

# Calendar Year 2019 Annual Report

Dead weight losses from old rules are cumulative, and over time, the impacts are compounded by multiplier effects. Removing burdens associated with 637 rules in calendar year 2019 eliminated about \$53.9 million of lost productivity for Arizona businesses. These changes do not reduce the welfare of Arizonans.

**637 Rules Improved  
or Eliminated**  
*Across*  
**21 Agencies**



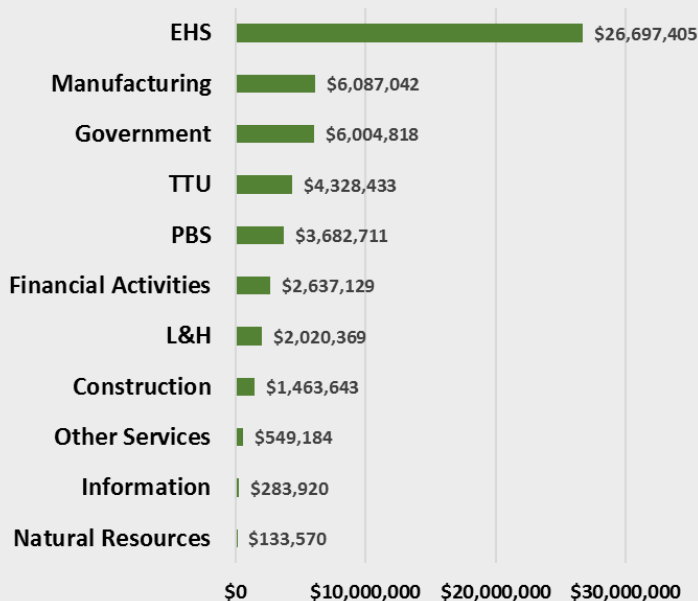
**\$53,888,224.87**

**Annual Savings for the  
Arizona Economy**

**\$0.00**

**Lost Benefits for  
Arizonans**

Value of Rule Improvements  
and Rule Eliminations from  
CY2019 by Supersector



The monetized economic impact refers to the costs to businesses simply due to the existence of these outdated or obsolete rules within the Arizona Administrative Code (AAC). These rules may have become obsolete due to timeliness or even lack of statutory authority. The estimates for lost economic activity quantify how much productivity businesses lose because a worker must sift through these rules even though they are invalid. This could mean reading an outdated rule, consulting the Arizona Revised Statutes (ARS) for statutory authority, or even possibly making a business decision based on a rule that lacks validity. Since these rules do not increase societal welfare, there is no loss in benefits. These estimates are focusing on a very narrow and conservative estimate of how businesses can be impacted by outdated rules.

# INTRODUCTION

This report contains tables and charts that monetize the impact of the work of the Arizona State Government to improve regulation during calendar year (CY) 2019. This includes the value of both rule improvements and rule eliminations. This report also includes a forecast for the economic impact of improving the rules over the next decade. The final section includes the methodology for each process as well as a sample of the formula that is used to generate these estimates. These estimates represent a baseline of impacts using a very conservative process. The following table shows the status of each quarter in calendar year 2019.

<b>Progress of Monetization Project by Quarter</b>				
<b><u>Calendar Quarter</u></b>	<b><u>Calendar Equivalent</u></b>	<b><u>Monetization Status</u></b>	<b><u>Rule Count</u></b>	<b><u>Savings</u></b>
Q1 CY2019	January-March 2019	Completed	158	\$17,058,721.33
Q2 CY2019	April-June 2019	Completed	186	\$13,949,557.52
Q3 CY2019*	July-September 2019	Completed	69	\$9,407,095.69
Q4 CY2019	October-December 2019	Completed	224	\$13,472,850.33
<b>Total</b>			<b>637</b>	<b>\$53,888,224.87</b>

In CY 2019, 21 agencies improved or eliminated 637 rules. We estimate that the unimproved versions of these rules resulted in an aggregate loss of \$53,888,224.87 every year across the economy of Arizona in the form of lost productivity. In regulation, the benefits must always be considered against the costs, and for these regulations, the benefits were \$0.00 each year. Individually, these rules have minimal impact, but throughout the entire economy over time, these small impacts can combine to produce a significant dead weight loss on the economy. This lack of efficiency can manifest in economic indicators like jobs and Gross Domestic Product (GDP).

\*Q3 CY2019 was originally reported to have a rule count of 70 and savings of \$10,131,001.29, but these figures have been revised.

# ELIMINATIONS AND IMPROVEMENTS COMBINED (PART 1)

<b>Value of Rule Eliminations and Rule Improvements from CY2019 by Agency (Part 1)</b>		
<b>Agency</b>	<b>Total Savings</b>	<b>Rule Count</b>
Arizona Health Care Cost Containment System	\$149,034.00	5
Board of Nursing	\$2,711,517.50	30
Board of Osteopathic Examiners	\$466,509.33	5
Board of Pharmacy	\$8,717.51	1
Board of Examiners of Nursing Care Institution Administrators and Assisted Living Facility Managers	\$7,149.60	8
Department of Administration	\$7,328,978.54	24
Department of Agriculture	\$183,336.84	25
Department of Economic Security	\$34,173.66	28
Department of Environmental Quality	\$15,496,564.48	140
Department of Financial Institutions	\$1,144,223.58	36
Department of Health Services	\$19,290,652.62	224
Department of Insurance	\$56,538.23	2

# ELIMINATIONS AND IMPROVEMENTS COMBINED (PART 2)

<b>Value of Rule Eliminations and Rule Improvements from CY2019 by Agency (Part 2)</b>		
<b>Agency</b>	<b>Total Savings</b>	<b>Rule Count</b>
Department of Public Safety	\$45,889.01	10
Department of Revenue	\$1,004,812.64	3
Department of Transportation	\$26,024.64	8
Game and Fish Department	\$663,858.63	26
Industrial Commission	\$22,503.75	1
Medical Board	\$1,514,434.60	16
Regulatory Board of Physician Assistants	\$97,797.25	1
State Board of Physical Therapy	\$977,972.46	10
State Retirement System	\$2,657,536.02	34
<b>Total</b>	<b>\$53,888,224.87</b>	<b>637</b>

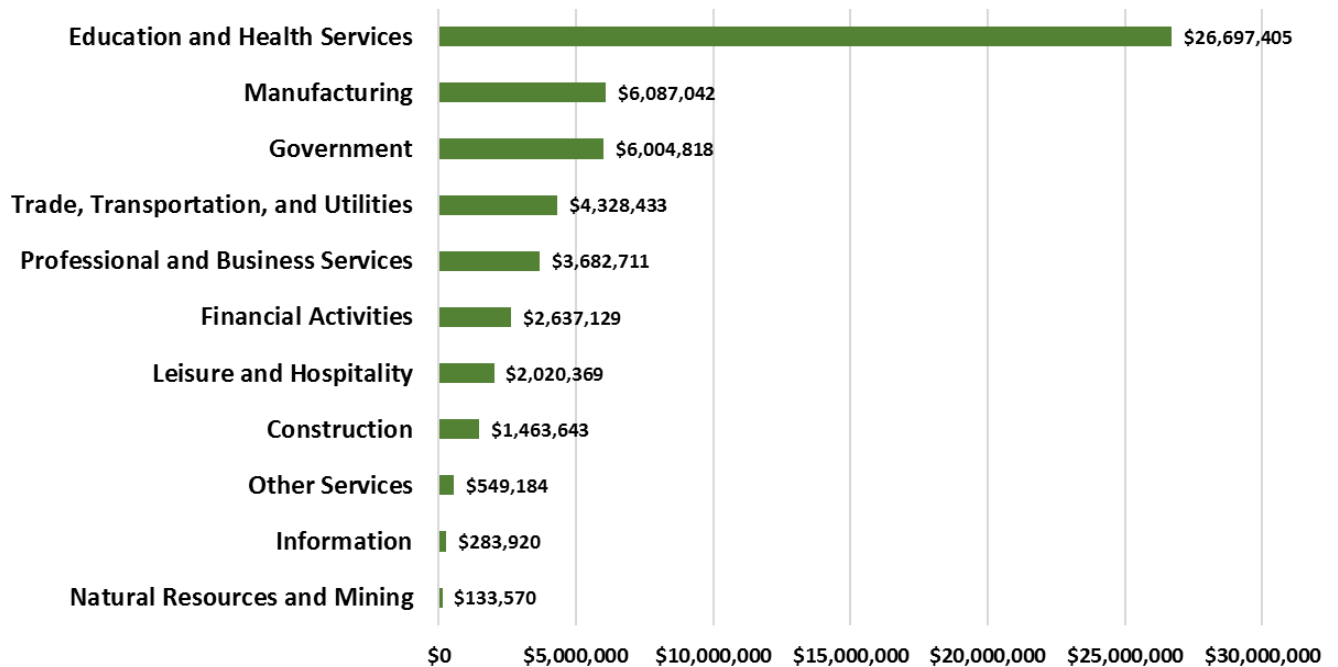
Due to rounding, the sum of Total Savings may not correspond to its total.

## Value of Rule Eliminations and Rule Improvements from CY2019 by Supersector

NAICS	Supersector	Total Savings
10000000	Natural Resources and Mining	\$133,569.95
20000000	Construction	\$1,463,643.40
30000000	Manufacturing	\$6,087,042.30
40000000	Trade, Transportation, and Utilities	\$4,328,432.51
50000000	Information	\$283,920.31
55000000	Financial Activities	\$2,637,129.02
60000000	Professional and Business Services	\$3,682,711.32
65000000	Education and Health Services	\$26,697,404.76
70000000	Leisure and Hospitality	\$2,020,368.98
80000000	Other Services	\$549,184.21
90000000	Government	\$6,004,818.13
<b>00000000</b>	<b>Total</b>	<b>\$53,888,224.87</b>

Due to rounding, the sum of Total Savings may not correspond to its total.

## Value of Rule Eliminations and Rule Improvements from CY2019 by Supersector



# TEN YEAR ECONOMIC IMPACT FORECAST

## 2020-2029

<b>Change from Baseline</b>		
<b>Indicator</b>	<b>Total Ten Year Impact</b>	<b>Average Annual Impact</b>
Total Employment (Jobs)	+10,454	+1,045
Population (Individuals)	+13,383	+1,338
Labor Force (Individuals)	+8,772	+877
Real Gross Domestic Product (Chained 2009 Dollars)	+\$900,829,590.38	+\$90,082,959.04
Source: Generated by OEO using REMI PI+		

Throughout 2019, Arizona improved its Administrative Code in a manner that saved businesses \$53.9 million each year. This is not a static economic impact, though. As time progresses, these savings can promote additional growth in different economic indicators.

Using a dynamic regional economic model (REMI PI+), we can forecast the impact that saving \$53.9 million for businesses can have as these savings multiply through the economy. From 2020 to 2029, the work of improving regulation in 2019 is forecast to increase Total Employment by 10,454 jobs, increase Population by 13,383 individuals, increase the Labor Force by 8,772 individuals, and increase Real GDP by \$901 million.

These estimates show how improving regulation can have substantial impacts over time. These impacts show how improving the rules can increase economic growth over a projected baseline.

## CONCLUSION

637 obsolete or antiquated rules were improved or eliminated in CY 2019. Some of these rules had minimal impact on a narrow set of businesses, and others had a modest impact on a very broad set of businesses. These minimal impacts are insignificant on the individual level, but as these aggregate, they can become a significant drag on economic growth.

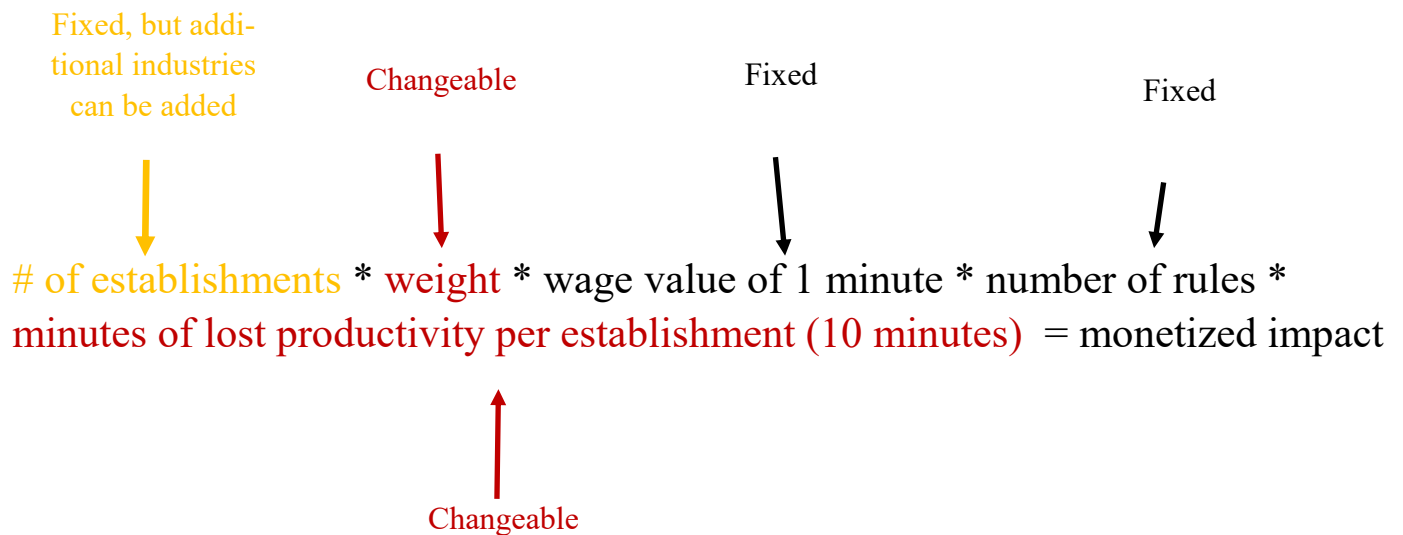
For this limited set of rules, OEO estimates that Arizona businesses forego over \$53.9 million in lost productivity each year. This may also seem insignificant in a state with real Gross Domestic Product (GDP) of \$322 billion (chained 2012 dollars) in Q3 2019, but these annual losses become cumulative over multiple years. Even modest gains in GDP can multiply into immense gains over large time horizons, such as \$901 million over ten years.

Finally, these economic gains do not reduce the welfare of Arizonans. Maintaining a clear, updated, and understandable administrative code provides modest benefits without incurring any costs.

# Improvement Formula

# of establishments \* weight \* wage value of 1 minute \* number of rules \* minutes of lost productivity per establishment (10 minutes) = monetized impact

1,230 \* 1 \* \$0.24 \* 13 \* 10 = \$38,376.00 (rounded value for wage used in this example)



Number of establishments— derived from number of establishments for each industry attached to particular rules from QCEW at the three digit NAICS level or higher.

Weight— this number can control for industries that are comprised of a small number of very large establishments (NAICS 622: Hospitals). The ratio of average employees per establishment in the industry over the average employees per establishment among all industries. Minimum value is 1. Values that exceed 1 are rounded down to the whole integer. This is designed to control for industries that have a small number of large establishments.

This number can also be used to control for industries that are overly broad (NAICS 541: Professional, Scientific, and Technical Services). Reducing this number below the value of 1 can limit the size of establishments used in overly broad NAICS industries.

Wage value of 1 minute— derived from the weekly wages for each industry attached to a particular rules from QCEW at the three digit NAICS level or higher.

Number of rules— derived from the quantity of rules in each group of rulemakings.

Minutes of lost productivity per establishment— currently an arbitrary figure: 10 minutes were used for each rule.

## Improvement Methodology

1. Identify at least one industry at the three digit or higher North American Industrial Classification System (NAICS) level.<sup>1</sup> These are somewhat broad industry classifications at the three digit level. Not all businesses in each industry will be impacted in the same way. There will also be businesses outside of each industry that could be impacted. This analysis includes businesses that are probably not impacted and excludes businesses that are probably impacted.
2. Use Quarterly Census of Employment and Wages (QCEW) data from the most recently available quarter. At the state level, this data set can provide a quarterly average of the number of establishments and average weekly wages in each industry at the three digit NAICS level or higher.
3. Assume that each establishment has at least one person dedicated to working on compliance issues for the establishment. Some establishments will have more individuals working on compliance, and others may outsource their regulatory compliance matters to outside businesses. Our analysis generally assumes that each obsolete rule drains productivity of compliance employees once per year.
4. Divide the average number of employees in the industry by the average number of employees in all industries. Round this value down to the nearest integer (minimum value of 1). This weight controls for large industries with few establishments, like NAICS 622: Hospitals.
5. Establish the cost or burden of the rule on each individual's time. This is established by assigning a weight of 10 minutes for each rule. This weight is then multiplied by the number of rules improved to establish a rough estimate of time saved for each individual. This weight is intended to include time saved by not working with statutes and rules that are out of sync or unclear.
6. Apply the weekly average wage in the industry to the amount of time lost by the individual employee in each establishment. (Average Weekly Wage/2,400).
7. Multiply the cost of the lost time by the number of establishments to get the total lost productivity from the rule for an entire year across the entire industry. (Average Weekly Wage/2,400)\*Number of Establishments.
8. This final number estimates how much businesses lose in productivity due to the existence of obsolete and outdated rules each year.

<sup>1</sup> This analysis has one instance of an industry identified at the four-digit NAICS level: 4247 Petroleum Merchant Wholesalers.



# Elimination Formula

# of establishments \* weight \* wage value of 1 minute \* (word count/100)= monetized impact

20,306 \* 0.5 \* \$0.58 \* (2,981/100)= \$175,921.67 (rounded value for wage used in this example)

Fixed, but additional industries can be added

Changeable

Fixed

Fixed

Changeable



# of establishments \* weight \* wage value of 1 minute \* (word count/ 100) \* = monetized impact

Number of establishments— derived from number of establishments for each industry attached to particular rules from QCEW at the three digit NAICS level or higher.

Weight— this number can control for industries that are comprised of a small number of very large establishments (NAICS 622: Hospitals). The ratio of average employees per establishments in the industry over the average employees per establishment among all industries. Minimum value is 1. Values that exceed 1 are rounded down to the whole integer. This is designed to control for industries that have a small number of large establishments.

This number can also be used to control for industries that are overly broad (NAICS 541: Professional, Scientific, and Technical Services). Reducing this number below the value of 1 can limit the size of establishments used in overly broad NAICS industries.

Wage value of 1 minute— derived from the weekly wages for each industry attached to a particular rules from QCEW at the three digit NAICS level or higher.

Word Count— number of words in the eliminated rules.

100— an estimated reading speed of 100 words per minute for an individual reading the AAC.

## Elimination Methodology

1. Identify at least one industry at the three digit or higher North American Industrial Classification System (NAICS) level.<sup>1</sup> These are somewhat broad industry classifications at the three digit level. Not all businesses in each industry will be impacted in the same way. There will also be businesses outside of each industry that could be impacted. This analysis includes businesses that are probably not impacted and excludes businesses that are probably impacted.
2. Use Quarterly Census of Employment and Wages (QCEW) data from the most recently available quarter. At the state level, this data set can provide a quarterly average of the number of establishments and average weekly wages in each industry at the three digit NAICS level or higher.
3. Assume that each establishment has one person dedicated to working on compliance issues for the establishment. Some establishments will have more individuals working on compliance, and others may outsource their regulatory compliance matters to outside businesses. Our analysis assumes that each obsolete rule drains productivity of compliance employees once per year.
4. Divide the average number of employees in the industry by the average number of employees in all industries. Round this value down to the nearest integer (minimum value of 1). This weight controls for large industries with few establishments.
5. Establish the cost or burden of the rule on each individual's time. This is established by counting the words in each repealed section and assuming that individuals read legal documents at roughly 100 words per minute (WPM). Generally, adults read somewhere between 200 and 300 words per minute, but legal and technical documents generally take more time. Some rules may include references to other places in the Arizona Administrative Code (AAC). Other rules may require frequent re-reading due to their complexity. These types of issues are excluded from the analysis aside from the 100 WPM assumption.
6. Apply the weekly average wage in the industry to the amount of time lost by the individual employee in each establishment.  $(\text{Average Weekly Wage}/2,400)$ .
7. Multiply the cost of the lost time by the number of establishments to get the total lost productivity from the rule for an entire year across the entire industry.  $(\text{Average Weekly Wage}/2,400) * \text{Number of Establishments}$ .
8. This final number estimates how much businesses lose in productivity due to the existence of obsolete and outdated rules each year.

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