Fiscal Year 2017 Report









Letter from the Administrator

Dear Governor Kasich:

I am pleased to present the annual report of the Ohio Bureau of Workers' Compensation for fiscal year 2017.

Over the last year, we increased our commitment to protect Ohio's workers and employers, improved the lives of injured workers and worked with local businesses and governments to bolster economic development. **Below are a few of our accomplishments.**

- Our Board of Directors approved another \$1 billion rebate for Ohio's private and public employers, the third such rebate since 2013. Along with previous rebates, credits and rate reductions, our agency has saved Ohio employers \$6.3 billion in workers' compensation costs since 2011.
- In conjunction with our \$1 billion rebate, we announced plans to invest \$44 million over two years to improve wellness and safety for workers across Ohio. This includes a new wellness program for small employers, funding for specific programs to help firefighters and those who work with children and adults with disabilities, and an education campaign to address common injuries at work and in the home.
- Our board's approval in 2016 of a private employer base-rate reduction of 8.6 percent became effective on July 1, 2016. With this latest reduction, private employers are paying \$463 million less annually. Private employers have benefitted from an average 28.2 percent decrease in premiums since the beginning of 2011.
- In conjunction with our annual Ohio Safety Congress & Expo, we hosted our second Medical & Health Symposium. The combined event drew a record-setting crowd of more than 7,500. We offered free continuing education credits and participation in a combination of lectures and interactive panel discussions featuring leading national and state experts covering best practices related to the care of injured workers.
- Our new rule governing the prescribing of opioids to treat injured workers became effective on Oct. 1. The rule prevents
 opioid dependence by requiring appropriate prescribing by BWC certified physicians. Reimbursements for opioid prescriptions are limited to claims in which physicians follow best medical practices. Physicians who don't follow best practices
 are subject to penalties that range up to decertification from our provider network.

We are working diligently on exciting improvements and initiatives to come in fiscal year 2018. We are more committed than ever to the safety, health and economic well-being of our state and its citizens.

Sincerely.

Sarah D. Morrison *Administrator/CFO*

Ohio Bureau of Workers' Compensation

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Introduction

This report documents some of the actions we took in fiscal year 2017 (FY17) to improve the quality of life for Ohio's workers and to be a positive influence for economic growth in Ohio. Our focus on preventing workplace accidents, lowering rates and caring for those workers injured on the job is making Ohio a better place for businesses and workers. This focus and our commitment to the principles of service, simplicity and savings helped us operate efficiently during FY17.

With assets of approximately \$28.9 billion, we are the largest state-fund insurance system in the U.S. In addition, we're one of the top 10 largest underwriters of workers' compensation insurance in the nation. Insuring 241,308 Ohio employers, we provide insurance coverage to approximately 60 percent of Ohio's workforce. In FY17, we approved 86,290 new claims, a decrease of 1,880 from FY16. Contributing reasons for this decrease include:

- Continued safety funding;
- Continued promotion of safe and healthy workplaces;
- More employers putting safety education resources to work.

During FY17, we focused on providing our services in a cost-effective and efficient manner. As a result, our administrative cost budget of \$280.7 million was 1.7 percent less than appropriated by the Ohio General Assembly.

Accomplishments

A Third Billion Back

Gov. Kasich joined us in March to announce plans to distribute another \$1 billion rebate to public and private employers this summer. This was the third rebate of this magnitude since 2013. Our Third Billion Back initiative returned \$879.5 million to private employers and \$135.7 million to public employers, which included \$41.6 million to local schools.

Safety and Wellness

As part of Third Billion Back, we announced a \$44 million health, safety and wellness initiative designed to create a culture of safety throughout Ohio.

This includes an investment of \$6 million annually in a robust health and wellness program for Ohioans working for small employers (50 or fewer employees) in specific high-risk industries. We are contracting with a third-party vendor to provide services such as smoking cessation programs,

health coaching and chronic disease management.

We also extended the FY16 funding level of \$15 million for the next two years for safety intervention grants. We set aside \$4 million of those funds a year for two highrisk occupations:

- \$2 million for fire departments to purchase equipment and gear that minimizes exposure to dangerous environmental elements:
- 2. \$2 million for employers that serve disabled children and adults; the funds will support training and equipment aimed at preventing injuries to workers providing these services

In addition, we are investing \$2 million to create a statewide safety awareness and educational campaign for slips, trips and falls, overexertion and motor vehicle accidents. These accidents are responsible for more than 60 percent of workplace injuries. The effort will include online and mobile training resources that address safety at work and at home.

Safety grants paying off

The Safety Intervention Grant Program under our Division of Safety & Hygiene continued to reap rewards for participating Ohio businesses. In FY17, 274 safety grant companies completed their one-year cost benefit analysis report. These companies reported \$4 million in annual productivity savings, \$478,830 in annual claim cost savings and nearly \$1.5 million in other savings (improved quality, falling absenteeism, etc.).

In FY17, we awarded 662 grants totaling \$12.6 million to 626 employers. Of those, 71 percent went to employers with 100 or fewer employees. Most employers were in the following sectors: manufacturing (21 percent); townships (14 percent); and construction (13 percent).

Private employer base-rate reduction

An 8.6-percent reduction in private employer base rates became effective July 1, 2016. This reduction was possible thanks to sound fiscal management and strong investment returns. The reduction meant private employers paid \$463 million less in premiums in FY17 than they did at the beginning of 2011. This represents a combined 28.2 percent decrease over the last six years.

Since 2011, reduced rates, rebates, credits and grants have resulted in \$6.3 billion in combined savings for Ohio's public and private employers.

Employer education and outreach

Our Employer Services team created educational webinars this year for new members of our employer community.

Titled, Top Five Critical Items to Know for New Policy Holders, these free webinars provide information employers can use to save money on workers' compensation costs and to be successful with their new coverage. Topics include available discounts, the value of establishing e-accounts, premium installment schedules, elective coverage essentials, and how and who to contact at BWC for assistance and services.

From the convenience of their home or office, employers can attend these webinars and interact with BWC risk management staff for immediate, on-demand and unlimited Q&A opportunities.

We started these 25-minute webinars in March and offer them twice each month. We had such an enthusiastic response, we decided to offer employers additional webinars each month on a variety of topics.

Ohio Safety Congress & Expo/ Medical & Health Symposium

In conjunction with our annual Ohio Safety Congress & Expo, we hosted our second Medical & Health Symposium. The combined event drew a record-setting crowd of more than 7,500. We offered free continuing education credits and participation in a combination of lectures and interactive panel discussions featuring leading national and state experts covering best practices related to the care of injured workers.

Spinal fusion rule

Our board of directors approved a rule that requires workers with lower back injuries to undergo at least 60 days of comprehensive conservative care before considering a surgical option. Conservative care includes:

- Physical therapy;
- Chiropractic care and rest;
- Anti-inflammatories:
- Ice and other non-surgical treatments.

The rule follows several studies of our data that found fusion patients suffered considerably worse outcomes, including chronic opioid dependence, increased disability and high rates of failed back syndrome, than non-fusion patients. One study in the

journal *Orthopedics* found nearly 77 percent of fusion patients did not return to work within two years.

Lower back injuries are among the top workplace injury types reported to BWC each year. If approved by the Joint Committee on Agency Rule Review, the fusion rule will become effective Jan. 1, 2018.

Enhanced care pilot program

Our enhanced care program (ECP) pilot that started in FY16 in 16 northeastern Ohio counties concluded this year. Researchers at The Ohio State University College of Public Health recommended we expand the program statewide.

With a focus on knee-only injuries for now, ECP is a physician-driven health-care model that emphasizes quality and coordination of care to improve outcomes for injured workers. Under ECP, the injured worker's physician of record focuses on the work injury while communicating with other physicians to make sure he or she addresses comorbidities — other conditions that can impede recovery. Ohio State found the program structurally sound and welcomed by physicians (263 enrolled, exceeding our expectations). The researchers concluded further studies were needed to more specifically identify the determinants of medical outcomes.

We expect to implement ECP statewide by July 2018.

Innovative pharmacy management

In FY17, our pharmacy department took on new challenges and improved operational efficiencies to better serve Ohio's injured workers.

We traditionally relied on an outside pharmacy benefits manager to manage medication prior authorization requests, but we brought that service in house this year to improve customer service. A team of clinical nurses worked with department managers to build an efficient system that achieved fast and significant results.

We reduced prior authorization turnaround times from an average of three days to just 90 minutes. This helped injured workers get their medicine on the same day their physician prescribed them. This move also reduced by nearly half (45 percent) the number of injured workers paying for prescriptions out of pocket then seeking reimbursement from BWC. In addition, our total number of prior authorizations declined in FY17, indicating that prescribers received correct and complete correspondence when they initially requested a prior authorization.

In other achievements, we further enhanced customer service by bringing our pharmacy call center in house this year. A team of pharmacy technicians and clinical nurses fielded an average of 1,200 calls per month and received numerous compliments for answering inquiries accurately on the first call.

We also updated our drug coding system to better manage our formulary, and we continued to closely track injured workers on opioids. Thanks to these and other changes implemented by the pharmacy department since 2011, we continued to see a reduction in the number of injured workers clinically dependent on opioids. We had 3,714 opioid-dependent injured workers at the end of June 2017, down from 8,029 in 2011, a 54-percent decline. Our efforts on this front earned Pharmacy Program Director John Hanna the Governor's Award for Employee Excellence in April.

We also enhanced our leadership team this year by creating a new role, that of clinical operations manager, and hiring a full-time pharmacist for the position. The clinical operations manager works closely with the pharmacy program director to oversee all clinical aspects of our program, contribute to program policy and ensure the maintenance of current industry best practices.

Updating our infrastructure

In November 2016, we implemented a new claims and policy management system following an extensive testing and training period. PowerSuite modernized operations and improved customer service by replacing systems that were 20 years old. In its first full year of operation, completed just prior to the publication of this report, BWC created 122,000 claims, and processed 2.8 million medical invoices, 6.4 million policy transactions, and made 1.1 million indemnity payments totaling \$935 million.

Fraud efforts generate results

Our special investigations department (SID) celebrated its 24th year of protecting the State Insurance Fund by investigating, detecting and deterring fraud. The department's 122 dedicated members accomplished several impressive results, including:

- 133 convictions;
- \$41.8 million in savings;
- The highest percentage of closed founded cases in its history at 50.3 percent.

SID also hit an important milestone when it surpassed the 5,000-mark for cases referred for prosecution.

Since its inception in FY1994, SID has fielded 119,573 allegations of fraud, secured 2,703 convictions and saved the State Insurance Fund \$1.8 billion.

2017 BWC year-end statistics

	FY 2017	FY 2016	FY 2015
State-fund claims filed			
Lost time	10,745	10,932	11,870
Medical only	75,030	76,648	81,348
Occupational disease	360	407	533
Death	155	183	185
Disallowed or dismissed	11,641	10,912	11,061
Total	97,931	99,082	104,997
Net allowed injuries	86,290	88,170	93,936

NOTE: Every claim is evaluated at 60 days after filing for purposes of claim type, state fund versus self-insured, combine status and allowance status. Values exclude combined and self-insured claims.

Open claims (Per statute)			
Lost time	242,778	263,618	288,059
Medical only	461,978	488,694	503,579
Total	704,756	752,312	791,638
Benefits paid			
Medical benefits paid	\$550,569,114	\$580,294,319	\$614,375,366
Compensation paid			
Wage loss	\$8,371,994	\$9,810,677	\$12,764,857
Temporary total	204,141,166	219,298,295	220,766,392
Temporary partial	4,361	7,226	16,543
Permanent partial	19,632,350	19,708,785	19,269,456
% permanent partial	55,294,805	65,019,190	67,385,815
Lump sum settlement	134,602,047	159,289,682	179,185,086
Lump sum advancement	19,902,247	21,852,376	18,067,160
Permanent Total and DWRF	381,508,395	402,054,481	390,863,930
Death	83,177,378	85,945,428	83,090,326
Rehabilitation	30,083,940	33,080,852	35,492,795
Other	4,046,402	5,535,475	6,153,354
Total compensation paid	\$940,765,085	\$1,021,602,467	\$1,033,055,714
Total benefits paid	\$1,491,334,199	\$1,601,896,786	\$1,647,431,080
Managed care organization fees paid	\$170,797,091	\$169,229,310	\$170,688,324

Fraud statistics			
Fraud dollars identified	\$41,764,061	\$56,571,121	\$60,450,575
\$\$\$ saved to \$\$\$ spent ratio	3.48 to 1	4.61 to 1	5.34 to 1
Prosecution referrals	163	198	229
	FY 2017	FY 2016	FY 2015
Active employers by type			
Private	237,249	239,331	247,829
Public (local)	3,796	3,796	3,807
Public (state)	121	121	121
Self-insured	1,166	1,178	1,180
Black lung	28	31	34
Marine fund	114	138_	135
Total	242,474	244,595	253,106
BWC personnel	1,785	1,842	1,866
BWC combined funds financial data (000s	omitted)		
	Audited FY 2017	Audited FY 2017	Audited FY 2017
Operating revenues			
"Premium and assessment income, net of provision for uncollectibles and ceded premiums"	\$1,544,550	\$1,439,143	\$1,954,174
DWRF II unbilled assessment	_	(1,499,600)	_
Other income	10,016	12,442	8,413
Total operating revenues	\$1,554,566	\$(48,015)	\$1,962,587
Operating expenses			
"Workers' compensation benefits and compensation adjustment expenses"	\$1,199,363	\$1,211,609	\$1,394,939
Other expenses	143,572	119,419	118,372
Total operating expenses	\$1,342,935	\$1,331,028	\$1,513,311
Non-operating revenues			
Net investment earnings	\$672,003	\$633,497	\$602,902
Increase (decrease) in fair value	1,205,642	731,967	(93,020)
Net investment income	\$1,877,645	\$1,365,464	\$509,882
Net dividends, rebates and credits	\$1,097,412	\$(6,674)	\$1,051,952
DWRF I alternative funding expense	\$(16,348)	\$507,891	\$-
Total assets	\$28,918,232	\$27,439,254	\$29,054,112
Total liabilities	\$19,240,643	\$18,742,292	\$19,800,028
Total net position	\$9,758,071	\$8,753,885	\$9,268,332

Investment Class Comments

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U.S. economy

The U.S. economy continued to grow at a respectable rate in fiscal year 2017 (FY17), sustaining its eighth consecutive year of economic growth following the financial shocks and recessionary period of FY09. The current U.S. economic expansion beginning in July 2009 (99 months through September 2017) is the third-longest between recessions in U.S. history, covering 33 business cycles to date going back to 1854. Only the U.S. economic expansions from March 1991 to March 2001 (120 months) and from February 1961 to December 1969 (106 months) have been longer to date. Real gross domestic product (GDP) averaged 2.2-percent growth quarter-over-quarter for the four quarters of FY17. This was an improvement over the tepid 1.3-percent average quarter-to-quarter growth for FY16. However, it was less than exhibited in FY15 (+3 percent) and FY14 (+2.5 percent). The FY17 first quarter (calendar year 302016) and last quarter (calendar year 2017) exhibited stronger real GDP growth of 2.8 percent and 3.1 percent, respectively. Whereas the two middle quarters of FY17 covering the autumn and winter periods of 4Q16 and 1Q17, had slower but still positive real GDP growth of 1.8 percent and 1.2 percent, respectively.

The national unemployment rate continued its decline in FY17 from 4.9 percent in June 2016 to 4.4 percent in June 2017. This is a continuation of a more moderate decline from 5.3 percent in June 2015 after declining from 7.5 percent in June 2013. There is an assertion that the U.S. is nearing full employment as there will always be a certain amount of frictional unemployment. The Federal Reserve and others emphasize the mismatch in the labor market between a shortage of labor for skilled jobs and a still significant number of unemployed and part-time workers lacking the necessary skills to fill these more demanding jobs.

This predicament has led to a continued widening in the gap in compensation paid to skilled, highly educated knowledge workers and less skilled, less educated workers. The U.S. civilian worker employment cost index showed a modest but higher 2.4 percent-increase over FY17 after increasing 2.3 percent for FY16. This is an improvement from an annual 2 percent or lesser increase during the prior several fiscal year periods 2012 to 2015. This low level of wage growth is also occurring within a broader context of even slower growth in labor productivity, which has increased an average of less than 1 percent in each of the past five years.

After finally raising the benchmark federal funds rate by 0.25 percent in December 2015 for the first time since before the Great Financial Crisis of 2008 to 2009, the Federal Reserve raised the federal funds rate on three occasions during FY17 by 0.25 percent each, including in June 2017 to a range of 1 percent-1.25 percent. This somewhat less accommodative monetary policy was the result of the Fed desiring to move toward a more normalization of interest rate levels and its belief its interest rate increases would not harm U.S. economic growth.

These interest rate increases made by the Fed contrast with the very accommodative monetary policies maintained by the two most important other central banks, the European Central Bank (ECB) and the Bank of Japan. These institutions want to stimulate economic growth in their regions and prevent sliding back into recession. These accommodative policies, especially that of the ECB, have been successful in stimulating economic growth in FY17 in the Eurozone and in Japan.

Inflation continued to be benign over FY17 with the annualized growth in the consumer price index (CPI) being 1.6 percent for all items and 1.7 percent for all items except food and energy. The CPI in FY17 was 0.9 percent for food and 2.3 percent for energy.

The Federal Reserve has stated it wants the U.S. inflationary rates to rise to its 2-percent target. The pace of hitting that target has been frustratingly slow.

U.S. financial markets

The U.S. equity markets exhibited very strong performance in FY17. They had a consistent upward trajectory during each of the four quarters of FY17, with only small pullbacks exhibited. Investors quickly seized these as buying opportunities. The major U.S. equity market indexes hit more record highs as FY17 ended. The Fed interest rate hikes were perceived as representing Fed confidence in a stronger U.S. economy. This perception allowed the economy to easily absorb such hikes, which, in hindsight, proved true. The U.S. equity markets reacted positively to the surprise election of Donald Trump as U.S. President in November 2016 as investors projected the likelihood of corporate and individual tax cuts, significant deregulation and infrastructure spending. These projections fueled U.S. stock indexes to record highs.

In addition, the economies of important continental European countries began rebounding by exhibiting modest but accelerating growth. The Chinese economy maintained its strong economic growth near 7-percent GDP throughout FY17. These encouraging overseas developments resulted in higher export activity of goods and services by U.S. corporations. A U.S. dollar weakening in exchange values versus the Euro by 8.5 percent from January to June 2017 fueled this increase. In addition to the strengthening European economy, the Dutch and French elections of pro-Eurozone, anti-populist candidates friendly to business interests also encouraged investors throughout the world.

Bond yields of U.S. government and corporate issues had an upward bias in FY17. After a relatively guiet 302016 with only minor month-to-month movement, medium-term and long-term investment grade U.S. bond yields rose between 0.50 percent and 0.75 percent (50-75 basis points) in 402016. Most of the yield increase occurred after the presidential election. Whereas equity investors viewed the prospect of tax cuts, deregulation and infrastructure spending as positive, bond investors viewed these as a negative. This could result in higher economic growth and inflation. After the excitement of 402016 events, U.S. market bond yields traded in a relatively narrow range during the first half of the calendar 2017 period with long-term maturity bond yields declining 0.20 percent-0.30 percent (20-30 basis points) and medium-term maturity bond yields being virtually unchanged.

In summary, FY17 exhibited strong and consistent U.S. equity market momentum throughout the period with the broad Russell 3000 index up 18.5 percent, the largecap S&P 500 index up 17.9 percent and the small-cap Russell 2000 index up 24.6 percent. The broad non-U.S. equity MSCI ACWI ex-U.S. index increased 20.4 percent for FY17. Although there was monthto-month currency exchange rate volatility for FY17, the overall currency exchange impact to this broad non-U.S. equity index was only a negative 0.7 percent in reduced performance for FY17 for the non-U.S. equity portfolio owned by BWC. The BWC equities portfolio exhibited positive monthly returns for 11 of the 12 months of FY17, the exception being October 2016. The three intermediate-term bond indexes serving as benchmarks for BWC fixed income portfolios returned between negative 0.2 percent to negative 0.6 percent. Whereas the most important long credit bond index representing one-half of BWC fixed income assets at the end of FY17 returned a positive 3 percent in FY17.

Portfolio returns

The BWC investment portfolio in FY17 provided a total return (net of management fees) of 7.5 percent and net investment income of \$1,878 million. The annualized net return of the BWC investment portfolio for the three-year and five-year fiscal periods ending June 30, 2017 were 5.1 percent and 6.5 percent, respectively. The net return was 6.9 percent for the 10-year fiscal period ending June 30, 2017. As a result, the FY17 portfolio return of 7.5 percent was above the annualized 10-year portfolio return of 6.9 percent. Each of these returns exceeded the 4-percent discount rate applied to future liabilities.

The BWC fixed income portfolio returned 1.4 percent in FY17 from a combination of bond interest income earned of 3.6 percent and market value depreciation of 2.2 percent, resulting from the slight increase in U.S. interest rate levels for the portfolio over the course of FY17. The BWC equity portfolio returned a very strong 19.3 percent in FY17. The equity portfolio was comprised of an 18.8-percent net return for its U.S. equity portfolio and a 20.4-percent net return for its non-U.S. equity portfolio. The growing BWC real estate portfolio comprised of 21 pooled real estate commingled funds at the end of FY17 provided a net return after management fees of 7.6 percent in FY17, which was an expected moderation in performance of this asset class. The BWC real estate strategy has an emphasis on core real estate assets with only moderate leverage used. The real estate asset class provided strong but not continuously sustainable net returns of 10.2 percent in FY16, 14.5 percent in FY15 and 11.4 percent in FY14.

Asset allocation revisions

BWC investment consultant RVK completed and presented asset-liability modeling studies on four of the five specialty funds (all but the Self-Insured Employers Guarantee Fund) during the months of April to July 2015 for review by the Investment Committee. The studies resulted in one asset allocation strategy change that involved the Disabled Workers' Relief Fund II (DWRF II) that the Investment Committee and the BWC Board of Directors (Board) approved in October 2015. This change involved revising the DWRF II targeted 34-percent asset allocation from a passive managed intermediate-duration benchmarked fixed income mandate to a new passive managed long-duration U.S. long government/credit index benchmarked fixed income mandate.

Due to the very long-term DWRF II liabilities that have an estimated average duration of 18 years with few liability payments projected over the next 10 years, converting this 34-percent asset allocation target from an intermediate-duration benchmarked mandate to a long-duration benchmarked mandate results in an improved duration matching of DWRF II assets and liabilities. It also results in increased interest income earned. BWC implemented and completed this DWRF II fixed income portfolio transition involving \$560 million of assets in September 2016. BWC accomplished this action with the chosen commingled fund manager of this new mandate selected because of the BWC Passive Index Management RFP issued in June 2016 with manager recommendations approved by the Investment Committee and Board in August 2016.

The second investment policy asset allocation change occurring in FY17 involved the Minority and/or Women-Owned Business Enterprise (MWBE) investment program of the State Insurance Fund (SIF). The Invest-

ment Committee and Board did approve in June 2017 the recommendation of RVK to convert the SIF MWBE investment program, representing a targeted 1 percent of SIF assets (approximately \$250 million) to passive management from active management (via manager-of-managers oversight). In addition, the Investment Committee and Board approved changing its U.S. equity benchmark from the All-Cap Russell 3000 index to the Large-Cap Russell Top 200 index. The committee and Board made this decision largely due to the consistent underperformance of the active management MWBE program compared to the returns of its broad benchmark index (Russell 3000 All-Cap U.S. Equity index) during its fiveyear period from its April 2012 inception through March 2017.

The Investment Committee and Board also approved in June 2017 the issuance by BWC staff of a RFP for MWBE passive investment management services. This RFP was subsequently issued in late June 2017 with bids received in mid-July 2017. After completing its review of the bids and its due diligence, the BWC RFP Evaluation Committee recommended a MWBE finalist manager at the August 2017 Investment Committee meeting. BWC Board members also heard a presentation of the finalist manager. The Board approved the recommended finalist manager as the new MWBE investment manager for SIF assets. BWC anticipates it will complete the transition of assets from the current 14 active MWBE sub-investment manager accounts to a single passive MWBE investment manager account in 402017.

Ten-year fiduciary investment performance audit

The presentation of the BWC Fiduciary Investment Performance Audit conducted during several months by Clark Schaefer Hackett (CSH) occurred at the August 2016 BWC Audit Committee meeting. Ohio Revised Code 4121.125(I) requires a fiduciary performance audit of the BWC investment program every 10 years. CSH represented there were zero internal control deficiency findings in their fiduciary audit with BWC showing great improvement in policies, procedures and governance.

CSH presented in its fiduciary audit several suggested improvements directed toward specific policies and procedures. The CIO and Co-CIO presented their responses and recommendations at the December 2016 Investment Committee meeting regarding the five fiduciary audit comments assigned by the BWC Board to the Investment Division or Investment Committee for review and recommendation. The Investment Committee at this December 2016 meeting accepted each of these respective recommendations addressing these five fiduciary audit comments that the CIO and Co-CIO made These recommendations consisted of two accepted action items that BWC will address and three suggested items that, in the opinion of the CIO, Co-CIO and BWC directors, no action need occur as the BWC investment program is satisfying such suggestions by processes, procedures or reports already in place.

The two approved fiduciary audit action items involve (1) the inclusion of a specific benchmark index for the cash and cash equivalents investment category for all BWC trust fund portfolios and (2) the creation of a written termination policy for underperforming investment managers. The Board approved the specific benchmark for the cash and cash equivalents catego-

ry (Bank of America Merrill Lynch 3-Month Treasury Bill Index) in April 2017. The BWC Investment Policy Statement (IPS) reflects these changes. The Investment Division created the Outside Investment Manager and Investment Consultant Termination Policy in January 2017 with comments provided by investment consultant RVK and BWC Internal Audit.

Portfolio compliance

The investment portfolios complied with the BWC investment policy at the end of each month of FY17 except for three matters. One of these matters involved an external investment manager and two involved a specific asset class slightly exceeding its defined upper limit ownership range per the BWC investment policy. It is also understood that the Investment Division will not complete the SIF MWBE 1-percent asset allocation investment strategy change from an active to passive managed U.S. equity mandate approved in June 2017 and reflected as the SIF investment policy until sometime in 402017 with the transition of approximately \$250 million in assets.

The SIF active managed long credit fixed income portfolio managed by PIMCO had a market value of approximately \$1.693 million on Sept. 30, 2016. PIMCO is one of six SIF active long credit managers. One of the investment guidelines of the PIMCO managed long credit portfolio for SIF is a restriction whereby below investment-grade highyield securities are limited to a maximum of 5 percent of total portfolio market value. At the end of September 2016, the market value of high-vield securities owned in the PIMCO managed long credit portfolio of SIF was 5.12 percent of portfolio total market value of \$1,693 million or approximately \$2 million above the 5-percent limit. The CIO discussed this slight investment guideline violation with PIMCO on Oct. 5, 2016. PIM-CO quickly addressed the violation with the sale of one high-yield bond holding

on Oct. 6, 2016, that brought the portfolio back in compliance with this below investment-grade limit guideline.

The U.S. equity asset class portfolio allocation for the Coal Workers' Pneumoconiosis Fund (CWPF) has a 13-percent ownership target with an ownership limit range of 10 percent to 16 percent. It exceeded it upper limit target of 16 percent by 0.03 percent or by approximately \$100,000 at the end of December 2016. This development was attributable to the positive return of 4.2 percent for its U.S. equity assets in 402016 combined with the negative 2.7-percent return for its fixed income assets in 402016. Fixed income assets comprised 77 percent of total CWPF assets on Dec. 31, 2016.

As a result, the BWC Senior Officers Review Team Portfolio Rebalancing Committee met to consider a portfolio rebalancing recommendation whereby it was also indicated that \$280,000 would be needed in cash to fund projected 102017 CWPF operating expenses. After discussion, the committee approved a rounded \$300,000 redemption from the CWPF U.S. equity commingled fund. The Investment Division executed the redemption on Jan. 11, 2017. This redemption enabled the U.S equity class of CWPF to be back in compliance and meet operational cash requirements.

Due to the continued outperformance of the U.S. equity asset class compared to the fixed income asset class of CWPF in 102017, the U.S. equity asset class of CWPF again exceeded its 16-percent upper limit ownership range by 0.5 percent or by approximately \$1.8 million at the end of March 2017. The BWC Senior Officer Review Team Portfolio Rebalancing Committee met on April 12, 2017, to consider the CIO's portfolio rebalancing recommendation whereby a targeted amount of funds (\$6 million) would be sold from the U.S. equity asset class to achieve an allocation for U.S. equity of 14.5 percent. This percentage was midway between its targeted portfolio allocation of 13 percent and its upper limit of 16 percent as consistent with the rebalancing policy stated in the BWC investment policy statement.

The CIO recommended the Investment Division redeem this \$6 million from U.S. equities and reinvest it in each of U.S. TIPS (\$3.5 million) and U.S. Aggregate fixed income (\$2.5 million) as both CWPF fixed income asset classes were under allocated to their respective target allocations of 40 percent and 39 percent by 1.6 percent and 1.4 percent, respectively, on March 31, 2017. Upon this recommended reinvestment of the \$6 million to be redeemed from the U.S. equity class, both fixed income asset classes would be below their respective target asset allocations by only 0.6 percent each. After some discussion, the BWC Portfolio Rebalancing Committee approved this CIO portfolio rebalancing recommendation for CWPF. The Investment Division subsequently executed this portfolio rebalancing activity for CWPF on April 18, 2017.

Valuation and performance

As reflected in Columns A and B of the table provided at the end of this Annual Report, total investment assets at fair value held by BWC were \$26,795 million on June 30, 2017. This represented an increase of \$1,547 million when compared to \$25,248 million on June 30, 2016. SIF invested assets were \$24,704 million at fair value on June 30, 2017. This represented 92.2 percent of total BWC invested assets at FY17 year-end. As stated earlier, the total rate of return on invested assets of BWC for FY17 ended June 30, 2017 was 7.5 percent net of management fees. The total rate of return on SIF invested assets for FY17 was 7.8-percent net of management fees.

BWC net investment income was \$1,878 million for FY17, comprised of:

- \$522 million of interest income;
- \$104 million of stock dividend income;
- \$101 million of real estate dividend income;
- \$6 million of miscellaneous investment income (from corporate and legal actions);
- \$1,206 million appreciation in fair value of investments;
- Offset by \$61.1 million investment expenses, including \$59.8 million in investment manager fees.

Investment manager fees

The investment manager fees for FY17 totaling \$59.8 million represented an annual fee of between 23 to 24 basis points (23/100 of 1 percent) of total average month-end market value of fixed income equity and real estate assets (all invested assets excluding cash and cash equivalents).

The investment expenses of \$61.1 million for FY17, including \$59.8 million in investment management fees, compares to \$51.4 million of total investment expenses for FY16, including \$50.1 million in investment management fees (21 basis points of average month-end investment assets excluding cash). The increase in investment management fees of \$9.7 million in FY17 was largely attributable to the following:

(a) An additional \$446 million of new capital invested in SIF commingled real estate funds, led by \$313 million invested in five new core plus real estate funds in FY17 that had no capital invested by SIF in FY16, plus the \$125 million PRISA II core plus fund that had only one quarter of management fees in FY16 but a full 12 months in FY17. Total commingled real estate management fees were \$27.1 million in FY17 and \$19.8 million in FY16, an increase of \$7.3 million of which an increase of \$5 million was attributable to the significant increase in the core plus real estate fund portfolio due to commitments being funded in FY17;

(b) An increase in active manager U.S. equity management fees (based on month-end market values) of \$1.6 million from \$12.7 million in FY16 to \$14.3 million in FY17 due to the significant market value increase during FY17 of these portfolios which comprised the 13 active mid-cap and small-cap U.S. equity managers and the MWBE active U.S. equity managers.

Active manager performance

The six active long credit bond managers in the aggregate provided a combined return for FY17 on SIF assets of 3.70 percent before management fees and 3.54 percent after management fees. This exceeded the long credit benchmark index return of 2.98 percent by 0.72-percent gross of fees and 0.56-percent net of fees. The Investment Division estimates this excess net return of 0.56 percent above the benchmark in the aggregate provided incremental net income for SIF of \$40 million in FY17. This estimated incremental net income is based on an average-month-end balance of \$7.14 billion in asset market value under management for long credit bonds in FY17. These six active long credit managers have collectively outperformed the benchmark index by an annualized 0.60-percent net of fees from their inception date of June 1, 2012.

The four SIF active core plus intermediate duration bond managers provided a combined total return of 2.11-percent gross of fees and 1.96-percent net of fees in FY17. This exceeded the U.S. Aggregate bench-

mark return of negative 0.31 percent by 2.42-percent gross of fees and 2.27-percent net of fees. Based on an average monthend balance of asset market value of \$3.13 billion under management for this asset class, the Investment Division estimated the excess net return of 2.27 percent above the benchmark in the aggregate provided incremental net income for SIF of \$71 million in FY17.

The 13 SIF active mid-cap and small-cap U.S. equity managers provided a combined total return for FY17 of 19.97-percent gross of fees and 19.31-percent net of fees. This exceeded the Russell composite small/mid cap custom blended index return of 18.14 percent by 1.83-percent gross of fees and 1.17-percent net of fees. The nine active mid-cap U.S. equity managers provided a combined total return of 19.13-percent gross of fees and 18.57-percent net of fees for FY17. This exceeded the Russell midcap U.S. equity benchmark index of 16.48 percent by 2.65-percent gross of fees and 2.09-percent net of fees. The four-active small-cap U.S. equity managers provided a combined total return of 23.33-percent gross of fees and 22.30-percent net of fees. This trailed the Russell 2000 small-cap equity benchmark return of 24.60 percent by 1.27-percent gross of fees and 2.30-percent net of fees.

Based on an average month-end market value of assets under management of \$2.33 billion for these 13 SIF equity managers for FY17, the Investment Division estimated the aggregate net excess performance of these managers to the BWC custom blended benchmark represented an incremental increase of SIF net investment income of \$27 million for FY17.

Asset allocation mix

The asset allocation mix of the BWC investment portfolio based on represented fair value on June 30, 2017, was:

- 55.1 percent bonds
- 32.8 percent equities;
- 10.5 percent real estate;
- 1.6 percent cash and equivalents.

This asset mix compares to:

- 58.8 percent bonds;
- 31.1 percent equities;
- 8.9 percent real estate;
- 1.2 percent cash and equivalents on June 30, 2016.

Asset class transfer activity

Columns D, E and F of the table provided at the end of this Annual Report summarizes the asset class transfer activity occurring over FY17. These activities are important to highlight because they had a material impact on the respective fair value levels of the bond, equity and real estate portfolios over the course of FY17.

The asset transfer activity shown in Column D reflects that the Investment Division redeemed a net of \$169 million of U.S. TIPS government bonds and \$160 million of net U.S. equities to fund real estate investments. The Investment Division made these U.S. equity redemptions as this exceptionally high performing asset class for FY17 was nearing its upper ownership asset allocation target range of 25 percent for the SIF portfolio.

Column E reflects the redemption activity initiated by the Investment Division to provide cash needed to fund operational requirements of BWC. The division emphasized redemptions from U.S. equity

accounts in FY17 to fund BWC operations as this asset class had the highest portfolio ownership asset allocation percentage above its target allocation percentage. The Investment Division executed a total of \$267 million of U.S. equity redemptions to fund BWC normal operational needs. In addition, it redeemed an additional \$95 million from active managed U.S. equity accounts (including \$70 million from the MWBE portfolio) at the end of June 2017 to be prepositioned to fund the first stage of the Third Billion Back premium rebate program. The \$140 million of bond redemptions shown in Column E for operational needs consisted of \$90 million of U.S. TIPS redemptions and \$50 million of long credit bonds, with these long credit bonds redeemed from one active manager at the end of June 2017 also to be prepositioned to fund the Third Billion Back Program. There was only one quarter-end actual asset class rebalancing action required during FY17. That action, was for the CWPF account whereby the Investment Division redeemed and transferred \$6 million of U.S. equities to bonds.

Bond portfolio values and return

The total fair value of the BWC bond portfolio was \$14,763 million on June 30, 2017, compared to \$14,852 million on June 30, 2016. The bond portfolio had net outflows totaling \$309 million during FY17 (see Column F of table), resulting largely from (a) \$265 million of SIF U.S. TIPS redemptions to fund real estate investments and operations and (b) \$50 million of long credit bond redemptions for the Third Billion Back Program. Adjusted for these net bond sale outflows, the fair value change of the BWC bond portfolio was an increase of \$220 million, which represented a total return of 1.4 percent for FY17.

The BWC bond portfolio return of 1.4 percent in FY17 consisted of bond interest income yielding an average of 3.6 percent and market value decline of 2.2 percent. The bond portfolio in FY17 earned \$520 million in interest income and had net realized/unrealized losses of \$292 million that resulted from interest rate levels for the total BWC portfolio being slightly higher at the end of FY17 compared to the start of the fiscal year.

The SIF long duration credit portfolio that represented 50 percent of total market value of the BWC bond portfolio as of June 30, 2017, was the best performing bond asset class sector for BWC in FY17. The actively managed long credit portfolio returned 3.54-percent net of fees in FY17. The second-best bond asset class performance came from the actively managed SIF intermediate-duration U.S. Aggregate portfolio, which provided a net return of 1.96 percent and represented 21 percent of the BWC bond portfolio market value as of June 30, 2017.

The U.S. government portfolio of both long duration U.S. governments (negative 7.05-percent return) and U.S. TIPS (negative 0.65-percent return) dragged down the overall return of the BWC bond portfolio for FY17. These bond asset classes represented 7 percent and 17 percent of the BWC bond portfolio, respectively, as of June 30, 2017.

Bond portfolio quality and duration

The BWC bond portfolio had an average quality of between "AA" and "A" at the end of June 30, 2017, with 35 percent of the fair value of bonds held on June 30, 2017, being U.S. government issues of "AAA" quality (by credit rating agencies Moody's and Fitch) and "AA" rated (by Standard & Poor's notable downgrade in August

2011). A total of 31.7 percent of fair value of bonds owned on June 30, 2017, were U.S. Treasury issues, including 18.2 percent represented by U.S. TIPS. Issues held on June 30, 2017, rated below investment grade represented 4.3 percent of total fair value of bonds owned. These were owned mostly in the active core plus fixed income managed accounts with a modest amount owned in active long duration credit managed accounts.

BWC permits these specified accounts to own such below investment grade bonds within BWC imposed percentage ownership limits. The weighted average effective duration of the bond portfolio on June 30, 2017, was 10.7 years. This is based on the individual asset class duration calculations of the BWC investment accounting vendor as represented in the FY17 audited financial statements. This effective duration of the bond portfolio matches well with the projected duration of future liability payments of the SIF portfolio, which is between 10 to11 years as provided by the BWC Actuarial Division.

Equity portfolio values and return

The total fair value of the BWC equities portfolio was \$8,794 million on June 30, 2017, an increase of \$950 million compared to \$7,844 million on June 30, 2016. There were net outflows of \$522 million (see table Column F) from the BWC equities portfolio, which were all from its U.S. equities portfolio during FY17. There were \$154 million of U.S. equities redemptions to fund real estate investments and \$6 million in redemptions to rebalance the CWPF portfolio. There were U.S. equities redemptions of \$362 million to fund BWC operations, including \$95 million redeemed at the end of June 30, 2017, prepositioned to fund a portion of the Third Billion Back Program. Accounting for these significant outflows,

the adjusted fair value increase in the BWC total equities portfolio was \$1,472 million in FY17. The total net return of the BWC equities portfolio was 19.3 percent for FY17.

The total fair value of the BWC U.S. equities portfolio was \$6,112 million on June 30, 2017, an increase of \$495 million compared to the fair value of \$5,617 million on June 30, 2016. Accounting for the \$522 million of net outflows during FY17, the adjusted fair value increase of the U.S. equities portfolio was \$1,017 million during FY17 which represented a net return of 18.8 percent. The U.S. equities portfolio represented 69.5 percent of the fair value of the BWC total public equities portfolio on June 30, 2017.

The total fair value of the BWC non-U.S. equities portfolio was \$2,682 million on June 30, 2017, an increase of \$455 million in fair value compared to \$2,227 million on June 30, 2016. There were no inflows or outflows of funds during FY17 involving the passively managed non-U.S. equity commingled fund utilized by each of SIF, DWRF II and CWPF for all assets owned by BWC in this asset class. The BWC non-U.S. equities portfolio had a total net return of 20.4 percent for FY17.

Like FY16 and unlike FY15, the U.S. dollar strengthened slightly (+0.7 percent) from the beginning to end of FY17 versus the composite basket of foreign currency stocks of the BWC owned commingled fund portfolio for this asset class. The BWC passive investment manager replicates the benchmark index holdings of foreign currency denominated stocks. As a result, the total net return of 20.4 percent was comprised of a 21.1 percent in increased fair value of all local currency stocks owned in this passive commingled fund that was reduced by 0.7 percent due to the modest negative foreign currency translation impact to the U.S. dollar. The BWC commingled fund portfolio owned stocks were denominated in 39 separate foreign currencies as of June 30, 2017. The most prominent currencies represented in the BWC non-U.S. equities portfolio are the Euro, Japanese Yen and British Pound in that order. These currencies combined represented 50.7 percent of this portfolio's fair value as represented in the FY17 audited financial statements.

Real estate portfolio values and return

The total fair value of the BWC real estate portfolio was \$2,806 million on June 30, 2017, an increase of \$553 million in fair value compared to \$2,253 million on June 30, 2016. There were additional capital investments totaling \$447 million made toward real estate funds in FY17. The Investment Division made new capital investments totaling \$313 million toward four core plus real estate funds, with \$84 million made toward six value-added real estate funds and \$50 million made toward one core real estate fund that completed the fundings of all capital committed toward core real estate funds.

There was also one core real estate fund full redemption made in FY17 that totaled \$71 million in proceeds, initiated by the Investment Division with approval provided by the Board due to significant concerns about the new restructuring strategy of that fund. This core real estate fund full redemption resulted in a realized capital gain of \$13.5 million and an internal rate of return of 9.58 percent.

BWC also received \$15 million in distributions from four closed-end value-added real estate funds in FY17 that are not subject to reinvestment within these funds. As a result, total net inflows towards real estate funds amounted to \$361 million (see table Column F) during FY17. Due to this investment activity, the adjusted fair value increase for real estate assets in FY17 is \$192 million as reflected in Column G of the table.

The real estate portfolio achieved a total return net of fees of 7.6 percent in FY17. This was an anticipated reduction from the unsustainable high real estate net returns achieved by BWC of 10.2 percent for FY16, 14.5 percent for FY15 and 11.4 percent for FY14. BWC first invested in real estate funds at the end of calendar year 2012, with FY14 being the first full fiscal year of owning real estate assets in the BWC investment portfolio. The \$192 million of adjusted fair value increase of real estate assets for FY17 was comprised of \$101 million of dividend income and \$118 million of realized/unrealized capital gains, reduced by \$27 million of management fees paid.

The total fair value of the BWC real estate portfolio on June 30, 2017, of \$2,806 million, represented 10.5 percent of total BWC invested assets. Seven core funds with total fair value of \$2.1 billion, six core plus funds at \$479 million and eight value-added real estate funds at \$221 million represented the real estate portfolio. On June 30, 2017, core real estate funds comprised 7.9 percent of total fair value of BWC assets. Core plus and value-added real estate funds comprised 1.8 percent and 0.8 percent, respectively, of total fair value of BWC assets.

Cash and cash equivalents

Total BWC cash and cash equivalents had a fair value of \$431 million on June 30, 2017, (1.6 percent of total assets at fair value) compared to \$298 million on June 30, 2016. BWC used an institutional U.S. government money market fund offered by its custodian bank (JP Morgan Bank) during FY17 to earn interest income on its short-term invested assets. This included all overnight cash held by its outside investment managers in all managed separate accounts.

After the Federal Reserve Bank finally initially raised its target federal funds rate by 0.25 percent in December 2015 from a range of 0 percent to 0.25 percent that existed since the Great Financial Crisis, the Fed raised its federal funds rate three additional times by 0.25 percent each in FY17. These actions resulted in the seven-day yield on the JP Morgan government money market fund to steadily increase from 0.30 percent on June 30, 2016, to 0.85 percent on June 30, 2017. BWC earned \$1.9 million in interest income from cash and cash equivalents (via JP Morgan government money market fund) in FY17. This represented an average month-end net return on daily cash balances of 0.49 percent.

Portfolio interest rate sensitivity

BWC investment consultant RVK prepared an updated SIF fixed income portfolio sensitivity analysis based on the market value and composition of the SIF bond portfolio as of June 30, 2017. This annual sensitivity analysis examined estimated changes in the aggregate market values of the SIF fixed income portfolio for given hypothetical increases in interest rate levels.

The SIF bond portfolio with a market value of \$13.4 billion on June 30, 2017, had an estimated effective duration of 10.8 years on that date. The estimated duration of SIF total liability payments is approximately 10 years. This close matching of the duration of SIF fixed income assets with its duration of liability payments is intentional and consistent with the stated investment policy. Because of the long-term nature of its liability payments and its supporting long duration bond portfolio, the SIF bond portfolio market value is quite sensitive to movements in interest rate levels in both directions.

Below are some observations made from the RVK fixed income sensitivity analysis on the June 30, 2017 SIF fixed income portfolio. These observations are based on defined interest rate movements during a one-year (12 month) time frame across the entire yield curve from 0 year to 30+ year maturities.

If interest rate levels remain unchanged, the total SIF fixed income portfolio could earn a return of +3.7 percent, resulting in an increase in market value of +\$491 million.

If interest rate levels increase by +0.50 percent, the total SIF fixed income portfolio could decline in value by -1.5 percent, resulting in a decrease in market value of -\$198 million.

If interest rate levels increase by +1 percent, the total SIF fixed income portfolio could decline in value by -6.1 percent, resulting in a decrease in market value of -\$821 million.

If interest rate levels increase by +2 percent the total SIF fixed income portfolio could decline in value by -14 percent, resulting in a decrease in market value of -\$1,872 million.

Summary table

As referenced throughout this Annual Report, the table that follows provides a summary of asset class valuations, asset class sales to fund operations, transfers of funds involving transition activity, and performance returns of asset classes of the total portfolio for FY17.

Prepared by: Bruce Dunn, CFA BWC Chief Investment Officer Oct. 16, 2017

Asset Class Fair Value/Performance Summary

Fiscal Year 2017 Ending June 30, 2017

(\$millions)	(A)	(B)	(C)	(D)	(E)	(F)	(G)	
Asset Class	Fair Value 6/30/17	Fair Value 6/30/16	Actual Fair Value Change	Net from Portfolio Transitions	Net for Operations Fundings	Total Inflow/ (Outflow)	Adjusted Fair Value Change	FY 2017 Annual Net Return
Bonds	\$ 14,763	\$ 14,852	\$ (89)	\$ (169)	\$ (140)	\$ (309)	\$ 220	+ 1.4 %
U.S. Equities Non-U.S. Equities Total Public Equities	6,112 2,682 8,794	5,617 2,227 7,844	495 455 950	(160)	(362)	(522)	1,017 <u>455</u> 1,472	+ 18.8 % + 20.4% + 19.3 %
Real Estate Micellaneous Cash and Cash Equivalents	2,806 1 431	2,253 0 299	553 1 132	329	32 470	361 470	192 1 (338)	+ 7.6 % + 0.5 %
Net Change				0	0	0	1,547	
Total Invested Assets	\$ 26,795	\$ 25,248	\$ 1,547				*1,885	+ 7.5 %

Column Definitions

C = A minus B

F = D plus E

G = C minus F

Asset Class fair values shown include accrued investment income and Cash includes net trade payables/receivables

Amounts rounded to nearest \$1 million

^{*}Represents all fair value Asset Class changes except Cash & Cash Equivalents

Outcomes and Savings of the Health Partnership Program

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The Health Partnership Program

The Health Partnership Program (HPP) has operated as BWC's system for providing managed care services since its implementation in March 1997.

Per Ohio Revised Code (ORC) 4121.44 (H) (3), BWC must publish a report on the measures of outcomes and savings of the HPP. BWC submits the report to the president of the Senate, the speaker of the House of Representatives and the governor. BWC prepares the annual report under division (F)(3) of section 4121.12 of the ORC. BWC's chief medical services and compliance officer directs the program. The chief medical services and compliance officer coordinates management of the HPP with the chief medical officer and the chief of medical operations, appropriately using and making available a network of providers and managed care organizations (MCOs).

How HPP works

While determining compensability and paying indemnity benefits, BWC contracts with MCOs to manage the medical component of workers' compensation claims. MCOs educate employers and injured workers on HPP. They also process First Report of an Injury, Occupational Disease or Death (FROI) applications. In addition, MCOs help em-

ployers establish transitional/early returnto-work programs. Finally, MCOs process medical bills and make provider payments.

BWC monitors MCOs' managed care performance. For example, it measures the effectiveness of the MCOs' return-to-work efforts using the Measurement of Disability (MoD) metric. BWC also measures MCO FROI timing, FROI data accuracy, bill timing and bill data accuracy. Further, it publishes most of these measures in an annual MCO Report Card, available on www.bwc.ohio. gov. BWC encourages employers to view this report before selecting an MCO. Fourteen MCOs serve Ohio's employers and injured workers.

BWC Medical Services' objectives

BWC strives to ensure prompt, quality, cost-effective health care for injured workers to facilitate their early, safe and sustained return to work and quality of life. BWC's Medical Services and Compliance

Division, the Chief Medical Officer Division and the Medical Operations Division coordinates health-care delivery through a network of certified providers and MCOs. BWC accomplishes this by using management, pricing and payment strategies that benefit injured workers and employers. Specific supporting responsibilities include:

- Developing, maintaining and executing quality and cost-effective medical and vocational rehabilitation benefits plans and associated fee schedules;
- Developing and supporting the appropriate managed-care processes, including contract management and training;
- Establishing and maintaining a quality pool of medical and vocational service providers to ensure injured workers have access to quality, cost-effective and timely care;
- Developing and implementing appropriate medical and vocational policies, rules and training, which

address the management from inception to resolution of all medical and vocational issues arising out of an allowed claim;

 Evaluating and processing medical bills, guaranteeing proper and timely payment consistent with benefits plan criteria.

During FY17, BWC made positive progress on initiatives undertaken to support existing divisional and BWC enterprise business objectives and strategies. The remainder of this report provides selected highlights of HPP activities and outcomes.

HPP rules

Ohio Administrative Code (OAC) 4123-6-02.3 Provider Access to HPP – provider application and certification criteria

As BWC strives to be a world-class organization, Medical Services took steps in enhancing the provider application and certification criteria rule OAC 4123-6-02.3 where BWC may enter into an addendum to a physician's provider certification application and agreement or recertification application and agreement. In this process, BWC offers appropriate performance incentives to enhance physician proficiency in patient care. This bold step takes BWC among the leaders in health-care delivery by offering such an innovative model. Furthermore, this engages our providers to participate in our system by rewarding the physicians who agree to:

- Perform enhanced duties as the treatment team leader in the care of injured workers, as set forth in the addendum;
- 2. Enhanced provider outcome measurement.

BWC's proposed changes to this rule engaged the various stakeholders and associations by allowing them to weigh in with their thoughts and ideas. Among those involved were:

- MCOs:
- Health Care Quality Assurance Advisory Committee;
- Ohio Association for Justice;
- Council of Smaller Enterprises;
- Ohio Manufacturer's Association(OMA):
- National Federation of Independent Business(NFIB);
- Ohio Chamber of Commerce;
- Self-Insured Division;
- Ohio Medical and Pharmacy Board.

Ohio Administrative Code (OAC) 4123-6-32 Payment for Lumbar Fusion Surgery

Medical Services began to look at the research, internally and externally, relative to lumbar fusion surgeries. BWC discovered that upon an injured worker having this type of surgery, the results often yielded were often less than optima. Therefore, this rule promotes a comprehensive conservative approach toward care for the injured worker. Also, it enhances the informed decision-making process and provides statewide consistency among providers. In this way, we can assure injured workers that the approaches taken amongst those electing to have lumbar fusion surgery will be the same in northwest Ohio as they are in southeast Ohio. Finally, the rule helps solidify communication between the surgeon, provider of record (POR), and the injured worker. BWC accounted for this in its fee schedule by addressing the Global Fee for Surgery, so the POR and surgeon are guaranteed payment six months post-operatively since those providers must follow the injured worker during that period.

Initially, BWC developed lumbar fusion guidelines through the Spine Care Sub-

committee and the Health Care Quality Assurance Advisory Committee and unanimously approved. Also, BWC looked at evidence-based approaches by various systems and payers nationwide. BWC used the Official Disability Guidelines (ODG) as a base upon which we built more robust guidelines. Finally, BWC developed a rule from these guidelines to secure better coordination of care and communication among injured workers, providers and surgeons.

BWC's goal in developing a rule was to:

- Promote the highest quality of care for spinal fusions;
- 2. Validate the appropriateness of both the guidelines and rules by subject matter experts (i.e., orthopedic surgeon/neurosurgeon);
- Improve alignment in the expectations of all those involved to maximize outcomes and minimize disability.

This rule considers prerequisites to consideration of lumbar fusion surgery where the injured worker must undergo 60 days of conservative care, the operating surgeon must personally evaluate the injured worker on at least two occasions prior to requesting authorization for surgery and the injured worker must undergo a comprehensive evaluation prior to surgery.

The rule indicates what the injured worker's file must contain as it pertains to conservative care. Not to mention the specific prerequisites prior to authorizing lumbar fusion surgery when the injured worker has a history of lumbar surgery or no prior history of lumbar surgery.

The document, What BWC Wants You to Know About Lumbar Fusion Surgery, must be in the injured worker's file along with the copy signed by the injured worker, the POR and the operating surgeon. We feel this is a best practice when injured workers elect to have lumbar fusion surgeon, and this aids them in their decision making.

Benefits plan design

Prompt, effective medical care is crucial for those injured on the job. Such care is often the key to a quicker recovery, timely return to work and quality of life for injured workers. Maintaining the right benefit plan design and service level reimbursement ensures access to quality, cost-effective service.

Access for injured workers means the availability of appropriate treatment. Having access to appropriate treatment facilitates faster recovery and a prompt, safe return to work. For employers, it also means the availability of appropriate, cost-effective treatment provided based on medical necessity.

Implementing a sound and effective provider fee schedule is a critical component of maintaining an effective benefit plan. Pursuant to required rules and law and to ensure injured workers access to quality care, BWC establishes discounted yet competitive fee schedules. BWC annually reimburses more than 28,000 providers for medical and vocational services rendered to Ohio's injured workers. An equitable and competitive fee for the right medical service is essential to maintain a quality provider network across the wide range of necessary provider disciplines.

BWC continuously improves its medical, vocational rehabilitation and pharmaceutical services offerings. This results from executing quality methodologies and protocols for revising benefits plans and their corresponding fee schedules. We strive to review all fee schedules annually.

For medical and vocational services rendered during Fiscal Year 2016 (FY16), as of early November 2016, BWC paid providers nearly \$578.8 million, which is \$33.8 million less than payments made in FY15. For FY17, as of early November 2016, BWC paid \$549.3 million, which is \$29.5 million less than payments made in FY16. Given

Chart 1

Fee schedule	Effective date	Board presentation and approval periods	Fee schedule description
Medical providers and services	Jan. 1, 2018	Aug. 24, 2017 Sept. 27, 2017 Dec. 20, 2017	Covers all medical providers and medical services not covered by any of the other schedules (OAC 4123-6-8) Projected 2018 impact: 0.18 percent spending increase
Hospital outpatient	May 1, 2018	Nov. 17, 2016 Dec. 15, 2016	Covers facilities for outpatient services (OAC 4123-6-37.2) Projected 2018 impact: 2 percent spending increase
Hospital inpatient	Feb. 1, 2018	Aug. 24, 2017 Sept. 27, 2017	Covers facilities for inpatient services (OAC 4123-6-37.1) Projected 2018 impact: 1.84 percent spending decrease
Ambulatory surgical centers (ASC)	May 1, 2018	Nov. 17, 2016 Dec. 15, 2016	Covers surgical procedures not requiring inpatient hospitalization (OAC 4123-6-37.3) Projected 2018 impact: 3 percent spending increase
Vocational rehabilitation services	TBD	TBD	Covers all vocational rehabilitation services (OAC 4123-18-09)

providers have 12 months to bill for services rendered, the estimated difference in medical spending between FY17 and FY16 will likely be less than BWC's current calculation.

Providers have 12 months to bill for services rendered, so total outlays for medical and vocational services during FY17 have not yet been finalized. However, as of early November 2017, we predict expenditures of \$549.3 million for FY17, which follows a continued downward trend. This is \$29.5 million less than FY16 expenditures and \$63.3 million less than in FY15.

BWC achieved those reductions while continuing to follow four objectives:

- To maintain stability in the environment and reimbursement methodologies;
- 2. To ensure injured workers have access to quality care;

- 3. To promote efficiency in the provision of quality services;
- To maintain a competitive environment where providers can render safe, effective care.

Those four objectives also continued to guide BWC's evaluation of Ohio's reimbursement methodologies and the development of recommendations for FY17-18. As a result, BWC made minimum changes to most of the agency's reimbursement methodologies and protocols. Pursuant to adopted recommendations for FY16 and FY-17, BWC expects total medical and vocational services reimbursements to remain relatively stable, depending upon injury mix and services utilization mix and rates. Above is a summary of the fee schedules, their effective dates and projected impacts on the medical and vocational service expenditures.

Medical Services performs routine audits to maintain the integrity of the system, clarifying or adjusting benefits and policies as needed to promote the objectives outlined. The hospital review unit audits approximately 1,200 hospital bills annually of which 17 percent, or 200 of those bills yielded an error in payment or an omission of data elements. BWC repriced 11 high dollar hospital bills after the audit resulting in a payment variance of approximately \$1.1 million.

The reimbursement and coding department provides policy support to MCOs, BWC departments and providers. During the past year, the department addressed 333 inquiries. In addition, the department processed another 43 requests for payment above the fee schedule. Payment above fee schedule requests offer BWC the opportunity to consider and to provide a second level of authorization for special circumstances

when an injured worker has unique needs that require payment above the fee schedule. We also use that opportunity to consider if factors occur often enough that the fee schedule may need adjusted for the items most frequently requested for above the fee schedule consideration.

Ambulatory surgical centers' (ASC) arthroplasty program

BWC continues to evaluate and undertake initiatives to improve access to care for Ohio's injured workers. As part of the 2016 ASCs' reimbursement development activities, BWC initiated actions to develop a certification program that begins allowing physicians to perform certain joint arthroplasties within ASCs. An arthroplasty is a

surgical replacement or reconstruction of a joint. This expansion of services for the ASC setting is an exercise of a unique departure from BWC's normal determination of which services physicians will perform at ASCs. BWC will generally follow Medicare's determination of which services physicians can perform in the ASC setting. However, when appropriate, BWC deviated from Medicare in not only reimbursement methodologies but also services available for injured workers.

This willingness to deviate from Medicare when it's appropriate occurred in 2014 when BWC, with the BWC Board of Directors' approval, began to allow physicians to perform the service of lumbar microdiscectomies in ASC facilities. In 2014, Medicare did not allow physicians to perform that procedure in the ASC setting. It changed that position in 2015.

Guiding BWC's determination to deviate from Medicare is the fact that Ohio's workers' compensation population is quite different from the Medicare population. The injured worker population is younger and generally in better condition than Medicare patients. This presents a greater opportunity for physicians to perform other types of services safely and effectively in the ASC setting.

BWC will eventually include 10 procedures in the arthroplasty program. As illustrated in Chart 2, physicians perform two of the procedures in hospital inpatient and outpatient settings. Physicians perform the remaining eight only in an inpatient setting.

ASCs provide a safe and convenient alternative to having these procedures performed in a hospital setting. Allowing physicians to perform these procedures in

Chart 2

СРТ	Description	2017 Medicare coverage	BWC Coverage
23470	Arthroplasty, glenohumeral joint; hemiarthroplasty	Hospital inpatient and outpatient	Added ASC May 2016
23473	Revision of total shoulder arthroplasty, including allograft when performed, humeral or glenoid component	Hospital inpatient and outpatient	Added ASC May 2016
23472	Arthroplasty, glenohumeral joint; total shoulder (glenoid and proximal humeral replacement)	Hospital inpatient only	To be added outpatient and ASC May 2018
27125	Hemiarthroplasty, hip partial	Hospital inpatient only	To be added outpatient and ASC May 2018
27130	Arthroplasty, acetabular and proximal femoral prosthetic, with or without autograft or allograft	Hospital inpatient only	Added Outpatient and ASC May 2017
27132	Conversion of previous hip surgery to total hip arthroplasty, with or without autograft or allograft	Hospital inpatient only	To be added outpatient and ASC May 2018
27445	Arthroplasty, knee, hinge prosthesis	Hospital inpatient only	To be added outpatient and ASC May 2018
27447	Arthroplasty, knee, condyle and plateau, medial and lateral compartments with or without patella resurfacing	Hospital inpatient only	Added outpatient and ASC May 2017
27702	Arthroplasty; ankle, with implant (total ankle)	Hospital inpatient only	To be added outpatient and ASC May 2018
27703	Arthroplasty, ankle; revision, total ankle	Hospital inpatient only	To be added outpatient and ASC May 2018

ASCs will improve access to care by giving injured workers additional treatment options. It also potentially reduces costs for the system. ASCs are a more cost-effective alternative, as they have much lower cost structures than hospitals. In 2011, Medicare reimbursements as a percentage of hospital outpatient department reimbursement were about 56 percent.

For the program's initial phase, BWC on May 1, 2016, implemented two hospital outpatient procedures — a partial shoulder replacement (CPT 23470) and a revision of a total shoulder replacement (CPT 23473). As of May 1, ASC facilities that BWC certified to perform arthroplasty procedures could also undertake those two procedures.

Phase two of the arthroplasty expansion included two additional procedures, which BWC will permit in the outpatient and ASC settings. BWC included total hip (CPT 27130) and total knee (CPT 27447) in the 2017 implementation of the Outpatient and ASC fee schedule updates effective May 2017. BWC will complete phase three with the fee schedule updates scheduled for May 2018 and will include the remaining six services from Chart 2.

BWC wants to make sure it has adequate requirements in place to ensure physicians perform these procedures safely and effectively. Thus, as part of the program setup, ASC facilities will need additional certification to have physicians perform these services at their facilities. As detailed in the proposed rule, ASCs that apply to participate in this program must meet the following criteria:

- BWC-certified;
- Joint replacement program in place for at least one year;
- Target procedure(s) previously performed at the ASC;
- Adequate physician credentialing criteria;

- Adequate patient selection criteria;
- Reports Medicare and the Ohio Association of Ambulatory Surgery Centers OAASC quality measures (data potentially used to develop quality thresholds in the future).

Medical Services will collect data on the program to ensure injured workers receive quality medical care. The division will review the outcomes of each BWC injured worker against the established quality measures for Medicare and the OAASC. It also will track other measures such as return-to-work time frames to determine program impacts. In addition, the Medical Services and Compliance Division will track and monitor overall program outcomes such as:

- Number of and credentials of surgeons performing the service;
- Numbers of participating ASCs;
- Volume of services performed;
- Individual ASC performance (i.e., report cards):
- · Estimated cost savings;
- Feedback and suggestions from ASCs, physicians, MCOs on workflows and administrative issues.

If any BWC claimants experience an MCOor ASC-reported or BWC-identified complication or perceived negative outcome, Medical Services will send the case to a BWC clinical review committee and/or the Health Care Quality Assurance Advisory Committee (HCQAAC) to assess the severity of the outcome and recommend action.

Finally, BWC will re-credential and recertify these facilities every two years to ensure these facilities and the treating physicians continue to provide high quality care for our injured workers.

Executing per the direction of the our HC-QAAC, the Medical Services and Compliance Division worked with the Ohio ASC Association and five ASC facility representatives to develop the program parameters. The five ASC facilities involved are:

- Wooster Surgery Center;
- Orthopedic Surgery Center
- Taylor Station Surgery Center;
- Dublin Surgery Center;
- Ohio Orthopedic Surgery Institute.

Prosthetics reimbursement

Medical Services continued its efforts with implementation of the new prosthetic pricing methodology. The rule change addresses issues identified during an audit performed on 319 treatment authorization requests for prosthetic devices. The audit showed significant differences in turnaround time of processing prosthetic requests associated with by-report reimbursement codes versus codes with set fees. The reason for this extended period is associated with how BWC's system handles by-report codes.

There are no established by-report codes do not have established fees. They require negotiation with the vendors. MCOs must negotiate with the vendor to reach an optimal price to pay for the associated prosthetic device. MCOs try to determine a base from which to start the negotiation. In the absence of any market pricing from which to start their negotiations, MCOs work to get the manufacturer's invoice for the base device provided to the injured worker. They then negotiate an add-on component to cover not only a prosthetist's device acquisition and prep cost, but also a profit for the prosthetist. However, prosthetists are in many instances reluctant to provide the invoice due to their manufacturers not wanting the information discoverable by other prosthetists. Thus, the back and forth actions between the MCOs and prosthetists led to challenges in turnaround times.

To address those issues, BWC on Jan. 1, 2016, we implemented a new prosthetic reimbursement negotiation methodology.

Since the implementation of this methodology, Medical Services worked with the Ohio Orthotics and Prosthetics Association and prosthetic service providers to develop a workgroup to assist with developing policies and procedures that will improve the new methodology's execution. Workgroup members included:

- OSU Orthopedics/Amputee Rehab;
- Optimus Prosthetics;
- The Ohio Orthopedic and Prosthetics Association;
- Hanger Prosthetics;
- CareWorks MCO:
- 3Hab MCO.

The workgroup agreed to have ongoing quarterly meetings to continue in vetting ideas that improve the delivery of prosthetic devices in the face of increasing speed in the changing prosthetic technology landscape. BWC held five workgroup meetings during the past 18 months. The discussions centered on cost issues, which the prosthetics providers felt BWC and the MCOs should consider in executing the new negotiation methodology. The group provided input on the BWC Prosthetic Policy alert, which published in the beginning of 2017 that clarifies MCO processes relating to by-report prosthetic codes and bundled items included in the device's fitting and delivery.

As a means of driving consistency and expediting the approvals (and reimbursement) of high end prosthetics, we compiled a list of questions that would facilitate collection of supportive medical documentation. The workgroup vetted both the upper and lower prosthetic tools, which BWC finalized and released in August 2017. In addition, from concerns raised during the workgroup meetings, BWC's reimbursement and coding unit resolved billing issues with The Ohio State University and certification issues with a prosthetist.

The meetings successfully allowed BWC to create a reimbursement strategy that was responsive to some of the concerns raised by the providers. BWC developed a base methodology and has been working with the workgroup to understand and appreciate situations that would result in payment above the fee schedule. This discussion is leading BWC into developing an option for performance based outcome payments to high quality providers.

There continue to be multiple internal meetings and external discussions to clarify items such as:

- 1. What is included in the base service component of furnishing a prosthetic device, and how is that to be quantified?
- 2. What should be considered as part of the negotiation process?
- 3. What are the most common by report devices that are fit to injured workers and can a price point be determined for those?

Performance based metrics

Medical Services' goal is to include performance based metrics embedded in each fee schedule methodology. Currently, BWC uses these metrics for reimbursement of the inpatient prospective fee schedule and has done so since 2013. One of those performance outcome components was the hospital readmissions reduction program which penalized hospitals that have an excess of patient readmissions after discharge. BWC chose in 2013 not to adopt this outcome measure at that time as the program was new and somewhat controversial. However, we reevaluated the applicability of this measure in 2015 and chose to recommend adoption. Since 2015, BWC implemented all CMS quality metrics for this fee schedule.

Chart 3 below graphically demonstrates the financial impacts to hospitals from not waiving the penalties associated with quality indicators for inpatient care in both 2017 and the proposed impact for 2018.

Chart 3

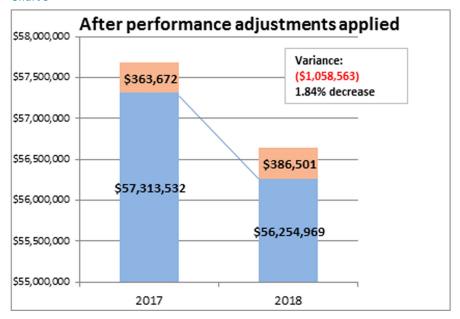


Chart 4 includes all relevant quality metrics currently incorporated in the inpatient fee schedule.

Policy coordination

Medical Services initiated a process to develop symmetry between the look and feel of reimbursement and coding policy. The Billing and Reimbursement Manual underwent a complete review and update with a scheduled release in FY2018. This manual set forth the relevant policies governing what providers must do to receive reimbursement for services rendered.

The MCO Policy and Reimbursement Guide is also under review to incorporate more appropriate complementary language referring to the Billing and Reimbursement Manual. This manual set forth the policies governing MCO execution of various actions under the HPP system. In many instances, various components of the provider billing and reimbursement manual repeated information found in the MCO policy guide. Addressing the language will reduce the risk of contradictory information between the guides.

During the past year, BWC released four policy alerts. These addressed:

- Drug coding clarification;
- Appropriate application of protocols for determining relatedness (E0B776);
- Clarification to prosthetic coding and reimbursement;
- Final clarification for the service code limits in the vocational rehabilitation fee schedule.

BWC is progressing in the development of comprehensive reimbursement policies for upper and lower limb prosthetics; telemedicine; detoxification programs; health behavior and risk assessment and intervention services and treatment plans involving lumbar fusion.

Chart 4

Program	Description	Incentive Type	Estimated Impact
Inpatient quality reporting	Hospitals must report quality measure or face reduction	Penalty	\$4661 reduction
Electronic health record (EHR) meaningful use	Hospitals receive reduction for not adopting EHR technology	Penalty	for both programs
Value based purchasing	Hospitals rewarded or penalized for quality performance	Reward or penalty	\$75,829 reduction
Hospital acquired conditions	Hospitals not paid for treatment of hospital acquired conditions	Penalty	N/A, case based
Hospital acquired conditions reduction	Lowest performing hospitals (25%) face additional reduction	Penalty	\$144,011 reduction
Hospital readmissions reduction	Hospitals with excess readmissions for certain conditions face reductions on all claims	Penalty	\$162,000 reduction

Pharmacy program

BWC's pharmacy program implemented a formulary for prescription drugs that became effective Sept. 1, 2011. When comparing FY17 with the base FY11 before the formulary became effective, the agency experienced:

- An 82 percent reduction in prescriptions for skeletal muscle relaxants;
- A 56 percent decline in prescriptions for opioids (Chart 5);
 - This represents a drop of 23 million doses of opioids covered by BWC;
- An 85-percent reduction in prescriptions for anti-ulcer agents.

In January 2010, the BWC pharmacy program initiated a monitoring program focused on opioid use among injured workers. The total average opioid load (as measured in milligrams of morphine equivalent doses) of injured workers has consistently declined for the past 32 quarters. Average total opioid load per injured worker was 27 percent lower in the last quarter of FY2016

compared with the first quarter CY2010. During this period, the total amount of opioids (as measured by milligrams of morphine equivalent doses) covered by BWC during this period has declined by 62 percent or 118,000gm. This equates to nearly 250 pounds of opioids that BWC did not cover.

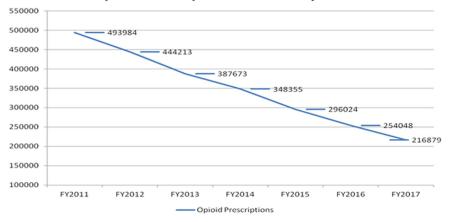
BWC experienced a \$49.6 million (-37 percent) reduction in total prescription drug costs in FY2017 compared with FY2011.

To improve the prescription review process for providers, in August 2016, the pharmacy program assumed responsibility for processing manual prior authorization requests. Response time has improved from an average of 2.5 days to less than four hours.

To enhance the health care of injured workers, in October 2016, the pharmacy program enacted a new rule (OAC 4123-6-21.7) that requires the use of best practices as defined in national and Ohio prescribing guidelines when prescribing opioids for longer than 12 weeks. The rule also allows for treatment of opioid dependency without that condition allowed in the claims.

Chart 5





Managed-care processes

In June 2017, BWC approved the merger of two MCOs, bringing the total number of MCOs under contract with BWC to 14. Throughout any merger process, we give the employers assigned to the non-surviving MCO the option to select a different MCO. This ensures employers maintain their right to select an MCO of their own choice. The surviving MCO inherits the performance of the non-surviving MCO, which also ensures that all claims remain actively managed, regardless of whether the claim originated with the surviving MCO or not.

MCO 2016-2017 contract

BWC and the MCOs executed a contract that became effective on Jan. 1, 2016, and remains effective through Dec. 31, 2017. The terms of the contract continue to build on the work begun under the most recent BWC-MCO contracts and reflect following BWC goals:

 A greater focus on quality outcomes for injured workers and employers;

- Increased effectiveness of the MCOs in execution of their responsibility for the management of the medical portion of a claim;
- Increased effectiveness of the MCOs in execution of their responsibility for return-to-work and remain-at-work management;
- Increased collaboration between BWC' claims staff and the MCOs' medical management staff in:
 - Capturing and exchanging relevant medical documentation and information:
 - Reducing redundancy in communicating with medical services providers, employers, and injured workers;
- Increased focus of the MCOs in providing on-site case management to Ohio's most seriously injured workers;
- Increased MCOs' incorporation of innovative approaches to managing medical care; and
- Reduction of redundancy and duplication of efforts.

With the execution of the 2016-2017 MCO Agreement and the adoption of a new On-Site Case Management policy in March 2016, MCOs began performing on-site case management visits with injured workers, their families, and providers in furtherance of the medical management of claims. While the policy developed a strong focus on the use of this tool for catastrophic claims, there was also an acceptance of the utility of on-site visits in non-catastrophic cases when certain barrier to recovery or return-to-work were noted. BWC's expectations are that effective on-site case management will:

- Result in an improvement in tracking of injured worker progress and treatment compliance;
- Facilitate the sharing among providers of critical information such as medications, diet, and upcoming medical appointments; and
- 3. Help reduce complications and errors, which cost both time in recovery to the injured worker and increased expenditures to the compensation system.

BWC reimbursed on-site visits at \$250 per visit. BWC recognized that not all MCOs might have the infrastructure to execute this task in-house. Thus, BWC implemented a rule change that provided the MCOs the opportunity to outsource this service, once BWC has given approval to the MCO, while maintaining their requirements to medically manage the claim. To gain this approval, the MCOs must submit a detailed request to BWC for consideration.

Between July 1, 2016, and June 30, 2017, BWC authorized payment for 96 on-site case management visits in 95 separate claims.

Also, with the 2016-2017 MCO Agreement, BWC developed a series of exceptional performance incentive programs designed to improve the quality of life for an injured worker, reduce the risks associated with

medication usage, and/or increase the potential for an injured worker to return to the workforce. Under the terms of the contract, MCOs could earn incentive monies for exceptional performance in the following four key areas:

- a. Medication management –15-percent opportunity;
- b. Transitional work 30-percent opportunity;
- c. Vocational rehabilitation 30-percent opportunity;
- d. Legacy claim management (RTW)– 25-percent opportunity.

The total incentive opportunity available to the MCOs is \$3.4 million dollars during each year of the contract. BWC allocates that amount across the four areas based on a consideration of the challenge, impact opportunity and optimal end-objective. BWC issued the first Exceptional Performance payment in February 2017. This covered the measurement period of Jan. 1, 2016, through Sept. 30, 2016. In total, BWC paid over \$930,000 across the four measurements.

A summary description below provides additional insight on each of the measures and the overall impact during 2016.

Exceptional performance measures description

1. Medication management

Medication management consists of two primary areas of focus: elderly injured workers and injured workers on high-risk drug regimens. In both instances, an expectation to see that injured workers take appropriate medications and are monitored to ensure the medications that they take are not harmful or place the injured workers at greater risk of death due to an overdose drive the incentive measures.

For the elderly injured workers, the population includes those more than 70 years of age who take a medication on the Beers Criteria for Potentially Inappropriate Medication Use in Older Adults (2015) as pub-

lished by the American Geriatrics Society. To earn incentive payments for this measure, BWC requires MCOs to intervene with prescribers to either eliminate the medication from the injured workers regimen or provide guidance in the selection of a more suitable medication not on the Beers list.

For injured workers prescribed high-risk drug regimens, the population includes any injured worker who takes four or more of eight therapeutic drug classes known to increase the risk of patient death when taken in combination. To receive incentive payments for this measure, MCOs must work with prescribers to reduce the number of therapeutic classes prescribed to an injured worker to three or fewer or reduce the dosage amounts by 15 percent or more.

Five MCOs earned payment for the Medication Management measure during 2016. The MCOs efforts resulted in a positive change to 386 injured workers' medication therapy. The efforts included over 160 interventions with prescribers to educate and inform the prescribers of the risks noted in each case.

2. Transitional work

The transitional work measurement consists of two key areas:

- Increasing the award of transitional grants to employers;
- Increasing the use of transitional return to work.

Recognizing a need to grow BWC's Transitional Work Grant Program, BWC designed this measure to incentivize MCOs to assist employers to develop complete transitional work grant applications, which BWC may approve and award a grant. With more transitional work programs in place, BWC expects injured workers will have a better path to return to the workforce earlier in the life of a claim and in jobs that can accommodate any restrictions until the injured worker has recuperated.

The second key component of the transitional work measurement is the use of

transitional return to work, regardless of whether an employer has an approved transitional work grant program. For this measurement, MCOs will need to work closely with providers to determine whether an injured worker may safely return to work with restrictions. The MCO will then work with an employer to see that an injured worker returns to work in a light duty/transitional work capacity and remains at work for at least 30 days. As experience has shown, the longer an injured worker remains out of the workforce, the more difficult it becomes for him or her to return to work. BWC designed this measurement to encourage the safe, effective return to work early in the life of a claim and to remove any barriers that may impede an injured worker's ability to return to work.

Ten MCOs earned payment for the transitional work measurement, which represented BWC awarding 35 new transitional work grants and more than 1,440 injured workers returning to work and remaining at work in a transitional work setting.

3. Vocational rehabilitation

Unlike the transitional work incentive, BWC aimed the vocational rehabilitation incentive at increasing the use of vocational services when it is unlikely that an injured worker can return to his or her same employer or same job and has been out of the workforce for three years or less. This measurement also has two key areas: appropriate decision-making and positive outcomes.

BWC's noted experience with the use of vocational rehabilitation indicates only about 2 percent of eligible claims are referred for vocational rehabilitation. BWC wants to see that percentage increase. Therefore, we designed this measurement to increase the number of appropriate referrals while ensuring staff assigns referrals to a vocational rehabilitation case manager, resulting in the development of vocational rehabilitation plans. Conversely, BWC does not expect to see an increase in the percentage of pre-plan closures, which would other-

wise indicate the injured workers referred were not appropriate for using vocational rehabilitation services.

With appropriate claim selection for referrals, BWC expects the outcomes in those claims will result in more injured workers returning to the workforce for sustained periods of 30 days or more.

Thirteen MCOs received payment based on their efforts in the vocational rehabilitation measure, with more than 150 injured workers returning to the workforce and remaining at work for sustained periods of time.

4. Legacy claim return to work

As the last measurement piece on the return-to-work continuum, BWC aimed the legacy claim return-to-work measure at addressing injured workers who have been out of the workforce for three or more years. BWC gives MCOs broad discretion to determine what tools they may best use to assist an injured worker with returning to the workforce. MCOs will receive credit for each injured worker that they successfully return to work for at least 30 days. BWC recognizes these claims may be the most difficult to resolve. However, these claims have the greatest impact on the workers' compensation system and on the lives of injured workers. The ability to return even one injured worker to the active workforce:

- Reduces the compensation paid;
- Improves the opportunities for the injured worker to increase her or her earnings and receive benefits; and
- Facilitates the injured worker in becoming a productive member of society once again.

For these reasons, this measurement consists of 30 percent of the possible payments for all exceptional performance payments.

Although BWC did not issue payments to any MCOs for this measure during 2016, we have recognized that BWC needs a thorough re-examination of the graduated earning methodology around this measure.

BWC remains committed to seeing that injured workers who have been out of the workforce for more than three years remain an area of focus and that these claims continue to be actively managed by the MCOs.

Medical providers

Education, outreach and communication

Quality providers meeting the needs of Ohio's injured workers are critical to managing a positive return to work and quality of life. One activity to ensure BWC retains a strong panel of providers is a statewide effort of face-to-face meetings with the provider office staff by going out to BWC offices in provider's neighborhoods and inviting new and seasoned office staff to a presentation. There were 10 BWC office meetings scheduled and started in June 2017. Information discussed covered all areas from the point when an injury happens at work, and the worker presents themselves. Discussions are participatory and informal, to allow these front-line colleagues to share provider concerns and find resources to assist.

BWC communicates regularly with our providers, their professional associations and interested parties. Each month we release a two to four-page electronic newsletter to a provider list serve containing approximately 1,800 members and growing. BWC distributes it via email and is our just-intime method to share pertinent updates of policies, processes, rules or other relevant information to our providers. In addition, we hold biannual stakeholder meetings in the spring and fall that are open to associations and all providers. BWC began offering access to these meetings via webinar in the spring.

Network volume

A continued focus of BWC is to support the HPP goal of having and maintaining a strong, effective network of certified providers. BWC's system reflects providers in two ways - certified providers and enrolled providers. Enrolled providers have rendered service at least once to an injured worker. However, they have not taken steps to become BWC-certified or are ineligible types for certification. Enrolled providers cannot generally render ongoing care to an Ohio injured worker. Certified providers who have completed the BWC provider application process and have agreed to abide by the Ohio workers' compensation fees, laws, and policies, can render ongoing treatment to an injured worker. There are 78,709 certified and 25,761 enrolled providers captured in the BWC system.

In FY17, our provider relations business unit managed the following enrollment/certification provider activities:

- New provider enrollments: 3,297;
- Providers that were recertified: 7,928;
- Providers whose certification lapsed and were not recertified: 8.867;
- Providers who were decertified from the system: 5,523;
- Annual number of providers enrolled and certified in FY2017: 9.039.

To further promote our simplicity and service goals for providers, the provider enrollment and credential review areas began a multi-year, multi-step plan for modernizing our provider system. These enhancements will result in online option to our providers for applying for enrollment and certification and demographic updates of their information. Provider programs that are optional within the HPP will also become available for online sign-up.

The Ohio Auditor's office completed an audit of our current certification processes, with a review of the multi-step plan for revisions. They recommended to move ahead with this plan. This business modernization will increase access and efficiencies for all our provider customers.

Ohio Workers' Compensation Medical & Health Symposium

BWC held its second annual Ohio Workers' Compensation Medical & Health Symposium in March 2017 at the Hyatt Regency Hotel in downtown Columbus. The symposium is a free, world-class educational opportunity for health-care professionals. It was a resounding success based on the participants' survey results and feedback. The symposium ran concurrently with BWC's Ohio Safety Congress & Expo, which draws more than 7,000 attendees each year.

The 2017 Medical and Health Symposium Theme is Comprehensive Care for an Injured Worker. BWC designed the symposium to accomplish several goals, including:

- Enhance the partnership between BWC and providers to achieve a common goal of high quality care;
- Enhance awareness and collaborative support of BWC's strategic initiatives;
- Provide access to quality continuing education that is convenient, cost effective and geared towards workers' compensation topics;
- Support the DEP educational requirements.

The symposium offered two full days of continuing education sessions designed for physicians and health-care professionals involved in the care and management of work-related injuries. There were 13 education sessions offering experts in pain management, physical medicine and rehabilitation, alternative medicine, chiropractic medicine, neuromodulation, radiology, psychology, ergonomics, neurology and orthopedic surgery.

Planning is underway for the 2018 Medical and Health Symposium scheduled for March 8 and 9 at the Greater Columbus Convention Center. In keeping with Comprehensive Care for an Injured Worker, the 2018 symposium will provide a provider clinical education track for health-care professionals and offer continuing education

credits. New this year, based on feedback, BWC's planning committee added a provider staff forum track designed specifically for office support staff. The 2018 symposium is limited to 700 attendees for the provider clinical education track and 125 attendees for the provider staff forum track.

Medical and vocational service administration support

Increasing the quality of services to injured workers that will drive increased positive outcome has been a key focus for BWC during the past year. That focus underlies BWC's continued evaluation of the care initiatives such as catastrophic claims, transitional work, health and wellness support, health behavior and assessment services and others.

Catastrophic claimant

Seventy-three new catastrophic injuries occurred during FY 2017 in the state funded population that MCOs managed. This statistic does not include catastrophic accidents that resulted in the death of the injured worker. Chart 6, below, shows the types of injuries that occurred during FY 2017.

Case management is essential in catastrophic claims management. During FY16, BWC established policy that would increase the use of on-site case management services and became a required component of the catastrophic case management model. Effective medical management of catastrophic injuries will continue to be a focus during FY 2018 to ensure that Ohio's most severely injured workers receive well-coordinated medical care and management.

To illustrate the level of medical management required, as well as some of the entrepreneurial approaches undertaken to achieve optimal outcomes, let's look at a catastrophic injury that occurred in 2014 and remains in active medical management today.

A young male construction worker sustained very severe traumatic injuries after an excavator truck ran over him at his work site. The injured worker has undergone more than 38 surgical procedures, including a rare hemi-pelvectomy with virtually complete muscle loss on his right side up to the middle of his back. A hemi-pelvectomy is an amputation of one leg together with removal of half of the pelvis on the same side of the body. The injured worker was the third person in the United States fitted with a custom designed prosthesis that incorporates a bionic hip and knee joint, multi-axial ankle joint and a dynamic foot. The prosthesis uses artificial intelligence, motion sensors and wireless communication to learn and adjust to the walking style of its user. It is now nearly three years since the accident occurred. Most people would never walk again with this type of injury, but this injured worker is able to ambulate with his prosthesis 100 yards at a time. He can also drive independently, after completing driving instruction and having modifications made to his vehicle.

Chart 6

Type of injury	Number of claims	% of total claims
Multiple trauma (fractures, internal organ damage, other)	26	36%
Traumatic brain injuries	24	33%
Amputations, major extremity	17	23%
Spinal cord injuries (quadriplegia, paraplegia)	6	8%

In last year's HPP report, BWC provided an overview of the catastrophic claim program pilot that began in January 2013 and concluded at the end of calendar year 2016. The objective of the pilot was to evaluate the effectiveness of an outcomes based medical management model. The vendor BWC selected through an RFP process was Paradigm Management Services. As reported last year, the pilot concluded in 2016 after BWC medical leadership determined that BWC would not integrate the pilot model into the HPP system. The decision did not impact claims in active Paradigm management. At the end of FY2017, there were 16 catastrophic claims that remained in active Paradigm management. Upon achievement of the clinical outcomes for each injured worker, BWC will transition these claims to the MCO for continued medical management.

Health and Wellness Program

Studies have shown that wellness programs reinforce workplace injury prevention and enhance workers' compensation outcomes. Furthermore, the future of workplace safety involves integrating employee's protection with health and wellness promotion. In 2017, BWC took steps to design a Health and Wellness Program (HWP) that benefits Ohio's workforce by:

- 1. Preventing injuries by improving workforce health;
- 2. Potentially reducing the severity of an injury;
- 3. Increasing the speed of recovery;
- 4. Reducing time away from work due to an injury.

BWC's intent is to have the ability to study best practices by improved health-care outcomes and impact the health of Ohio's workforce, specifically those areas that prove to be at high risk.

In June 2017, BWC issued a request for proposal (RFP) through the Department of Administrative Services to contract with a vendor who specializes in population health

management. From this BWC expects a vendor to offer:

- Health and wellness awareness/ education/training;
- 2. Health risk assessments (HRA) and biometric screenings;
- 3. Health coaching and nurse advice line;
- 4. Lifestyle management;
- 5. Disease management.

BWC plans to offer these types of services to two distinct populations:

- 1. Employers who have 50 employees or less who do not offer a HWP:
- Injured workers invited to participate in consultation with MCOs/ employers.

BWC has identified high risk industries where those individuals may benefit from such a program like. These include:

- 1. Agriculture:
- 2. Automotive repair and service;
- 3. Construction:
- 4. Firefighters;
- 5. Health-care;
- 6. Manufacturing;
- 7. Police and Public Safety;
- 8. Public Employer;
- 9. Restaurant and Food Service;
- 10. Transportation and Trucking;
- 11. Trash Collection;
- 12. Wholesale and Retail.

BWC will offer funding of up to \$6 million for these services that will be provided by a vendor. BWC expects to award the RFP in September 2017. The program will officially kickoff after the first of the year in 2018.

Health and behavioral assessment intervention

BWC began to consider ways to take a more comprehensive, holistic approach toward caring for the injured worker. Medical Services sought to clarify and strengthen services geared toward impacting behavioral barriers or poor coping skills that an injured worker may have. These issues ultimately may impede their recovery from their physical injury of the allowed condition. The division began to meet with several stakeholders and associations to educate and inform them on this initiative. Those entities BWC met with were:

- NFIB:
- Ohio Chamber of Commerce;
- Ohio Association for Justice;
- OMA:
- Plaintiff's Council:
- Ohio Farm Bureau:
- AFL-CIO.

BWC uses health and behavioral assessment intervention (HBAI) procedures and treatment protocols to appropriately assess and identify cognitive, emotional, social, behavioral, and psychological factors important to physical health problems and treatments. HBAI services do not focus on mental issues but on factors tied to the physical injury in the claim. Potential risk factors leading to negative behavioral issues that may be addressed are:

- 1. Inadequate coping skills;
- 2. Fear of movement or re-injury;
- 3. Perceptions of injustice;
- 4. Catastrophic thinking.

BWC included HBAI CPT services' codes in its reimbursement methodology since 2008. Historical claims data shows these services have been rarely used, or in instances where providers have billed these codes, used improperly. Thus, the system has failed to properly use the HBAI services in addressing behavioral barriers impacting the injured worker's recovery of an allowed physical injury. Therefore, BWC will use CPT codes 96150, 96151 and 96152 for assessments and intervention services. The POR will request these services after deeming such as appropriate for the injured worker healing and/or progression in medical care.

BWC intends to identify and implement policy changes that appropriately outline the application of codes and services as well as provide clear indicators as to who may perform these services. BWC will articulate the benefit and utilization of these intervention strategies by outreach and education amongst providers and MCO.

Transitional work grant and bonus programs

Transitional work grants provide a 3-to-1 matching grant for employers ranging from 11 to 200+ employees. Employers work with a transitional work developer to develop customized policies and procedures, work with their union and establish a relationship with health care providers. Employers received job analyses performed in the iob classification they select and training on how to identify appropriate transitional work tasks workers can perform based on their medical restrictions. In 2016, the BWC Board of Directors approved changes to Ohio Administrative Code 4113-17-55 Transitional work development grant and performance bonus removing the requirement of a lost-time claim in the employer's experience to be eligible for a grant. This requirement discouraged businesses from investing in transitional work program and did not align with BWC's goal and strategies of early return to work. Prior to the rule change BWC saw a steady decline in the number of grants paid to employers. Since the rule change the downward trends in transitional work grants paid as indicated in Chart 7 took a reversal with an increase of 55.1 percent from the previous year.

Destination: Excellence contains a bundle of programs that can help employers improve workplace safety, enhance injured worker care and save money on workers' compensation costs. BWC created Destination: Excellence to give employers choices in developing a comprehensive discount program. The program encourages employers to use BWC's valuable complimentary safety services and implement strategies

Chart 7

Fiscal year	Number of TW grants paid	Loss/Gain	Percentage change
2012	126	_	
2013	86	-40	-31.75%
2014	57	-29	-33.72%
2015	49	-8	-14.04%
2016	76	+27	+55.10%

Chart 8

Destination: Excellence Transitional Work Bonus Program										
Bonus period	Eligible employers	Employers with eligible claims	Employers receiving a TW bonus	Bonus Amount paid in the period	Largest Bonus paid to employer	Employers receiving over \$5,000	Employers receiving 10%			
July 2012 PA	858	447	330	\$3,086,602.13	\$138,284,66	205	225			
January 2013 PEC & PA	422	232	187	\$1,943,678.91	\$48,364.90	131	127			
July 2013 PA	837	442	357	\$3,749,979.77	\$99,768.25	245	261			
January 2014 PEC & PA	587	349	291	\$3,979,045.57	\$123,690.89	201	231			
July 2014 PA	731	413	339	\$3,135,625.37	\$121,059.63	249	245			
January 2015 PEC (PA moved to July 2015)	454	259	195	\$801,550.65	\$47,076.09	80	99			
July 2015 PA	1,326	587	490	\$4,043,306	\$101,703	268	405			
Total				\$16,696,482.39						

that prevents injuries and can help their injured employees recover faster. Since its introduction in July 2012, thousands of employers have enrolled for at least one of the safety or care programs of Destination: Excellence. By doing so, they saved tens of millions of dollars through incentives and possible much more in the future when their premiums decline because of fewer accidents and lower claim cost.

One program in Destination: Excellence is the Transitional Work Bonus Program. This program provides up to a 10-percent bonus for using an established transitional work plan to return workers back to work. It is a

vearlong program in which BWC evaluates all the claims with injury date that occurs during the program period in which the employer participates. Employers must be willing to accommodate the injured worker's restrictions with appropriate transitional work tasks when released to return to work by his or her physician before returning full duty. BWC calculates an employer's performance bonus based upon the percentage of claims eligible and successful in transitional work. BWC multiplies the percentage by a percentage of the employer's pure premium. On the next page, Chart 8, is a summary of the financial successes employers participating in the Transitional

Work Bonus Program have realized since the program began in July 2012.

Employers participating in the program have received substantial rebates on their premium for every year they participated in the program, with many employers receiving the full 10 percent. The results demonstrate a substantial return on their investment for employers who invest in a transitional work grant program and participate in the transitional bonus program. Chart 9 illustrates the results.

Enhanced Care Program pilot

On July 1, 2015, BWC implemented the Enhanced Care Program (ECP) pilot. The ECP is a natural reflection of an underlying principle and goal of the HPP. That principle and goal is to ensure injured workers receive the right care at the right time that results in an optimal outcome of returning or keeping an injured worker at work. The ECP is piloting new operational steps to managing an injured worker's medical needs.

In each year, approximately 75 percent to 85 percent of Ohio's workers' compensation claims are low intensity. This means the injured worker receives treatment and quickly returns to work. For the remaining claims, BWC's health-care model doesn't encourage coordination. This often results in delayed care for claimants at a higher cost for employers. During the July 1, 2013, policy year, nearly 80 percent of paid and incurred losses were associated with just 16 percent of the claims.

The ECP Pilot reflects a health-care model that meets the following three prongs:

- Claimants at risk of poor outcomes should have their care managed by a high-quality POR;
- The POR should establish a comprehensive treatment plan that considers the claimant's workplace injuries and other physical, behavioral and social factors that could impede the claimant's path back to work;

Chart 9

Employer	TW grant	BWC Reimbursement 75%	Employer Contribution 25%	TW Bonus	TW Bonus Payment	Return on Investment
Paving company	\$7,800	\$5,850	\$1,950	10%	\$60,922.01	3024%
Leasing company	\$1,620	\$1,215	\$405	10%	\$45,962.39	11248%
Construction company	\$6,300	\$ 4,725	\$1,575	10%	\$33,683.88	2038%

 The MCO supports the POR through coordinating the exchange of information and removing barriers that prevent the claimant from returning to work.

The specific claims covered under the pilot must meet the following criteria:

- Have only a knee condition allowed in their claim at initial determination:
- Have a home address in the pilot region, which includes 16 counties in northeastern Ohio;
- Choose to treatment by a POR participating in the program.

BWC calls PORs participating in the program enhanced-care PORs. To be eligible, a physician must:

- Practice in or near the pilot region;
- Agree to abide by all aspects of the Enhanced-Care POR agreement;
- Enroll in the program by submitting a signed agreement.

After thoroughly examining the injured worker, the enhanced-care POR must submit a comprehensive care plan to the MCO responsible for the claim that addresses the following:

- Allowed conditions:
- Other injuries to or issues with the knee believed to be causally related to the workplace injury;

 Other general health issues or social factors impacting the optimal path back to work.

The POR can begin rendering care (with expectation of appropriate compensation) before receiving MCO approval for services if the services fall within the Official Disability Guidelines (ODG). Proposed treatment that falls outside of ODG will still require MCO approval.

Key to the effective implementation of the pilot program was the approval and adoption of OAC 4123-6-01.2: Provisional Treatment Pilot Program. In summary, the rule provides:

- BWC the authority to implement
 the pilot program and allow one
 or more MCOs without disclaimer
 to authorize medical treatment reimbursement requests for the first
 60 days from the initial allowance
 of a claim. The MCO can take this
 action for any conditions that fall
 within the same body part or parts
 as the conditions initially allowed
 in the claim. This is provided
 those conditions are presumed to
 be causally related to the same
 industrial injury or occupational
 disease;
- Allows that action where BWC has not yet allowed the conditions in the claim, but is under consideration for allowance or in adjudication;

- Maintains the right of an employer to appeal a claim, additional allowance or medical treatment reimbursement determination for claims included in the pilot;
- Allows the pilot program for a period of one year from the effective date of July 1, 2015. It provides the Administrator the discretion to either terminate the pilot early or extend the pilot for up to one additional year.

BWC hypothesizes this approach will benefit employers' workers' compensation policies by ensuring employees receive high-quality care. This should facilitate a faster return to work while minimizing premium costs. Potential direct benefits include:

- Minimizing lost productivity more than 2 million days were lost during the July 1, 2013, policy year;
- Shortening the average duration of a lost-time claim, approximately 45 days for the July 1, 2013, policy year;
- Lessening costs for employers, since this model should allow lost-time claimants to move more quickly through treatment and return to work faster;
- Reducing opiate addictions, which afflict nearly one in six lost-time claimants today.

Per the rule, the BWC Administrator in June extended the ECP pilot for another year, which ended on June 30, 2016. An identified critical next step was to have an external party assess the ECP pilot and provide objective insights and strategy on the next steps. Therefore, on July 22, 2016, BWC issued a RFP, and entered into a contract in October 2016 with The Ohio State University (OSU). OSU analytical staff executed a 240-day project with the following deliverables:

- A. Review the design of the pilot program and evaluate the integrity of how BWC implemented the pilot program;
- B. Identify next step improvement opportunities and strategies to include:
 - i. Identify potential gaps or limitations of the pilot program and provide distinct analysis and specific approaches to improve upon the pilot program;
 - ii. Provide and/or recommend tools/strategies to make improvements to the existing pilot program;
 - iii.Recommend and/or design tools/strategies to effectively capture, collate and evaluate pilot program data to identify opportunities to improve claimant outcomes:
 - iv. Provide recommendations/ suggestions to consider in measuring the performance of pilot program physicians;
- C. Take the BWC approved recommendations from Biii. and Biv. above, and present a model that demonstrates the successful application of the approved recommendations and BWC's ability to maintain the model.

To achieve the objectives above, OSU completed several key study actions. It conducted key participant interviews/surveys with managed care organization (MCO) staff and 150 ECP physicians and led a focus group study involving MCO and BWC staff. Additionally, they completed a comparative analysis of the ECP-Tx treatment form against other states treatment plan forms and completed a statistical evaluation on the program.

OSU pointed to some key distinctive ECP Program features, which support the course BWC has taken to change how injured workers receive comprehensive

quality care. Key features include the use of financial incentives, physician accountability through performance measurement, attention to injured worker co-morbidities impacting recovery and return to work, and comprehensive treatment planning.

While OSU provided many deliverables, BWC believes some of the excerpts from the final work product report sum up the program and are key to keep in mind during expansion and years to come.

- "... ambitious attempt by BWC to create novel and innovative processes for improving the delivery of health care to injured workers."
- "From a structural standpoint, there is no other program nationally we are aware of that combines these elements..."
- "If done correctly, this can break down some of the barriers that often interferes with achieving true care coordination."
- "In most respects, the program is achieving its initial goals . . ."
- "... OSU consultants recommend that expansion proceeds carefully and gradually, ..."
- "An initiative like ECP cannot be measured over the course of a year or two. The real results will require continuing effort over a three- to five-year period..."

To date, there are 263 physicians enrolled as an ECP POR. During the period of July 1, 2015, to Nov. 9, 2016, the time frame OSU evaluated the program, 777 injured workers met all the program eligibility criteria with 207 of these injured workers classified as a lost-time claim.

During BWC's evaluation of the program, BWC learned while old habits are hard to break, the ECP approach and tools are sound, and that providers will adjust their approach in providing quality care. While there have been many injured workers benefit from the comprehensive approach

of the program, continued education and outreach is important to solidify the desired health-care delivery change.

Based on the success of the program to date and under the recommendation of OSU, BWC will begin to implement the ECP concepts statewide during the next fiscal year. To facilitate this action, the BWC Board of Directors approved a revision to the rule to allow the ECP Pilot to continue through June 30, 2019.

Medical bill processing

ADR Processing

On Nov. 15, 2016, BWC launched Power-Suite, BWC's new Core Integration combining BWC's claim and policy management into one systems. This change also brought about a new alternative dispute resolution 9ADRO application for the MCOs. BWC

closed the web functionality MCOs used since 2009 Nov. 15. BWC gave the MCOs the necessary security access to create Legal-ADR and Medical-Exam Scheduling cases in PowerSuite. MCOs access PowerSuite via an internet interface. This new system has increased the efficiency to track treatment reimbursement decisions that injured works and employers appeal throughout the life cycle of the claim from creation to completion. The case also interfaces with the Ohio Industrial Commission (IC) to capture the case jurisdiction, venue location, notice of hearing date, proceeding type, date and time of hearings including cancellations and continuances.

The MCO creates the exam scheduling case in the claim when it has been determined an independent medical exam is needed to reach the most appropriate decision. When the MCO creates the exam case through PowerSuite, BWC systematically sends the Claimant Notice of Exam letter to the claimant and parties to the claim regarding details of the exam location, date and time.

When the professional review is complete, the MCO systematically submits the recommended decision to the dispute in PowerSuite. Twenty-four hours later, BWC batches the letter and mails it. This new system has integrated more of the appeal process between BWC, the MCOs and the IC, resulting in greater sharing of information and improved efficiency.

Selected HPP measurements

All dollar amounts are shown in \$1,000s. The figures below are limited to the HPP.

The table below reflects a historical trend of selected HPP performance data by Ohio fiscal year. Data for certain measurement variables can differ based on the impact of new information received before or subsequent to the compiling of the data for this report.

Measurement	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017
Active employers (1)	227,619	227,487	227,370	225,466	225,513	219,840
Active claims (2)	326,264	316,935	306,268	294,326	288,379	262,781
FROI timing (3)	15.61	16.28	14.28	15.18	15.63	16.07
% of FROIs filed within seven days of date of injury (4)	74.40%	74.61%	75.94%	75.17%	74.38%	74.43%
% of claims determined within 14 days of filing date (5)	61.52%	57.88%	57.44%	55.02%	63.71%	71.12%
Bill timing (6) LDOS-MCO MCO-BWC BWC-MCO MCO-Provider	79.92 64.48 6.24 7.25 1.95	86.28 71.19 6.53 7.16 1.39	76.01 61.98 5.46 7.18 1.39	77.19 62.86 5.82 7.21 1.31	75.52 61.59 5.47 7.15 1.31	75.27 61.43 5.32 7.21 1.31
Total regular medical payments (7)	724.395	682,401	640,525	593,827	559,396	529,619
Payments for file reviews and IMEs (8)	19,687	18,930	17,754	17,569	17,410	16,165
MCO fees (9)	168,403	169,815	169,581	170,688	169,229	170,797
Total medical payments, plus MCO fees	912,485	871,147	827,859	782,084	746,035	716,582
Total indemnity payments (10)	1,065,739	1,062,656	1,048,049	1,019,954	1,009,016	925,928
Grand total (11) Benefits paid (Total regular medical payments, plus MCO fees, plus total indemnity payments)	1,958,537	1,914,872	1,858,155	1,784,469	1,737,641	1,626,344

- Average number of employers in an active, reinstated or debtor in possession status assigned to an MCO during the time frames noted.
- (2) Average number of active claims (claims with a payment or application submitted to us within a specified length of time) assigned to an MCO during the periods noted.
- (3) Average time, in calendar days, from date of injury to date BWC received a FROI for all FROIs received during the time frames noted for claims assigned to an MCO.
- (4) Percent of claims assigned to an MCO where BWC receipt of the FROI is within seven calendar days from the date of injury where BWC received the FROI during the periods noted.
- (5) Percent of claims assigned to an MCO determined within 14 calendar days of the filing date where the determination was during the time frames indicated regardless of date of injury or filing date. BWC considers a claim determined when we place it in allow/appeal or disallow/appeal status.

During FY16, BWC expanded the list of diagnosis codes that are eligible for automatic claim adjudication. This contributed to the increased percent of claims determined within 14 days.

- (6) Average time, in calendar days, between the last date of service being billed (LDOS) to a check being issued to the provider for bills processed by the MCOs. This does not include bills for prescription drugs processed through BWC's pharmacy benefits manager. It is further broken down into the component steps of the process:
 - LDOS-MCO: LDOS to MCO receipt;
 - MCO-BWC: MCO receipt (for review and payment determination) to BWC receipt;

- BWC-MCO: BWC receipt (for review and final payment determination) to date monies are deposited into the MCO's provider account;
- MCO-Provider: MCO receipt of the final payment information and monies to the MCO issuing the check to the provider.

BWC bases the MCO-Provider information on a desk audit of the MCOs' check issuance timing which was updated in CY2014.

- (7) Payments for medical services made on claims assigned to an MCO during the time frames noted. Amounts include payments on claims associated with bankrupt self-insured claims assigned to the MCOs. It also includes payments for prescription drugs processed through BWC's pharmacy benefits manager. Regular denotes this category includes payments for physicians, hospitals, therapies, diagnostic testing, etc. It excludes payments made for file reviews and independent medical examinations (IMEs) requested to facilitate administrative decisions in the claim.
- (8) Payments made during the time frames noted for file reviews and IMEs requested to facilitate administrative decisions in the claim.
- (9) Payments issued to the MCOs during the time frames noted per the MCO Agreement for their services. BWC bases MCO contracts on calendar years. Fluctuations in the amounts paid to the MCOs between fiscal years are attributable to several factors, including:
 - Changes in the overall amount available to the MCOs from year to year;
 - Timing of different types of payments (administrative payments are monthly, outcome payments are quarterly, and in the past, we made exceptional performance payments annually).

- (10) Payments for salary compensation made on claims assigned to an MCO during the time frames noted. This includes payments for temporary total, living maintenance, wage loss, lump sum settlements, etc. Amounts include payments on claims associated with bankrupt self-insured claims assigned to the MCOs.
- (11) Excludes payments for file reviews and IMEs as these are not benefits paid to or on behalf of an injured worker but are conducted to facilitate administrative decisions in the claim.

Division of Safety & Hygiene

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Division of Safety & Hygiene financials

BWC's Division of Safety and Hygiene (DSH) budget appropriation for Fiscal Year 2017 (FY17) was approximately \$22.1 million. This figure excludes safety grants, Bureau of Labor & Statistics (BLS) federal grants, National Institute for Occupational Safety and Health (NIOSH) federal grant and Occupational Safety and Health Administration (OSHA) On-Site federal grant.

Additionally, DSH appropriated \$15 million for safety grants (safety intervention, work-place wellness and drug-free workplace training). Additional funding came from federal BLS grants amounting to about \$191,000, a federal NIOSH grant amounting to \$200,000 and a federal OSHA On-Site grant amounting to about \$1.7 million. The total premium assessment for DSH for FY17 was approximately \$15.1 million. Table A describes FY17 premium assessments according to employer type.

As of June 30, 2017, DSH disbursements for safety services and programs amounted to about \$20.4 million. This included about \$1.1 million in research grants to Ohio higher education institutions. Safety grants disbursements amounted to approximately \$12.7 million. Disbursements for the BLS, OSHA On-Site and NIOSH federal grants amounted to about \$1.8 million. DSH safety services and programs include:

 Education and training services in 12 statewide locations;

- Eighty-three safety councils across Ohio;
- Ohio Safety Congress & Expo (OSC);
- Safety grants;
- Specialized occupational safety and health, workers' compensation and rehabilitation library services;
- Field consulting services in occupational safety and health, industrial hygiene and ergonomics;
- Public Employment Risk Reduction Program (PERRP);
- BLS Survey of Occupational Injuries and Illnesses (SOII);
- BLS Census of Fatal Occupational Injuries (CFOI);
- Ohio Occupational Safety and Health Research Program;
- OSHA On-Site Consultation Program.

Table B provides general description of the DSH disbursements as of June 30, 2017.

Table A: FY17 DSH premium assessments

Employer type	Assessments (\$)
Private	\$12,002,826
Public taxing districts	\$2,003,002
Public state	\$495,888
Self-insured	\$554,888
Total assessments	\$15,056,604

Table B: Division of Safety & Hygiene disbursements (Disbursements in \$)

Department	Safety admin	Field consultations	Outreach programs and services	Education and training services	Meetings and conventions (safety councils and congress)	Library	Technical advisors	OSHA state- fund match (14%)	PERRP	Training overhead (extras)	BLS state-fund matches (50%)	Totals	Safety grants	NIOSH federal grant	BLS federal grants (50%)	OSHA federal grant (86%)	Totals including grants
10-Payroll	\$537,198	\$10,505,804	\$553,899	\$668,309	\$413,287	\$231,123	\$948,768	\$213,980	\$955,557	\$0	\$110,618	\$15,138,543	\$0	\$54,156	\$110,611	\$1,499,177	\$16,802,487
10-Overtime	\$215	\$3,066	\$0	\$2,712	\$0	\$0	\$0	\$0	\$188	\$0	\$312	\$6,493	\$0	\$0	\$312	\$0	\$6,805
13-Purchased services	\$1,565	\$208	\$30,911	\$589,715	\$27,970	\$1,661	\$6,988	\$364	\$684	\$0	\$6,960	\$667,026	\$0	\$0	\$6,960	\$3,279	\$677,265
15-Other personal services	\$27,771	\$2,189	\$0	\$555	\$549	\$3,234	\$2,208	\$35	\$395	8	\$0	\$36,936	\$0	\$0	\$0	\$311	\$37,247
Total	\$566,749	\$10,511,267	\$584,810	\$1,261,291	\$441,806	\$236,018	\$957,964	\$214,379	\$956,824	\$	\$117,890	\$15,848,998	\$0	\$54,156	\$117,883	\$1,502,767	\$17,523,804
20-Edible products	\$0	\$0	\$0	\$0	\$5,929	\$0	\$0	\$0	\$0	80	\$0	\$5,929	\$0	\$0	\$0	\$0	\$5,929
21-Supplies	\$30,667	\$24,279	\$1,653	\$22,930	\$11,341	\$103,551	\$193,630	\$1,267	\$18,079	\$0	\$573	\$407,970	\$0	\$0	\$573	\$11,402	\$419,945
22-Vehicle maintenance	\$734	\$58,016	\$0	\$1,140	\$1,372	\$0	\$2,940	\$922	\$5,502	\$0	\$0	\$70,626	\$0	\$0	\$0	\$8,298	\$78,924
23-Travel	\$6,285	\$33,980	\$1,151	\$11,871	\$25,540	\$293	\$17,503	\$1,910	\$10,689	\$0	\$0	\$109,222	\$0	\$300	\$0	\$26,380	\$136,502
24- Communications	\$14,591	\$0	\$0	\$88	\$20,572	\$17,435	\$8,068	\$471	\$0	\$0	\$34	\$61,260	\$0	\$0	\$34	\$4,238	\$65,532
24-IT Lic Commun	\$176,059	\$111,142	\$1,500	\$27,788	\$1,769	\$982	\$3,810	\$1,381	\$10,582	\$0	\$317	\$335,330	\$0	\$0	\$317	\$11,833	\$347,480
25-Fuel/Utilities	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
26-Maintenance/ Repairs	\$2,091	\$42,103	\$1,630	\$45,092	\$659	\$0	\$1,355	\$1,190	\$2,855	\$11,290	\$0	\$108,265	\$0	\$0	\$0	\$11,101	\$119,366
27-Rentals	\$500,424	\$0	\$0	\$2,120	\$325,555	\$0	\$1,085	\$0	\$225	\$0	\$0	\$829,409	\$0	\$0	\$0	\$0	\$829,409
27-ISTV/Goods/ Srvs	\$61,421	\$15,637	\$1,872	\$55,627	\$11,654	\$3,209	\$3,991	\$348	\$5,043	\$0	\$119	\$158,921	\$0	\$50	\$445	\$7,825	\$167,241
28-Printing/Advertising	\$0	\$0	\$0	\$0	\$40,513	\$39,666	\$2,087	\$0	\$0	\$0	\$0	\$82,266	\$0	\$0	\$0	\$0	\$82,266
29-General other/ Subsidies	\$1,081,914	\$7,596	\$6	\$270	\$1,049,527	\$2,750	80	\$498	\$826	\$5,858	\$0	\$2,149,245	\$12,650,128	\$0	\$0	\$3,502	\$14,802,875
Total	\$1,874,186	\$292,753	\$7,812	\$166,927	\$1,494,431	\$167,886	\$234,469	\$7,987	\$53,801	\$17,148	\$1,043	\$4,318,443	\$12,650,128	\$950	\$1,369	\$84,579	\$17,055,469
30-Food handling	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
31-Office equipment	\$0	\$0	\$0	\$0	0\$	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
32-Motor vehicles	\$162,694	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$162,694	\$0	\$0	\$0	\$0	\$162,694
34-Commun equip	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
35-Med/Lab/ Therpeut	\$0	\$0	\$0	\$0	\$0	\$0	\$29,020	\$0	\$3,034	\$0	\$0	\$32,054	\$0	\$0	\$0	\$0	\$32,054
36-Educt'I/Recrt'I	\$0	0\$	0\$	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
37-Data proc equip	\$0	\$0	\$0	\$22,648	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$22,648	\$0	\$0	\$0	\$0	\$22,648
38-Copy/Print equip	\$0	0\$	0\$	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
39-Other equip	\$26,045	0\$	0\$	\$0	0\$	\$0	\$0	\$0	\$0	\$0	\$0	\$26,045	\$0	\$0	\$0	\$0	\$26,045
Total	\$188,739	\$0	\$0	\$22,648	\$0	\$0	\$29,020	\$0	\$3,034	\$0	\$0	\$243,441	\$0	\$0	\$0	\$0	\$243,441

BWC's occupational safety and health services

DSH provides a variety of occupational safety and health services to Ohio employers and employees. Primarily, DSH's services include safety education and training, safety councils, safety congress, safety grant programs, loss prevention consulting services, PERRP, the OSHA On-Site Consultation Program and library services. Table C provides general statistics about the number of employers who benefited from these services in FY17.

Education and training services

BWC's safety education and training services include classroom and web-based safety courses. BWC offers classes covering:

- Industrial and construction safety;
- Industrial hygiene;
- Ergonomics;
- Risk and safety management.

Course completions for classroom, webbased and on-site training totaled 19,408 completions by 12,812 students, representing 7,168 employers. BWC offered 86 courses through 378 classes at 12 locations. Field staff conducted 51 additional on-site classes to 1,166 students representing 179 employers. BWC's learning management system offered 16 online courses, resulting in 10,212 completions by 6,709 students representing 4,511 employers.

Safety Council Program

Through monthly meetings, the Ohio Safety Council Program provides a forum for more than 8,400 Ohio employers for promoting:

- Occupational safety and health;
- Loss prevention;
- Workers' compensation cost control and management;
- Health and wellness;
- · Networking.

Table C: FY17 occupational safety and health services statistics by policy type

Service type	Private employers	Public employers	State agencies	Self- insured	Marine fund	Black lung	Undeter- mined	Total
Training and education	6,496	397	24	242	0	0	9	7,168
Safety congress	1,998	234	31	305	0	0	26	2,594
Safety council	7,064	935	6	408	0	1	18	8,432
Safety grants*	424	202	0	0	0	0	0	626
Video library	893	107	12	91	0	0	2	1,105
Specialized field operations consulting – visit only	3,322	730	30	0	0	0	0	4,082
OSHA On-Site	530	0	0	0	0	0	0	530
PERRP field consulting – visit only	38	228	6	12	0	0	0	284

^{* = 662} grants awarded to 626 employers.

BWC co-sponsors 83 safety councils throughout the state, organized through chambers of commerce, trade and manufacturing associations, safety education providers and other local community organizations.

BWC provided \$1,052,250 in subsidies toward the direct costs of these councils. In addition, BWC paid \$9.6 million (FY16) in premium rebates to employers who met the safety councils' enrollment, active participation and performance requirements. Beyond subsidies and rebates, BWC presented awards to 4,500 employers through a structured program to recognize companies for their efforts in injury and accident prevention. Safety councils held 1,198 meetings during FY17.

Ohio Safety Congress & Expo

The annual OSC continues to be the largest occupational safety and health state conference in the United States. This year's safety congress hosted a record number of participants, 7,610 individuals, representing

2,594 Ohio businesses. The free, three-day event offered general sessions, workshops, lectures, panel discussions, simulations and demonstrations. Additionally, the event featured an exposition marketplace and a Safety Innovation Awards Program with cash awards for top contenders. The safety congress also co-hosted the second annual Ohio Workers' Compensation Medical & Health Symposium. This program offered educational sessions on the comprehensive care of injured workers for physicians and health-care providers.

A record-setting 268 product and service providers participated in the exposition. They provided \$327,049 in event revenue to BWC. These providers displayed the latest advances in safety and health training, equipment, technology and services. Local and national experts presented 198 educational sessions and workshops.

Of those who attended safety congress, 96 percent indicated they were "completely satisfied" or "satisfied" with the event. In addition, 98 percent indicated they intend

to participate in the future. Furthermore, 17 types of continuing education credits were available for professional development and professional certifications. These included certified medical education credit for physicians, chiropractors and health-care providers.

Safety grant programs

The primary focus of BWC's safety grant programs is to assist employers in managing the financial costs associated with implementing safety measures to prevent accidents and injuries in the workplace. Another major goal is to establish safety best practices in the field of occupational safety and health.

The grant programs include the Safety Intervention Grant (SIG) Program, the Drug-Free Safety Program (DFSP) Grants and the Workplace Wellness Grant Program (WWGP). In FY17, BWC awarded 662 grants totaling \$12,650,128 to 626 employers.

Safety Intervention Grant Program

The SIG Program, now in its 18th year, provides financial assistance to employers to purchase equipment to make their workplaces safer. The program provides 3-to-1 matching funds, up to a maximum of \$40,000 per employer eligibility cycle. The total payroll report for the last full policy year determines the eligibility cycle. Employers can only use funds toward the purchase or improvement of equipment to significantly reduce or eliminate the risk of injury. The program requires employers to evaluate their interventions and share their results with BWC.

In FY17, BWC awarded 492 SIG grants totaling \$12,273,706 to 471 employers. In comparison, BWC awarded 528 SIG grants totaling \$14,576,707 to 511 employers in FY16. This year, 71 percent of the awards went to employers with 100 or fewer employees. Most employers who participated in the program were in the manufacturing (21 percent), townships (14 percent) and construction (13 percent) industry sectors.

To establish industry best practices in occupational safety and health, employers receiving grant funds through the SIG program must provide two year-end case studies and provide quarterly reports to document their experience with the equipment purchased through the grant. BWC uses the collected data to establish baseline best practices in safety, advance knowledge in occupational safety and health, and benefit other employers with similar hazards at their workplaces.

Last fiscal year, 274 safety grant companies completed their one-year cost benefit analysis report. These companies reported \$4,005,226 in annual productivity savings, \$478,830 in annual claim cost savings and \$1,487,885 in other savings (quality, absenteeism, etc.). The return on investment on the cost of the interventions based on this reported information is 1.91 years.

Drug-Free Safety Program Grant

In FY17, BWC awarded 30 DFSP grants amounting to \$34,698 to 29 employers. In comparison, in FY16, BWC awarded 45 grants amounting to \$47,396 to 44 employers

Workplace Wellness Grant Program

Designed to assist Ohio employers with the development and implementation of workplace wellness programs, the WWGP is now in its fifth year. The program's goal is to control the escalating cost of workers' compensation claims through addressing health-risk factors. The WWGP's collateral goals are to reduce health-care costs for employers and improve the health of the workforce.

Participating employers may receive \$300 per participating employee during a four-year period, up to a maximum amount of \$15,000 per policy. Employers participating in the WWGP must use wellness grant funds to conduct health-risk assessments (HRAs), biometric screenings and subsequent activities designed to address the results of the HRAs and biometric screenings.

Participating employers receive grant funds after completing the HRAs and biometric screenings, and providing BWC the aggregate results of the HRAs and biometric screenings of the participating employees.

During FY17, BWC approved 25 employers to participate in the WWGP, bringing the participating employers' total to 326. BWC gave \$341,725 to 140 employers in the program during FY17.

Loss prevention consulting services

BWC's loss prevention consulting services include:

- OSHA On-Site Consultation Program;
- PERRP:
- Specialized Field Operations consulting services in these areas;
- Industrial safety;
- Construction safety;
- Ergonomics;
- Industrial hygiene.

BWC's loss prevention consultants work directly with employers on:

- Hazard and risk assessment and mitigation;
- Safety-management system enhancements;
- The introduction of safety and health interventions in the workplace.

OSHA On-Site Consultation Program

The OSHA On-Site Consultation Program is 86-percent funded by a federal OSHA grant amounting to \$1,653,900. BWC funds the remaining 14 percent (\$271,825). BWC distributes this money during the federal fiscal year.

The program provides highly specialized services to relatively small employers (work sites with fewer than 250 employees) in high hazard/risk private industries. The program also administers the Safety and

Health Achievement Recognition Program (SHARP), which is an OSHA cooperative program providing recognition and exemptions for small employers with exemplary safety and health management systems. During state FY17, eight SHARP participants renewed their participation in the program and two new employers became participants in SHARP. There are 28 employer sites in the Ohio SHARP.

Program field consultants conducted 1,201 visits to workplaces throughout Ohio belonging to 530 employers with 141,227 employees. There were 5,079 hazards discovered, including 3,996 serious hazards. Employers corrected these serious hazards, and eliminated the risks for injury among employees.

In addition, the program provided on-site safety training for 3,406 employees.

Public Employment Risk Reduction Program

Ohio legislation passed in 1992 requires the adoption and application of federal occupational safety and health standards to Ohio public employers and employees. The PERRP enforces adopted safety and health standards. It also assists the public-sector workforce in creating safe and healthful workplaces.

During FY17, PERRP provided 612 on-site services to 284 employers. PERRP conducted 147 enforcement activities, including one fatality investigation. PERRP compliance assistance and enforcement inspections resulted in public employers correcting more than 972 workplace hazards. This resulted in improved working conditions for Ohio public employees.

PERRP worked with BWC legislative liaison and stakeholder groups on amendments to Ohio Revised Code Chapter 4167. The amendments signed by Governor Kasich on June 29, 2017, include the following provisions:

- Creation of a Safety Partnership Agreement program that will encourage voluntary compliance with adopted standards and recognize public employers with high performing occupational safety and health programs;
- Expanded coverage for public safety personnel, specifically firefighters, emergency medical technicians, emergency medical technician – paramedics and correctional officers in local and regional jails;
- Clarification on right-of-entry for risk reduction inspections and investigations;
- Protection of confidential information provided by public employees that file occupational safety and health complaints.

PERRP assisted 45 public employers enrolled in the Industry-Specific Safety Program (ISSP) in completing the program requirements. It also provided enrolled employers with risk reduction services that qualified for 101 ISSP activity credits.

Specialized field operations consulting services

Specialized consulting services provided through local loss prevention offices help employers:

- Implement safety programs;
- Identify workplace ergonomics, environmental and physical hazards;
- Develop and execute hazard abatement plans;
- Establish workplace safety and ergonomics committees;
- Use the SIG Program and WWGP.

These field activities include thousands of noise measurements, air quality sampling, ergonomic surveys and safety audits

in workplaces throughout Ohio. In FY17, BWC's field operations consultants made 11,602 visits to Ohio workplaces belonging to 4,082 employers. They provided consulting services in industrial hygiene, industrial and construction safety, and ergonomics.

Library services

The BWC library offers access to information, training materials and videos and experienced librarians to help employers with their workplace safety and health activities, workers' compensation and risk management, and rehabilitation. In addition, BWC librarians provide training on researching web-based and media resources for safety and health, rehabilitation and public safety information. Additionally, the librarians provide support to the BWC research and development department and researchers. They do this by conducting specialized and detailed literature searches in a variety of literature databases and resources along with preparation of literature summaries. BWC's library is the only library of its kind in Ohio and among a few in the nation with such specialized services.

Library resources include:

- Safety codes and standards;
- Sample charts, forms, templates and written safety programs;
- Chemical safety information;
- Occupational disease and injury management;
- Research studies and statistics;
- Training resources;
- Historical BWC materials.

Employers, local and state government, attorneys, health-care professionals, researchers, union members and students, as well as the public and BWC employees use the library services. The library's book collection is part of the statewide OHIO-LINK library network. This year the library circulated 292 books and 780 periodicals, provided 1,893 articles, and responded to 723 reference search requests.

The video library houses a video collection, which includes more than 843 workplace safety and health DVDs and training aids, including many titles in languages besides English. It is a convenient and popular source for Ohio employers to obtain quality workplace safety and health training aids for their employees. The video library has partnered with a streaming video vendor, offering 263 titles in electronic format for Ohio employers. This year, the video library served 1,105 Ohio employers. The video library circulated 5,321 DVDs. In addition, online safety and health streaming titles were streamed by 680 users.

Quality assurance & technical support unit

BWC's quality assurance & technical support unit provides specialized technical support to BWC loss prevention operations staff in these areas:

- Industrial and construction safety and health:
- Ergonomics;
- Industrial hygiene.

The technical advisors serve as subject matter experts in establishing, developing and maintaining policy relative to the BWC safety programs and services. These include rebate programs such as the ISSP, DFSP, SIG Program and WWGP. Additionally, in FY17, the industrial hygiene technical advisor provided subject matter expertise to the BWC claims policy department that was integral in the development of the claims policy and job aid for the firefighter cancer presumption rule (4123.68(x)).

The unit assists loss prevention operations management staff with reviewing job applications, interviewing candidates and mentoring new safety, ergonomics and industrial hygiene field consultants as well as assuring the quality of loss prevention service delivery and work products. They also arrange professional development events and discipline-specific staff meet-

ings. In addition, they lead special projects and safety initiatives and serve as safety congress liaisons.

This unit also maintains and updates the specific safety requirements codes in the Ohio Administrative Code. In FY17, none of the codes that are applicable to all workshops and factories were scheduled for review; the rule review cycle will resume in late FY18. The unit partners with internal and external stakeholders to disseminate information on new advancements in safety research, consulting tools, standards and technology. Finally, the technical advisors provide technical support for the development and revision of:

- The BWC safety services website;
- Safety publications;
- · Training courses;
- Presentation modules.

The technical advisors also teach several occupational safety, ergonomics and industrial hygiene courses.

Industrial hygiene instrument laboratory

BWC's industrial hygiene instrument laboratory provides a variety of support services to BWC consultants. The laboratory handles the inventory repairs, maintenance and calibration of more than 900 measurement devices and tools used by DSH staff. Last year, the laboratory performed certified calibration of 799 devices, with estimated savings of approximately \$143,100.

Industrial hygiene analytical laboratory

BWC industrial hygienists, working with an accredited external laboratory, coordinated 12,225 specialized tests of air quality samples to measure workers' exposures to a variety of chemicals at 664 Ohio workplaces.

New DSH initiatives for FY17 and FY18

DSH has several new initiatives beginning in FY17 and FY18 to continue to improve occupational safety and health services to Ohio employers and employees.

In February of 2017, BWC integrated our safety and health operations in the field into DSH. This change brings our organizational structure in line with the best operational practices of insurance carriers by aligning our operations according to functionality and the needs of our stakeholders: the workforce, injured workers and employers. The reorganization optimizes DSH's infrastructure and increases DSH's efficiency and agility by allowing loss prevention operations employees to focus exclusively on occupational safety and health.

In March 2017, BWC became a NIOSH Total Worker Health® (TWH) Affiliate. The mission of the NIOSH TWH Affiliate Program is to foster an integrated approach to protecting and promoting worker well-being through collaborations with academic, labor, nonprofit and government organizations. BWC has committed to advancing this mission by:

- Advancing the principles, policies and practices of the NIOSH Office for TWH:
- Participating in activities to support the NIOSH Office for TWH such as conducting joint research, developing programs, interventions and other work products, collaborating on seminars, meetings, trainings and educational events, creating and disseminating publications and other communication products, cross-promoting individual and joint activities, and engaging in related activities;
- Meeting with NIOSH no less frequently than on an annual basis to review responsibilities, current activities and progress;

 Engaging in other activities as identified and mutually agreed upon by BWC and NIOSH.

Also in FY17, DSH implemented the Division of Safety & Hygiene Fellowship Program. The objective of this program is to provide recent college graduates in the fields of occupational safety and health, engineering, industrial hygiene, and/or or physical/natural sciences an opportunity to receive on-the-job training to build a professional career in the fields of occupational safety and health, ergonomics, industrial hygiene and risk management. BWC hired six fellows in FY17. The fellows are undertaking several different tasks including:

- Receiving hands-on training on the operation, maintenance and calibration of various equipment and tools used by DSH consultants;
- Completing training classes;
- Working side by side with DSH consultants during on-site inspections and evaluations of occupational safety and health hazards in workplaces;
- Preparing and drafting preliminary consultation reports of on-site inspections and evaluations;
- Engaging in various research and operational projects undertaken by DSH;
- Participating in the preparation and instruction of training courses;
- Participating in steering committees for the BWC Safety Council Program and program committees for the OSC:
- In the second year of their employment, DSH will require the fellows to select a focus area in occupational safety, ergonomics or industrial hygiene for the remainder of the fellowship duration.

In FY18, on July 1, 2017, BWC rolled out two new grant programs: The Firefighter

Exposure to Environmental Elements Grant (FEEEG) and the Employers Working with Persons with Developmental Disabilities Grant (EWPDD). BWC has set aside \$2 million each for the FEEEG and EWPDD programs.

BWC uses the FEEEG Program to partner with Ohio employers to minimize exposure to dangerous environmental elements. The program is available to eligible Ohio employers who wish to purchase diesel exhaust systems, extractors/washing machines for turn-out gear, hoods with barrier protection and washable gloves for optimal protection against these exposures.

BWC uses the EWPDD Grant Program to assist Ohio employers with ensuring the safety of their staff when carrying out the services they provide to developmentally disabled children and adults. The program is available to eligible Ohio employers who wish to purchase training and/or equipment to substantially reduce or eliminate injuries or illnesses associated with working with developmentally disabled children and adults.

Also for FY18, BWC will invest \$2 million to create a statewide safety awareness and educational campaign for slips, trips and falls, overexertion and motor vehicle accidents, which are responsible for more than 60 percent of workplace injuries. The effort will include online and mobile training resources that address safety at home and at work.

Additionally, for FY18, BWC plans to roll out the Health and Wellness Program. BWC will invest \$6 million annually in a robust health and wellness program for Ohioans working for small employers (50 or fewer employees) in specific high-risk industries, as well as injured workers with certain types of injuries. BWC will contract with a third-party vendor to provide services such as smoking cessation programs, health coaching and chronic disease management.

Research activities and initiatives

DSH administers the Ohio Occupational Safety and Health Research Program launched in FY15. The program is a competitive research program. It emphasizes maximizing the impact of research efforts in the areas of occupational safety and health on the overall safety, health, productivity and competitiveness of Ohio's workforce. BWC modeled the program, with minor modifications, after the NIOSH National Occupational Research Agenda (NORA). The program provides funding for research projects up to \$250,000, per project. BWC limits the duration of each research project to 12 to 24 months.

The program is an open competition for researchers in Ohio's not-for-profit higher education institutions and research organizations. BWC funded two projects in FY 17. These included projects involving:

- Biomechanically-determined risk limits for one-handed lifting exposures;
- Implementing a series of micro and macro-ergonomic interventions to reduce work-related musculoskeletal disorders.

In FY17, BWC and NIOSH continued to collaborate on projects and use their respective strengths and resources on projects that will improve public policy. BWC and NIOSH will achieve this goal by using workers' compensation information as part of research that will inform better decisions about occupational safety and health risks and workers' compensation systems.

During FY17, BWC renewed a grant from the Centers for Disease Control and Prevention to expand efforts to study injury trends using workers' compensation data. The cooperative agreement compiles, analyzes and disseminates workers' compensation data to promote the prevention of occupational injuries, illnesses, fatalities and exposures to hazards within Ohio and throughout the nation.

BWC and NIOSH co-authored a journal article published in September 2016 in the American Journal of Industrial Medicine titled, "Development of methods for using workers' compensation data for surveillance and prevention of occupational injuries among state-insured private employers in Ohio". The article demonstrates BWC, NIOSH and other insurers can use workers' compensation claims data linked to employment data to prioritize industries for injury research and prevention activities among state-insured private employers.

BWC and NIOSH collaborated to develop a Safety Pays in Mining tool to demonstrate how avoiding occupational injuries impacts the success of your company.

Additionally, several safety and health experts from BWC serve on NORA sectors and cross-sector councils. NIOSH is the steward of these councils. NORA councils are a national venue for individuals and organizations with common interests in occupational safety and health topics to come together.

Survey of Occupational Injuries and Illnesses

BWC renewed the cooperative agreement with the BLS for the SOII for FY17. The survey is the only comprehensive measure of work-related injuries and illnesses in U.S. workplaces. The agreement allows BWC to continue to administer the survey for Ohio.

This federally mandated survey was developed as part of the Occupational Safety and Health Act of 1970. The BLS provides 50 percent of the funding and BWC provides 50 percent.

The survey provides information on the number and frequency of non-fatal injuries and illnesses occurring in workplaces. It

also provides demographic and case characteristics information for serious injuries requiring time away from work. The BLS uses the information gathered through this report to generate state and national benchmarks for incidence of occupational injuries and illnesses. The report is a valuable research tool for the development of prevention policies and training toward improving safety standards in workplaces at both state and national levels.

The survey gathered data on occupational injuries and illnesses for the 2016 calendar year. The BLS randomly selected 4,600 establishments (both private and public) as a representative sample for the entire Ohio workforce. The survey achieved a 99-percent response rate with more than 5,700 cases of occupational injuries and illnesses reported. This number includes a sampling of cases with job restriction and transfer and all recordable cases involving days away from work. BWC coded all reported cases using the Occupational Injury and Illness Classification System and the Standard Occupational Classification System for comparison and analysis.

The BLS and BWC will make comprehensive statistics and publishable data available to the public later this year. In preparation for FY18 survey cycle, the BLS pre-notified 4,600 establishments of their inclusion in the SOII program. The FY18 survey will gather occupational injury and illness data for the 2017 calendar year.

Last year, the program successfully published the survey statistics available from the BLS survey for calendar year 2015 for Ohio. Results from the survey for the past two years show lower incidence rates of occupational injury and illness in Ohio in comparison to the nation and Ohio's neighboring states.

To ensure accessibility of the survey data, BWC created a web page for the program at www.bwc.ohio.gov. BWC updates the

page with educational articles on safety and prevention using results from the survey.

The department facilitated two educational presentations related to the SOII at the 2017 OSC. The first presentation provided information on occupational injury and illness statistics in major private industry sectors in Ohio from 2012 to 2015 using data from the SOII and other sources. The second presentation provided information on injury and illness statistics in the Ohio health-care industry. BWC will offer these presentations and more at the upcoming 2018 OSC.

Census of Fatal Occupational Injuries

BWC acquired a grant from the BLS to administer the CFOI program in Ohio for FY17. The grant is under a cooperative agreement between BWC and the BLS requiring commitment from both agencies to split the cost of administration equally with expectation that all defined deliverables within the agreement be met. CFOI is an occupational health and safety surveillance program designed to identify, verify and meticulously document important variables associated with cases of fatal occupational injury toward providing robust and aggregated statistics. The program produces comprehensive, accurate and timely counts of fatal workplace injuries at state and national levels. CFOI runs on federal-state collaborative efforts and has been implemented in all 50 states and the District of Columbia since 1992.

CFOI is the most complete count of fatal occupational injuries in the United States. The census uses multiple data sources such as death certificates, workers' compensation reports, media reports and federal and state agency administrative reports to identify and verify fatal occupational injury cases. BWC obtains information about each workplace fatal injury such as deceased worker's occupation and other characteris-

tics, equipment involved and causation variables by cross-referencing multiple sources of information. BWC substantiates all cases included in the census with at least two independent source documents or a source document and a follow-up questionnaire.

The BLS designed the census to provide information on rate and number of fatal traumatic occupational injuries occurring in workplaces across the nation. It also provides demographic and case characteristics details on fatal workplace injuries. The BLS uses information acquired through the census to estimate benchmarks for incidence of fatal injuries in workplaces at state and national levels. It also provides industry and occupation-specific information that serve as tools for developing and evaluating occupational safety standards, preventive interventions, policies and training toward improving safety in workplaces across the nation.

The FY17 census gathered data on all cases of occupational fatal traumatic injuries for the 2016 calendar year. The program scope includes the entire workforce population in the State of Ohio and the nation. It also includes cases of fatal occupation injuries that occurred in Ohio within this time frame. BWC coded all identified cases using the Occupational Injury and Illness Classification System and the Standard Occupational Classification System for comparison and analysis. The BLS and BWC will make comprehensive statistics and publishable data available to the public later this year.

Results from this program expand BWC's research effort into occupational safety and health. It is also a resource for assessing workplace safety in Ohio. In addition, it offers opportunities for identifying areas to further focus preventive efforts. The program is renewed annually and is expected to continue into the foreseeable future.

Ohio occupational fatalities for calendar years 2012 through September 2017

At the time of this report, BWC had received reports of 59 work-related injury fatalities (excluding occupational disease-related fatalities) for calendar year 2016. Of those:

- Forty-one workers were injured and died on the day of injury;
- Thirteen workers were injured but died on a later date in calendar year 2016;
- Five workers were injured in a previous calendar year and died in calendar year 2016.

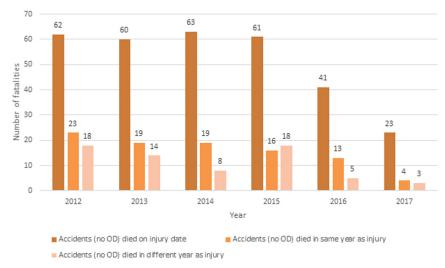
There were also 31 occupational disease (OD) related fatalities in 2016.

Below is an analysis of work-related injury fatalities reported to BWC during calendar years 2012 through September 2017. The focus of this analysis is on fatalities that occurred in 2016. The analysis does not include fatalities that were the result of occupational illnesses/diseases.

Figure 1 provides a general overview of occupational injury fatalities in Ohio (excluding occupational disease fatalities) for 2012 through September 2017. For each year, the chart depicts the number of fatalities where the worker died on the date of injury. It also shows fatalities where the worker was injured and died on a date after the date of injury during the same year. In addition, it illustrates fatalities where the worker died in that year from injuries sustained in an earlier year.

Generally, occupational injury fatalities in Ohio have followed a downward trend during the past several years. After about a 10 percent drop from 2012 to 2013, a slight increase occurred from 2014 to 2015, and a larger decrease followed in 2016. Fatalities in 2016 are about 57 percent lower than 2012. This decrease is consistent with the national trend. Most of the fatalities in 2016 were immediate with injury date and death date being the same.

Figure 1: Ohio occupational injury fatalities (excluding occupational disease fatalities) from calendar year 2012 through September 2017



2016 fatalities according to source of injury/illness (causation)

Figure 2 provides a summary of the primary causations for the fatalities from occupational injuries and diseases reported to BWC for calendar year 2016. The chart depicts the number and percentage of fatalities for 2016 grouped by causation.

Transportation-related accidents continued to be the leading cause of non-OD work-related fatalities in 2016, decreasing from 49 in 2015 to 29 in 2016, a 41 percent decrease. Eighteen workers died in motor vehicle accidents as a driver or passenger. Accidents related to forklifts or construction equipment resulted in four fatalities. Four workers (pedestrians) died in accidents when a motor vehicle struck them. Three workers died when a vehicle struck them while working on or by a roadway.

Compared to 2015, fatalities from slips and/or falls decreased from 18 in 2015 to 12 in 2016. They remained the second leading cause of non-OD work-related fatalities. Other leading causes of fatalities in 2016 included: victims of workplace violence (seven) and struck by an object (six).

The remaining coded causations for calendar year 2016 non-OD work-related fatalities are as follows:

- Two workers died because of entrapment or engulfment;
- Two workers died because of being caught in, on or between a machine or machine parts;
- One worker died because of striking against an object.

Occupational disease-related fatalities decreased from 41 in 2015 to 31 in 2016.

2016 fatalities according to industry sector

Figure 3 depicts the number of fatalities by industry sector from 2012 through September 2017.

The industry sector with the most fatalities in 2016 was the construction sector with 16 fatalities. This is eight less fatalities compared to the sector's fatalities in 2015. The primary cause was transportation-related accidents.

The service industry sector had the second highest number of fatalities (12) in 2016, nine less fatalities than in 2015. The leading cause of fatalities in the service sector was motor vehicle accidents.

The transportation industry sector had the third highest number of fatalities in 2016 with nine fatalities. This is five less fatalities than the transportation industry sector had in 2015.

Figure 2: Calendar year 2016 fatalities by causation

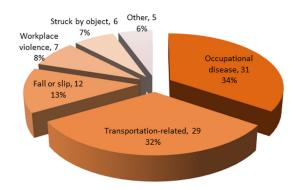
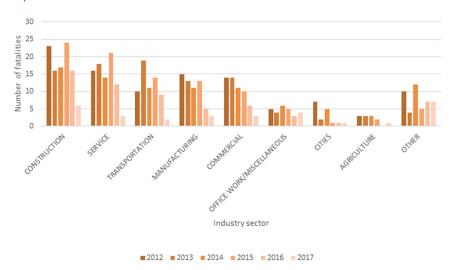


Figure 3: Fatalities by employer industry sector from calendar year 2012 through September 2017



Market value of BWC's safety services and programs

Table D provides the estimated market value of BWC's occupational safety and health services based on number of service hours and type of services provided according to private-market fee schedules.

The estimates of the market value of DSH's services and programs described in Table D do not include the potential market values associated with grants for funding the Ohio Occupational Safety and Health Research Program.

Table D: Estimated market value of BWC's occupational safety and health services (FY17)

Employer type	Field consulting	Library	Education and Training	Safety congress	Safety grants	PERRP	On-Site	Industrial hygiene lab testing	Total
Private (PA)	\$9,901,328	\$1,049,178	\$1,963,705	\$1,578,000	\$7,354,553	\$89,880	\$1,837,750	\$123,173	\$23,897,567
Public taxing district (PEC)	\$2,219,214	\$149,149	\$186,100	\$266,500	\$5,295,575	\$708,750		\$2,664	\$8,827,952
Public state (PES)	\$624,255	\$84,551	\$289,415	\$410,500		\$220,065		\$2,008	\$1,630,794
Self-insured	\$360	\$118,301	\$350,625	\$613,000		\$56,550		\$38,430	\$1,177,266
Not defined	\$0	\$52,332	\$26,435	\$937,000		\$0		\$6,910	\$1,022,677
TOTAL	\$12,745,157	\$1,453,511	\$2,816,280	\$3,805,000	\$12,650,128	\$1,075,245	\$1,837,750	\$173,185	\$36,556,256

Ohio Industrial Commission

Letter from the Chairman

I am pleased to present the Ohio Industrial Commission's (IC) Annual Report for Fiscal Year (FY) 2017.

The IC is committed to being a leader in customer service and fiscal accountability. Our approach has shown it is possible to put the customer first while lessening the financial burden of those who pay into Ohio's workers' compensation system. Throughout FY 2017, our agency provided injured workers and employers with timely, impartial resolution of their workers' compensation appeals while implementing innovative ideas at a minimal cost.

Fiscal year highlights include:

- Budget stability continued as expenditures for the FY 2017 budget totaled \$46 million, marking the fifth year in a row that expenses have remained between \$45 million and \$46 million despite mandated pay increases and rising fringe rate costs;
- Maintained a consistent Administrative Cost Fund rate environment whereby assessed rates remained unchanged for two
 risk groups while decreasing for one risk group and increasing modestly for another;
- Decreased mandamus complaints filed in the Tenth District Court of Appeals by 10 percent;
- Exceeded the statutory threshold for expenditures directed toward certified Minority Business Enterprises for the seventh consecutive year with a 32.9 percent rate;
- Completed a substantive update of the former Hearing Officer Manual, now named Adjudications before the Ohio Industrial Commission in August 2016;
- Implemented an IBM Case Manager solution for the hearing officer and the claims examiner functions for the hearing process;
- Created a document upload feature in the Industrial Commission Online Network (ICON) and made it available to all representatives. Nearly 30 percent of hearing documents submitted using this function;
- Added new functionality to ICON to allow representatives to download hearing documents in bulk. This allows representatives to review documents without being signed on to ICON;
- Upgraded the security camera system in the public areas of the 12 IC offices and the warehouse;
- Renovated the Columbus Regional Office located on the seventh floor of agency headquarters and completed the carpet, paint and logo renovation for the Cambridge District Office;
- Installed new directional signs, new office nameplates and agency logo in every IC office.

Our accomplishments will continue into the next fiscal year because our agency values providing excellent service to our customers while never forgetting the importance of responsible financial stewardship. I am privileged to lead an agency filled with dedicated public servants who passionately care about the well-being of their fellow Ohioans.

In the future, our customers can expect to receive the top-notch service they have come to expect of the IC. Injured workers and employers can be confident that they will continue to receive a swift and impartial resolution to their workers' compensation appeals. To achieve this goal, the IC will continue to implement new technologies efficiently while seeking new ways to simplify our processes.

Sincerely,

Tim Bainbridge

Chairman

Ohio Industrial Commission

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About the IC

The IC conducts more than 113,000 hearings each fiscal year. Most of these hearings take place within 45 days of the original claim appeal. That means you may expect first-class customer service as the IC provides a forum for appealing BWC and self-insuring employer decisions. Since 1912, the IC has resolved issues between parties who have a dispute in a workers' compensation claim. With each claim, the agency is dedicated to offering information and resources to help customers navigate through the appeals process.

The IC conducts hearings on disputed claims at three levels: The District level, the Staff level, and the Commission level. The Governor appoints the three-member Commission, and the Ohio Senate confirms these appointments. By previous vocation, employment or affiliation, one member must represent employees, one must represent employers and one must represent the public.

During this fiscal year, Chairman Thomas H. Bainbridge represented the employees; Jodie M. Taylor represented employers; and Karen L. Gillmor represented the public.

FY 2017 highlights

In addition to the Commissioners, there are 85 hearing officers — all attorneys — in five regional and seven district offices throughout the state. In FY 2017, the IC heard 113,829 claims. District hearing officers (DHO) heard 79,386 claims. Staff hearing officers (SHO) heard 34,209 claims and the Commission heard 234 claims.

The IC consistently achieved a high success rate in adjudicating claims well within the periods mandated by law throughout this fiscal year. From filing date to hearing date, district level (first level) hearings averaged 31 days. Staff level (second level) hearing appeals averaged 33 days. Both averages are well below the 45 days mandated by law. The statistics of filing date to mailing date were just as positive. For the district level, filing date to mailing date was 35 days on average. For the staff level, it averaged 37 days.

The Industrial Commission Online Network (ICON) is the primary reason for our continued success because it has made it easy to file appeals online. There were 52,697 first-level motions and appeals filed on ICON this fiscal year. There were also 52,189 second-level (or above) appeals filed on ICON during the fiscal year.

Customer Service received and responded to 1,001 Ask IC submissions during this fiscal year. The department also scheduled 1,198 interpreters for injured workers

hearings. In addition, our toll-free customer service line and two local customer service lines received 9,130 calls this fiscal year. Staff personnel assisted 20,213 people at our Columbus office. Customer Service also processed 145,966 documents.

Commission performance highlights — FY 2017

Formal hearings and administrative reviews account for most of IC activity. In FY 2017, the IC made approximately 186,702 decisions on issues arising from workers' compensation claims.

During FY 2017, the IC performed 72,856 administrative reviews and heard 113,846 claims at all adjudicatory levels. Claims heard is inclusive of hearings at the DHO, SHO, Deputy and Commission venues. Administrative reviews incorporate issues that do not initially require formal adjudi-

cation via hearing (Hearing administrator issues, Commission requests, cancellation requests, etc.). These issues receive review and processing at the claims examining, word processing and hearing officer levels. However, routine production reports under DHO or SHO dockets do not typically reflect them. These issues may subsequently result in a hearing under the normal adjudicatory process. Respective hearing venues would reflect these issues.

DHO hearing volume accounted for 70 percent of the overall hearings during FY 2017 at 79,386 claims heard, while the SHO recorded 34,209 claims heard. Deputy venue claims heard totaled 79 in FY 2017 while the Commission venue recorded 172 claims heard. Total claims heard is inclusive of continuances, referrals, dismissals and other final determinations made because of a hearing.

Regionally, the distribution of FY 2017 claims heard at DHO and SHO hearing levels is as follows (figures rounded): Columbus,33 percent; Cleveland, 22 percent; Akron, 19 percent; Cincinnati,19 percent and Toledo, 9 percent.

DHO and SHO conducted hearings on 249 days during FY 2017. The DHO and SHO hearing levels heard an average of 456 claims per hearing day. DHOs averaged 319 claims heard per day while SHOs averaged 137 claims heard per day.

Hearing time frame performance mandates have been set forth in Ohio Revised Code (ORC) 4123.511 for the DHO, SHO and Commission hearing venues. On average, all IC offices performed within the statutory limits set forth that require the IC to hear a claim within 45 days of a motion or appeal filing.

The overall IC performance benchmarks for filing to mailing are 52 days for each hearing venue. This performance measure is based on the combination of the two statutory periods filing to hearing and hearing to mailing (45 + 7).

DHO performance

DHOs conduct hearings on two formal docket types — Allowance (primarily injury allowance, compensation, and treatment issues) and C-92 (permanent partial disability issues).

Only allowance docket issues fall under time frame requirements outlined in ORC 4123.511. DHOs heard 63,863 allowance docket claims during FY 2017. Of those, 47,508 qualified for inclusion in time studies. On average, the IC completed the DHO process (filing of motion/appeal to mailing of DHO order) within 35 days during FY 2017.

SHO performance

SHOs conduct hearings on five formal docket types:

- Appeal (primarily injury allowance, compensation, and treatment issues);
- Permanent Total Disability;
- Reconsideration (permanent partial disability issues);
- Violations of Specific Safety Requirements); and
- Miscellaneous (other issues not designated to a pre-defined docket type).

Only appeal docket issues fall under time frame requirements outlined in Ohio Revised Code 4123.511.

SHOs heard 29,121 appeal claims during FY 2017. Of those, 25,152 qualified for inclusion in time studies.

ORC 4123.511(D) states the IC must hear staff hearing level appeals within a 45-day period. In FY 2017, staff-level appeal processes averaged 33 days for the statutory filing to hearing period.

BWC Audited Financial Statements