



**Douglas A. Ducey**  
**Governor**

**Governor's Office of  
Strategic Planning and Budgeting**

1700 West Washington, Suite 600, Phoenix, Arizona 85007  
(602) 542-5381 • FAX: (602) 542-0868

**Matt Gress**  
**Director**

April, 16, 2018

Kirk Adams, Chief of Staff to Governor Doug Ducey  
1700 W. Washington  
Phoenix, AZ 85007

Dear Mr. Adams,

Through March of this year, revenues have exceeded our office's forecast by hundreds of millions of dollars. As we considered updates to our baseline revenue forecast in FY 2018 and beyond, two significant developments occurred last week:

- 1) The Finance Advisory Committee (FAC) announced that revenues through March were \$262 million above forecast and included significant **upward revisions** in ongoing revenues throughout the 4-year budget window.
- 2) The nonpartisan Congressional Budget Office (CBO) **dramatically raised** its projections by approximately **75%** for national Gross Domestic Product growth over the next two years, crediting federal policy action in contributing to these improving indicators. The significance of this revision cannot be understated. Under the new CBO forecast, Arizona could realize **over \$1.5 billion in additional revenues over the next five years.**

I also received a memorandum from Dr. Dennis Hoffman, an economist at Arizona State University and the director of the Seidman Institute. He confirms the trends that FAC, CBO, and OSPB are seeing currently and throughout the forecast window.

The attached memos outline the state's revised revenue picture over the next several years based on:

- Upward revisions to Arizona's historical employment growth rates by the federal Bureau of Labor Statistics;
- New forecasts calling for dramatically improved economic growth over the next few years; and
- Unexpectedly large base revenue gains in FY 2018.

This growth corresponds with increased revenues that can help support key K-12 education initiatives of the governor, including his "20x2020" plan, along with ending recession-era cuts to the additional assistance formula, and fully funding student growth and inflation costs.

Please let me know if you have further questions.

Sincerely,  
  
Matt Gress, OSPB Director

Encl: 2018-04-16 Memorandum RE: Executive Revenue Forecast (Revised), Justification



**Governor's Office of**

**Strategic Planning and Budgeting**

1700 West Washington, Suite 600, Phoenix, Arizona 85007  
(602) 542-5381 • FAX: (602) 542-0868

**Douglas A. Ducey**  
**Governor**

**Matt Gress**  
**Director**

**MEMORANDUM**

**TO: Matt Gress, Director**  
**FROM: Glenn Farley, Chief Economist**  
**RE: Executive Revenue Forecast (Revised), Justification**  
**DATE: April 16, 2018**  
**ATTACHED: Memorandum re: Current Economic Assessment, Dr. Dennis Hoffman (Seidman Institute)**

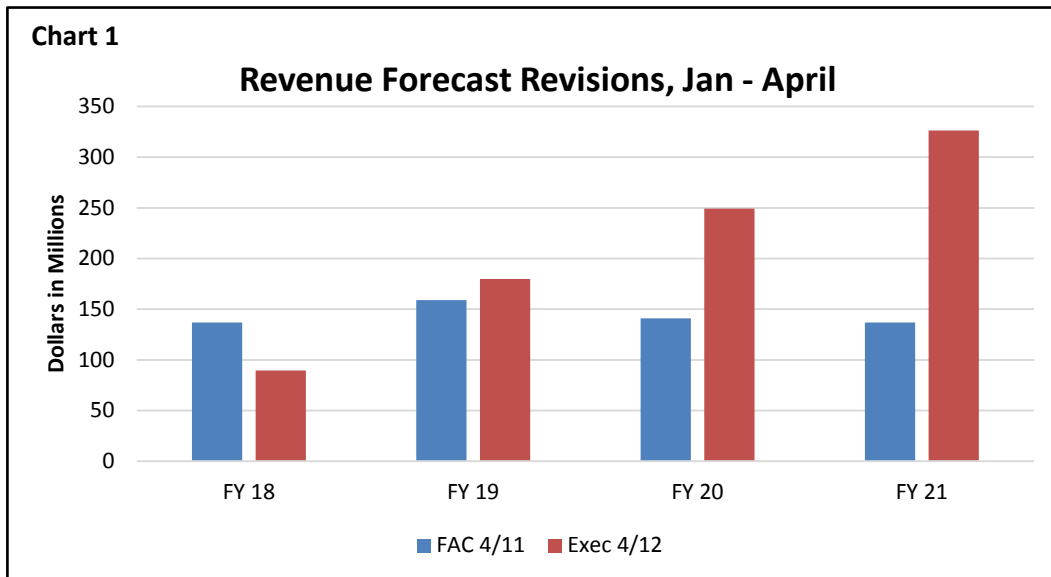
Through March of this year, the executive and legislative budget offices have observed revenue performance well above the FY 2018 baseline projections produced by both the Office of Strategic Planning and Budgeting (OSPB) and Joint Legislative Budget Committee (JLBC) in January 2018.

Specifically, according to the Finance Advisory Committee (FAC), **revenues through March 2018 are \$262 million above the JLBC baseline forecast.** Of that amount, \$194 million is attributable to stronger-than-expected individual income tax performance.

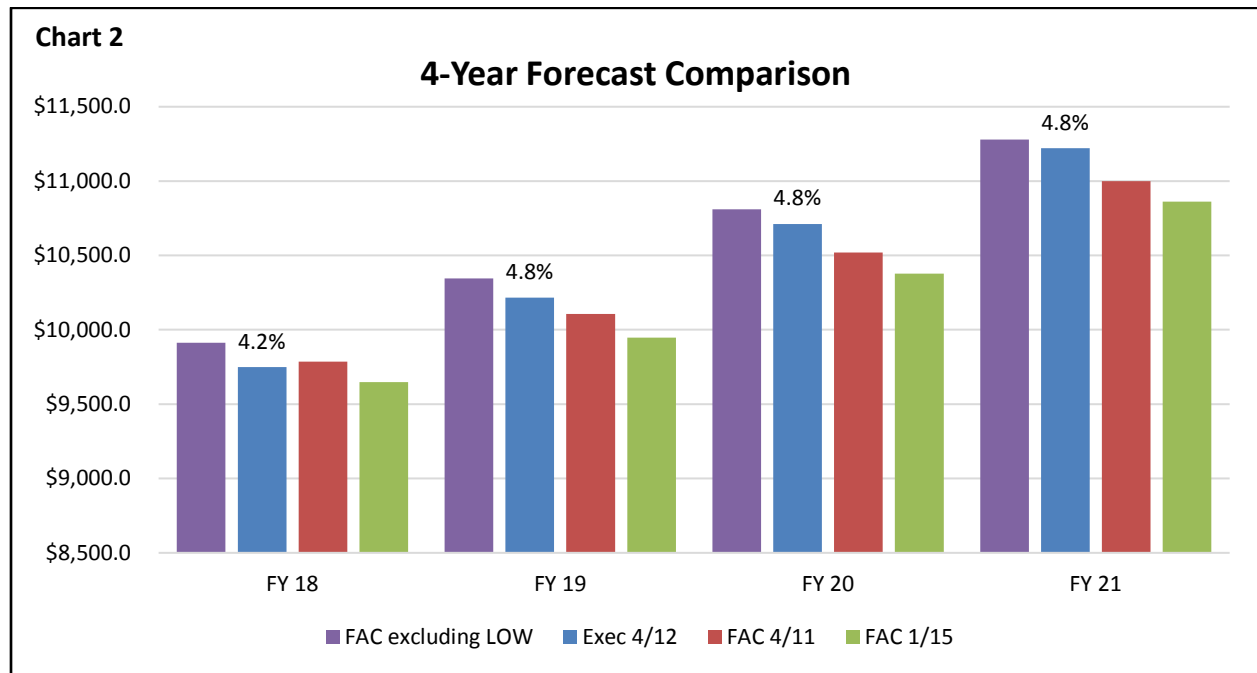
In response, both offices have substantially revised their estimates. **Table 1** reflects the Executive's upward revisions, along with the ongoing revenue forecasts in FY 2018 and beyond. The Executive achieves this forecast using **only \$100 million of the \$262 million surplus.**

<b>Table 1</b>				
<b>Executive Ongoing Revenue Forecast, Revised</b>				
	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>FY 2021</b>
Executive Revision	\$89.5	\$179.6	\$249.3	\$326.4
Total Ongoing	\$9,748.5	\$10,216.7	\$10,711.7	\$11,231.0

**Chart 1** below shows the magnitude of executive and legislative forecast revisions, relative to their own January baseline estimates. Keeping in mind that the Executive was already more optimistic in its forecast, the magnitude of the increase is very similar in both FY 2018 and FY 2019. A divergence occurs in the out-years because FAC assumes that this year's growth is mostly a one-time event.



The Executive disagrees with that assumption. Data suggests this unanticipated revenue growth is attributable to changing economic fundamentals. Recalibrating OSPB’s baseline assumptions to account for these facts produces a more robust outlook. Further, the FAC panel appears generally to agree; excluding only the University of Arizona ‘Low’ (UA Low) forecast from their model yields *higher* estimates for the budget-window than the Executive’s own analysis (See **Chart 2**).



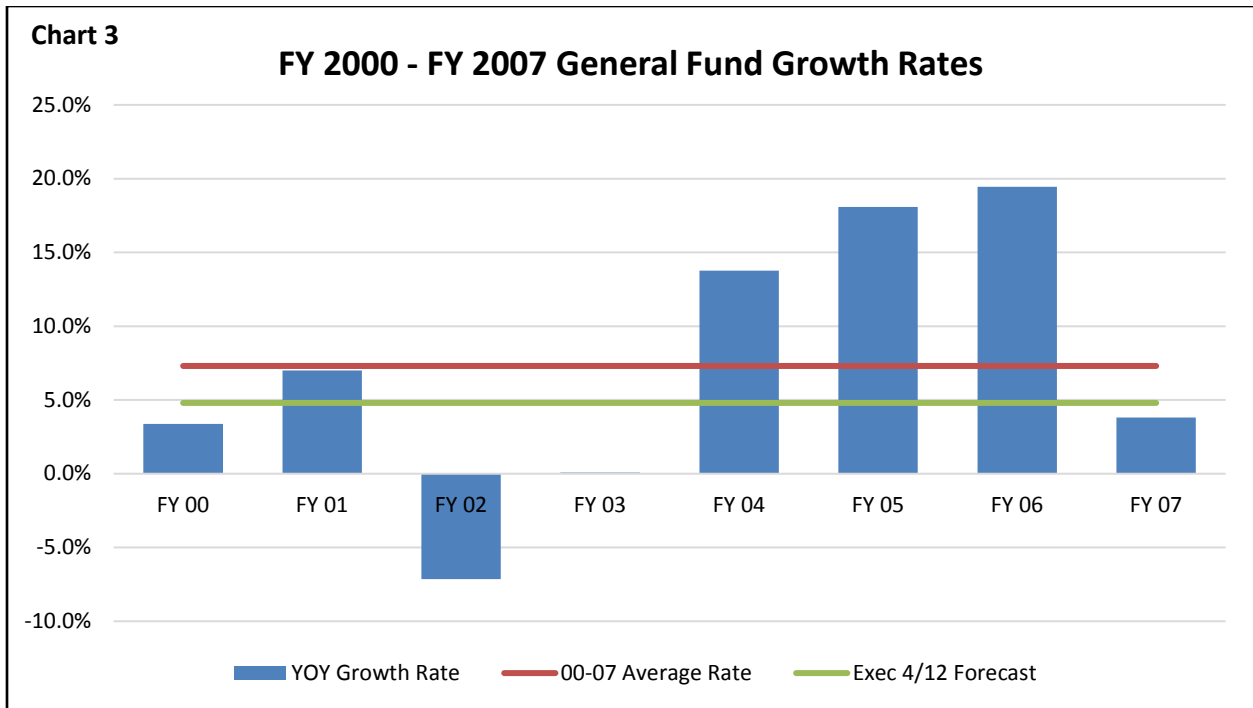
The UA Low component of the FAC revenue forecasting process seeks to add caution relative to the other, ‘baseline’ components. Over the last five years, the UA Low averaged a growth rate that was **1.1% slower** in the budget year than in the baseline year. As of the April FAC, the UA Low component is forecasted to grow a staggeringly **4.3% slower** in FY 2019 relative to FY 2018.

If the FAC normalized just its FY 2019 UA Low weight (to a level closer to historical average reductions), adjusting the Consensus forecast to a **4.1%** growth rate next year, the difference between FAC and the Executive in FY 2019 would be only **\$27 million**.

Additionally, the Executive believes its revised projections are attainable *even if substantial portions of the FY 2018 revenues are one-time in nature*. Specifically, the Executive’s growth assumptions assume only \$100 million of the \$262 million identified by JLBC in surplus revenue through March is ongoing and carried into the base (compared to an FAC assumption that \$137 million in ongoing).

To the extent that this is underestimated, the out-year forecasts become relatively more likely to happen.

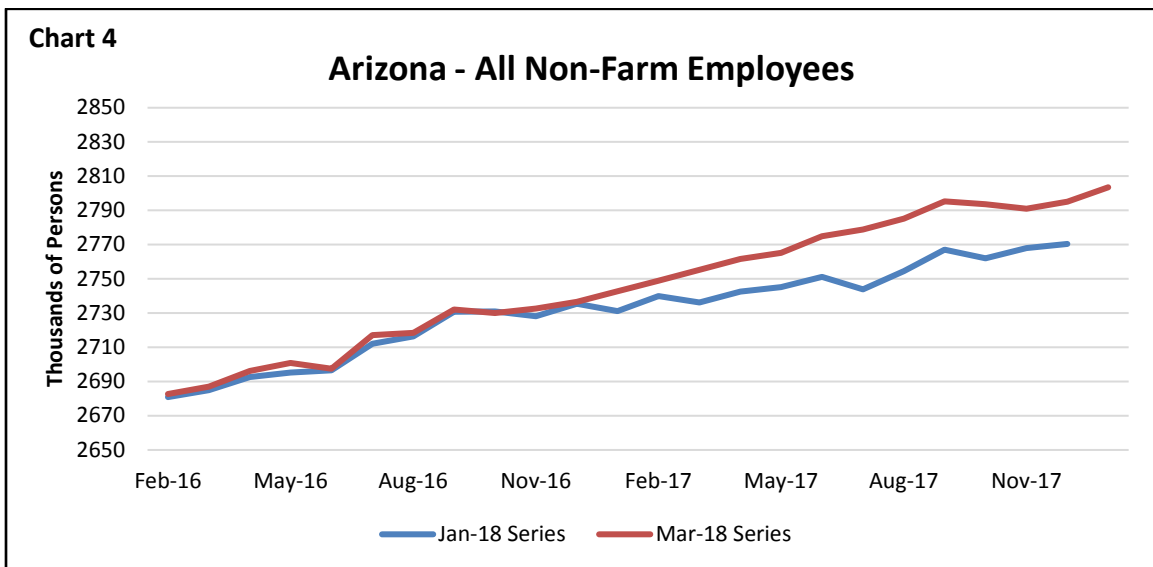
Overall, the changing economic fundamentals make the current 4-year budget window more similar to the pre-recession period, both nationally and for Arizona. Prior to the Great Recession, annual General Fund revenue growth averaged **7.3%** (See **Chart 3**). The revised Executive forecast never exceeds **5.0%**. While these growth rates are higher than in recent years, we must recall that it is the past 7 years which have been uncharacteristically *low*. Historically, both the United States in general and Arizona in particular, have enjoyed periods of higher growth following recessions that never materialized this cycle.



**BAD FEDERAL DATA LED TO OVERLY CONSERVATIVE BASELINE ASSUMPTIONS**

When the Executive was producing the budget recommendation and baseline forecast during the fourth quarter of 2017, it believed (based on federal data) that state employment growth had slowed from over 2.5% per year to nearly 1.0%. This led to extreme caution in the revenue estimates for FYs 2018-2019.

Based on revised federal data now available (see the red line below in **Chart 4**), not only did state employment growth never slow – it appears to be accelerating. As of February 2018, Arizona’s year-over-year job growth is 2.25% and improving (a 50% improvement over the December Executive expectation for this period).

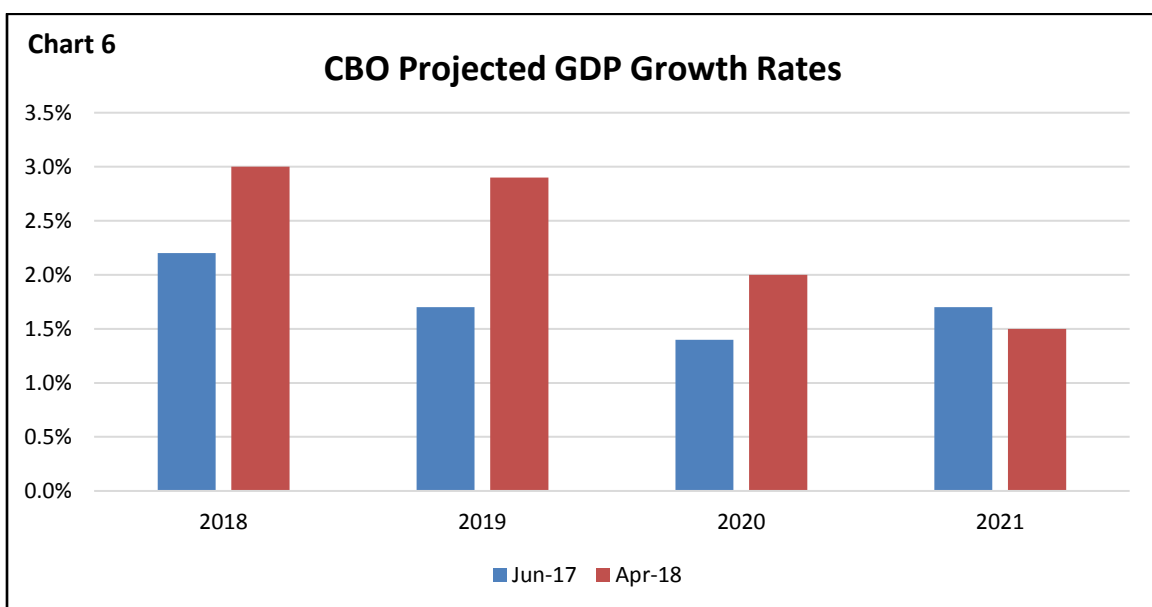


Other key indicators show increasing momentum. As of Calendar Year (CY) 2017, Arizona’s year-over-year manufacturing employment growth rate has accelerated to levels last seen prior to the Great Recession (See **Chart 5**). As a base industry, the expectation is this will fuel higher overall wage and employment growth rates throughout the state economy this year.



**REVISED FEDERAL REVENUE PROJECTIONS SUPPORT THE EXECUTIVE**

The non-partisan Congressional Budget Office (CBO) has dramatically revised *up* its projections for national economic growth (See **Chart 6**). Its April projections average about 75% higher over the next two years than previously estimated. CBO credits federal policy action with contributing to these improving indicators.



The faster economic momentum is anticipated to reduce growth in federal entitlement spending – unemployment insurance, nutritional assistance, public health insurance, etc. – by nearly \$150 billion compared to prior estimates. These revisions mirror the changing baseline assumptions being used by the Executive.

The CBO also expects economic improvements since last year to contribute \$505 billion in additional federal revenues over the next 5 years, largely through increases in the individual and corporate income taxes (relative to its June 2017 estimates and before accounting for policy changes). Assuming 2.0% of that growth was attributable to Arizona, and that the state’s effective tax rate is 15% of the United States, the implication is that Arizona could realize *over \$1.5 billion in additional revenues over the next 5 years* by the CBO’s own, independently revised fiscal forecast.

Attached is a memo from Arizona State University (ASU) economist Dr. Dennis Hoffman, director of ASU’s Seidman Institute. In it, Dr. Hoffman provides an assessment of Arizona’s economy and the considerable recent change in the state’s growth trajectory. Based on his internal forecasts, as well as national data, Dr. Hoffman posits nominal growth rates that are 1-2% above what has been experienced in the recent past (2010-2017) due to the national economic sluggishness that suppressed Arizona’s growth. As a result, Dr. Hoffman predicts a corresponding boost in tax revenues that aligns with the Executive’s revised revenue forecast.

The Executive concludes that the state’s revenue picture over the next several years is much stronger than previously estimated, based on a thorough analysis of the best data currently available, including:

- Revisions in Arizona’s historical growth rates by federal statisticians;
- New forecasts calling for dramatically improved economic growth over the next few years; and
- Unexpectedly large base revenue gains in FY 2018.

The Executive further concludes that the FAC analysis, while also adding stronger revenue gains than previously, is still too cautious. This excess caution is entirely attributed to an outlying FY 2019 forecast from a single input to that forecast: the UA Low. Excluding or normalizing the UA ‘Low’ input (see pg. 2) clusters the FAC and OSPB estimates for FY 2019, and coupled with other Executive solutions allows sufficient resources to achieve the Governor’s fiscal forecast throughout the 4-year budget window.

Dennis Hoffman, PhD, Director  
Seidman Institute  
W. P. Carey School of Business  
Arizona State University



**seidman**  
**research** institute

## M E M O

**DATE:** April 13, 2018

**TO:** Matt Gress, Director Office of Strategic Planning and Budgeting

**RE:** Current Economic Assessment

The Arizona economy has steadily improved over the past 4-5 years while Big 3 (Individual Income, Sales Taxes, and Corporate Income Tax) revenue growth has been uneven. In recent years growth in construction and real estate has been slow, especially in Arizona. But most importantly, low national inflation rates have resulted in slower than normal growth in nominal incomes and consumption. This has dampened sales tax collections and individual income tax collections nationally and especially in Arizona.

Over the past 6 months it is clear that the trajectory of growth in the Arizona economy has changed – especially the nominal components of growth which are closely tied to revenue collections. The catalysts have come from tighter labor markets, steady growth in jobs – especially in higher paying goods producing sectors, acceleration in real estate activity in terms of prices, transactions and new housing starts, and a national economy that is showing distinct signs of acceleration in inflation rates.

National forecasting products are consistent with the notion that this acceleration in nominal growth is occurring nationwide and will continue for the next several years. The evidence suggests an economy poised for nominal growth at rates 1-2% above what has been experienced in the recent past so that overall nominal Arizona Gross State Product and overall wage disbursements will likely grow at a 5% to 6% pace per annum. Further, the growth rates projected do NOT take the State back to the rapid unsustainable nominal growth years seen in some of the 1990s and the middle 2000s. It is reasonable that the State will observe commensurate acceleration in tax revenue growth as historical correlations with these nominal metrics would suggest.

**Perspective on the ASU Revenue Forecasting Model.** The model has served as an independent input into the Executive Budgeting process since 1983 and has undergone numerous revisions and updates over the years. At present the model's baseline projections are consistent with the growth in revenue through FY 2021 that would be required to attain the revenue estimates outline in Mr. Farley's memorandum to Director Gress.

As always please let me know what questions remain.