative Services (DAS) and others, the Department of Transportation (ODOT), correctional and juvenile detention facilities for the Departments of Rehabilitation and Correction (DRC) and Youth Services (DYS), various cultural facilities, and formerly for the Department of Public Safety (DPS). Debt service on all these special obligations is paid from GRF appropriations, with the exception of debt issued for ODOT and DPS facilities which is paid from highway user receipts. All of those debt service payments are subject to biennial appropriations by the General Assembly pursuant to leases or other agreements entered into by the State.

Certificates of Participation (COPs). State agencies also have participated in buildings and equipment, information systems and non-highway transportation projects that have local as well as State use and benefit, in connection with which the State has entered into lease-purchase agreements with terms ranging from 7 to 20 years. Certificates of Participation (COPs) have been issued in connection with those agreements that represent fractionalized interests in and are payable from the State's anticipated lease payments. The maximum annual payment from GRF appropriations under those existing agreements is \$45.4 million in Fiscal Year 2019 and the total GRF-supported principal amount outstanding is \$217.1 million. Payments by the State are subject to biennial appropriations by the General Assembly with the lease terms subject to automatic renewal for each biennium for which those appropriations are made. The approval of the OBM Director and either the General Assembly or the State Controlling Board is required if COPs are to be publicly offered in connection with those agreements.

Revenue Bonds. Certain State agencies issue revenue bonds that are payable from revenues from or relating to revenue producing facilities, such as those issued by the Ohio Turnpike and Infrastructure Commission. As confirmed by judicial interpretation, such revenue bonds do not constitute "debt" under the constitutional provisions described above. The Constitution authorizes State bonds for certain economic development and housing purposes (the latter issued by the Ohio Housing Finance Agency) to which tax moneys may not be obligated or pledged. See the discussion of expanded housing finance authority, and permitted pledges to it, below under **Additional Authorizations**.

Tax Credits in Support of Other Long Term Obligations. The State has authorized the issuance of fully refundable tax credits in support of "credit-collateralized bonds" issued from time to time by the Columbus-Franklin County Finance Authority to provide funding for the Ohio Capital Fund (OCF) to promote venture capital investment in Ohio and any additional bonds that may be issued to refinance those outstanding bonds or provide additional funding for that purpose. Those tax credits may be claimed by the bond trustee for the purpose of restoring the bond reserve fund for those credit-collateralized bonds in the event it is drawn upon and its required balance is not restored from other sources. Those credits may not be claimed after June 30, 2036, and the maximum amount of tax credits that may be claimed is \$20 million in any fiscal year and \$380 million in total. The bond trustee has made claims for tax credits totaling \$7.47 million in Fiscal Year 2017 and \$7.43 million in Fiscal Year 2018. The highest annual payment for outstanding credit-collateralized bonds is \$19.6 million in Fiscal Year 2022 and the total principal amount outstanding for those bonds is \$164.0 million. Proceeds of the OCF bonds fund investments in venture capital funds to promote investment in seed and early-stage Ohio-based business enterprises.

Prior Economic Development and Revitalization Obligations. Prior to the February 1, 2013 granting of a 25-year franchise on the State's spirituous liquor system to JobsOhio, there were outstanding \$725.0 million of State bonds and notes secured by a pledge of the State's profits from the sale of spirituous liquor. In connection with the granting of that franchise, provision was made for the payment of all the debt service on those bonds and notes which are defeased and no longer outstanding obligations of the State (see **FISCAL MATTERS – Recent and Current Finances – Recent Biennia - 2012-13**). Those bonds and notes were originally issued to fund a statewide economic development program that assisted in the financing of facilities and equipment for industry, commerce, research and distribution, including technology innovation, by providing loans and loan

guarantees. Under its franchise agreement with JobsOhio, the State may not issue additional obligations secured by a pledge of profits from the sale of spirituous liquor during the 25-year term of that franchise.

Obligations and Funding Commitments for Highway Projects Payable from Highway-Related Non-GRF Funds. As described above, the State's highway general obligations and special obligations for ODOT and DPS facilities have always been paid from the State's motor fuel tax and other highway user receipts that are constitutionally restricted in use to highway related purposes. In addition to its issuance of highway general obligation bonds, the State has and expects to continue financing selected highway infrastructure projects by issuing federal highway grant anticipation revenue (GARVEE) bonds and entering into agreements that call for debt service payments to be made from federal Title 23 transportation funds allocated to the State, subject to biennial appropriations by the General Assembly. The highest annual State payment under those agreements in the current or any future fiscal year is \$151.2 million in Fiscal Year 2018. In the event of any insufficiency in the anticipated federal allocations to make payments on GARVEE bonds, the payments are to be made from any lawfully available moneys appropriated to ODOT for the purpose.

In December 2014, ODOT also entered into its first public-private agreement to provide "availability payments" in support of the development and operation of a State highway improvement project. Those availability payments are expected to be paid from non-GRF funds available to ODOT remaining after the payment of debt service on highway general obligations, ODOT special obligations and GARVEE bonds. That public-private agreement provides for availability payments in a base annual amount of \$25.8 million beginning no earlier than Fiscal Year 2019, increasing to a projected maximum payment of \$40.6 million in Fiscal Year 2053. Availability payments are subject to biennial appropriation by the General Assembly with the public-private agreement subject to automatic renewal for each biennium if and when those availability payments are appropriated for that biennium.

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Variable Rate Debt

The State currently has \$430,655,000 in outstanding variable rate debt as follows with liquidity provided by the State for all of these issues:

<u>Dated Date</u>	<u>Outstanding</u>	<u>Purpose/Series</u>	<u>Rate Period</u>	<u>Final Maturity</u>
11/29/01	\$34,800,000	Infrastructure, 2001B	Weekly	8/1/2021
2/26/03	-0-	Infrastructure Refunding, 2003B	Weekly	8/1/2017
3/20/03	19,560,000	Infrastructure Refunding, 2003D	Weekly	2/1/2019
12/15/03	67,000,000	Common Schools, 2003D	Weekly	3/15/2024
3/3/04	46,755,000	Infrastructure Refunding, 2004A	Weekly	2/1/2023
4/1/05	92,650,000	Common Schools, 2005A/B	Weekly	3/15/2025
6/7/06	105,270,000	Common Schools, 2006B/C	Weekly	6/15/2026
10/26/16	64,620,000	DRC Prison Facilities, 2016B/C	Weekly	10/1/2036

Interest Rate Swaps

As part of its debt management, the State is also party to the following floating-to-fixed interest rate swap agreements with a total notional amount currently outstanding of \$346,475,000:

<u>Outstanding Notional Amount</u>	<u>Related Bond Series</u>	<u>State Pays</u>	<u>State Receives</u>	<u>Counterparty</u>	<u>Effective Date</u>	<u>Termination Date</u>
\$34,800,000	Infrastructure 2001B	4.630%	SIFMA ¹	JP Morgan/ Wells Fargo	11/29/2001	8/1/2021
67,000,000	Common Schools 2003D	3.414%	LIBOR ²	JP Morgan/ Wells Fargo	9/14/2007	3/15/2024
46,755,000	Infrastructure 2004A Refunding	3.510%	LIBOR ²	Wells Fargo	3/3/2004	2/1/2023
92,650,000	Common Schools 2005A/B	3.750%	LIBOR ^{2,3}	JP Morgan	3/15/2007	3/15/2025
105,270,000	Common Schools 2006B/C	3.202%	LIBOR ²	US Bank/ RBC	6/15/2006	6/15/2026

¹ Securities Industry and Financial Markets Association (SIFMA) weekly variable rate index.

² Variable interest rate based on a percentage of one-month London Inter-Bank Offered Rate (LIBOR) plus a fixed increment.

³ Variable interest rate based on 62% of 10-year LIBOR beginning September 15, 2014.

For all its swap agreements, the State has established minimum uncollateralized counterparty rating thresholds of AA-/Aa3. Under each of these agreements, the counterparty is required to progressively post collateral securing the State's position if the counterparty's credit ratings fall below these minimum thresholds.

Constitutional Limitation on Annual Debt Service

A 1999 constitutional amendment provides an annual debt service "cap" applicable to most future issuances of State general obligations and other State direct obligations payable from the GRF or net State lottery proceeds. Generally, new obligations may not be issued if debt service for any future Fiscal Year on those new and the then outstanding obligations of those categories would exceed 5% of the total of estimated GRF revenues (excluding GRF receipts from the American Recovery and Reinvestment Act of 2009) plus net State lottery proceeds for the Fiscal Year of issuance. Those direct obligations of the State include general obligations and special obligations that are paid from the State's GRF, but exclude (i) general obligation debt for third frontier research and development, development of sites and facilities, and veterans compensation, and (ii) general obligation debt payable from non-GRF funds (such as highway bonds that are paid from highway user receipts). Pursuant to the implementing legislation, the Governor has designated the OBM Director as the State official responsible for making the 5% determinations and certifications. Application of the 5% cap may be waived in a particular instance by a three-fifths vote of each house of the Ohio General Assembly and may be changed by future constitutional amendments.

The following table presents a current summary of State debt authorizations and the principal that has been issued and is outstanding against those authorizations, including the Highway Bonds. The General Assembly has appropriated sufficient moneys to meet debt service requirements for the current biennium (ending June 30, 2019) on all of the obligations included in this and the accompanying tables.

	Authorized by General Assembly	Issued^(a)	Outstanding^(b)
<i>Obligations Payable from the GRF</i>			
<u>General Obligations</u>			
Coal Development ^(c)	\$258,000,000	\$234,000,000	\$30,445,000
Infrastructure ^(d,e)	4,100,000,000	3,749,986,136	1,656,120,000
Natural Resources ^(f)	458,000,000	418,130,000	115,475,000
Common School Facilities ^(e)	5,170,000,000	4,770,000,000	2,640,895,000
Higher Education Facilities	4,016,000,000	3,530,000,000	2,102,690,000
Conservation ^(g)	600,000,000	450,000,000	231,410,000
Research & Development ^(h)	1,200,000,000	761,000,000	375,815,000
Site Development	150,000,000	150,000,000	60,055,000
Veterans Compensation ⁽ⁱ⁾	200,000,000	83,910,000	<u>35,970,000</u>
		Total:	\$7,248,875,000
<u>Special Obligations</u>			
DAS Facilities	\$1,939,200,000	\$1,846,000,000	\$549,400,000
DRC Prison Facilities	2,262,000,000	2,034,500,000	441,270,000
DYS Facilities	379,000,000	332,000,000	77,110,000
Cultural & Sports Facilities	641,000,000	574,690,000	114,635,000
Mental Health Facilities	1,657,000,000	1,567,085,000	173,555,000
Parks & Recreation Facilities	841,000,000	628,000,000	<u>258,455,000</u>
		Total:	\$1,614,425,000
<i>Obligations Payable from Non-GRF Sources^(j)</i>			
<u>Highway User Receipts</u>			
G.O. Highway ^(k)	\$3,683,000,000	\$3,125,830,000	\$1,013,085,000
ODOT Facilities	341,000,000	240,100,000	76,635,000
DPS Facilities	140,285,000	140,285,000	<u>5,980,000</u>
		Total:	\$897,965,000
<u>Federal Transportation Grants</u>			
ODOT GARVEE Highway ^(l)	n.a.	\$2,205,735,000	\$738,200,000

(a) Excludes refunding bonds; includes bonds refunded.

(b) Excludes bonds refunded; includes refunding bonds as of October 1, 2017.

(c) Not more than \$100,000,000 may be outstanding at any time.

(d) Not more than \$5,625,000,000 may be issued with the annual issuance currently limited to no more than \$175,000,000 in each Fiscal year beginning in Fiscal Year 2018 through Fiscal Year 2022 and \$200,000,000 in each Fiscal Year beginning in Fiscal Year 2023 through Fiscal Year 2022, plus any obligations unissued from previous Fiscal Years.

(e) Includes adjustable rate bonds.

(f) Not more than \$50,000,000 may be issued in any Fiscal Year and not more than \$200,000,000 may be outstanding at any time. Issued amount includes \$130,000 in refunding bonds in excess of the principal amount of the bonds refunded.

(g) Not more than \$50,000,000 may be issued in any Fiscal Year plus any obligations unissued from previous Fiscal Years and not more than \$400,000,000 may be outstanding at any time.

(h) Not more than \$1,200,000,000 may be issued with the annual issuance now limited to no more than \$175,000,000 in any Fiscal Year plus any obligations unissued from previous Fiscal Years.

(i) Constitutional authorization was self-implementing and did not require further General Assembly authorization. No more new obligations may be issued under this authorization.

(j) See discussion above of "availability payments" under ODOT's first public-private agreement, which payments are expected to be made from biennial appropriations of non-GRF funds available to ODOT and remaining after the payment of debt service on highway general obligations, special obligations and GARVEE bonds shown above.

(k) Not more than \$220,000,000 may be issued in any Fiscal Year plus any amount unissued from previous Fiscal Years, and not more than \$1,200,000,000 may be outstanding at any time.

(l) Debt service on these "GARVEE" bonds is paid from federal transportation grants apportioned to the State (Title 23 of the U.S. Code).

The following table shows total Fiscal Year debt service on outstanding State obligations currently payable from the GRF:

Annual Debt Service Requirements on State Obligations Paid from the GRF

FY	General Obligations			Special Obligations			Total GRF Debt Service		
	Education ^(a,b)	Infra-structure ^(b)	All Other ^(c)	DAS Facilities	DRC Facilities ^(b)	All Other ^(d)	Principal	Interest	Total
2018	\$643,538,787	\$227,386,993	\$175,700,152	\$97,916,189	\$75,904,914	\$122,105,448	\$921,930,000	\$420,622,483	\$1,342,552,483
2019	652,280,949	211,392,762	159,348,955	87,197,874	67,503,675	107,282,830	905,175,000	379,832,046	1,285,007,046
2020	654,130,092	199,883,734	146,669,174	80,673,636	55,055,528	95,479,829	891,265,000	340,626,993	1,231,891,993
2021	646,813,333	188,981,730	122,443,814	80,117,338	55,029,372	80,716,253	873,275,000	300,826,839	1,174,101,839
2022	609,975,444	180,776,675	100,729,065	70,183,222	54,767,988	68,559,131	823,460,000	261,531,524	1,084,991,524
2023	543,114,988	171,362,714	88,732,190	64,454,638	50,704,754	68,472,545	762,425,000	224,416,829	986,841,829
2024	443,890,270	153,508,896	68,246,288	54,366,597	48,849,247	63,179,629	641,290,000	190,750,927	832,040,927
2025	381,507,281	145,096,629	47,476,527	48,830,900	44,229,849	56,477,751	561,680,000	161,938,937	723,618,937
2026	311,790,991	132,309,056	41,407,049	25,829,573	20,547,012	38,735,675	430,825,000	139,794,356	570,619,356
2027	256,190,948	117,519,446	24,452,159	25,824,069	20,586,968	29,210,300	352,545,000	121,238,890	473,783,890
2028	235,101,382	117,360,446	20,962,350	25,827,313	20,537,252	22,748,300	337,360,000	105,177,044	442,537,044
2029	235,321,593	108,620,560	16,105,250	25,828,668	20,578,432	22,745,875	339,780,000	89,420,378	429,200,378
2030	235,527,030	91,563,027	12,571,875	21,541,918	17,711,331	22,736,219	327,910,000	73,741,400	401,651,400
2031	235,782,377	91,390,766	9,184,000	18,159,581	17,724,793	17,119,125	331,255,000	58,105,642	389,360,642
2032	211,461,163	65,691,700	4,667,250	18,168,181	14,460,895	9,394,125	280,075,000	43,768,314	323,843,314
2033	144,227,225	56,623,625	-0-	15,728,344	14,394,854	-0-	199,470,000	31,504,048	230,974,048
2034	120,581,125	45,798,750	-0-	11,658,300	14,420,497	-0-	170,605,000	21,853,672	192,458,672
2035	96,729,250	22,184,000	-0-	11,658,550	10,889,230	-0-	128,045,000	13,416,030	141,461,030
2036	72,538,250	22,168,625	-0-	5,683,250	10,914,660	-0-	104,195,000	7,109,785	111,304,785
2037	49,418,250	10,777,875	-0-	5,680,500	5,313,525	-0-	<u>68,225,000</u>	<u>965,150</u>	<u>71,190,150</u>
							\$9,450,790,000	\$2,9889,641,287	\$12,439,431,287

(a) Consists of common schools and higher education general obligation bonds.

(b) Includes estimated debt service on adjustable rate bonds at an assumed rate of 3%.

(c) Includes natural resources, coal development, conservation, research and development, site development and veteran's compensation general obligation bonds.

(d) Includes lease-rental bonds for mental health, parks and recreation, cultural and sports facilities, and facilities for the Department of Youth Services.

The following table shows total Fiscal Year debt service on certain outstanding State obligations currently payable from the indicated non-GRF revenues, including the Highway Bonds.

Annual Debt Service Requirements on State Obligations Paid from Non-GRF Revenues

FY	Highway User Receipts			GARVEE Federal Transportation Grants ^(b)
	Highway G.O.	ODOT/DPS Facilities ^(a)	Total	
2018	\$114,603,341	\$10,554,100	\$125,157,441	\$151,184,347
2019	133,611,683	10,557,000	144,168,683	146,029,262
2020	130,864,712	9,708,200	140,572,912	141,486,296
2021	128,536,192	9,712,750	138,248,942	106,926,178
2022	125,500,302	8,144,500	133,644,802	62,138,750
2023	121,628,556	8,147,000	129,775,556	61,362,463
2024	118,763,027	8,146,250	126,909,277	60,621,150
2025	101,190,895	8,146,750	109,337,645	59,876,250
2026	72,162,550	8,142,750	80,305,300	24,098,375
2027	69,891,550	8,143,750	78,035,300	24,100,625
2028	67,620,800	8,143,750	75,764,550	24,099,625
2029	51,583,800	8,142,000	59,725,800	24,097,750
2030	33,075,250	8,142,750	41,218,000	-0-
2031	31,628,750	-0-	31,628,750	-0-
2032	14,987,500	-0-	14,987,500	-0-
2033	14,306,250	-0-	14,306,250	-0-

(a) Lease rental payments are paid from highway user receipts for these Ohio Department of Transportation and Department of Public Safety facilities.

(b) Debt service paid from federal transportation grants apportioned to the State under Title 23 of the U.S. Code.

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The following table shows the principal amount of those obligations that are currently scheduled to be outstanding as of July 1 of the indicated years, including the Highway Bonds:

Year	Obligations Payable from the GRF			Non-GRF Obligations
	Education^(a)	Other GO^(b)	Special Obligations^(c)	Highway User Receipts^(d)
2018	\$4,640,785,000	\$2,348,065,000	\$1,540,010,000	\$1,016,785,000
2020	3,740,825,000	1,815,495,000	1,176,100,000	824,730,000
2025	1,763,760,000	843,460,000	463,070,000	339,365,000
2030	811,155,000	292,120,000	178,595,000	56,075,000

- (a) Includes obligations for common school and higher education capital facilities.
- (b) Includes natural resources, coal development, infrastructure improvement, conservation, research and development, site development and veterans compensation general obligation bonds.
- (c) Includes lease-rental obligations for various state capital facilities.
- (d) Includes general obligations for highways and lease-rental obligations for ODOT and DPS facilities.

The following tables show certain historical debt information and comparisons. These tables include only outstanding obligations of the State for which debt service is paid from the GRF.

Fiscal Year	Principal Amount Outstanding	Outstanding Debt Per Capita	Outstanding Debt as % of Annual Personal Income
1980	\$1,991,915,000	\$184	1.86%
1990	3,707,054,994	342	1.83
2000	6,308,680,025	556	1.95
2010	8,586,655,636	744	2.05
2011	8,996,752,848	779	2.01
2012	9,760,505,915	845	2.10
2013	9,263,358,266	801	1.97
2014	9,517,346,998	821	1.95
2015	9,354,508,600	806	1.85
2016	9,271,400,000	798	1.78 ^(b)
2017	9,450,790,000	814 ^(a)	1.81 ^(b)

Fiscal Year	Debt Service Payable	Total GRF Revenue and Net State Lottery Proceeds	Debt Service as % of GRF Revenue and Lottery Proceeds	Debt Service as % of Annual Personal Income
1980	\$187,478,382	\$4,835,670,223	3.88%	0.18%
1990	488,676,826	12,230,681,298	4.00	0.24
2000	871,313,814	20,711,678,217	4.21	0.27
2010	710,284,236*	24,108,466,000**	2.95	0.17
2011	755,023,015*	26,777,133,000**	2.82	0.17
2012	692,776,090*	27,956,513,000	2.48	0.15
2013	1,204,775,861	30,361,815,000	3.97	0.26
2014	1,237,701,225	30,137,140,000	4.11	0.25
2015	1,278,258,664	32,463,100,000	3.94	0.25
2016	1,314,513,346	34,997,651,000	3.76	0.25 ^(b)
2017	1,328,277,201	35,218,700,000	3.77	0.25 ^(b)

- (a) Based on July 2016 population estimate.
- (b) Based on preliminary 2016 personal income data.

* Reduction is due in large part to the restructuring of certain GRF debt service payments resulting in net savings of \$416.8 million in Fiscal Year 2010, \$336.9 million in Fiscal Year 2011, and \$449.3 million in Fiscal Year 2012.

** Excludes federal funds from the American Recovery and Reinvestment Act of 2009.

Recent Debt Authorizations

Only a portion of State capital needs can be met by direct GRF appropriations, so additional State borrowing for capital and other purposes has been and will continue to be required. In spring 2016, the General Assembly approved \$2.62 billion in new capital appropriations for the 2017-18 capital biennium, with \$2.184 billion of those new capital appropriations to be funded by GRF-supported debt authorizations, \$100 million to be funded from non-GRF debt authorizations (for Ohio Department of Transportation maintenance facilities) and the remaining \$338 million to be funded from cash. The General Assembly approved an additional \$46.7 million in new capital appropriations for the 2017-18 capital biennium, with \$26.8 million to be funded by GRF-supported debt authorizations and the remaining \$19.9 million to be funded from cash. The following additional GRF-supported debt authorizations reflect all of the new 2017-18 capital appropriations:

General Obligation

- \$400,000,000 for capital improvements for elementary and secondary public schools.
- \$350,000,000 for local infrastructure projects.
- \$481,000,000 for higher education facilities.
- \$15,000,000 for natural resources facilities.
- \$100,000,000 for conservation purposes.
- \$7,000,000 for coal development purposes.

Special Obligation

- \$143,000,000 for prisons and local jails.
- \$28,000,000 for youth services facilities.
- \$103,500,000 for State administrative facilities.
- \$48,000,000 for cultural facilities (including both arts and sports facilities).
- \$75,000,000 for mental health facilities (including local projects).
- \$218,000,000 for parks and recreation facilities (including local projects).

In addition to the above \$400 million general obligation debt authorization for elementary and secondary public school improvements, the General Assembly also appropriated \$100 million to be funded from a GRF cash transfer and \$50 million from State lottery profits for elementary and secondary public school capital improvements.

Recent constitutional authorizations are:

- 2014 – authorizes an additional \$1.875 billion of general obligation debt for public infrastructure as a ten-year extension of the existing local government infrastructure program authorized in 2005, with an increase in the annual issuance amount from \$150 million to \$175 million in the first five Fiscal Years and \$200 million in each Fiscal Year thereafter.
- 2010 – authorizes the issuance of \$700 million of State general obligation debt to renew and continue programs for research and development in support of Ohio industry, commerce, and business, with those obligations not subject to the 5% debt service cap described above. The authorization is in addition to the below-referenced 2005 constitutional amendment for the same purpose. The amount of all State general obligations that may be issued for, and the amounts of proceeds from those State general obligations that may be committed to, those research and development purposes, are limited to no more than \$450 million total for the period including State Fiscal Years 2006 through 2011, no more than \$225 million in Fiscal Year 2012 and no more than \$175 million in any Fiscal Year thereafter, plus any amounts that in any prior Fiscal Year could have been but were not issued.
- 2009 – authorized the issuance of State general obligation debt to provide compensation to persons who have served in active duty in the United States armed forces at any time during the Persian Gulf, Afghanistan, and Iraq conflicts, with those obligations not subject to the 5% direct obligation debt service cap described above. Not more than \$200 million in obligations could have been issued no later than December 31, 2013.
- 2008 – authorizes the issuance of State bonds for land conservation and revitalization purposes (including statewide brownfields clean-up). For each of the two purposes, the authorization is for not more than \$50 million in principal amount to be issued in any Fiscal Year plus any amount unissued

from previous Fiscal Years and not more than \$200 million to be outstanding at any time. The bonds for conservation purposes are general obligations, and those for revitalization purposes are special obligations payable from revenues and receipts designated by the General Assembly (previously a portion of the State's net liquor profits; see **FISCAL MATTERS – Recent and Current Finances – Recent Biennia - 2012-13**). The authorization is in addition to the 2000 constitutional amendment for the same purposes.

- 2005 – authorizes the issuance over ten years of \$500 million of State general obligation debt in support of research and development, and \$150 million of State general obligation debt for the development of sites for industry, commerce, distribution and research and development, with those obligations not subject to the 5% debt service cap described above. Also authorizes an additional \$1.35 billion of general obligation debt for public infrastructure as a ten-year extension of the existing local government infrastructure program, with an increase in the annual issuance amount from \$120 million to \$150 million in the last five Fiscal Years, which continues to be subject to that 5% debt service cap.
- 2000 – authorizes the issuance of State bonds for land conservation and revitalization purposes (including statewide brownfields clean-up). For each of the two purposes, the amendment authorizes not more than \$50 million in principal amount to be issued in any Fiscal Year plus any amount unissued from previous Fiscal Years and not more than \$200 million to be outstanding at any time. The bonds for conservation purposes are general obligations, and those for revitalization purposes are special obligations payable from revenues and receipts designated by the General Assembly (previously a portion of the State's net liquor profits; see **FISCAL MATTERS – Recent and Current Finances – Recent Biennia - 2012-13**).
- 1999 – authorizes State general obligation debt to pay costs of facilities for a system of common schools throughout the state and for state-supported and state-assisted institutions of higher education. The amendment also provides for the 5% direct obligation debt service cap described above.
- 1995 – authorizes additional highway bonds and extends the local infrastructure bond program. For the latter, it authorized an additional \$1.2 billion of State full faith and credit obligations to be issued over 10 years, with not more than \$120 million to be issued in any Fiscal Year. The highway finance portion authorizes not more than \$1.2 billion to be outstanding at any time and not more than \$220 million to be issued in any Fiscal Year.
- 1994 – pledges the State's full faith and credit and taxing power to meet certain guarantees under the State's tuition credit program, a program that provides for the purchase of tuition credits which are guaranteed to cover a specified amount when applied to tuition and other eligible higher education costs. Under the amendment, to secure the tuition guarantees, the General Assembly shall appropriate money sufficient to offset any deficiency that occurs in the trust fund, at any time necessary to make payment of the full amount of any tuition payment or refund required by a tuition payment contract.
- 1990 – authorizes greater State and political subdivision participation in the provision of individual and family housing. This supplements the previous constitutionally authorized loans-for-lenders and other housing assistance programs, financed in part with State revenue bonds. The amendment authorizes the General Assembly to provide for State assistance for housing in a variety of ways, including State borrowing for the purpose by the issuance of obligations secured by a pledge of all or such portion of State revenues or receipts as it authorizes (but not by a pledge of the State's full faith and credit).
- 1985 – authorizes the issuance of general obligation debt to finance grants or make or guarantee loans for research and development of coal technology that will encourage the use of Ohio coal. Those grants or loans are available to any individual, association, or corporation doing business in the State or to any educational or scientific institution located in the State. Not more than \$100 million may be outstanding at any time.

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ECONOMY AND EMPLOYMENT

Although manufacturing (including auto-related manufacturing) in Ohio remains an integral part of the State's economy, the greatest growth in Ohio's economy in recent years has been in the non-manufacturing sectors. Ohio's preliminary 2016 economic output, as measured by gross state product (GSP), totaled \$625.7 billion, 3.39% of the national GDP and seventh largest among the states. The State ranks third within the manufacturing sector as a whole (\$105.9 billion) and fourth in durable goods (\$59.3 billion). As a percent of Ohio's preliminary 2016 GSP, 16.9% was attributable to manufacturing, with 22.7% attributable to the goods-producing sectors and 34.2% to the business services sectors, including finance, insurance and real estate. Ohio is the eighth largest exporting state with 2016 merchandise exports totaling \$49.1 billion. The State's leading export products are machinery (including electrical machinery), motor vehicles, aircraft/spacecraft and plastics, which together accounted for 55.6% of that total.

Non-farm payroll employment in Ohio, in a diversifying employment base, decreased in 2001 through 2003, increased in 2004 through 2006, decreased in 2007 through 2010, and increased in 2011 through 2016. In the last three decades, there has been a shift toward the services industry, with manufacturing employment decreasing since its 1969 peak. The "non-manufacturing" sector employs approximately 87.5% of all non-farm payroll workers in Ohio. The changing mix of employment sectors nationally and in Ohio are shown in the following tables.

Ohio Nonfarm Payroll Jobs by Industry Type Not Seasonally Adjusted (in 000)

	<u>1980</u>	<u>1990*</u>	<u>2000*</u>	<u>2010*</u>	<u>2016*</u>
Mining & Logging*.....	31	18	13	11	11
Construction.....	167	192	246	169	206
Manufacturing.....	1,264	1,060	1,021	621	686
Trade, Transportation & Public Utilities*...	1,180	963	1,115	948	1,021
Financial Activities.....	n.a.	101	107	78	72
Information*.....	204	255	305	277	300
Services.....	831	1,172	1,549	1,672	1,859
Leisure & Hospitality*.....	n.a.	400	483	475	551
Government.....	<u>690</u>	<u>722</u>	<u>785</u>	<u>786</u>	<u>777</u>
TOTAL.....	4,367	4,882	5,625	5,036	5,481

Source: U.S. Department of Labor, Bureau of Labor Statistics, National and State Current Employment Statistics.

* Reflects change in the bases for industry classification from the 1987 Standard Industrial Classification System (SIC) to the 2002 North American Industry Classification System (NAICS). Data for 1990 and 2000 has been adjusted to reflect this change.

Distribution of Nonfarm Payroll Jobs by Industry Type (%)

	<u>1980</u>		<u>1990*</u>		<u>2000*</u>		<u>2010*</u>		<u>2016*</u>	
	<u>Ohio</u>	<u>U.S.</u>	<u>Ohio</u>	<u>U.S.</u>	<u>Ohio</u>	<u>U.S.</u>	<u>Ohio</u>	<u>U.S.</u>	<u>Ohio</u>	<u>U.S.</u>
Mining & Logging*.....	0.7	1.1	0.4	0.7	0.2	0.5	0.2	0.5	0.2	0.5
Construction.....	3.8	4.8	3.9	4.8	4.4	5.1	3.4	4.2	3.8	4.7
Manufacturing.....	28.9	22.4	21.7	16.2	18.2	13.1	12.3	8.8	12.5	8.6
Trade, Transportation & Public Utilities*.....	27.0	28.2	19.7	20.7	19.8	19.9	18.8	18.9	18.6	18.9
Information*.....	n.a.	n.a.	2.1	2.5	1.9	2.7	1.5	2.1	1.3	1.9
Financial Activities.....	4.7	5.7	5.2	6.0	5.4	5.9	5.5	5.9	5.5	5.7
Services.....	19.0	19.8	24.0	23.9	27.5	28.1	33.2	32.2	33.9	33.6
Leisure & Hospitality*.....	n.a.	n.a.	8.2	8.5	8.6	9.0	9.4	10.0	10.0	10.8
Government.....	15.8	18.0	14.8	16.8	14.0	15.7	15.6	17.3	14.2	15.4

Source: U.S. Department of Labor, Bureau of Labor Statistics, National and State Current Employment Statistics. The distribution percentages are as calculated by OBM.

* Reflects change in the bases for industry classification from the 1987 Standard Industrial Classification System (SIC) to the 2002 North American Industry Classification System (NAICS). Data for 1990 and 2000 has been adjusted to reflect this change.

Ohio and U.S. unemployment rates have been as follows:

Average Monthly Unemployment Rates (Seasonally Adjusted)

<u>Year</u>	<u>Ohio</u>	<u>U.S.</u>
1980	8.4%	7.1%
1990	5.6	5.6
2000	4.0	4.0
2005	5.9	5.1
2006	5.4	4.6
2007	5.6	4.6
2008	6.4	5.8
2009	10.3	9.3
2010	10.3	9.6
2011	8.8	8.9
2012	7.4	8.1
2013	7.5	7.4
2014	5.7	6.2
2015	4.9	5.3
2016	4.9	4.9
2017 January	5.0	4.8
February	5.1	4.7
March	5.1	4.5
April	5.0	4.4
May	4.9	4.3
June	5.0	4.4
July	5.2	4.3
August	5.4	4.4

Source: Ohio Department of Job and Family Services, Labor Market Information.

The following are the private sector employers that had the highest number of full-time equivalent employees (estimated and rounded) in Ohio in 2017:

OHIO'S TOP 25 PRIVATE SECTOR EMPLOYERS – 2017

<u>Company</u>	<u>Estimated Employment Headcount</u>	<u>Sector</u>
Wal-Mart Stores, Inc.	50,500	Retail General Merchandiser
Cleveland Clinic Health System	49,050	Health Care
Kroger Company	43,850	Retail Food Stores
Mercy Health	32,035	Health Care
University Hospitals Health System	26,000	Health Care
Ohio Health	22,340	Health Care
JPMorgan Chase & Co.	21,000	Financial Services
Giant Eagle, Inc.	19,000	Retail Food Stores
Cincinnati Children's Hospital	15,300	Health Care
Nationwide Mutual Insurance Co.	15,000	Finance, Insurance
General Electric Company	14,500	Aerospace/Electrical Equipment
Honda Motor Company	14,500	Motor Vehicles
United Parcel Service, Inc.	14,425	Transportation Air Delivery
ProMedica Health System	14,000	Health Care
Premier Health Partners	13,500	Health Care
Home Depot, Inc.	12,000	Retail Home Improvement
Kettering Health Network	12,000	Health Care
Meijer, Inc.	12,000	Retail General Merchandiser
TriHealth, Inc.	12,000	Health Care
UC Health	12,000	Health Care
Lowe's Companies, Inc.	11,800	Retail Home Improvement
Berkshire Hathaway, Inc.	11,200	Manufacturer, Financial Services
Bob Evans Farms, Inc.	11,100	Restaurants
Procter & Gamble Company	10,700	Soaps and Consumer Goods
Whirlpool Corporation	10,000	Consumer Products
L Brands, Inc.	9,700	Retail Clothing

Boldface indicates headquartered in Ohio.

Source: Development Services Agency, Office of Research, April 2017.

POPULATION

Ohio's 2010 decennial census population of 11,536,504 indicated a 1.6% population growth over 2000 and ranked Ohio seventh among the states in population. The following tables show selected census figures.

Ohio Population — Total and by Age Group

Year	Total	Rank Among States	Decennial Growth Rate	0-19 Years	20-64 Years	65 and Over
1970	10,652,017	6	9.7%	4,124,400	5,539,600	993,500
1980	10,797,630	6	1.4	3,502,900	6,125,200	1,169,500
1990	10,847,115	7	0.5	3,141,000	6,299,100	1,407,000
2000	11,353,140	7	4.7	3,216,000	6,629,400	1,507,800
2010	11,536,504	7	1.6	3,067,126	6,847,363	1,622,015

* July 2016 Census population estimate is 11,614,373.

Source: U.S. Census Bureau Web Site, Population Estimates.

Population of Ohio Metropolitan Areas^(a)

	1970	1980	1990	2000	2010
Cleveland.....	2,063,729	1,898,825	2,202,069 ^(b)	2,250,871 ^(b)	2,077,240 ^(b)
Cincinnati	1,106,821	1,100,983	1,526,092 ^(c)	1,646,395 ^(c)	2,130,151 ^(d)
Columbus.....	1,017,847	1,093,316	1,345,450 ^(e)	1,540,157 ^(e)	1,836,536 ^(e)
Dayton	852,531	830,070	951,270 ^(f)	950,558 ^(f)	979,835 ^(f)
Akron.....	679,239	660,328	657,575	694,960	703,200
Toledo.....	643,443	656,940	614,128	618,203	651,429
Youngstown-Warren.....	537,124	531,350	600,895 ^(g)	594,746 ^(g)	565,773 ^(g)
Canton.....	393,789	404,421	394,106	406,934	404,422
Lorain-Elyria	256,843	274,909	(b)	(b)	(b)
Hamilton-Middletown	226,207	258,787	291,479	332,807	(d)
Lima.....	210,074	218,244	154,340	155,084	106,331
Mansfield.....	129,997	131,205	174,007 ^(g)	175,818 ^(g)	124,475
Stuebenville	96,193	91,564	142,523 ^(h)	132,008 ^(h)	124,454 ^(h)

^(a) SMSAs in 1970 & 1980, MSAs in 1990 and 2000 (PMSA's for Cleveland, Cincinnati, Akron, and Hamilton-Middletown).

^(b) Lorain-Elyria included with Cleveland.

^(c) Includes 12 counties (two in Indiana and six in Kentucky).

^(d) Includes 15 counties (three in Indiana and seven in Kentucky); includes Hamilton-Middletown.

^(e) Newark added.

^(f) Springfield added.

^(g) Includes three counties.

^(h) Weirton added; includes two counties in West Virginia.

Source: U.S. Census Bureau Web Site, Metropolitan Area Population Estimates.

AGRICULTURAL AND RESOURCES BASES

With 14.0 million acres (of a total land area of 26.4 million acres) in farmland and an estimated 74,500 individual farms, agriculture combined with related agricultural sectors is an important segment of Ohio's economy. Ohio's 2014 crop production value of \$5.9 billion ranked thirteenth among states and represented 2.8% of the U.S. total value. Ohio's 2014 livestock production value of \$4.1 billion ranked twentieth among states and represented 1.9% of the U.S. total value. Ohio accounts for 4.0% of total U.S. cash receipts for corn and 6.3% for soybeans. In 2014, Ohio's agricultural sector output (consisting of crops, livestock, poultry and dairy, and services and forestry, and all farm-related income) totaled \$11.3 billion and represented 2.4% of the U.S. total value. Ohio purchased inputs (feed, seed, chemicals, fertilizer, livestock, utilities, labor, and machinery) totaled \$5.9 billion. The net farm income on Ohio farms in 2014 was \$1.7 billion.

The availability of natural resources, such as water and energy, is of vital nationwide concern. Ohio has large quantities of these important natural resources. With Lake Erie and the Ohio River on its borders, and many lakes and streams throughout the State, water is readily available for all uses. Additionally, Ohio has sizable coal resources ranking seventh among the states in coal reserves and eleventh in coal production in 2014.

STATE EMPLOYEES AND COLLECTIVE BARGAINING AGREEMENTS

Since 1985, the number of regular State employees (excluding employees who are not paid by State warrant such as state university employees) has ranged from a low of 51,886 in Fiscal Year 2015 to a high of 68,573 in 1994. At the end of Fiscal Year 2017, the number of regular State employees was 52,379. The State engages in collective bargaining with five employee unions representing 14 bargaining units, and generally operates under three-year agreements. The State's current collective bargaining agreements expire in February through June 2018.

RETIREMENT SYSTEMS

The State has established five public retirement systems to provide retirement, disability retirement and survivor benefits, and other post-employment benefits such as retiree health care. None of these benefits are guaranteed under the Ohio Constitution or under State law, or subject to bargaining under the State's current public employee collective bargaining law.

The Public Employees Retirement System (PERS), the largest of the five, covers both State and local public employees and non-teaching employees at public higher education institutions. The State Teachers Retirement System (STRS) covers teaching employees at school districts and public higher education institutions. The School Employees Retirement System (SERS) covers non-teaching employees at school districts and community colleges. The Highway Patrol Retirement System (HPRS) covers State troopers, and the Ohio Police and Fire Pension Fund (OP&F) covers local safety forces. Full financial information for each retirement system can be found on its website in that system's Comprehensive Annual Financial Report (CAFR).

The five retirement systems began reporting pensions in accordance with GASB Statement No. 67, Financial Reporting for Pension Plans, in Fiscal Year 2014, and the State began reporting pensions in accordance with GASB Statement No. 68, Accounting and Financial Reporting for Pensions, in Fiscal Year 2015. The five retirement systems and the State are also preparing to implement GASB Statement No. 74, Financial Reporting for Postemployment Benefit Plans Other Than Pension Plans, and GASB Statement No. 75, Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions.

The retirement systems were created by and operate pursuant to State law. As reflected in the 2012 pension reform acts discussed below, the General Assembly has the power to amend the structure and benefit levels, impose or revise contribution rates or amounts, and to make other changes. The systems have never been subject to the funding and vesting requirements of the federal Employee Retirement Income Security Act (ERISA). Federal law requires employees hired on or after April 1, 1986 to participate in the Medicare program, with matching employer and employee contributions, each now 1.45% of the wage base. Otherwise, State employees covered by a State retirement system are not currently covered under the federal Social Security Act. Congress has from time to time considered legislation relating to public sector retirement funds and to other aspects of public employee retirement.

Funding for the retirement systems is provided by a combination of public employer and employee contributions based on percentages of each employee's compensation, with the employees' contributions being deducted from their paychecks. Those contribution percentages are either established in State law or by the retirement system board subject to a maximum contribution amount established in State law. With the exception of employees contributions for HPRS and PERS law enforcement and public safety personnel, the current contribution percentages for each system (set forth in the following table under **Pension Benefits**) reflect the maximums permitted under State law.

In 1968, the Ohio General Assembly created the Ohio Retirement Study Council (ORSC) to advise and inform the legislature on all matters relating to the benefits, funding, investment, and administration of the five statewide retirement systems. The ORSC consists of nine voting members: three members of the House appointed by the Speaker; three members of the Senate appointed by the President; and three members appointed by the Governor (one representing the State, one representing local governments, and the third representing public education institutions). The five executive directors of the retirement systems also serve as nonvoting members of the ORSC.

Under State law, each retirement system's board is required to establish a period of not more than thirty years to amortize its unfunded actuarial accrued pension liability (UAAL). If in any year the period required to amortize that UAAL exceeds thirty years, the board must prepare and submit to the ORSC and the applicable

committees in the Ohio General Assembly, a plan to reduce that amortization period to not more than thirty years. Based on their most recent reporting years reflected in the following table under **Pension Benefits**, all of the retirement systems meet the 30-year funding requirement, with the number of years to fully amortize UAAL at nineteen years for PERS, twenty-seven years for STRS, twenty-eight years for SERS, and twenty-nine years for OP&F and HPRS. Prior to the 2012 pension reform acts described below, the board of each of the five retirement systems had approved and submitted to the ORSC and the applicable Ohio General Assembly committees a plan to reduce or maintain its amortization period at not more than thirty years. Pursuant to this continuing requirement, the OP&F board increased (effective January 1, 2014) contributions to its pension fund by reducing from 2.85% to 0.5% the amount of employer contributions directed to health care and redirecting the 2.35% difference to pensions, and the STRS board increased (effective July 1, 2014) contributions to its pension fund by redirecting to pensions the 1.0% of employer contributions previously directed to healthcare. The HPRS board also increased (effective January 1, 2015) contributions to its pension fund by reducing from 4.30% to 4.0% the amount of employer contributions directed to health care and redirecting the 0.3% difference to pensions.

After extensive review, the General Assembly in September 2012 enacted, and the Governor signed into law effective January 7, 2013, five pension reform acts to implement with modifications plans previously submitted by the five retirement systems to reduce or maintain their UAAL periods to or at not more than thirty years. The reform act for PERS made changes including, among others, increasing the years of service and eligibility age necessary to retire with full benefits, increasing from three to five the number of years used in determining "final average salary" for purposes of calculating retirement benefits, reducing the post-retirement cost of living adjustment, and increasing the minimum salary threshold required to earn full-time service credit for public employee eligibility to participate in the system. The other reform acts made similar changes to STRS, SERS, OP&F and HPRS, and enacted phased increases in the employee contribution rate for STRS (from 10% to a maximum of 14% in July 2016) and OP&F (from 10% to a maximum of 12.25% in July 2015). The HPRS board was authorized to increase employee contributions up to a maximum of 14% from 10% beginning in July 2013, and it has implemented this authorization by increasing the employee contribution rate to 11.5% for 2014 and to 12.5% for 2015 and thereafter. With the exception of PERS, the reform acts also authorize each retirement system's board to adjust certain pension benefits levels within limits without General Assembly approval. As reflected above, these reform acts did not change the requirement that each system establish a period of not more than thirty years to amortize its pension UAAL and prepare and submit to the ORSC and the Ohio General Assembly a plan to reduce that amortization period if it exceeds thirty years.

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Retirement Contributions

The State makes its employer contributions based on a percent of salary for each State employee that is an active member of a state retirement system. Currently, nearly 95% of State employees are members of PERS, about 3.3% are in HPRS and about 1.3% are in STRS. The following table summarizes State employer and employee contributions to those retirement systems with State employee members (\$ in millions):

State Fiscal Year	<u>PERS</u>		<u>STRS</u>		<u>HPRS</u>		Total Contributions
	Employer/Employee Amount	Pct. of Salary ^(a)	Employer/Employee Amount	Pct. of Salary	Employer/Employee Amount	Pct. of Salary	
2012	\$392.3/\$273.8	14.0%/10.0%	\$6.6/\$4.7	14.0%/10.0%	\$25.0/\$9.4	26.5%/10.0%	\$711.8
2013 ^(b)	385.8/269.1	14.0/10.0	6.2/4.4	14.0/10.0	26.1/9.8	26.5/10.0	701.3
2014	384.9/268.8	14.0/10.0	5.9/4.6	14.0/11.0	26.5/10.7	26.5/11.5	701.4
2015	383.7/266.8	14.0/10.0	5.8/4.9	14.0/12.0	26.7/12.0	26.5/12.5	699.9
2016	395.9/278.4	14.0/10.0	5.7/4.8	14.0/13.0	27.2/12.8	26.5/12.5	724.8
2017	411.5/289.5	14.0/10.0	5.9/5.4	14.0/14.0	31.1/14.6	26.5/12.5	758.0

(a) Reflects PERS state and local contribution rates only. PERS law enforcement employer/employee contribution rate was 18.1%/12.1% in Fiscal Year 2012, increasing in increment to 18.1%/13.0% in Fiscal Year 2014, and public safety was 18.1%/11.5% in Fiscal Year 2012, increasing to 18.1%/12.0% in Fiscal Year 2013.

(b) Declines in contributions for Fiscal Year 2013 due to a reduction in the State workforce over this period.

Source: Contributions based on percent of payroll expenses from State of Ohio accounting system records.

The State also has funded and continues to fund a subsidy to the OP&F system to pay for survivor benefits provided in law and not otherwise funded. The aggregate subsidies were \$40.9 million in the 2014-15 biennium, \$40.8 million in the 2016-17 biennium, and are appropriated at \$40.7 million in the 2018-19 biennium. All State employer contributions are subject to appropriation in each State budget and are included in the appropriations for each department or agency's personnel costs.

Pension Benefits

The following table summarizes State and local membership and financial data for each of the retirement systems for the most recent year reported by the particular system (\$ in millions):

Valuation as of:	<u>PERS</u>	<u>STRS</u>	<u>SERS^(a)</u>	<u>OP&F^(b)</u>	<u>HPRS</u>
	12/31/16	07/01/16	06/30/16	01/01/16	12/31/16
Active Members.....	330,982	169,212	124,540	27,446	1,670
Retirees and Beneficiaries	213,948	157,938	76,280	28,402	1,580
Employer/Employee Contributions (% of Salary) ^(c)	14.0/10.0 ^(d)	14.0/14.0	14.0/10.0	^(e)	26.5/12.5
Active Member Payroll	\$13,717.6	\$11,099.6	\$2,932.2	\$2,060.9	\$108.8
Market Value of Assets (MVA) ^(f)	\$77,514.2	\$67,283.4	\$12,451.6	\$12,923.9	\$721.7
Actuarial Value of Assets (AVA) ^(g)	\$80,279.7	\$70,114.6	\$13,037.0	\$13,653.0	\$763.7
Actuarial Accrued Liability (AAL) ^(h)	\$100,167.1	\$100,756.4	\$19,368.6	\$19,135.9	\$1,127.9
Funding Ratio (AVA to AAL %, (MVA to AAL %)) ..	80.1 (77.4)	69.6 (66.8)	67.3 (64.3)	71.3 (67.5)	67.7 (64.0)
Unfunded Actuarial Accrued Liability (UAAL).....	\$19,887.4	\$30,641.8	6,331.4	\$5,482.9	\$364.3
UAAL to Active Member Payroll %	145.0	276.1	215.9	266.1	334.8
UAAL Funding Period (years) ⁽ⁱ⁾	19	27	28	29	29

(a) SERS information excludes Medicare Part B reimbursement which is considered a post-employment healthcare benefit reported in accordance with GASB Statement 43 for all data except MVA.

(b) OP&F deferred retirement option plan balances are included in MVA, AVA, and AAL.

(c) For PERS and SERS, the maximum employer and employee contribution rates under law are 14.0% and 10.0%. For STRS and HPRS, the maximum employer and employee contributions rates are 14.0/14.0% and 26.5/14.0%, respectively. Each system's board annually determines the portion of the employer contribution, if any, that is directed to fund post-employment health care benefits.

(d) PERS state employer/employee contribution rate is 14.0/10.0%, local is 14.0/10.0%, law enforcement is 18.1/13.0%, and public safety is 18.1/12.0%. PERS state and local employer and employee contribution rates increased to their current statutory maximum of 14.0% and 10.0%, respectively, in calendar year 2008.

(e) OP&F employer and employee contribution rates increased to their current statutory maximum of 19.5/12.25% for police and 24.0/12.25% for fire in July 2015.

(f) Defined contribution plan assets are excluded for PERS and included for STRS.

(g) Recognizes assumed long-term investment returns fully each year (7.5% for PERS and SERS, 7.75% for STRS and HPRS, and 8.25% for OP&F). Differences between actual and assumed investment returns, subject to each system's market corridor limitation, are phased-in over a closed four-year period.

(h) Reflects an individual entry age normal actuarial cost method.

(i) UAAL funding period is calculated based on a closed period as a level percent of payroll, except for the portion of PERS members who participate in the member directed plan which uses a closed period as a level dollar of payroll.

Sources: Retirement systems' CAFRs and annual actuarial valuations.

The following table summarizes financial and funding information for each of the retirement systems for the five years previous to the current year information provided above as reported by the particular system (\$ in millions):

Retirement System Valuation Year-End	Actuarial Value of Assets (AVA) ^(a)	Actuarial Accrued Liability (AAL) ^(b)	Unfunded Actuarial Accrued Liability (UAAL) ^(c)	Funding Ratio (AVA to AAL)	Market Value of Assets (MVA) ^(d)	Funding Ratio (MVA to AAL)	Active Member Payroll	UAAL Percent of Active Member Payroll
PERS								
12/31/15*	\$78,061.0	\$97,177.0	\$19,116.0	80.3%	\$74,560.1	76.7%	\$13,177.0	145.1%
12/31/15	\$78,061.0	\$91,832.0	\$13,771.0	85.0%	\$74,560.1	81.2%	\$13,177.0	104.5%
12/31/14	\$74,865.0	\$89,285.0	\$14,420.0	83.8%	\$77,263.2	86.5%	\$12,932.5	111.5%
12/31/13	\$71,411.2	\$86,644.6	\$15,233.4	82.4%	\$74,866.6	86.4%	\$12,331.0	123.5%
12/31/12	\$67,854.8	\$83,878.1	\$16,023.3	80.9%	\$67,854.9	80.9%	\$12,194.0	131.4%
12/31/11	\$65,436.1	\$84,529.7	\$19,093.6	77.4%	\$61,846.7	73.2%	\$12,399.0	154.0%
STRS								
07/01/15	\$68,656.0	\$99,014.7	\$30,358.7	69.3%	\$71,377.6	72.1%	\$10,948.6	277.3%
07/01/14	\$66,657.2	\$96,167.1	\$29,509.9	69.3%	\$71,843.6	74.7%	\$10,725.3	275.1%
07/01/13	\$62,590.8	\$94,366.7	\$31,775.9	66.3%	\$65,392.5	69.3%	\$10,765.6	295.2%
07/01/12	\$59,489.5	\$106,301.8	\$46,812.3	56.0%	\$61,261.3	57.6%	\$10,879.1	430.3%
07/01/11	\$58,110.5	\$98,766.2	\$40,655.7	58.8%	\$63,635.9	64.4%	\$11,097.6	366.3%
SERS^(e)								
06/30/15	\$12,467.0	\$18,122.0	\$5,655.0	68.8%	\$12,797.2	70.6%	\$2,845.4	198.7%
06/30/14	\$11,903.0	\$17,492.0	\$5,589.0	68.0%	\$12,820.9	73.3%	\$2,759.3	202.6%
06/30/13	\$11,007.0	\$16,860.0	\$5,853.0	65.3%	\$11,300.5	67.0%	\$2,746.8	213.1%
06/30/12	\$10,284.0	\$16,372.0	\$6,088.0	62.8%	\$10,331.7	63.1%	\$2,788.2	218.3%
06/30/11	\$10,397.0	\$15,943.0	\$5,546.0	65.2%	\$10,619.2	66.6%	\$2,852.4	194.4%
OP&F^(f)								
01/01/15	\$13,029.3	\$18,395.6	\$5,366.3	70.8%	\$13,453.4	73.1%	\$1,986.6	270.1%
01/01/14	\$11,063.2	\$16,577.8	\$5,514.6	66.7%	\$11,920.5	71.9%	\$1,942.3	283.9%
01/01/13	\$10,278.0	\$16,007.9	\$5,729.9	64.2%	\$10,602.8	66.2%	\$1,913.4	299.5%
01/01/12	\$10,309.0	\$16,346.7	\$6,037.7	63.1%	\$9,688.4	59.3%	\$1,897.4	318.2%
01/01/11	\$10,681.0	\$15,384.4	\$4,703.4	69.4%	\$10,075.5	65.5%	\$1,868.5	251.7%
HPRS								
12/31/15	\$739.8	\$1,079.0	\$339.1	68.6%	\$704.2	65.3%	\$100.0	339.2%
12/31/14	\$712.3	\$1,012.8	\$300.5	70.3%	\$740.7	73.1%	\$99.2	302.9%
12/31/13	\$690.6	\$989.1	\$298.5	69.8%	\$729.0	73.7%	\$98.5	303.0%
12/31/12	\$658.4	\$966.3	\$307.9	68.1%	\$642.6	66.5%	\$98.1	313.8%
12/31/11	\$623.4	\$1,047.7	\$424.3	59.5%	\$603.4	57.6%	\$93.1	455.7%

(a) Recognizes assumed long-term investment returns fully each year (8.25% for OP&F, 7.75% for SERS and HPRS in 2015, and 8.0% for the remaining systems). Differences between actual and assumed investment returns, subject to each system's market corridor limitation, are phased-in over a closed four-year period, except for OP&F in 2011-2012 which phases-in over a five-year period.

(b) Reflects an individual entry age actuarial cost method.

(c) UAAL is calculated based on a closed period as a level percent of payroll, except for PERS in 2011, STRS and OP&F in 2011-2014, and HPRS in 2011 for which UAAL is calculated based on an open period of time and the portion of PERS members who participate in the member directed plan which uses a level dollar of payroll.

(d) Defined contribution plan assets are excluded for PERS and included for STRS.

(e) Excludes Medicare Part B reimbursement which is considered a post-employment health care benefit reported in accordance with GASB 43 for all data except MVA.

(f) Effective with the January 1, 2015 valuation, OP&F deferred retirement option plan balances are included in AVA, AAL, and MVA.

*Reflects revised actuarial assumptions based on completion of a five-year experience study.

Sources: Retirement systems' CAFR's and annual actuarial valuations.

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GASB Statements No. 67 & 68. GASB Statement No. 67 replaced prior accounting standards for reporting pension plan information beginning in Fiscal Year 2014. Under this new accounting standard, the reporting of unfunded actuarial accrued liability (UAAL) has been replaced by the net pension liability (NPL). The NPL represents the excess of the total pension liability over fiduciary net position. The components of the NPL and the sensitivity of the NPL to changes in the single discount rate for each of the retirement systems for the most recent year are as follows (\$ in millions):

	<u>PERS*</u>	<u>STRS</u>	<u>SERS</u>	<u>OP&F</u>	<u>HPRS</u>
Valuation as of:	12/31/16	07/01/16	06/30/16	01/01/16	12/31/16
Total Pension Liability ^(a)	\$100,154.0	\$100,756.4	\$19,770.7	\$20,016.3	\$1,137.3 ^(c)
Fiduciary Net Position ^(b)	\$77,502.0	\$67,283.4	\$12,451.6	\$13,682.4	\$721.7
Net Pension Liability (NPL).....	\$22,652.0	\$33,473.0	\$7,319.1	\$6,333.9	\$415.6
Fiduciary Net Position as a Percentage of					
Total Pension Liability.....	77.4%	66.8%	63.0%	68.4%	63.5%
NPL Calculated With 1% Decrease in Discount Rate.....	\$34,696.0	\$44,482.9	\$9,690.0	\$8,436.0	\$540.8
NPL Calculated With 1% Increase in Discount Rate.....	\$12,620.0	\$24,185.5	\$5,334.5	\$4,552.3	\$311.9

^(a) Reflects a single discount rate of 7.5% for PERS and SERS, 7.75% for STRS and HPRS, and 8.25% for OP&F. The projection of cash flows used to determine the discount rate assumed that employee and employer contributions are made at the actuarially determined rates under State law. Based on those assumptions, the fiduciary net position was projected to be available to make all projected future benefit payments. Therefore, the long term expected rate of return on pension plan investments was applied to all periods of project benefit payments to determine total pension liability. Also reflects an individual entry age actuarial cost method.

^(b) Based on the market value of assets.

^(c) Total pension liability was determined by an actuarial valuation as of 12/31/15, and updated with roll-forward procedures to 12/31/16.

*Reflects results from original PERS actuarial valuation prior to re-statement after completion of five-year experience study.

Sources: Retirement systems' CAFRs and annual actuarial valuations.

GASB Statement No. 68 replaced prior accounting standards for state and local governments reporting of pension plan information beginning in Fiscal Year 2015. This new accounting standard requires employers and non-employer contributing entities to report a proportionate share of their NPL in their financial statements. Employers determine their proportionate share of NPL by comparing their current year contributions to the plan to current year contributions to the plan made by all employers and non-employer entities, based on information provided to them by their retirement system(s). The State's proportionate share of the NPL and the sensitivity of the NPL to changes in the single discount rate for PERS, STRS and HPRS for the most recent year are as follows (\$ in millions):

	<u>PERS^(a)</u>	<u>STRS</u>	<u>HPRS</u>
Valuation as of:	12/31/15	07/01/15	12/31/16
Total Pension Liability ^(b)	\$91,822.5	\$99,014.7	\$1,137.3 ^(d)
Fiduciary Net Position ^(c)	\$74,549.9	\$71,377.6	\$721.7
Net Pension Liability (NPL).....	\$17,272.6	\$27,637.1	\$415.6
State Proportionate Share of			
Net Pension Liability (PSL).....	\$3,552.1	\$107.5	\$415.6
PSL as a Percentage of NPL.....	20.6%	0.4%	100.0%
PSL Calculated With 1% Decrease in Discount Rate.....	\$5,674.1	\$149.4	\$540.8
PSL Calculated With 1% Increase in Discount Rate.....	\$1,762.8	\$72.1	\$311.9

^(a) For PERS, figures reflect the traditional plan and the defined benefit portion of the combined plan as presented in the State's CAFR.

^(b) Reflects a single discount rate of 8.0% for PERS and 7.75% for STRS and HPRS.

^(c) Based on the market value of assets.

^(d) Total pension liability was determined by an actuarial valuation as of 12/31/15, and updated with roll-forward procedures to 12/31/16.

Sources: State of Ohio Fiscal Year 2016 CAFR, Retirement systems' CAFRs and annual actuarial valuations.

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Other Post-Employment Benefits

Each of the State's public retirement systems also offers post-employment health care benefits to its members. Contributions to and benefits under these health care programs are not vested and, as reflected by the recent actions of the OP&F and STRS boards described above, are subject to future adjustment by their respective boards. In this regard, PERS adopted, beginning in 2004, a series of health care preservation plans to adjust benefits and contributions by employers, employees, and retirees. Financial reporting of their health care plans is in compliance with GASB Statement 43 -- Financial Reporting for Post-Employment Benefit Plans Other than Pension Plans.

The following table presents a summary of assets and actuarial accrued liabilities for post-employment healthcare benefits for each of the State's public retirement systems (\$ in millions):

Valuation as of:	<u>PERS*</u> 12/31/15	<u>STRS</u> 01/01/17	<u>SERS</u> 06/30/16	<u>OP&F</u> 01/01/16	<u>HPRS</u> 12/31/16
Value of Assets ^(a)	\$11,933.1	\$3,222.1	\$370.2	\$929.4	\$108.3
Actuarial Accrued Liability (AAL) ^(b)	\$18,514.6	\$5,886.2	\$2,407.3	\$5,166.6	\$403.7
Unfunded Actuarial Accrued Liability (UAAL) ^(c)	\$6,581.5	\$2,664.1	\$2,037.1	\$4,237.2	\$295.4
Funding Ratio (Assets to AAL %)	64.5%	54.7%	15.4%	18.0%	26.8%
Employer Contribution (% of Salary) ^(d)	2.0%	0.0%	0.0% ^(e)	0.50%	4.0%

(a) For PERS and HPRS, investment returns are recognized fully each year with the differences between actual and assumed investment returns (assumed at 5%), subject to each system's market corridor limitation, phased-in over a closed four-year period. For STRS, SERS and OP&F, reflects market value.

(b) Reflects an individual entry age normal actuarial cost method.

(c) UAAL is calculated based on an open period as a level percent of payroll.

(d) Each system's board annually determines the portion of the employer contribution, if any, that is directed to fund post-employment health care benefits. This amount has typically ranged from 1.0% to 7.0% of salary. See discussion above for recent adjustments by OP&F, STRS and HPRS boards to employer contribution directed to fund health care benefits.

(e) SERS also collects a health care surcharge from employers for employees who earn less than an actuarially determined minimum compensation amount. This amount is in addition to the amount allocated to health care from the employer contributions.

*Reflects results from original PERS actuarial valuation prior to re-statement after completion of five-year experience study.

Sources: Retirement systems' annual actuarial valuations.

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The following table presents a summary of assets and actuarial accrued liabilities for post-employment healthcare benefits for the four years previous to the current year information provided above for each of the State's public retirement systems (\$ in millions):

Retirement System Valuation Year-End	Value of Assets ^(a)	Actuarial Accrued Liability (AAL) ^(b)	Unfunded Actuarial Accrued Liability ^(c)	Funding Ratio (Assets to AAL)	Employer Contribution (% of Salary) ^{(d)(e)}
<u>PERS</u>					
12/31/14	\$12,062.4	\$19,404.9	\$7,342.5	62.2%	2.0%
12/31/13	\$12,031.4	\$19,784.1	\$7,752.7	60.8%	1.0%
12/31/12	\$12,193.3	\$19,182.3	\$6,989.0	63.6%	4.0%
12/31/11	\$12,115.3	\$31,020.2	\$18,904.9	39.1%	4.0%
<u>STRS</u>					
01/01/16	\$3,258.2	\$5,154.2	\$1,896.0	63.2%	0.0%
01/01/15	\$3,454.4	\$4,676.2	\$1,221.9	73.9%	0.0%
01/01/14	\$3,471.9	\$4,664.4	\$1,192.6	74.4%	1.0%
01/01/13	\$3,121.6	\$4,254.1	\$1,132.5	73.4%	1.0%
<u>SERS</u>					
06/30/15	\$408.4	\$2,424.5	\$2,016.2	16.8%	0.82%
06/30/14	\$413.9	\$2,475.6	\$2,061.8	16.7%	0.14%
06/30/13	\$379.2	\$2,918.3	\$2,539.1	13.0%	0.16%
06/30/12	\$355.1	\$2,691.5	\$2,336.4	13.2%	0.55%
<u>OP&F</u>					
01/01/15	\$1,031.9	\$5,399.6	\$4,367.6	19.1%	0.50%
01/01/14	\$1,053.5	\$5,244.6	\$4,191.0	20.1%	0.50%
01/01/13	\$935.6	\$4,234.8	\$3,299.2	22.1%	3.62%
01/01/12	\$780.1	\$3,698.8	\$2,918.6	21.1%	6.75%
<u>HPRS</u>					
12/31/15	\$106.6	\$412.4	\$305.8	25.8%	4.00%
12/31/14	\$103.8	\$376.7	\$272.9	27.6%	4.30%
12/31/13	\$102.1	\$438.6	\$336.5	23.3%	3.65%
12/31/12	\$99.8	\$411.5	\$311.7	24.3%	1.75%

- (a) For PERS & HPRS, recognizes investment returns fully each year (assumed at 5%) with the differences between actual and assumed investment returns, subject to each system's market corridor limitation, phased-in over a closed four-year period. For STRS, SERS and OP&F, reflects market value.
- (b) Reflects an individual entry age normal actuarial cost method.
- (c) UAAL is calculated based on an open period as a level percent of payroll.
- (d) Each system's board annually determines the portion of the employer contribution, if any, that is directed to fund post-employment health care benefits. This amount has typically ranged from 1.0% to 7.0% of salary. For PERS, reflects overall effective rate.
- (e) SERS also collects a health care surcharge from employers for employees who earn less than an actuarially determined minimum compensation amount. This amount is in addition to the amount allocated to health care from the employer contributions.

Sources: Retirement systems' annual actuarial valuations.

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TAX LEVELS AND TAX BASES

The variety of taxes and excises levied by the State is indicated in several tables in this Appendix. According to the Federation of Tax Administrators, citing the U.S. Census Bureau as its source, Ohio ranked 36th in state taxes per capita in 2016. Three major tax bases in the State, personal income (taxed by the State and municipalities and, with voter approval, by certain school districts), retail sales and use (taxed by the State and counties and transit authorities), and real and tangible personal property (taxed by local governments and school districts), are described below. The State also levies a commercial activity tax on business activities as described below.

The State also imposes a tax on the use, distribution, or sale of motor vehicle fuel. This "gasoline" tax was last raised by two-cents per gallon effective July 1, 2005 to 28 cents per gallon (one cent of this tax is specifically directed to local highway-related infrastructure projects).

Sales and Use Tax

The State sales and use tax rate was increased one-quarter percent from 5.5% to 5.75% beginning September 1, 2013 (see **FISCAL MATTERS – Recent and Current Finances – Recent Biennia – 2014-15**). Prior to this increase, the rate had been 5.5% since July 1, 2005. The sales and use tax is levied uniformly across counties on retail sales of tangible personal property that are not specifically exempt. Retail sales include the rental and storage of tangible personal property, the rental of hotel rooms, and certain specified services including, but not limited to, repair and installation services, data processing, computer, and electronic information services, telecommunication and certain personal care services.

Counties and transit authorities each are authorized to levy permissive sales and use taxes at rates of 0.25% to 1.5% in quarter-percent increments and beginning in Fiscal Year 2019 in one-tenth percent increments. The highest potential aggregate of State and permissive local sales taxes is 8.75% and the highest currently levied in any county is 8%. The State collects the combined state and local tax and returns the local share directly to the counties and transit authorities.

Personal Income Tax

Under recent legislation, State personal income tax rates, applying generally to federal adjusted gross income minus (or plus) adjustments and personal exemptions, were reduced by 8.5% in calendar year 2013, 1.5% in calendar year 2014, and 6.3% in calendar year 2015 (see **FISCAL MATTERS – Recent and Current Finances – Recent Biennia - 2014-15 and 2016-17**). Recent legislation also established a deduction for pass-through entities and sole proprietorships annual business net income of 75% in tax years 2014 and 2015, and 100% in tax year 2016 and beyond, up to \$250,000 per taxpayer (see **FISCAL MATTERS – Recent and Current Finances – Recent Biennia – 2014-15 and 2016-17**). Previously, personal income tax rates were reduced 4.2% annually in each of the years 2005 through 2008 and, after the postponement discussed under **FISCAL MATTERS – Recent and Current Finances – Recent Biennia - 2010-11** resulted in an aggregate 21% decrease through 2011 from the 2004 rates.

The 2016 personal income tax rates ranged from 0.495% on incomes of \$5,200 or less with increasing bracketed base rates and percentages up to a maximum on incomes over \$210,600 of \$8,072 plus 4.997% on the amount over \$210,600.

The Constitution requires 50% of State income tax receipts to be returned to the political subdivisions or school districts in which those receipts originate. There is no present constitutional limit on income tax rates.

Municipalities and school districts, and joint economic development districts and zones, may also levy certain income taxes. Any municipal rate (applying generally to wages and salaries and business net income) over 1%, and any school district income tax (applying generally to the State income tax base for individuals and estates), requires voter approval. Most cities and villages levy a municipal income tax. The highest municipal rate in 2011 was 3%. A school district income tax is currently approved in 184 districts. Each joint economic development district or zone may also levy an income tax (which like municipal income taxes applies generally to wages and salaries and business net income) with the rate of that tax limited to the highest income tax rate of a municipal member of the district or zone). Effective July 1, 2005, there may also be proposed for voter approval municipal income taxes to be shared with school districts, but those taxes may not be levied on the income of nonresidents.

Since 1970 the ratio of Ohio to U.S. aggregate personal income has declined, with Ohio's ranking among the states moving from fifth in 1970 to seventh in 1990, and eighth since 2000. This movement, portrayed below, in significant measure reflects "catching up" by several other states and a trend in Ohio toward more service sector employment.

		Personal Income (\$ in Billions)			
		<u>U.S.</u>	<u>Ohio</u>	<u>Ohio Percent of U.S.</u>	<u>State Rank*</u>
1970	Total	\$855.1	\$44.1	5.2%	5
	per capita	4,196	4,136	98.6	18
1980	Total	2,307.0	107.0	4.6	6
	per capita	10,153	9,909	97.6	25
1990	Total	4,890.5	202.8	4.1	7
	per capita	19,591	18,669	95.3	21
2000	Total	8,634.8	324.0	3.8	8
	per capita	30,602	28,509	93.2	27
2010	Total	12,459.6	419.6	3.4	8
	per capita	40,277	36,355	90.3	32
2013	Total	14,069.0	470.7	3.3	8
	per capita	40,687	44,493	91.4	29
2014	Total	14,801.6	488.9	3.3	8
	per capita	46,464	42,164	90.7	29
2015	Total	15,464.0	506.0	3.3	8
	per capita	48,190	43,597	90.5	30
2016 ^P	Total	16,017.8	521.2	3.3	8
	per capita	49,571	44,876	90.5	30

P: preliminary data.

Source: U.S. Department of Commerce, Bureau of Economic Analysis.

* Excludes District of Columbia.

In addition to personal income, the retail sales base is an important indicator of sales and use tax receipts.

<u>Fiscal Year</u>	<u>Ohio Retail Sales</u>	<u>U.S. Retail Sales</u>	<u>Ohio Percent of U.S.</u>
1980	\$39.01	\$979.25	4.0%
1990	66.95	1,914.04	3.5
2000	117.72	3,213.82	3.6
2010	132.53	4,171.40	3.2
2011	142.81	4,440.32	3.2
2012	153.44	4,719.87	3.3
2013	159.93	4,912.64	3.3
2014	165.97	5,092.77	3.3
2015	169.49	5,270.78	3.2
2016	171.58	5,397.68	3.2

Source: Calculated by Global Insight based on data from the U.S. Department of Commerce, Bureau of the Census.

Commercial Activity Tax

The State implemented a new commercial activity tax (CAT) on taxable gross receipts in excess of \$1,000,000 from doing business in Ohio phased-in over Fiscal Years 2006 through 2010 until levied at the current rate of 0.26%. Beginning calendar year 2014, the State established a variable minimum tax on the CAT for businesses with taxable gross receipts greater than \$1 million (see **FISCAL MATTERS – Recent and Current Finances – Recent Biennia – 2014-15**). The State phased-out over the same general period its corporate franchise tax in equal annual increments over the 2006 through 2010 tax years, except for application to financial institutions and certain affiliates of insurance companies and financial institutions which was replaced with a new financial institutions tax effective tax year 2014 (see **FISCAL MATTERS – Recent and Current Finances – Recent Biennia – 2012-13 and 2014-15**). On December 7, 2012, the Ohio Supreme Court upheld the application of the CAT to gross receipts from the sales of motor fuels but ordered that the proceeds of the CAT derived from those gross receipts – estimated by OBM at approximately \$100 million annually – could not in the future be applied to non-highway purposes. Under provisions enacted in the biennial appropriations Act for the 2014-15 biennium, the State phased-out the CAT on the sale of motor vehicle fuel and replaced it

with a "motor fuel receipts tax" (MFRT), computed on the basis of gross motor fuel receipts received by in-State suppliers. In accordance with the Ohio Supreme Court's ruling, MFRT receipts are required to be used for highway purposes.

As described further below, the receipts from the CAT are directed in part to make compensating payments to school districts and other local taxing units in connection with the phase-out of the tangible personal property tax in 2006 through 2009. Beginning in Fiscal Year 2012, the State accelerated the phase-out of compensating payments to school districts and local governments resulting in an increased share of the CAT being deposited into the GRF (see **Property Tax** below and **FISCAL MATTERS – Recent and Current Finances – Recent Biennia – 2014-15 and 2016-17, and Current Biennium**).

Property Tax

The following table lists, for informational purposes only, the non-exempt real and tangible personal property tax base in the State and taxes levied on that base (on a calendar year basis). Only local taxing subdivisions, and not the State, currently tax the real and tangible personal property included in this table. Reported figures for 2016 show that these property taxes represent 3.35% of Ohio personal income.

		<u>Assessed Value^(a)</u>	<u>Percent of True Value^(b)</u>	<u>Taxes Charged</u>	
1980	Real ^(c)	\$56,457,842,607	27.1%	\$2,343,384,488 ^(e)	
	Tangible ^(d)	15,649,200,844	39.2	765,047,826	
	Public Utility ^(e)	8,670,052,613	83.3	411,321,235	
1990	Real.....	93,857,482,000	35.0	4,593,147,000 ^(e)	
	Tangible ^(d)	18,473,055,000	28.0	1,149,643,000	
	Public Utility ^{(c)(f)}	12,934,191,000	88.6	799,396,000	
2000	Real.....	167,857,657,350	35.0	8,697,809,112 ^(e)	
	Tangible ^(d)	23,298,302,564	25.0	1,720,740,378	
	Public Utility ^{(c)(f)}	13,635,709,860	67.0	967,674,709	
2010	Real.....	238,264,394,249	35.0	14,486,087,962 ^(e)	
	Tangible ^(d)	320,961,400	5.0 ^(b)	18,432,832	
	Public Utility ^{(c)(f)}	10,096,712,600 ^(g)	52.9	747,237,219	
2012	Real.....	225,314,466,955	35.0	14,767,601,611 ^(e)	
	Tangible ^(d)	-0-	-0 ^(b)	-0-	
	Public Utility ^{(c)(f)(h)}	11,105,363,530 ^(g)	52.4	872,521,025	
2013	Real.....	226,356,619,274	35.0	15,138,100,663 ^(e)	Tangible ^(d)
	..... -0-	-0 ^(b)	-0-		
	Public Utility ^{(c)(f)(h)}	11,899,256,920 ^(g)	53.1	948,094,817	
2014	Real.....	230,378,310,115	35.0	15,465,341,626 ^(e)	Tangible ^(d)
	..... -0-	-0 ^(b)	-0-		
	Public Utility ^{(c)(f)}	12,880,528,010 ^(g)	55.3	1,045,187,750	
2015	Real.....	234,225,079,130	35.0	15,676,144,409 ^(e)	Tangible ^(d)
	..... -0-	-0 ^(b)	-0-		
	Public Utility ^{(c)(f)}	14,111,055,940 ^(g)	52.9	1,120,681,300	
2016	Real.....	238,100,197,518	35.0	16,170,309,495 ^(e)	Tangible ^(d)
	..... -0-	-0 ^(b)	-0-		
	Public Utility ^{(c)(f)}	15,962,565,444	56.8 ^(g)	1,271,855,503	

- (a) Increases in assessed value of "Real" are in part products of reappraisals.
- (b) Regular annual reductions for "Tangible" (except for most public utility tangible) reached 0% in 2009; only telecommunication and telephone personal property was taxable in 2009 and 2010.
- (c) Includes public utility personal property owned and located within Ohio and railroad real property; excludes public utility real property.
- (d) Includes machinery, inventories, fixtures; effective tax year 2007 includes telephone company property. Excludes public utility tangible property. Effective tax year 2009 includes only telephone company property.
- (e) Includes the statutory 10% rollback (12.5% for owner-occupied residences) and elderly/handicapped partial exemption amounts, paid by the State to local taxing entities to compensate for statutory reductions in local tax collections. Effective for tax year 2005 and thereafter, the 10% rollback was eliminated for real property used in business, with exceptions for certain property used in farming or for housing. The 12.5% rollback for owner-occupied residences was eliminated for new voter-approved tax levies (see **FISCAL MATTERS – Recent and Current Finances – Current Biennium**).
- (f) Beginning in 1990, the true value of most public utility property is based on annual composite allowances that vary according to the type and age of property.
- (g) Beginning in 2001, the statutory assessment rate for electric and gas utilities decreased from 88% to 25%.
- (h) Calculated using 2011 assessment rates on the breakdown of electrical property.

Source: Ohio Department of Taxation.

Under State legislation effective July 1, 2005 and as reflected in the above table, the tangible personal property tax (TPPT) (including that tax on inventories) was phased out over tax years 2006 through 2009, with that tax generally eliminated beginning in tax year 2009. That legislation provided for the State to make replacement distributions to school districts and other local taxing units from revenue generated by the State commercial activity tax (CAT). Distributions were and are generally based on the taxable value of tangible personal property as reported in 2004 and property tax levies in effect for 2005. In Fiscal Year 2012, the State began phasing-out those TPPT replacement payments to schools and local governments with replacement payments to schools reduced by two percent of each district's total resources in each of Fiscal Years 2012 and 2013 for a total reduction of four percent; and replacement payments to local governments reduced by two percent of total resources for tax years 2011, 2012, and 2013 for a total reduction of six percent. Replacement payments were then frozen in Fiscal Years 2014 and 2015. The phasing out of these replacement payments resumed beginning in Fiscal Year 2016, with payments to school districts to be reduced in Fiscal Years 2016 and 2017 by between 1% and 2% of each district's total resources with the variance based on district wealth levels, with guarantees in both Fiscal Year 2016 and Fiscal Year 2017 that no district will fall below 100% and 96%, respectively, of its Fiscal Year 2015 total funding level. Fiscal Year 2016 and thereafter replacement payments to other local governments are reduced annually by two percent of their total resources (see **FISCAL MATTERS – Recent and Current Finances – Recent Biennia - 2016-17**).

Beginning July 2007, the State's homestead exemption program, which takes the form of a credit on local residential real property tax bills, was expanded to allow all senior citizens and disabled Ohioans, regardless of income, to exempt from tax the first \$25,000 of the market value of their home. Previously eligibility was restricted and benefits were tiered based on income. Beginning July 1, 2013, eligibility for new applicants is based on income (see **FISCAL MATTERS – Recent and Current Finances - Recent Biennia – 2014-15**). The total cost of the homestead exemption program in Fiscal Year 2016 was \$454.1 million and in Fiscal Year 2017 was \$446.3 million.

Property tax relief payments by the State to local subdivisions totaled \$3.59 billion for the 2014-15 biennium, \$3.58 million for the 2016-17 biennium, and are appropriated at \$3.67 billion for the 2018-19 biennium.

SCHOOLS AND MUNICIPALITIES

Schools

Litigation was commenced in the Ohio courts in 1991 questioning the constitutionality of Ohio's system of school funding and compliance with the constitutional requirement that the State provide a "thorough and efficient system of common schools". On December 11, 2002, the Ohio Supreme Court, in a 4-3 decision on a motion to reconsider its own decision rendered in September 2001, concluded (as it had in its 1997 and 2000 opinions in that litigation) that the State did not comply with that requirement, even after again noting and crediting significant State steps in preceding years.

In its prior decisions, the Ohio Supreme Court stated as general base threshold requirements that every school district have enough funds to operate, an ample number of teachers, sound and safe buildings, and equipment sufficient for all students to be afforded an educational opportunity. With particular respect to funding sources, the Court concluded in 1997 and 2000 decisions that property taxes no longer may be the primary means of school funding in Ohio.

On March 4, 2003, the plaintiffs filed with the original trial court a motion to schedule and conduct a conference to address compliance with the orders of the court in that case, the State petitioned the Ohio Supreme Court to issue a writ prohibiting that conference on compliance, and the trial court subsequently petitioned the Ohio Supreme Court for guidance as to the proper course to follow. On May 16, 2003, the Ohio Supreme Court granted that writ and ordered the dismissal of the motion before the trial court. On October 20, 2003 the United States Supreme Court declined to accept the plaintiffs' subsequent petition requesting further review of the case.

In the years following this litigation, the General Assembly has taken steps, including significantly increasing State funding for public schools, as discussed below. In addition, at the November 1999 election electors approved a constitutional amendment authorizing the issuance of State general obligation debt for school buildings and for higher education facilities (see discussion under **STATE DEBT**). December 2000 legislation also addressed certain mandated programs and reserves, characterized by the plaintiffs and the Court as "unfunded mandates."

Under the financial structure in place before the 2009-10 biennium, Ohio's 613 public school districts and 49 joint vocational school districts receive a major portion (but less than 50%) of their operating moneys from State subsidy appropriations (the primary portion of which is known as the Foundation Program) distributed in accordance with statutory formulae that take into account both local needs and local taxing capacity. The Foundation Program amounts have steadily increased in most recent years, including small aggregate increases even in those Fiscal Years in which appropriations cutbacks were imposed.

School districts also rely upon receipts from locally voted taxes. In part because of provisions of some State laws, such as partially limiting the increase (without further vote of the local electorate) in voted property tax collections that would otherwise result from increased assessed valuations, some school districts have experienced varying degrees of difficulty in meeting mandated and discretionary increased costs. Local electorates have largely determined the total moneys available for their schools. Locally elected boards of education and their school administrators are responsible for managing school programs and budgets within statutory requirements.

The State's school subsidy formulas that were used until the 2009-10 biennium were structured to encourage both program quality and local taxing effort. Until the late 1970's, although there were some temporary school closings, most local financial difficulties that arose were successfully resolved by the local districts themselves by some combination of voter approval of additional property tax levies, adjustments in program offerings, or other measures. For more than 20 years, requirements of law and levels of State funding have sufficed to prevent school closings for financial reasons, which in any case are prohibited by current law.

To broaden the potential local tax revenue base, local school districts also may submit for voter approval income taxes on the district income of individuals and estates. Many districts have submitted the question, and income taxes are currently approved in 184 districts.

Biennial school funding State appropriations from the GRF and Lottery Profits Education Fund (but excluding federal and other special revenue funds) for recent biennia were:

- 2008-09 - \$17.2 billion (a 5.1% increase over the previous biennium before the expenditure reductions discussed under **Fiscal Matters – Recent and Current Finances – Recent Biennia - 2008-09**).
- 2010-11 - \$17.0 billion (a 1.6% decrease over the previous biennium. These amounts are exclusive of the \$1.463 billion of appropriations to school districts for the 2010-11 biennium from "Federal Stimulus" funding received under the American Recovery and Reinvestment Act of 2009).
- 2012-13 - \$16.6 billion (a 2.3% decrease over the previous biennium).
- 2014-15 - \$18.3 billion (a 10.5% increase over the previous biennium).
- 2016-17 - \$20.0 billion (a 9.3% increase over the previous biennium).

State appropriations for school funding for the 2018-19 biennium are \$20.7 billion (a 3.5% increase from those appropriations in the previous biennium), representing an increase of 0.7% in Fiscal Year 2018 over Fiscal Year 2017 and an increase of 1.4% in Fiscal Year 2019 over Fiscal Year 2018.

The amount of lottery profits transferred to the Lottery Profits Education Fund (LPEF) totaled \$990.0 million in Fiscal Year 2015, \$1.07 billion in Fiscal Year 2016, \$1.04 billion in Fiscal Year 2017 and is currently estimated to be \$1.08 billion in Fiscal Year 2018. Ohio participation in the multi-state lottery commenced in May 2002. A constitutional provision requires that net lottery profits be paid into LPEF be used solely for the support of elementary, secondary, vocational and special education purposes, including application to debt service on general obligation bonds to finance common school facilities. The 2010-11 biennial appropriations Act also authorized the implementation of video lottery terminals (VLTs) at Ohio seven horse racing tracks. See **FISCAL MATTERS - Recent and Current Finances – Recent Biennia - 2010-11** for discussion of litigation concluded in the Ohio Supreme Court declaring that the authorization of those VLTs is subject to voter referendum and subsequent withdrawal of that referendum by the committee for the petitioners, and for another case attempting to challenge the VLT authorization in the 2010-11 biennial appropriations Act.

The 2014-15 biennial appropriations Act enacted a new funding formula for the distribution of State funding to local school districts based on a per pupil amount. This per pupil formula is similar to the "Building Blocks" school funding formula in place through Fiscal Year 2009 until its replacement with the "Evidence Based Model" for the 2010-11 biennium. The Evidence Based Model was repealed in July 2011 and a temporary formula was put in place for the 2012-13 biennium that allocated funding to each school district based on the per

pupil funding it received for Fiscal Year 2011, adjusted by its share of a statewide per pupil adjustment amount that was indexed by the district's relative tax valuation per pupil.

The 2016-17 biennial appropriations Act modified certain components of the funding formula to distribute new resources to districts with less capacity to raise revenue through local sources. Under the modified formula, the State Department of Education will compute and pay to each school district education aid based on a per pupil funding amount of \$5,900 in Fiscal Year 2016 and \$6,000 in Fiscal Year 2017, multiplied by each school district's "state share index," which uses a three-year average of adjusted property valuation per pupil and the median income of that school district to calculate the percentage of the per-pupil amount that is to be paid by the State and the amount assumed to be contributed by the school district through local sources. The 2016-17 biennial appropriations Act also supplemented transportation funds for low density districts and continued to provide additional funds for students with exceptional needs, including those with special needs and the disabled, and limited English proficiency, and for economically disadvantaged and gifted students. Funding was also provided based on the number of K-3 students at each school district to be used to help school districts comply with Ohio's 3rd grade reading guarantee. The Act continued funding for the "Straight A Fund" to provide school districts with grants to develop and implement creative and innovative instructional models to inspire learning and student growth.

The current 2018-19 biennial appropriations Act maintains all components of the 2016-17 funding formula with certain minor modifications. School district's education aid continues to be paid based on a per pupil funding amount (increasing to \$6,010 in Fiscal Year 2018 and \$6,020 in Fiscal Year 2019) multiplied by each school district's state share index. The 2018-19 appropriations Act reduces the minimum share of transportation funding to better target school districts with lower capacity to raise revenue locally and increases the multiplier in the formula for computing capacity aid to provide additional aid to low wealth school districts and those with small populations and low property valuation. The Act also modified the calculations for temporary transitional aid and the gain cap to take into account changes in student population. Funding also continues for other education initiatives including Early Childhood Education, EdChoice Expansion Scholarships, and the Community Connectors grant program.

Legislation was enacted in 1996 to address school districts in financial straits. It is similar to that for municipal "fiscal emergencies" and "fiscal watch" discussed below under **Municipalities**, but is particularly tailored to certain school districts and their then-existing or potential fiscal problems. Newer legislation created a third, more preliminary, category of "fiscal caution". A current listing of school districts in fiscal emergency or watch status can be found on the Auditor of State's website at <http://www.auditor.state.oh.us>.

Municipalities

Ohio has a mixture of urban and rural population, with approximately three-quarters urban. There are 932 incorporated cities and villages (municipalities with populations under 5,000) in the State. Five cities have populations of more than 100,000 and 16 cities exceed 50,000 in population.

A 1979 act established procedures for identifying and assisting those few cities and villages experiencing defined "fiscal emergencies." A commission composed of State and local officials, and private sector members experienced in business and finance appointed by the Governor, is to monitor the fiscal affairs of a municipality facing substantial financial problems. That act requires the municipality to develop, subject to approval and monitoring by its commission, a financial plan to eliminate deficits and cure any defaults and otherwise remedy fiscal emergency conditions and to take other actions required under its financial plan. It also provides enhanced protection for the municipality's bonds and notes and, subject to the act's stated standards and controls, permits the State to purchase limited amounts of the municipality's short-term obligations (used only once, in 1980).

As noted in the discussion above under **FISCAL MATTERS – Recent and Current Finances – Recent Biennia - 2008-09 and 2012-13**, the amount of distributions to most local governments, including municipalities, from the several State local government revenue assistance funds have been subject to reductions and other adjustments in several of those recent biennia.

The fiscal emergency legislation has been amended to extend its potential application to counties (88 in the State) and townships. This extension is on an "if and as needed" basis and is not aimed at particularly identified existing fiscal problems of those subdivisions. A current listing of governments in each status can be found on the Auditor of State's website at <http://www.auditor.state.oh.us>.

APPENDIX B

BOOK-ENTRY SYSTEM; DTC

The information set forth in the following numbered paragraphs is based on information provided by The Depository Trust Company in its "Sample Offering Document Language Describing DTC and Book-Entry-Only Issuance" (labeled 06-2013). As such, the Treasurer believes it to be reliable, but the Treasurer takes no responsibility for the accuracy or completeness of that information. It has been adapted to the Highway Bonds issue by substituting "Highway Bonds" for "Securities," "Treasurer" for "Issuer," "Bond Registrar" for "registrar" and by the addition of the italicized language set forth in the text. See also the additional information following those numbered paragraphs.

1. The Depository Trust Company ("DTC"), New York, NY, will act as securities depository for the Highway Bonds. The Highway Bonds will be issued as fully-registered securities registered in the name of Cede & Co. (DTC's partnership nominee) or such other name as may be requested by an authorized representative of DTC. One fully-registered certificate will be issued for each maturity of the Highway Bonds (*and interest rate within a maturity*), each in the aggregate principal amount of such maturity, and will be deposited with DTC.

2. DTC, the world's largest securities depository, is a limited-purpose trust company organized under the New York Banking Law, a "banking organization" within the meaning of the New York Banking Law, a member of the Federal Reserve System, a "clearing corporation" within the meaning of the New York Uniform Commercial Code, and a "clearing agency" registered pursuant to the provisions of Section 17A of the Securities Exchange Act of 1934. DTC holds and provides asset servicing for over 3.5 million issues of U.S. and non-U.S. equity issues, corporate and municipal debt issues, and money market instruments (from over 100 countries) that DTC's participants ("Direct Participants") deposit with DTC. DTC also facilitates the post-trade settlement among Direct Participants of sales and other securities transactions in deposited securities, through electronic computerized book-entry transfers and pledges between Direct Participants' accounts. This eliminates the need for physical movement of securities certificates. Direct Participants include both U.S. and non-U.S. securities brokers and dealers, banks, trust companies, clearing corporations, and certain other organizations. DTC is a wholly owned subsidiary of The Depository Trust & Clearing Corporation ("DTCC"). DTCC is the holding company for DTC, National Securities Clearing Corporation and Fixed Income Clearing Corporation, all of which are registered clearing agencies. DTCC is owned by the users of its regulated subsidiaries. Access to the DTC system is also available to others such as both U.S. and non-U.S. securities brokers and dealers, banks, trust companies, and clearing corporations that clear through or maintain a custodial relationship with a Direct Participant, either directly or indirectly ("Indirect Participants"). DTC has an S&P rating of AA+. The DTC Rules applicable to its Participants are on file with the Securities and Exchange Commission. More information about DTC can be found at www.dtcc.com. (*This internet site is included for reference only, and the information in this internet site is not incorporated by reference in this Official Statement.*)

3. Purchases of Highway Bonds under the DTC system must be made by or through Direct Participants, which will receive a credit for the Highway Bonds on DTC's records. The ownership interest of each actual purchaser of each Highway Bond ("Beneficial Owner") is in turn to be recorded on the Direct and Indirect Participants' records. Beneficial Owners will not receive written confirmation from DTC of their purchase. Beneficial Owners are, however, expected to receive written confirmations providing details of the transaction, as well as periodic statements of their holdings, from the Direct or Indirect Participant through which the Beneficial Owner entered into the transaction. Transfers of ownership interests in the Highway Bonds are to be accomplished by entries made on the books of Direct and Indirect Participants acting on behalf of Beneficial Owners. Beneficial Owners will not receive

certificates representing their ownership interests in the Highway Bonds, except in the event that use of the book-entry system for the Highway Bonds is discontinued.

4. To facilitate subsequent transfers, all Highway Bonds deposited by Direct Participants with DTC are registered in the name of DTC's partnership nominee, Cede & Co., or such other name as may be requested by an authorized representative of DTC. The deposit of Highway Bonds with DTC and their registration in the name of Cede & Co. or such other DTC nominee do not effect any change in beneficial ownership. DTC has no knowledge of the actual Beneficial Owners of the Highway Bonds; DTC's records reflect only the identity of the Direct Participants to whose accounts such Highway Bonds are credited, which may or may not be the Beneficial Owners. The Direct and Indirect Participants will remain responsible for keeping account of their holdings on behalf of their customers.

5. Conveyance of notices and other communications by DTC to Direct Participants, by Direct Participants to Indirect Participants, and by Direct Participants and Indirect Participants to Beneficial Owners will be governed by arrangements among them, subject to any statutory or regulatory requirements as may be in effect from time to time. Beneficial Owners of Highway Bonds may wish to take certain steps to augment the transmission to them of notices of significant events with respect to the Highway Bonds, such as redemptions, tenders, defaults and proposed amendments to the Highway Bond documents. For example, Beneficial Owners of Highway Bonds may wish to ascertain that the nominee holding the Highway Bonds for their benefit has agreed to obtain and transmit notices to Beneficial Owners. In the alternative, Beneficial Owners may wish to provide their names and addresses to the Bond Registrar and request that copies of notices be provided directly to them.

6. Redemption notices shall be sent to DTC. If less than all of the Highway Bonds within an issue are being redeemed, DTC's practice is to determine by lot the amount of the interest of each Direct Participant in such issue to be redeemed.

7. Neither DTC nor Cede & Co. (nor any other DTC nominee) will consent or vote with respect to Highway Bonds unless authorized by a Direct Participant in accordance with DTC's MMI Procedures. Under its usual procedures, DTC mails an Omnibus Proxy to the Treasurer as soon as possible after the record date. The Omnibus Proxy assigns Cede & Co.'s consenting or voting rights to those Direct Participants to whose accounts the Highway Bonds are credited on the record date (identified in a listing attached to the Omnibus Proxy).

8. Redemption proceeds, distributions and dividends (*and Bond Debt Service payments*) on the Highway Bonds will be made to Cede & Co., or such other nominee as may be requested by an authorized representative of DTC. DTC's practice is to credit Direct Participants' accounts, upon DTC's receipt of funds and corresponding detail information from the Treasurer or the Bond Registrar, on the payable date in accordance with their respective holdings shown on DTC's records. Payments by Participants to Beneficial Owners will be governed by standing instructions and customary practices, as is the case with securities held for the accounts of customers in bearer form or registered in "street name," and will be the responsibility of such Participant and not of DTC, the Bond Registrar, or the Treasurer, subject to any statutory or regulatory requirements as may be in effect from time to time. Payment of redemption proceeds, distributions and dividends (*and Bond Debt Service payments*) to Cede & Co. (or such other nominee as may be requested by an authorized representative of DTC) is the responsibility of the Treasurer or the Bond Registrar, disbursement of such payments to Direct Participants will be the responsibility of DTC, and disbursement of such payments to the Beneficial Owners will be the responsibility of Direct and Indirect Participants.

9. (*Not applicable to the Highway Bonds.*)

10. DTC may discontinue providing its services as depository with respect to the Highway Bonds at any time by giving reasonable notice to the Treasurer or the Bond Registrar. Under such circumstances, in the event that a successor depository is not obtained, Highway Bonds are required to be printed (*or otherwise produced*) and delivered.

11. The Treasurer may decide to discontinue use of the system of book-entry-only transfers through DTC (or a successor securities depository). In that event, Highway Bonds will be printed (*or otherwise produced*) and delivered to DTC. (See also **THE HIGHWAY BONDS – Revision of Book-Entry System; Replacement Highway Bonds.**)

12. The information above in this section concerning DTC and DTC's book-entry system has been obtained from sources that the Treasurer believes to be reliable, but the Treasurer takes no responsibility for the accuracy thereof.

Direct Participants and Indirect Participants may impose service charges on Beneficial Owners in certain cases. Purchasers of book-entry interests should discuss that possibility with their brokers.

The Treasurer and the Bond Registrar have no role in the purchases, transfers or sales of book-entry interests. The rights of Beneficial Owners to transfer or pledge their interests, and the manner of transferring or pledging those interests, may be subject to applicable state law. Beneficial Owners may want to discuss with their legal advisors the manner of transferring or pledging their book-entry interests.

The Treasurer and the Bond Registrar have no responsibility or liability for any aspects of the records or notices relating to, or payments made on account of, beneficial ownership, or for maintaining, supervising or reviewing any records relating to that ownership.

The Treasurer and the Bond Registrar cannot and do not give any assurances that DTC, Direct Participants, Indirect Participants or others will distribute to the Beneficial Owners payments of debt charges on the Highway Bonds made to DTC as the registered owner, or redemption, if any, or other notices, or that they will do so on a timely basis, or that DTC, Direct Participants or Indirect Participants will serve or act in a manner described in this Official Statement.

For all purposes under the Highway Bond proceedings (except the Continuing Disclosure Commitments under which others as well as DTC may be considered an owner or holder of the Highway Bonds, see **CONTINUING DISCLOSURE COMMITMENT**), DTC will be and will be considered by the Treasurer and the Bond Registrar to be the owner or holder of the Highway Bonds.

Beneficial Owners will not receive or have the right to receive physical delivery of Highway Bonds, and, except to the extent they may have rights as Beneficial Owners or holders under the Continuing Disclosure Commitments, will not be or be considered by the Treasurer and the Bond Registrar to be, and will not have any rights as, owners or holders of Highway Bonds under the Highway Bond proceedings.

Reference herein to "DTC" includes when applicable any successor securities depository and the nominee of the depository.

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EXHIBIT A

**PROPOSED TEXT OF LEGAL OPINION
FOR SERIES T HIGHWAY BONDS**

October 3, 2017

Goldman Sachs & Co. LLC,
New York, New York

As representative of the several Underwriters named in the
Bond Purchase Agreement, dated September 19, 2017, with the State of
Ohio, acting by and through the State Treasurer of Ohio

Ladies and Gentlemen:

We have served as bond counsel in connection with the issuance by the State Treasurer of Ohio (the "Treasurer") of \$204,420,000 General Obligation Highway Capital Improvements Bonds, Series T (the "Bonds") of the State of Ohio (the "State"). In such capacity, we have examined such law and such certified proceedings, certifications and other documents as we have deemed necessary to render this opinion.

The Bonds are issued under authority of and pursuant to Section 2m of Article VIII of the Ohio Constitution, Chapter 151 of the Ohio Revised Code, particularly Sections 151.01 and 151.06 thereof, other authorizations by the Ohio General Assembly, and an order of the Treasurer given on September 19, 2017 (the "Order").

Regarding questions of fact material to our opinion, we have relied on the transcript of proceedings for the Bonds (the "Transcript") and other certifications of public officials and others as we have deemed necessary without undertaking to verify the same by independent investigation.

Based on this examination, we are of the opinion that, as of the date hereof, under existing federal and Ohio statutes, as now judicially construed, together with existing regulations, rulings and court decisions:

1. The Bonds are valid and legally binding general obligations of the State, and the full faith and credit, revenue and taxing power of the State (except for the "net state lottery proceeds" described in the next succeeding opinion paragraph) are pledged to the payment of the principal of and interest and any premium (collectively, the "Debt Service") on the Bonds.

2. The Debt Service, together with principal of and interest and any premium on bonds or other obligations heretofore issued pursuant to Section 2m of Article VIII of the Ohio Constitution and Chapter 151 of the Ohio Revised Code, as amended (collectively, the "Obligations"), are payable from and secured by the pledge of all excises, taxes and other sources of revenue of the State, except "net state lottery proceeds," as defined in Section 151.03 of the Ohio Revised Code, but including the fees, excises or license taxes relating to the registration, operation or use of vehicles on the public highways or to fuels used for propelling such vehicles, all referred to in Section 5a of Article XII of the Ohio Constitution (such excises, taxes and other sources of revenue of the State, excluding the stated exception, collectively, the "Pledged Excises and Taxes").

3. The State covenants in Section 151.01(M) of the Ohio Revised Code and in the Order that it and the applicable officers and agencies of the State, including the General Assembly of the State, will, so long as any Obligations are outstanding in accordance with their terms, maintain statutory authority for and cause to be levied, collected and applied sufficient Pledged Excises and Taxes so that the same will be sufficient in amounts to pay Debt Service on the Bonds when due. Except as provided in Section 2 of Article XII of the Ohio Constitution with respect to ad valorem taxes on real and tangible personal property, the Ohio Constitution does not at present impose any limitation upon the amount or rate of Pledged Excises and Taxes which may be levied to pay Debt Service on the Bonds. Provision has been made by law for the appropriation and setting aside each year in the Highway Capital Improvement Bond Service Fund (as defined in Section 151.06 of the Ohio Revised Code) of a sufficient amount of the Pledged Excises and Taxes, without other or further appropriation, to pay when due Debt Service on the Bonds.

4. Under existing law interest on the Bonds is excluded from gross income for federal income tax purposes under Section 103(a) of the Internal Revenue Code of 1986, as amended (the "Code"), and is not treated as an item of tax preference under Section 57 of the Code for purposes of the alternative minimum tax imposed on individuals and corporations. Interest on, any transfer of, and any profit made on the sale, exchange or other disposition of the Bonds are exempt from the Ohio corporation franchise tax (to the extent computed on the net income basis), the Ohio personal income tax, and income taxes imposed by municipalities and other political subdivisions in Ohio. Interest on the Bonds, as is the case with most other forms of interest on debt obligations, is not subject to the Ohio commercial activity tax imposed under Chapter 5751 of the Ohio Revised Code.

The opinions stated above are based on an analysis of existing laws, regulations, rulings and court decisions and cover certain matters not directly addressed by such authorities. In rendering all such opinions, we assume, without independent verification, and rely upon (i) the accuracy of the factual matters represented, warranted or certified in the proceedings and documents we have examined and (ii) the due and legal authorization, execution and delivery of those documents by, and the valid, binding and enforceable nature of those documents upon, any parties other than the State.

In rendering those opinions with respect to the treatment of the interest on the Bonds, we further assume and rely upon compliance with the covenants in the proceedings and documents we have examined, including those of the State. Failure to comply with certain of those covenants subsequent to issuance of the Bonds may cause interest on the Bonds to be included in gross income for federal income tax purposes retroactively to their date of issuance.

We express no opinion and make no representation as to any other tax consequence regarding the Bonds, except as set forth above.

Please be advised that the rights of the holders of the Bonds and the enforceability thereof are limited by bankruptcy, insolvency, reorganization, moratorium and other similar laws affecting creditors' rights heretofore or hereafter enacted, general principles of equity (whether considered at law or in equity) governing specific performance, injunctive relief and other equitable remedies, and the exercise of judicial discretion in appropriate cases.

This opinion is given as of the date hereof, and we assume no obligation to revise or supplement this opinion to reflect any facts or circumstances that may hereafter come to our attention, or any changes in law that may hereafter occur. We bring to your attention the fact that our legal opinions are an expression of our professional judgment and are not a guarantee of a result.

Respectfully submitted,

EXHIBIT B

**PROPOSED TEXT OF LEGAL OPINION
FOR SERIES U HIGHWAY BONDS**

October 3, 2017

Goldman Sachs & Co. LLC,
New York, New York

As representative of the several Underwriters named in the
Bond Purchase Agreement, dated September 19, 2017, with the State of
Ohio, acting by and through the State Treasurer of Ohio

Ladies and Gentlemen:

We have served as bond counsel in connection with the issuance by the State Treasurer of Ohio (the "Treasurer") of \$136,265,000 General Obligation Highway Capital Improvements Refunding Bonds, Series U (the "Bonds") of the State of Ohio (the "State"). In such capacity, we have examined such law and such certified proceedings, certifications and other documents as we have deemed necessary to render this opinion.

The Bonds are issued under authority of and pursuant to Section 2m of Article VIII of the Ohio Constitution, Chapter 151 of the Ohio Revised Code, particularly Sections 151.01 and 151.06 thereof, other authorizations by the Ohio General Assembly, and an order of the Treasurer given on September 19, 2017 (the "Order").

Regarding questions of fact material to our opinion, we have relied on the transcript of proceedings for the Bonds (the "Transcript") and other certifications of public officials and others as we have deemed necessary without undertaking to verify the same by independent investigation.

Based on this examination, we are of the opinion that, as of the date hereof, under existing federal and Ohio statutes, as now judicially construed, together with existing regulations, rulings and court decisions:

1. The Bonds are valid and legally binding general obligations of the State, and the full faith and credit, revenue and taxing power of the State (except for the "net state lottery proceeds" described in the next succeeding opinion paragraph) are pledged to the payment of the principal of and interest and any premium (collectively, the "Debt Service") on the Bonds.

2. The Debt Service, together with principal of and interest and any premium on bonds or other obligations heretofore issued pursuant to Section 2m of Article VIII of the Ohio Constitution and Chapter 151 of the Ohio Revised Code, as amended (collectively, the "Obligations"), are payable from and secured by the pledge of all excises, taxes and other sources of revenue of the State, except "net state lottery proceeds," as defined in Section 151.03 of the Ohio Revised Code, but including the fees, excises or license taxes relating to the registration, operation or use of vehicles on the public highways or to fuels used for propelling such vehicles, all referred to in Section 5a of Article XII of the Ohio Constitution (such excises, taxes and other sources of revenue of the State, excluding the stated exception, collectively, the "Pledged Excises and Taxes").

3. The State covenants in Section 151.01(M) of the Ohio Revised Code and in the Order that it and the applicable officers and agencies of the State, including the General Assembly of the State, will, so long as any Obligations are outstanding in accordance with their terms, maintain statutory authority for and cause to be levied, collected and applied sufficient Pledged Excises and Taxes so that the same will be sufficient in amounts to pay Debt Service on the Bonds when due. Except as provided in Section 2 of Article XII of the Ohio Constitution with respect to ad valorem taxes on real and tangible personal property, the Ohio Constitution does not at present impose any limitation upon the amount or rate of Pledged Excises and Taxes which may be levied to pay Debt Service on the Bonds. Provision has been made by law for the appropriation and setting aside each year in the Highway Capital Improvement Bond Service Fund (as defined in Section 151.06 of the Ohio Revised Code) of a sufficient amount of the Pledged Excises and Taxes, without other or further appropriation, to pay when due Debt Service on the Bonds.

4. Under existing law interest on the Bonds is excluded from gross income for federal income tax purposes under Section 103(a) of the Internal Revenue Code of 1986, as amended (the "Code"), and is not treated as an item of tax preference under Section 57 of the Code for purposes of the alternative minimum tax imposed on individuals and corporations. Interest on, any transfer of, and any profit made on the sale, exchange or other disposition of the Bonds are exempt from the Ohio corporation franchise tax (to the extent computed on the net income basis), the Ohio personal income tax, and income taxes imposed by municipalities and other political subdivisions in Ohio. Interest on the Bonds, as is the case with most other forms of interest on debt obligations, is not subject to the Ohio commercial activity tax imposed under Chapter 5751 of the Ohio Revised Code.

The opinions stated above are based on an analysis of existing laws, regulations, rulings and court decisions and cover certain matters not directly addressed by such authorities. In rendering all such opinions, we assume, without independent verification, and rely upon (i) the accuracy of the factual matters represented, warranted or certified in the proceedings and documents we have examined and (ii) the due and legal authorization, execution and delivery of those documents by, and the valid, binding and enforceable nature of those documents upon, any parties other than the State.

In rendering those opinions with respect to the treatment of the interest on the Bonds, we further assume and rely upon compliance with the covenants in the proceedings and documents we have examined, including those of the State. Failure to comply with certain of those covenants subsequent to issuance of the Bonds may cause interest on the Bonds to be included in gross income for federal income tax purposes retroactively to their date of issuance.

We express no opinion and make no representation as to any other tax consequence regarding the Bonds, except as set forth above.

Please be advised that the rights of the holders of the Bonds and the enforceability thereof are limited by bankruptcy, insolvency, reorganization, moratorium and other similar laws affecting creditors' rights heretofore or hereafter enacted, general principles of equity (whether considered at law or in equity) governing specific performance, injunctive relief and other equitable remedies, and the exercise of judicial discretion in appropriate cases.

This opinion is given as of the date hereof, and we assume no obligation to revise or supplement this opinion to reflect any facts or circumstances that may hereafter come to our attention, or any changes in law that may hereafter occur. We bring to your attention the fact that our legal opinions are an expression of our professional judgment and are not a guarantee of a result.

Respectfully submitted,



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