# Pennsylvania ECONOMIC & REVENUE UPDATE

February 20, 2018

### House and Senate Appropriations Committees





#### **INDEPENDENT FISCAL OFFICE**

February 20, 2018

Dear Chairmen and Members of the House and Senate Appropriations Committees:

Thank you for the opportunity to submit materials in advance of the budget hearing for the Independent Fiscal Office (IFO). The 2018-2019 Governor's Executive Budget proposes an appropriation of \$2.226 million for the office, the same amount appropriated for the current year.

In addition to questions about the IFO's budget, past hearings have included wide-ranging discussions regarding Pennsylvania's economic outlook, labor market, revenue collections, demographics, long-term fiscal outlook and energy industry trends. The office has compiled some of the most frequently requested data and included it with this submission. We trust these data will be helpful as you consider the fiscal year 2018-19 budget proposal.

For the upcoming year, the fulfillment of new statutory duties related to performance-based budgeting (PBB) and tax credit reviews will engage much of the office's resources. A schedule for PBB and tax credit reviews, developed jointly with the Office of the Budget, can be found at the end of this submission. It is the intention of the IFO that the reports designated for the first year would be submitted at the end of this calendar year or the beginning of next calendar year. The IFO will plan to keep the General Assembly apprised of its progress, as well as the engagement status of the various executive agencies that will be involved in the development of PBB plans or furnishing data for tax credit reviews.

Other functions of the IFO include the preparation of monthly reports on the state economy and revenue collections, periodic revenue estimates, coordinating analyses and issuing actuarial notes for legislation proposing changes to public employee pension or retirement plans and special reports and research briefs on various budget and economic topics. This submission lists recent reports published by the IFO during the past year, and all reports are available on the office website (www.ifo.state.pa.us).

Sincerely,

MATTHEW J. KNITTEL Director, Independent Fiscal Office

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#### **Background**

The office was created by Act 120 of 2010 and enters its seventh year of operation. The office currently employs 10 staff: 3 managers, 1 office manager and 6 analysts. The FY 2018-19 Executive Budget proposes an appropriation of \$2.226 million for the office. That amount includes \$200,000 for work related to contracted actuarial analysis, and those funds are dedicated to that purpose. A statement that details the actual and projected utilization of appropriated funds is included with this submission.

#### **Mission Statement**

The Independent Fiscal Office (IFO) provides revenue projections for use in the state budget process along with impartial and timely analysis of fiscal, economic and budgetary issues to assist Commonwealth residents and the General Assembly in their evaluation of policy decisions. In that capacity, the IFO does not support or oppose any policy it analyzes, and will disclose the methodologies, data sources and assumptions used in published reports and estimates.

#### **Role in the Budget Process**

The statute creating the IFO outlines several points at which the office is required to provide budget-related information to policymakers. They are as follows:

November 15	Prepare an assessment of the state's fiscal condition for the current fiscal year and subsequent five fiscal years by taking account of the state economy, demographics, revenues and expenditures.
<b>January 31</b>	Convene a revenue conference with the chairs of the Appropriations Committees, the Secretary of the Budget and the Secretary of Revenue to discuss economic trends and revenue performance.
May 1	Provide an initial revenue estimate for the upcoming fiscal year.
June 15	Provide a final revenue estimate for the upcoming fiscal year.

#### **Other Responsibilities**

Office resources are also used for the following purposes: (1) coordinate and facilitate actuarial analysis of proposed changes to the pension systems, (2) provide a cost analysis of approved collective bargaining agreements, (3) provide an economic analysis of any revenue proposals included in the Executive Budget, (4) publish performance-based budgeting reports for executive agencies, (5) publish tax credit review reports and (6) at the request of members of the General Assembly, provide economic, revenue or fiscal analysis to the extent that staff resources are available for that purpose.

#### **Regular Monthly or Quarterly Reports**

- *Monthly Trends Report.* Provides a summary of monthly and fiscal-year-to-date General Fund revenues. Compares actual revenues to IFO estimates. Tracks various monthly and quarterly economic metrics for Pennsylvania and the U.S.
- *Impact Fee Update*. Provides detail regarding impact fee revenues, including the number of wells subject to the fee and their vintage.
- *Quarterly Natural Gas Production Report.* Provides unconventional production volumes and well counts on a quarterly basis. Top producing counties also listed.

#### Published Reports and Analyses (since January 1, 2017)

- Impact Fee Update (January 2017, July 2017, January 2018)
- Updated School District Property Tax Forecast (January 2017)
- Analysis of Recent Collective Bargaining Agreements (January 2017)
- Quarterly Revenue Review (January 2017, May 2017, August 2017, November 2017)
- Mid-Year Update FY 2016-17 (January 2017)
- PFBC Wage Contract Analysis (February 2017)
- Pennsylvania Gaming Trends (February 2017)
- Department of Corrections Performance Measures (February 2017)
- Quarterly Natural Gas Production Report (February 2017, May 2017, August 2017, December 2017)
- ISSU & PSSU Wage Contracts Analysis (March 2017)
- Horse Racing Analysis (March 2017)
- Philadelphia Cigarette & Beverage Tax Impact (March 2017)
- Analysis of Revenue Proposals in FY 2017-18 Executive Budget (April 2017)
- Property Tax Elimination Projection (April 2017)
- Initial Revenue Estimate FY 2017-18 (May 2017)
- State and Local Taxes: A Comparison Across States (May 2017)
- Actuarial Note for Senate Bill 1; A01354 and A01558 (June 2017)
- Official Revenue Estimate FY 2017-18 (June 2017)
- Savings & Cost of \$12/hour Min. Wage on DHS-administered Programs (June 2017)
- PLEA Wage Contract Analysis (July 2017)
- Like-Kind Exchange Analysis (July 2017)
- Monthly and Quarterly Revenue Estimate (August 2017)
- IFO State Government Committee Hearing (August 2017)
- Child Care and Early Education Funding in Pennsylvania (September 2017)
- PDA Wage Contract Analysis (September 2017)
- School Property Tax and Related Data (November 2017)
- Five-Year Economic and Budget Outlook (November 2017)
- County Homestead Detail (December 2017)
- School Property Taxes: Households Age 60, 65 and 70 or Older (December 2017)
- A Review of Overtime Paid to Nurses in DOC (December 2017)
- Updated Monthly and Quarterly Revenue Estimates (December 2017)
- Revenue Estimate Performance (December 2017)
- Responsiveness of State Tax Revenues to Economic Growth (December 2017)

- School District Property Tax Forecast (January 2018)
- Increased Spending Allowed Under House Bill 110 (January 2018)
- Mid-Year Update FY 2017-18 (January 2018)
- State and Local Taxes: A Comparison Across States (February 2018)
- ALES Wage Contract Analysis (February 2018)

All reports published by the office are available on its website at <u>www.ifo.state.pa.us</u>.

# Summary of IFO Expenditures

	Actual	Available	Estimate
	2016-17	2017-18	2018-19
<u>Personnel</u>			
Salaries	\$896,400	\$894,000	\$1,100,500
Benefits	323,600	341,000	431,000
Retirement	200,800	230,000	300,500
Employer Taxes	77,000	79,000	98,000
Subtotal	1,497,800	1,544,000	1,930,000
Operating			
Office Operations and Supplies	\$21,000	\$21,000	\$28,000
Computers, Networks, and Software	43,800	13,000	19,000
Data Acquisition and Analysis	28,000	28,500	30,000
Publications and Research Materials	17,500	28,700	33,000
Parking	29,000	28,600	31,000
Other	1,500	16,500	0
Subtotal	140,800	136,300	141,000
Contracted Actuarial Analysis	141,000	120,000	200,000
Total Expenditures	\$1,779,600	\$1,800,300	\$2,271,000
Appropriated / Proposed	2,076,000	2,226,000	2,226,000
Available	296,400	425,700	-45,000

### **U.S. Economic Trends**

		Annual G	rowth Rate	or Change	9	AAGR	or Average	Change
	2014	2015	2016	2017	2018	2000-06	2006-12	2012-18
Output and Income								
Real GDP	2.6%	2.9%	1.5%	2.3%	2.7%	2.6%	0.8%	2.3%
Nominal GDP	4.4%	4.0%	2.8%	4.1%	5.1%	5.1%	2.6%	3.9%
Wages and Salaries	5.1%	5.1%	2.9%	3.1%	4.8%	3.9%	2.3%	3.9%
Corporate Domestic Profits	6.4%	-0.5%	-2.8%	5.6%	11.7%	14.4%	1.9%	3.6%
Labor Market								
Jobs Created (millions)	2.56	2.88	2.53	2.27	2.33	0.74	-0.38	2.46
Jobs Growth	1.9%	2.1%	1.8%	1.6%	1.6%	0.6%	-0.3%	1.8%
Average Wage	3.1%	3.0%	1.1%	1.5%	3.1%	3.3%	2.6%	2.1%
Price Levels								
CPI-U	1.6%	0.1%	1.3%	2.1%	2.3%	2.7%	2.2%	1.5%
Gasoline	-4.1%	-27.2%	-11.3%	13.2%	6.7%	9.3%	6.0%	-5.2%
Medical Care	2.4%	2.6%	3.8%	2.5%	2.8%	4.3%	3.6%	2.8%
Financial Metrics								
S&P 500 Index	17.5%	4.9%	3.0%	16.9%	6.2%	-1.1%	0.8%	11.1%
10-Year Note (level)	2.54	2.14	1.84	2.33	3.00	n.a.	n.a.	n.a.
Home Price Index	5.2%	5.5%	6.1%	5.8%	4.9%	7.9%	-3.1%	5.8%
Note: AAGR is average ann	-							
S&P 500 Index uses a	-	•	•			•		
Source: U.S. Bureau of Econo	omic Analys	is, U.S. Bur	eau of Labo	r Statistics,	IHS Markit, Feo	deral Housing Fin	ance Ageno	cy.

### Pennsylvania Economic Trends

		Annual G	rowth Rates	s or Change	9	AAGR	AAGR or Average C			
	2014	2015	2016	2017	2018	2000-06	2006-12	2012-18		
Output and Income										
Real GDP	2.0%	2.3%	0.6%	2.0%	2.3%	1.5%	1.3%	1.8%		
Nominal GDP	3.9%	3.3%	1.7%	3.8%	4.7%	4.3%	3.3%	3.5%		
Wages and Salaries	3.9%	4.1%	1.3%	3.9%	4.3%	3.5%	2.6%	3.2%		
Labor Market										
Jobs Created (000s)	47.4	46.7	52.2	60.4	61.8	10.6	-5.2	47.1		
Jobs Growth	0.8%	0.8%	0.9%	1.0%	1.0%	0.2%	-0.1%	0.8%		
Average Wage	3.0%	3.2%	0.4%	2.8%	3.3%	3.3%	2.7%	2.4%		
Price Levels										
Philadelphia CPI-U	1.3%	-0.1%	0.6%	1.3%	2.3%	3.1%	1.9%	1.1%		
Pittsburgh CPI-U	1.3%	0.7%	1.6%	2.2%	2.3%	2.6%	2.9%	1.6%		
Gasoline	-2.7%	-28.4%	-10.4%	18.0%	4.8%	10.0%	5.5%	-4.8%		
Wealth/Debt Metrics										
Home Price Index	2.3%	2.5%	4.1%	4.4%	4.0%	4.6%	4.7%	3.4%		
All Consumer Debt	2.5%	1.8%	3.0%	0.0%	n.a.	9.6%	2.0%	0.9%		
Student Loan Debt	5.6%	3.6%	5.3%	3.3%	n.a.	7.3%	4.9%	3.9%		
	Note: Forecasts for 2018 by IFO. Most data for 2017 are preliminary. Consumer and student loan debt are per capita, and data for 2017 are through third quarter.									
Source: U.S. Bureau of Eco	nomic Analys	is, U.S. Bur	eau of Labo	r Statistics,	Federal Housir	ng Finance Agenc	y.			

	Number	Employees	Change	(000s)	
Sector	2007	2012	2017	2007-12	2012-17
Mining	21.1	37.0	23.6	15.9	-13.4
Construction	262.1	224.3	245.9	-37.8	21.6
Manufacturing	659.1	567.2	552.5	-91.9	-14.7
Wholesalers	239.2	222.9	220.4	-16.3	-2.5
Retailers	651.3	630.8	628.9	-20.5	-1.9
Transportation-Storage					
Warehousing	56.8	60.2	84.8	3.4	24.6
Couriers-Messengers	27.0	23.5	29.9	-3.5	6.4
All Other	156.8	160.3	166.1	3.5	5.8
Information	107.5	90.3	83.3	-17.2	-7.0
Finance-Real Estate	332.8	309.5	317.7	-23.3	8.2
Professional-Business Services					
Computer Design	48.1	59.0	71.8	10.9	12.8
Administrative	270.2	268.8	296.5	-1.4	27.7
Employment Services	99.1	100.2	113.4	1.1	13.2
All Other	288.3	305.1	329.4	16.8	24.3
Education	214.5	227.2	242.5	12.7	15.3
Healthcare					
Hospitals-Physicians	450.1	470.4	488.0	20.3	17.6
Home Healthcare	32.5	40.8	59.1	8.3	18.3
Nursing Home	188.2	199.8	204.7	11.6	4.9
Substance Abuse Facilities	45.7	50.7	55.5	5.0	4.8
Social Assistance	137.9	167.3	201.8	29.4	34.5
Leisure-Hospitality					
Food and Accommodation	362.8	376.4	417.2	13.6	40.8
Gaming and Other	137.1	147.7	158.9	10.6	11.2
All Other Services	255.8	254.0	259.6	-1.8	5.6
Federal Government	104.3	100.2	96.8	-4.1	-3.4
State Government	160.9	158.5	154.6	-2.4	-3.9
Local Government	<u>489.6</u>	<u>473.6</u>	<u>449.6</u>	<u>-16.0</u>	<u>-24.0</u>
TOTAL	5,798.8	5,725.7	5,952.5	-73.1	226.8
Note: Local Government includes lo	cal school d	istrict emp	loyees. Figu	ires are annual ave	rages.
Data for 2017 are preliminary	and will be a	adjusted in	March 201	8.	
Source: U.S. Bureau of Labor Statistic	s, Current En	nployment	Statistics (r	not seasonally adju	isted).

### **Growth Rates of Pennsylvania Income Sources**

	Aver	age Annual Growt	h Rate	% of Total Ca	sh Income
	2000-06	2006-12	2012-18	2000	2018
All Wage Income	3.6%	2.6%	3.2%	58.5%	56.5%
Business Income	4.9%	2.4%	3.2%	10.5%	10.8%
Interest, Dividends, Rent	2.1%	2.8%	1.6%	7.7%	6.4%
Capital Gains	2.0%	-3.1%	7.3%	6.7%	5.3%
All Social Security	4.3%	4.8%	3.7%	6.5%	7.6%
Pensions-Annuities	4.0%	4.4%	6.0%	6.1%	7.9%
Income Maintenance	5.6%	9.4%	-1.2%	2.4%	3.0%
IRA Withdrawals	<u>3.9%</u>	<u>9.4%</u>	<u>5.2%</u>	<u>1.6%</u>	<u>2.5%</u>
Total Cash Income	3.7%	2.9%	3.4%	100.0%	100.0%
Taxable Income	3.5%	2.2%	3.3%	83.4%	79.0%
Non-Taxable Income	4.3%	5.9%	3.8%	16.6%	21.0%
	•	•	prietors and self-employ Security Income, EITC, un	ed. employment insurance a	and other.
Source: Revenue Estimate Met		••	,	, ,	

### **State Metric Comparison**

		Annual Growth Rates or Ratios								
	-	DE	MD	NJ	NY	ОН	PA	VA	WV	U.S.
1	Real GDP (2016)	0.1%	2.5%	0.7%	0.4%	1.1%	0.6%	0.5%	-1.1%	1.5%
2	Wages-Salaries (FY 16-17)	4.7%	4.6%	4.1%	3.8%	4.2%	4.0%	4.9%	2.0%	4.9%
3	Average Wage (FY 16-17)	4.1%	2.7%	2.9%	2.4%	3.4%	2.8%	3.7%	2.2%	3.4%
4	Payroll Employment (2017)	0.5%	1.9%	1.1%	1.3%	0.8%	1.1%	1.2%	-0.2%	1.5%
5	Employment / Population (2016)	0.78	0.71	0.73	0.75	0.77	0.75	0.74	0.67	0.72
6	Total Population (2017)	1.0%	0.5%	0.3%	0.1%	0.3%	0.1%	0.7%	-0.7%	0.7%
7	Share Under Age 18 (2017)	21.3%	22.3%	22.0%	20.9%	22.3%	20.8%	22.1%	20.4%	22.6%
8	Share Age 65+ (2016)	17.5%	14.6%	15.3%	15.4%	16.2%	17.4%	14.6%	18.8%	15.2%
9	SL Tax / Income (FY 15-16)	10.7%	11.3%	11.4%	15.5%	10.4%	10.4%	9.1%	10.8%	10.3%
10	SL Tax / Population (FY 15-16)	\$ 5,030	\$6,170	\$6,750	\$9,030	\$4,540	\$ 5,150	\$4,630	\$3,930	\$4,940

Note:	Payroll employment excludes self-employed individuals and military. Employment / Population ratio uses residents age 18
	to 64 and all payroll employment jobs. SL Tax is all state and local taxes, except severance taxes. Computation disregards
	any taxes exported. U.S. ratio (10.3%) is a weighted average. Unweighted average is 9.9%.
Source:	U.S. Bureau of Economic Analysis, U.S. Bureau of Labor Statistics and U.S. Census Bureau. State-local tax burden measure
	from State and Local Taxes: A Comparison Across States, IFO (February 2018).

### Pennsylvania Demographic Trends

				Num	ber of Res	idents (00	0s)			Total Char	nge (000s)
Age Group		2010	2011	2012	2013	2014	2015	2016	2017	Number	Percent
0 to 19	school	3,173	3,145	3,115	3,085	3,061	3,039	3,021	3,010	-163	-5.1%
20 to 64	working	7,577	7,621	7,614	7,607	7,596	7,573	7,540	7,510	-67	-0.9%
65 to 74	seniors	983	1,000	1,064	1,110	1,152	1,196	1,237	1,286	303	30.8%
75 to 84	retirees	672	664	657	652	651	650	652	665	-7	-1.0%
85 or older	elderly	<u>308</u>	<u>314</u>	<u>323</u>	<u>327</u>	<u>331</u>	<u>334</u>	<u>334</u>	<u>335</u>	<u>27</u>	<u>8.7%</u>
Total Reside	ents	12,712	12,744	12,772	12,781	12,791	12,792	12,784	12,806	94	0.7%
Componer	nts of Change (0	00s)	2011	2012	2013	2014	2015	2016	2017	Total Cha	nge (000s)
Number of			143	142	142	142	142	140	139	990	<b>3</b> \ <b>/</b>
Number of	Deaths		128	125	131	127	133	131	131	906	
Domestic I	Vigration		-8	-18	-30	-36	-44	-50	-26	-213	
Internation	al Migration		26	28	30	34	36	38	37	230	
Unallocate	d Amounts		<u>-1</u>	<u>-1</u>	<u>-1</u>	<u>-1</u>	<u>-1</u>	<u>0</u>	<u>-1</u>	<u>-6</u>	
Total Char	Total Change		32	25	10	12	1	-4	18	94	
Note:	Note: Total change for components of change differs slightly from totals based on age groups. Revised detail based on age groups has not been released yet by U.S. Census Bureau.									groups has	
Source:	U.S. Census Bur	eau. Age deta	il for 2017	is an IFO p	rojection b	ased on Ce	nsus total.				

### **Net Domestic Migration Trends**

		Net Dom	estic Migrants (000s	s)	2015-17	Share of
	Top Outlfow	2015	2016	2017	Average	Residents
1	New York	-168.6	-193.0	-190.5	-184.0	-0.93%
2	California	-80.9	-122.1	-138.2	-113.7	-0.29%
3	Illinois	-106.5	-109.9	-114.8	-110.4	-0.86%
4	New Jersey	-69.8	-68.1	-57.3	-65.1	-0.72%
5	Louisiana	-6.0	-12.9	-27.5	-15.5	-0.33%
6	Pennsylvania	-43.8	-50.1	-25.8	-39.9	-0.31%
7	Maryland	-25.8	-29.6	-24.0	-26.4	-0.44%
8	Massachusetts	-22.2	-30.1	-23.1	-25.1	-0.37%
9	Connecticut	-30.1	-29.1	-22.3	-27.2	-0.76%
10	Kansas	-13.0	-18.0	-14.2	-15.0	-0.52%
		Net Dom	estic Migrants (000s	;)	2015-17	Share of
	Top Inflow	2015	2016	2017	Average	Residents
41	Oregon	37.5	51.2	38.0	42.2	1.03%
42	Nevada	29.2	35.4	38.2	34.3	1.17%
43	Tennessee	23.9	32.3	40.2	32.1	0.48%
44	Georgia	34.9	37.0	41.1	37.7	0.37%
45	South Carolina	49.0	51.3	49.0	49.7	1.00%
46	Arizona	45.2	61.7	63.1	56.7	0.82%
47	Washington	43.1	67.1	64.6	58.3	0.80%
48	North Carolina	44.5	61.7	66.1	57.4	0.57%
49	Texas	174.2	125.8	79.2	126.4	0.45%
50	Florida	196.6	217.0	160.9	191.5	0.93%
ote:	Rank is based on 2017 d	ata. Share of residents i	s the net outflow or ir	nflow relative to ave	erage resident popul	ation from 2015 to
ource						

### **General Fund Revenues Through January**

			Dollar	Percent	IFO Revenu	ue Estimate
	2016-17	2017-18	Growth	Growth	Dollar	Variance
General Fund	\$16,097	\$17,368	\$1,270	7.9%	\$16,906	\$462
Tax Revenues	15,877	16,824	947	6.0%	16,612	212
Corporate Net Income	1,243	1,324	80	6.5%	1,332	-8
Sales - Non-Motor	5,102	5,326	224	4.4%	5,306	20
Sales - Motor	792	800	7	0.9%	815	-16
PIT - Withholding	5,496	5,848	352	6.4%	5,824	23
PIT - Other	1,228	1,456	229	18.6%	1,335	122
Cigarette	728	704	-24	-3.3%	723	-19
Inheritance	530	558	28	5.3%	528	30
Realty Transfer	282	307	25	8.8%	302	5
All Other Tax	476	502	26	5.4%	447	55
Non-Tax Revenues	220	544	324	146.9%	294	250
Escheats	-46	-68	-22	47.2%	-35	-33
Gaming Expansion	0	96	96	n.a.	27	70
Loans-Transfers	40	216	176	n.a.	2	214
All Other Non-Tax	226	299	73	32.2%	300	-1

Note: Millions of dollars. Most gains through January attributable to remittal of Farm Show lease monies (\$200 million), accelerated PIT payments, and higher than expected revenues from the auction of mini-casino licenses. The strong PIT-Withholding growth rate results from an extra due date in FY 2017-18. Accounting for the extra deposit day, the growth rate is 4.5 percent.

### **Revenue Estimate for FY 2017-18**

	IFO Mid-Year	Executive Budget	Dollar Difference
General Fund	\$34,780	\$34,752	\$28
Corporate Net Income	2,991	3,010	-19
Sales and Use	10,239	10,407	-169
Personal Income	13,300	13,400	-100
All Other Tax	5,392	5,341	51
All Non-Tax	2,859	2,594	265
Note: Millions of dollars.			

### Significant Uncertainty in IFO Revenue Estimate for Four Revenue Sources

#### **Corporate Net Income**

 Includes \$215 million from the recent NOL court case. Estimate assumes most will be received in final payments in March to May.

#### **PIT Non-Withholding**

 Revenues were \$125 million over forecast through January. Different payment patterns due to federal tax reform make it difficult to gauge the underlying trends that will drive final tax liability.

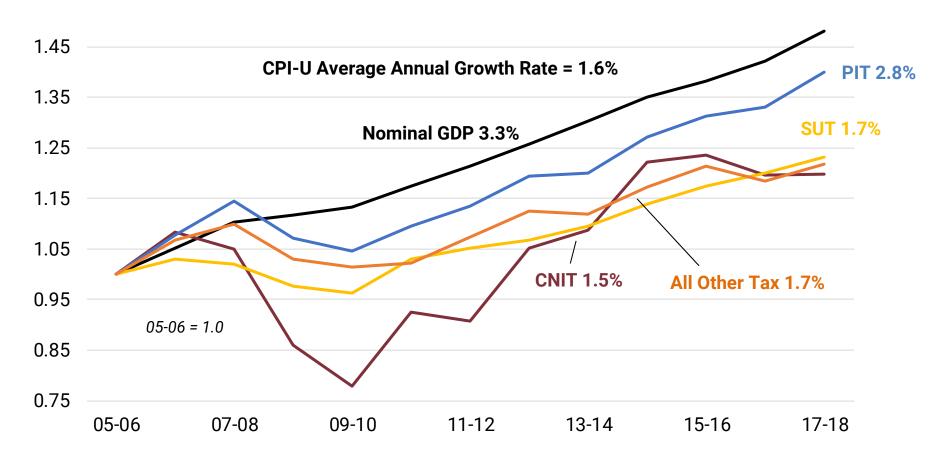
#### **JUA Transfer**

• Estimate assumes \$200 million transfer will be received this spring.

#### **Escheats**

- Estimate assumes a net of \$215 million will be received in April and May.
- Revenue source has a high degree of volatility and recent payouts have been higher than expected.

### **Most General Fund Revenue Sources Grow with Inflation**



Note: Percentages represent average annual growth rates since FY 2005-06. All Other Tax excludes cigarette, CSFT and other tobacco products. CNIT excludes revenue impact from tax year 2017 NOL changes. CPI-U represents the Philadelphia metro region. CNIT is corporate net income tax. PIT is personal income tax. SUT is sales and use tax.

### **State and Local Tax Burden Comparison**

	Corpora	te Income		Persona	al Income		Sales	and Use
	Rank	Percent	_	Rank	Percent	_	Rank	Percent
DE	1	3.61%	NY	1	5.03%	ОН	13	3.10%
NY	3	0.98%	MD	3	4.08%	NY	20	2.69%
PA	11	0.48%	VA	12	2.88%	WV	34	2.17%
NJ	13	0.47%	WV	14	2.76%	PA	39	1.97%
MD	19	0.38%	PA	17	2.66%	NJ	40	1.93%
WV	37	0.22%	DE	18	2.65%	MD	42	1.57%
VA	40	0.19%	ОН	20	2.58%	VA	44	1.39%
OH	45	0.11%	NJ	23	2.51%	DE	48	0.14%
USw		0.39%	USw		2.42%	USw		2.58%
USuw		0.40%	USuw		2.16%	USuw		2.45%
	Pro	perty	_	Game-Liquor-Tobacco			Total	
	Rank	Percent		Rank	Percent		Rank	Percent
NJ	3	5.17%	WV	1	1.07%	NY	1	15.53%
NY	6	4.63%	DE	4	0.85%	NJ	7	11.37%
PA	21	3.00%	MD	7	0.64%	MD	8	11.29%
VA	22	3.00%	PA	8	0.64%	WV	12	10.82%
OH	24	2.92%	ОН	14	0.50%	DE	13	10.74%
MD	26	2.85%	NY	23	0.42%	PA	19	10.42%
WV	36	2.45%	NJ	29	0.36%	ОН	20	10.41%
DE	48	1.83%	VA	39	0.28%	VA	34	9.11%
USw		3.16%	USw		0.37%	USw		10.28%
USuw		3.08%	USuw		0.43%	USuw		9.93%
Note: Source:	average (each	ratio of the state-loo state has same weig al Taxes: A Comparis	ght). Total Taxes e	excludes any s	everance tax.	e. USw is weighted	average. USuv	w is unweighte

## **Simulation: Impact of Federal Tax Reform**

	Single - No Children, Wage Income Only									
Wage	Itemized Deductions		Тах	Paid	Change in Tax Paid					
Income	SALT	Other	Old Law	New Law	Dollar	Percent				
\$40,000	n.a.	n.a.	\$3,926	\$3,170	-\$756	-19.3%				
80,000	n.a.	n.a.	12,991	10,900	-2,091	-16.1%				
80,000	\$8,500	\$11,500	9,616	9,140	-476	-5.0%				
150,000	12,500	13,000	26,541	24,770	-1,771	-6.7%				
300,000	23,000	19,000	70,391	70,540	149	0.2%				

	Married - Two Children, Wage Income Only									
Wage	Itemized D	eductions	Tax	Paid	Change in Tax Paid					
Income	SALT	Other	Old Law	New Law	Dollar	Percent				
\$40,000	n.a.	n.a.	-\$3,403	-\$4,820	-\$1,417	refund				
80,000	n.a.	n.a.	4,608	2,339	-2,269	-49.2%				
80,000	\$8,500	\$11,500	3,558	2,339	-1,219	-34.3%				
150,000	12,500	13,000	18,282	15,599	-2,683	-14.7%				
300,000	23,000	19,000	58,897	49,619	-9,278	-15.8%				
600,000	43,500	26,500	157,351	148,604	-8,747	-5.6%				

	Married - Two Children, Half Wage Income and Half Business Income									
	Itemized D	eductions	Тах	Paid	Change i	n Tax Paid				
Income	SALT	Other	Old Law	New Law	Dollar	Percent				
\$40,000	n.a.	n.a.	-\$3,842	-\$5,518	-\$1,676	refund				
80,000	n.a.	n.a.	4,184	1,040	-3,144	-75.1%				
80,000	\$8,500	\$11,500	3,134	1,040	-2,094	-66.8%				
150,000	12,500	13,000	17,004	11,350	-5,654	-33.3%				
300,000	23,000	19,000	58,194	41,937	-16,257	-27.9%				
600,000	43,500	26,500	155,712	126,198	-29,514	-19.0%				

Note: Itemized deductions based on IRS tabulations for PA for tax year 2015. SALT is the state and local tax deduction for income and property taxes. Includes impact of EITC. Examples assume both children under age 17. Assumes no deduction for pension or other savings accounts. Final example assumes that business income is not attributable to a "professional service" occupation.

Source: Tax Policy Center at http://tpc-tax-calculator.urban.org/.

### Pennsylvania Federal Income Tax Data – 2015

				Adjus	ted Gross I	ncome Cla	sses		
	_	less than	25,000	50,000	75,000	100,000	200,000	500,000	1,000,000
	Total	24,999	49,999	74,999	99,999	199,999	499,999	999,999	or more
Federal Returns Filed by PA Re	sidents								
Number Returns (000s)	6,201	2,304	1,428	864	573	777	207	32	14
Average Income Tax	\$9,326	\$239	\$2,200	\$5,348	\$8,513	\$17,198	\$57,732	\$185,806	\$934,00
Average Tax Rate	14.1%	2.1%	6.0%	8.7%	9.8%	12.8%	20.2%	27.8%	30.19
Share Returns that Itemize	28.7%	5.0%	17.2%	35.6%	50.2%	75.1%	95.5%	97.4%	96.0%
Child Tax Credit									
Number Returns (000s)	1,286	391	357	212	161	165	0	0	
Average Per Return	\$1,392	\$1,130	\$1,447	\$1,612	\$1,659	\$1,349	\$1,022	\$0	\$1
State and Local Tax Deduction									
Number Returns (000s)	1,776	112	244	307	287	583	198	31	1
Average Per Return	\$11,248	\$3,950	\$4,781	\$6,134	\$7,767	\$11,231	\$21,036	\$44,535	\$156,72
Personal Exemptions									
Number Exemptions (000s)	11,369	2,887	2,499	1,752	1,365	2,119	609	96	4
Average Per Return	1.83	1.25	1.75	2.03	2.38	2.73	2.94	2.99	2.9
Partnership-S Corporation Inco	me								
Number Returns (000s)	317	41	36	37	34	82	58	18	1
Average Per Return	\$61,209	-\$25,016	\$7,503	\$10,253	\$12,915	\$23,934	\$76,794	\$220,896	\$869,04
Typical Marginal Income Tax R	ate								
Old Law		10.0%	10%-15%	15.0%	15.0%	25.0%	28.0%	39.6%	39.69
New Law		10.0%	10%-12%	12.0%	12.0%	22.0%	24.0%	36.0%	37.09
Note: Child Tax Credit inclu	des non-refun	dable and ref	undahle nort	ions Avera	ne tax rate i	s income ta	ax divided by	adjusted o	ross incom
Income tax excludes			-		-		•		

and extra Medicare tax. Typical Marginal Tax Rate assumes married filing joint return.

Source: IRS Statistics of Income Division, SOI Tax Stats, Historic Table 2.

### **Natural Gas Production and Spot Prices**

	2012	2013	2014	2015	2016	2017	2018	2019
PA Production <sup>1</sup>	2,045	3,102	4,069	4,596	5,094	5,350	5,742	6,018
PA Consumption <sup>1</sup>	918	959	1,040	1,038	1,072	1,115	1,159	1,206
Share Exported	55%	69%	74%	77%	79%	79%	80%	80%
New Horizontal Wells Drilled	1,312	1,187	1,350	783	503	811	n.a.	n.a.
Impact Fee Revenues <sup>2</sup>	\$202.5	\$225.8	\$223.5	\$187.7	\$173.3	\$219.4	n.a.	n.a.
Commonwealth Leases <sup>3</sup>								
Royalties	\$76.1	\$121.8	\$131.3	\$66.6	\$71.2	\$70.7	\$89.8	\$92.9
Operator Price	\$2.83	\$3.57	\$3.53	\$1.61	\$1.55	\$2.09	n.a.	n.a.
	2012	2013	2014	2015	2016	2017	2018	2019
Henry Hub <sup>4</sup>	\$2.75	\$3.73	\$4.37	\$2.62	\$2.52	\$2.99	\$3.04	\$2.99
Dominion South Hub	2.77	3.51	3.25	1.46	1.49	2.11	2.47	2.44
Leidy Hub	2.83	3.06	2.60	1.20	1.45	2.06	2.36	2.37
New York City Hub	3.25	5.12	6.25	3.78	2.18	3.08	5.11	3.44
Boston Hub	3.94	6.97	7.99	4.73	3.25	4.25	5.25	4.58
Chicago Hub	2.85	3.85	5.31	2.73	2.48	2.90	2.77	2.65

Notes:

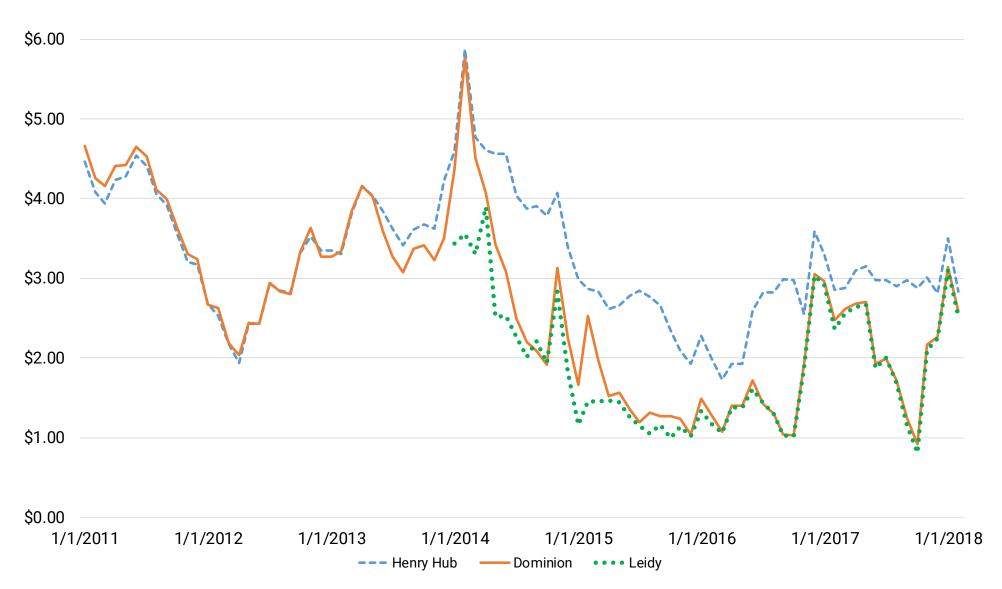
<sup>1</sup> Production data from PA DEP through November 2017. December 2017 and future years estimated by IFO. Production data represent unconventional gas only. Consumption data from U.S. Energy Information Administration and include conventional sources. Consumption forecast by IFO assumes 4% increase per annum.

<sup>2</sup> Impact fee revenues as reported by the PUC (millions). Revenues shown according to drilling year, not the year revenues were received. Revenues for 2017 estimated by IFO.

<sup>3</sup> Royalties from the leasing of Commonwealth lands (millions) shown according to month gas was produced, not month payments were received. Final two months of 2017 estimated by IFO. Operator prices provided by DCNR (\$/mmbtu).

<sup>4</sup> Hub prices and forecasts from Bentek Energy. Regional hubs are as follows: New York City (Transco z6 NY); Boston (Algonquin Citygates); Chicago (Nicor Citygates). Data not weighted by volume per month.

### **Natural Gas Spot Prices**



Notes: Spot prices from Bentek Energy (\$/mmbtu). Data for Leidy Hub not available prior to 2014.

# 2017 Impact Fee Estimate

Pennsylvania imposes an annual impact fee on unconventional (i.e., shale) natural gas wells that were drilled or operating in the previous calendar year. This research brief uses recent data published by the Department of Environmental Protection to estimate collections for calendar year (CY) 2017, which will be remitted in April 2018.<sup>1</sup> This brief also translates the impact fee into an annual average effective tax rate (ETR) based on recent natural gas price and production data. The ETR quantifies the implicit tax burden imposed by the impact fee in a given year.

Proceeds from the impact fee are distributed to local governments and state agencies to provide for infrastructure, emergency services, environmental initiatives and various other programs. Local governments receive funds based on the number of wells located within their boundaries or their proximity to jurisdictions where natural gas extraction took place. Historical and estimated distributions are shown in Table 1.

The annual impact fee for an unconventional natural gas well is determined according to a bracketed schedule, based on the number of years since a well became subject to the impact fee (operating year), the type of well (horizontal or vertical) and, to a limited extent, the price of natural gas. Horizontal wells in operating years four or greater that produce less than 90 Mcf (thousand cubic feet) per day are exempt. Plugged horizontal wells are exempt after remitting the fee in the first year. Vertical wells that produce less than 90 Mcf per day are exempt from the fee in any operating year.

The estimated amount of the impact fee for CY 2017 is \$219.4 million, which is \$46.1 million more than the amount collected for the prior year. Table 2 on the next page details the well count, fee schedule and estimated collections by operating year. The primary reasons for the increase in collections are as follows:

- <u>Statutory fee schedule</u>. The schedule is based on the average annual price of natural gas on the New York Mercantile Exchange (NYMEX). Because the average annual price for natural gas eclipsed \$3.00, the impact fee schedule was adjusted upwards.<sup>2</sup> Net impact: +\$43.4 million
- <u>New wells offset aging wells.</u> The impact fee is highest in a well's first operating year, and declines as the well ages. Revenue from the 812 new wells spud offset reduced collections from (1) older wells as their fees decline and (2) newly-exempt wells as their production falls below the 90 Mcf threshold. Net impact: +\$2.7 million

The impact fee does not directly respond to the price of natural gas or the volume of production, and it does not provide a measure of tax burden relative to sales. Therefore, this research brief computes an ETR for all wells in operation during the year.

The ETR is equal to annual impact fee revenues divided by the total market value of unconventional natural gas production. The market value is equal to the product of (1) the annual average regional price of natural gas net of post-production costs and (2) the total production from all unconventional wells.<sup>3</sup>

Table 1: Impact Fee Revenues and Distributions										
	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>					
Total Revenues	\$225,752	\$223,500	\$187,712	\$173,259	\$219,371					
Counties, Municipalities and HARE Fund <sup>1</sup>	123,151	123,300	101,800	93,070	120,677					
Marcellus Legacy Fund	84,601	82,200	67,867	62,046	80,451					
Commonwealth Agencies	10,500	10,500	10,500	10,500	10,500					
Conservation Districts/Commission	7,500	7,500	7,545	7,643	7,742					
Note: Dollar amounts in thousands.										

Source: Pennsylvania Public Utility Commission. Estimates for CY 2017 by the IFO.

<sup>1</sup> Housing Affordability and Rehabilitation Enhancement Fund.

	Table 2: We	ell Count and Es	stimated Collectio	ons for 2017	
Operating	Number of	Number of	Number of Wells	Fee	Estimated
<u>Year</u>	<u>Wells</u> <sup>1</sup>	<u>Exempt Wells<sup>2</sup></u>	Subject to Fee	<u>Amount<sup>3</sup></u>	<b>Collections</b>
1	812	-	812	\$51,000	\$41,371,200
2	504	2	502	40,700	20,431,400
3	784	35	749	30,600	22,894,920
4 +	<u>8,825</u>	<u>2,254</u>	<u>6,571</u>	20,400	<u>133,673,040</u>
Subtotal	10,925	2,291	8,634		218,370,560
Late/Disputed Fees					<u>1,000,000</u>
Total					219,370,560
1 Demos and a the second		···· 1· · · · · · · · · · · · · · · · ·	ding both bouirontal and		

<sup>1</sup>Represents the number of wells that have been spud, including both horizontal and vertical wells.

<sup>2</sup> Includes wells exempt from the fee based on production level or plugged status. These wells have not been adjusted to reflect a recent case affecting exemption qualifications. The case is currently pending on appeal before the Supreme Court. <sup>3</sup> Represents the fee for horizontal wells. The fee for vertical wells is 20 percent of the amount shown.

The annual ETR fluctuates based on the movement of its three components: fee revenues, production and prices.<sup>4</sup> For CY 2013 through CY 2017, each component has contributed to ETR changes; however, the changes could supplement or offset each other. Production has increased each year, which reduces the ETR, absent changes in the other components. Decreases in fee revenues contribute to a reduction in the ETR, while increases have the opposite effect. However, the price effect dominates the other two components as the biggest swings in the annual ETR are on account of changes in price.

For CY 2017, the ETR is estimated to be 2.9 percent, a decrease of 1.6 percentage points from CY 2016. (See Table 3.) The primary factor motivating this result is the 87 percent increase in prices for CY 2017, which counteracts the impact of higher fee revenues. This is in contrast to CY 2015 when the rate increased by 4.5 percentage points largely because of a substantial decline in prices, despite a decline in fee revenues.

#### **Endnotes**

- Data from Pennsylvania Department of Environmental Protection's oil and gas production reports and spud well reports from 2013 to 2017 (last accessed January 25, 2018). Production data are currently available through November; December is estimated by the IFO.
- 2. The fee schedule is adjusted if the average price falls above or below certain thresholds. Pursuant to 58 Pa.C.S. §§ 2301 *et seq.*, the price used is the annual average of the settled prices for near-month contracts on the New York Mercantile Exchange (\$3.108 for CY 2017). Includes the impact of the annual adjustment for the Consumer Price Index.
- 3. The price used for this calculation is a weighted average of spot prices at the Dominion South and Leidy trading hubs for the calendar year, converted to dollars per thousand cubic feet (\$2.20 for 2017) using Pennsylvania-specific heat content, net of post-production costs (\$0.80). Prices are from BENTEK Energy. Post-production cost estimates are based on a Range Resources investor presentation from October 3, 2016, adjusted for statewide wet and dry gas production. It should be noted that many producers hedge prices for a large share of their production (e.g., futures contracts).
- 4. The annual ETR represents the average rate for all wells operating in a single calendar year. A lifetime ETR, which is more appropriate for interstate comparisons, represents the average tax burden of a single well across all years of its productive life.

	Table 3: Impact Fee Annual Effective Tax Rates										
Calendar	Impact Fee	Unconventional	Price of	Market	Annual						
<u>Year</u>	<b>Revenues</b>	Production (MMcf) <sup>1</sup>	Gas (\$/Mcf) <sup>2</sup>	<u>Value<sup>3</sup></u>	<u>ETR</u>						
2013	\$225,752	3,102,900	\$2.70	\$8,381,100	2.7%						
2014	223,500	4,070,700	2.33	9,506,000	2.4						
2015	187,712	4,596,900	0.59	2,722,400	6.9						
2016	173,259	5,094,100	0.75	3,843,400	4.5						
2017	219,371	5,349,500	1.40	7,480,300	2.9						

Note: Dollar amounts in thousands. MMcf is million cubic feet.

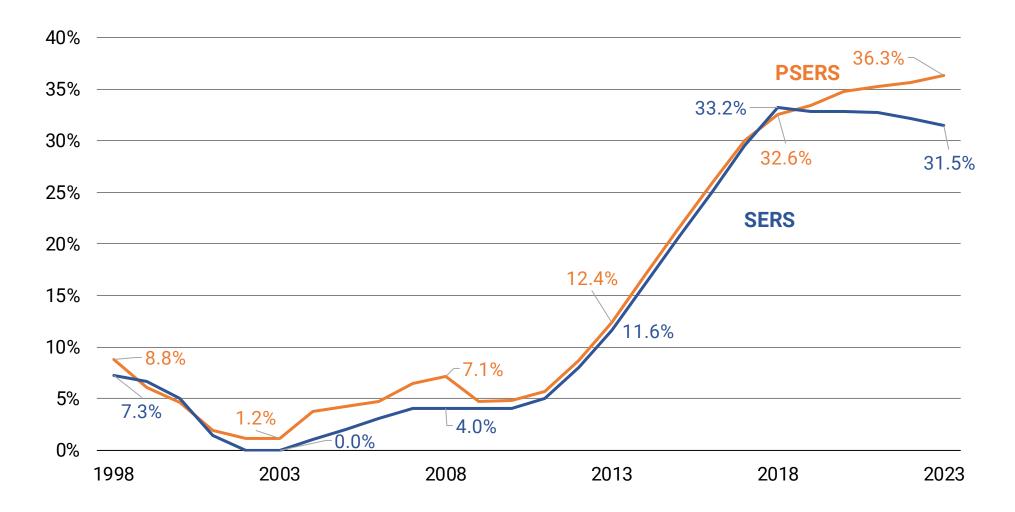
<sup>1</sup> Production data through November 2017. December 2017 is estimated by the IFO.

 $^{2}$  Net of post-production costs, which were estimated to be \$0.80 in 2017.

<sup>3</sup> Does not include natural gas liquids (condensate).

**Independent Fiscal Office** 

### **Employer Contribution Rates for PSERS and SERS**



Note: PSERS values after FYE 2019 and SERS values after FYE 2018 based on system projections.

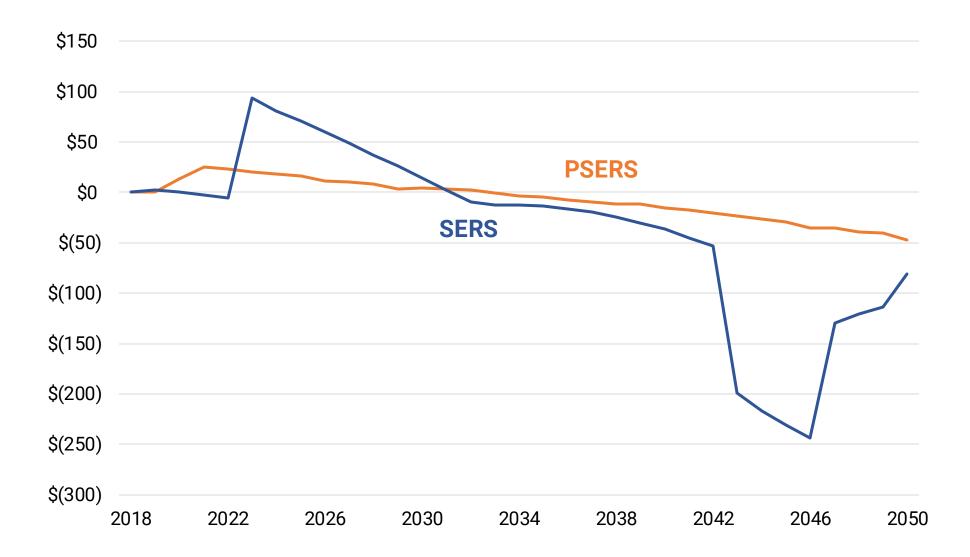
## **Employer Contribution Rates Decomposed**

		Fi	scal Year Endin	g	
	2017	2018	2019	2020	2021
PSERS					
Normal Cost & Healthcare Rates <sup>1</sup>	9.1%	8.5%	8.4%	8.3%	8.2%
Unfunded Liability Rate <sup>2</sup>	20.9%	24.0%	25.0%	26.5%	27.0%
Application of Act 120 Collar <sup>3</sup>	<u>0.0%</u>	<u>0.0%</u>	<u>0.0%</u>	<u>0.0%</u>	<u>0.0%</u>
Total Employer Contribution Rate	30.0%	32.6%	33.4%	34.8%	35.3%
SERS					
Normal Cost Rate <sup>4</sup>	4.5%	4.9%	4.9%	4.9%	4.9%
Unfunded Liability Rate <sup>2</sup>	27.6%	28.3%	27.9%	27.9%	27.8%
Application of Act 120 Collar <sup>3</sup>	<u>-2.6%</u>	<u>0.0%</u>	<u>0.0%</u>	<u>0.0%</u>	<u>0.0%</u>
Total Employer Contribution Rate	29.5%	33.2%	32.8%	32.8%	32.7%

Note: Values are percent of payroll.

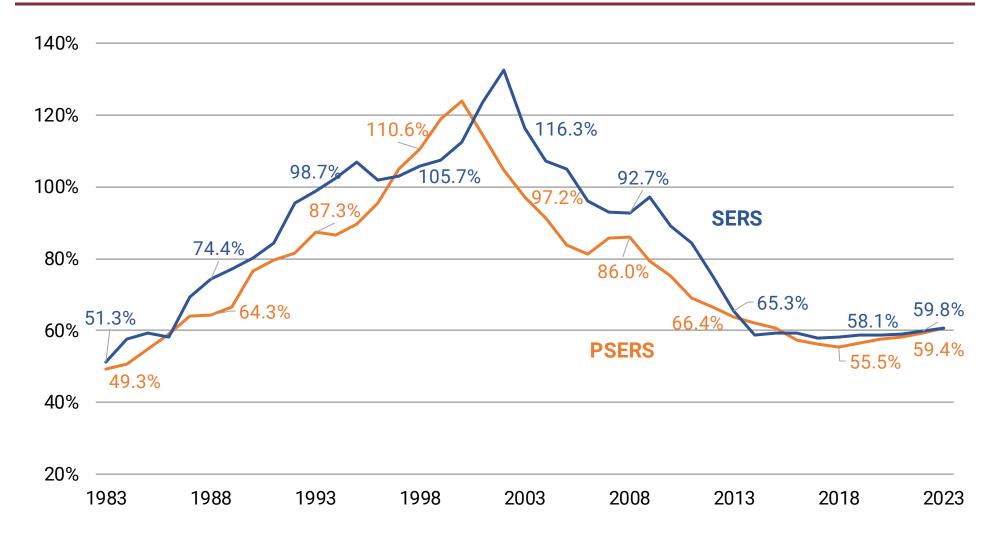
- <sup>1</sup> For PSERS, the normal cost represents the weighted average employer rate to pay pension benefits earned in that year for both pre- and post-Act 120 employees. The normal cost for post-Act 120 employees is approximately 3%, and the weighted average will decline as pre-Act 120 employees leave the system (retire) and the share of post-Act 120 employees increases. The healthcare rate is less than 0.85% per annum.
- <sup>2</sup> Represents the rate to finance the unfunded liability, which results from paying less than the actuarially determined amount (e.g., underfunding and funding deferrals) in prior years.
- <sup>3</sup> The Act 120 collars limit the increase in the total employer contribution rate to 4.5 percentage points in any year.
- <sup>4</sup> For SERS, the normal cost represents the employer rate to pay pension benefits earned in that year for post-Act 120 employees only. Therefore, this measure of normal cost will be lower than the average normal cost for all employees reported by PSERS. Beginning with the 2021 actuarial valuation, the traditional Entry-Age Actuarial Cost Method will be used to determine the normal cost for SERS.

### Change in Employer Contributions: Act 5 vs. Prior Law



Note: Dollar amounts in millions on a cash flow basis for fiscal years ending June 30th (PSERS) and December 31st (SERS). For SERS, the change in employer contributions are affected by (1) the new normal cost methodology scheduled to begin with the 2021 actuarial valuation and (2) the expiration of the plow-back of savings in later years.

### **Funded Ratios for PSERS and SERS**



Note: Based on actuarial value of assets. PSERS values after FYE 2017 and SERS values after FYE 2016 based on system projections.

### **School Property Tax Forecast**

	Actual	Estir	nate			Forecast		
Fiscal Year	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
All School Property Tax	<u>es</u>							
Current-Year	\$12,615	\$12,922	\$13,312	\$13,752	\$14,225	\$14,726	\$15,303	\$15,924
Act 1 Allocations	530	532	533	530	530	530	530	530
Delinquent	<u>569</u>	<u>577</u>	<u>584</u>	<u>592</u>	<u>600</u>	<u>607</u>	<u>615</u>	<u>624</u>
Total	13,714	14,031	14,429	14,874	15,355	15,863	16,448	17,078
Estimated Homestead S	<u>Share</u>							
Current-Year	\$6,844	\$7,010	\$7,222	\$7,460	\$7,717	\$7,989	\$8,302	\$8,639
Act 1 Allocations	530	532	533	530	530	530	530	530
Delinquent	<u>307</u>	<u>313</u>	<u>317</u>	<u>321</u>	<u>325</u>	<u>330</u>	<u>334</u>	<u>338</u>
Total	7,681	7,855	8,072	8,311	8,572	8,849	9,166	9,507
Note: Dollar amounts in mil	llions. Homestead sha	are excludes quali	fied properties th	at have not applied	for the homes <sup>.</sup>	tead exclusior	l.	
Source: IFO Research Brief J								

## State Minimum Wage Levels

	2018 Rank	2018	2019	2020
Washington D.C.	1	\$12.50	\$13.25	\$14.00
Washington <sup>1</sup>	2	\$11.50	\$12.00	\$13.50
California <sup>1</sup>	3	\$11.00	\$12.00	\$13.00
Massachusetts	3	\$11.00	\$11.00	\$11.00
Arizona <sup>1</sup>	5	\$10.50	\$11.00	\$12.00
Vermont	5	\$10.50	\$10.68	\$10.97
New York <sup>1</sup>	7	\$10.40	\$11.10	\$11.80
Oregon <sup>1</sup>	8	\$10.25	\$10.75	\$11.25
Colorado	9	\$10.20	\$11.10	\$12.00
Connecticut	10	\$10.10	\$10.10	\$10.10
Hawaii	10	\$10.10	\$10.10	\$10.10
Rhode Island	10	\$10.10	\$10.50	\$10.50
Maine <sup>1</sup>	13	\$10.00	\$11.00	\$12.00
Alaska	14	\$9.84	\$10.01	\$10.28
Minnesota	15	\$9.65	\$9.82	\$10.08
Maryland <sup>1</sup>	16	\$9.25	\$10.10	\$10.10
Michigan	16	\$9.25	\$9.41	\$9.66
Nebraska	18	\$9.00	\$9.00	\$9.00
South Dakota	19	\$8.85	\$9.00	\$9.24
West Virginia	20	\$8.75	\$8.75	\$8.75
New Jersey	21	\$8.60	\$8.75	\$8.98
Arkansas	22	\$8.50	\$8.50	\$8.50
Montana	23	\$8.30	\$8.44	\$8.67
Ohio	23	\$8.30	\$8.44	\$8.67
Delaware	25	\$8.25	\$8.25	\$8.25
Florida	25	\$8.25	\$8.39	\$8.62
Illinois <sup>1</sup>	25	\$8.25	\$8.25	\$8.25
Nevada	25	\$8.25	\$8.39	\$8.62
Missouri <sup>1</sup> 29		\$7.85	\$7.98	\$8.20
New Mexico <sup>1</sup>	30	\$7.50	\$7.50	\$7.50
Pennsylvania	31	\$7.25	\$7.25	\$7.25
Other	31	\$7.25	\$7.25	\$7.25

<sup>1</sup> Has one or more local areas in the state with a different minimum wage than the state minimum wage.

Note: All inflation adjustments in this table use IHS Markit's U.S. CPI-U year-overyear growth rate to estimate inflation adjustments for future years.

Source: Economic Policy Institute. Minimum Wage Tracker.

http://www.epi.org/minimum-wage-tracker/.

### **State Corporate Tax Rates and Other Attributes**

State <sup>1</sup>	Income Tax Rate	Method	NOL Deduction Cap				
Alabama	6.50%	Separate	None				
Alaska	0.00 - 9.40%	Combined	None				
Arizona	4.90%	Combined	None				
Arkansas	1.00 - 6.50%	Separate	None				
California	8.84%	Combined	None				
Colorado	4.63%	Combined	None				
Connecticut	8.25%	Combined	50% of taxable income on CFs				
Delaware	8.70%	Separate	\$30,000 on CBs				
Florida	5.50%	Separate	None				
Georgia	6.00%	Separate	None				
Hawaii	4.40 - 6.40%	Combined	\$100,000 on CBs				
Idaho	7.40%	Combined	None				
Illinois	9.50%	Combined	None				
Indiana	6.25%	Multiple	None				
lowa	6.00 - 12.00%	Separate	None				
Kansas	4.00 - 7.00%	Combined	None				
Kentucky	4.00 - 6.00%	Separate	None				
Louisiana	4.00 - 8.00%	Separate	72% of taxable income on CFs				
Maine	3.50 - 8.93%	Combined	None				
Maryland	8.25%	Separate	None				
Massachusetts	8.00%	Combined	None				
Michigan	6.00%	Combined	None				
Minnesota	9.80%	Combined	None				
Mississippi	0.00 - 5.00%	Multiple	None				
Missouri	6.25%	Separate	None				
Montana	6.75%	Combined	None				
Nebraska	5.58 - 7.81%	Combined	None				
New Hampshire	8.20%	Combined	\$10M on CFs				
New Jersey	9.00%	Separate	None				
New Mexico	4.80 - 5.90%	Separate	None				
New York	6.50%	Combined	None				
North Carolina	3.00%	Multiple	None				
North Dakota	1.41 - 4.31%	Combined	None				
Oklahoma	6.00%	Multiple	None				
Oregon	6.60 - 7.60%	Combined	None				
Pennsylvania	9.99%	Separate	40% of taxable income on CFs				
Rhode Island	7.00%	Combined	None				
South Carolina	5.00%	Multiple	None				
Tennessee	6.50%	Multiple	None				
Utah	5.00%	Combined	\$1M on CBs				
Vermont	6.00 - 8.50%	Combined	None				
Virginia	6.00%	Multiple	None				
West Virginia	6.50%	Combined	\$300,000 on CBs				
<sup>1</sup> Nevada, Ohio, South Dakota, Texas, Washington and Wyoming do not levy a corporate net income tax. Source: Tax Foundation, "State Corporate Income Tax Rates and Brackets for 2018" (February 2018). Indiana Legislative Service Agency, "Combined-Reporting Study" (October 2016). Wolters Kluwer CCH IntelliConnect.							

### Performance-Based Budgeting and Tax Credit Review Schedule

Year	/ear Performance-Based Budgets									
1	Corrections	Board of Probation and Parole	PA Commission on Crime & Delinquency	Juvenile Court Judges' Commission	Banking and Securities	General Services				
2	Economic & Community Development	Human Services – Part 1	Health	Environmental Protection	PA Emergency Management Agency	State				
3	PennDOT	Human Services – Part 2	State Police	Military & Veterans Affairs	State Civil Service Commission					
4	Education	Human Services – Part 3	Aging	PA Historical & Museum Commission	Agriculture	Labor and Industry				
5	Drug and Alcohol Programs	Insurance	Revenue	Executive Offices	Environmental Hearing Board					
Year	/ear Tax Credits									
1	Film Production	New Jobs	Alternative Energy Production							
2	Research and Development	Keystone Innovation Zones	Mobile Telecom and Broadband	Organ and Bone Marrow						
3	Neighborhood Assistance	Resource Enhancement and Protections (REAP)	Entertainment & Economic Enhancement	Video Game Production	Keystone Special Development Zones					
4	Educational Tax Credits	Coal Refuse and Reclamation	Mixed Use	Historic Preservation Incentive	Community- Based Services					
5	Resource Manufacturing	Brewers'	Computer Data Center	Manufacturing and Investment	Waterfront Development	Rural Jobs and Investment				