

# **An Analysis of the Inflation-Population Model for State Spending Restraint**

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On Wednesday June 21, Patrick Gleason, Vice President of State Affairs at the Americans for Tax Reform, ATR, announced his organization's intent to launch a program to promote spending restraint among state governments. Based on Gleason's brief description of the program, the following analysis attempts to capture the strengths and weaknesses of such a model.

Gleason indicated that the model would cap spending growth to a state's population growth plus inflation. Since the details of the ATR model—or IP model for "inflation and population"—are not known at this time, the following is a generic adaptation of this proposed cap.

The following is a technical analysis. It is not meant to evaluate the likely positive effects that the ATR initiative would have on the conversation about fiscal policy among state legislators and others interested in influencing the debate.

## **Choice of data**

For calculating inflation: state gross domestic product, current-price and adjusted for inflation, sourced from the U.S. Bureau of Economic Analysis.

There are a couple of choices for what inflation numbers to use in a spending-restraint model like this one. We could use either a national inflation rate, or one based on inflation rates in the several states. We could also choose the consumer price index, CPI, or the GDP deflator. In order not to presume what model the ATR uses, this analysis uses state-based inflation rates. This is best calculated based on the GDP deflator for each state.

It is important for the practicality of a state-based spending restraint model that it uses state-based inflation rates, as the differences in inflation can be significant from state to state. In 2019, a year with low inflation at the national level, Nevada had the highest inflation rates of all states at 2.7%. By contrast, Oklahoma experienced negative inflation (deflation) at -1.15%.

In 2022, a high-inflation year, North Dakota had the top state rate at 16.5%, while New York boasted the lowest level at 4.8%.

The primary difference between the GDP deflator and the more commonly used consumer price index, CPI, is that the deflator plays down the role of trade across jurisdictional borders, while the CPI makes no such distinction. In other words, the deflator emphasizes economic activity within the state. There is also a difference in the point of data collection, with the deflator tending to be a little bit more accurate in its data sourcing. Furthermore, since the CPI depends on a limited basket of goods and services, it gives a more limited view of economic activity than the deflator does.

For calculating population growth: state consumption data, total and per-capita, sourced from the U.S. Bureau of Economic Analysis.

There are other sources for this data, though the difference between the Census Bureau and the BEA population estimates is not big enough to analytically motivate a use of one over the other. The BEA was used here because of its proximity in source to the GDP data used here.

For calculating growth rates in state spending: state government expenditure data, sourced from the Census Bureau.

Again, without knowing the specifics of the ATR model, this analysis assumes that the spending restraint applied to all state spending. This includes the general fund, other funds, and federal funds. This assumption has one distinct advantage and one equally distinct disadvantage.

The advantage is that it avoids the problems that have been associated with the TABOR cap on state spending in Colorado. It applies only to the general fund, which led the Colorado state legislature to move spending programs from the general fund to the other-funds category. This has allowed them to increase spending at will, and also to fund those programs with fees rather than taxes (the increase of which is restricted by TABOR).

Since the weaknesses of TABOR are well known, it is assumed here that the ATR model corrects for those by stretching out its spending cap across all kinds of state spending.

The disadvantage with such a cap is that it also applies to federal funds. The reason why it does, is that when the federal government gives money to a state in order to fund, e.g., Medicaid health insurance for low-income families, the state is forced to match the federal funds according to a given formula. This means that state spending increases automatically whenever there is an increase in federal funding of state programs.

While the application of the spending cap to federal funds helps keep state spending in check, it also forces states into negotiations with the federal government over the use of federal funds. Such negotiations can result in tensions, where at least in theory the state [can be put in a 'blackmail' type situation](#) into accepting new funds, or losing old funds.

## **Application results**

The simulation of the spending cap was based on the assumption that it had been put in place in 2009, thus affecting the state budget for the first time in 2010. A comparison through 2019 of actual annual changes in state spending and changes permitted under the IP model gave surprising end results. Table 1 reports the difference over the entire period 2010-2019 between actual spending and the IP (ATR) cap. A total of 15 states could have spent more money, with Alaska being allowed to expand its state budget by as much as 13.8%. Another 16 states would have had to reduce their total spending by less than 2% over the ten-year period.

**Table 1**

Impact of ATR spending cap, 2010-2019			
Alaska	13.8%	Rhode Island	-1.0%
South Carolina	4.5%	Tennessee	-1.1%
Illinois	3.8%	Arkansas	-1.3%
Nevada	2.6%	New Mexico	-1.3%
Wyoming	2.2%	Delaware	-1.6%
Kentucky	2.0%	Wisconsin	-1.7%
Nebraska	1.6%	Oregon	-2.0%
Vermont	1.5%	Alabama	-2.1%
South Dakota	1.4%	Kansas	-2.1%
Ohio	1.2%	Idaho	-2.1%
Colorado	1.2%	Connecticut	-2.1%
Minnesota	1.2%	Maryland	-2.1%
New Hampshire	1.0%	Virginia	-2.2%
Arizona	0.8%	Hawaii	-2.3%
Oklahoma	0.0%	Florida	-2.3%
Missouri	-0.1%	North Carolina	-2.4%
Iowa	-0.1%	Utah	-2.5%
Massachusetts	-0.2%	West Virginia	-2.9%
Georgia	-0.2%	Michigan	-3.0%
Montana	-0.2%	Texas	-3.1%
New York	-0.3%	New Jersey	-3.2%
Washington	-0.4%	Pennsylvania	-3.4%
Mississippi	-0.5%	Louisiana	-3.4%
Maine	-0.8%	North Dakota	-6.9%
Indiana	-1.0%	California	-7.1%

Sources of raw data:

*Bureau of Economic Analysis* (inflation, population); *Census Bureau* (state spending)

For control purposes, the same calculations were performed for the decade 2000-2009, with the caveat that 2009 was the trough year of the so-called Great Recession. For this period, only five states would have been allowed to increase their spending: Florida (+5.3%), Georgia and Rhode Island (+2.7%), and Arizona and South Carolina (+0.9%). Another eight states would have had to reduce spending by less than 2%.

While the IP model would have had more effect on state spending in this decade, it is also worth noting, again, that 2009 was the trough year of a traditional, but deep recession. Therefore, inflation was particularly low that year: 0.6% nationally. Some states experienced major deflation, with Alaska at -19.1%, Wyoming at -12.3%, and Oklahoma at -7.4%. Under the IP model, these states would have been forced to make very deep one-year cuts in their spending programs.

To avoid the anomalous nature of a recession trough year, the calculations for the same decade were stretched out to 2010. The results were very different: suddenly, all 50 states would have been allowed to increase spending, with Alaska, Wyoming, Louisiana, Oklahoma, and Texas well above 5% for the entire period. A total of 27 states would have been allowed 2% or higher spending under the model.

These results are largely dependent on the choice to include inflation in the model. This has the absurd effect of allowing major government spending increases in times of high inflation. The choice of the GDP deflator also affects the calculations, as it allows swings in prices of natural resources—primarily oil—to show up in a state's unique inflation figures. This could be taken as an argument to not use the deflator, but at the same time the obvious alternative, the CPI, would

put some distance between the state legislature that makes the budget, and the real economic world which the budget will impact.

Generally, the IP model is susceptible to volatility when the economy transitions from one phase of the business cycle to another. Since it forces state governments to reduce spending when inflation drops, it can make state fiscal policy destabilizing, i.e., turn it into a magnifier of recessions and inflation-imposing growth periods.

There is also a point to be made about the difference between regular inflation and monetary inflation. We saw moderate levels of the former during growth periods in the 1990s and 2000s, and we have just experienced the latter. Monetary inflation is independent of the level of economic activity, which means that the tax base may not be growing on par with the spending permitted under an IP spending cap. This means that the IP can inadvertently incentivize state budget deficits.