

Connecticut's Spending Cap

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Topics Covered

- CCEA 2005 Report
- Personal Income and other measures of income (NEPPC 2008 paper)
- Comparison of PI and AGI (BEA 2007 paper)
- Implicit State and Local Price Deflator
- Baumol's Cost Disease

CCEA 2005 Report

- Commissioned by Comptroller to examine alternatives to the existing spending cap.
- Looked at state and local government spending instead of revenue they receive.
- Looked at trends in spending and components, esp. Medicaid
- To more closely match goods and services governments 'buy', we used implicit state and local price deflator from BEA.
- To capture increases in Medicaid spending, we incorporated the growth of this component in a weighted average growth index.

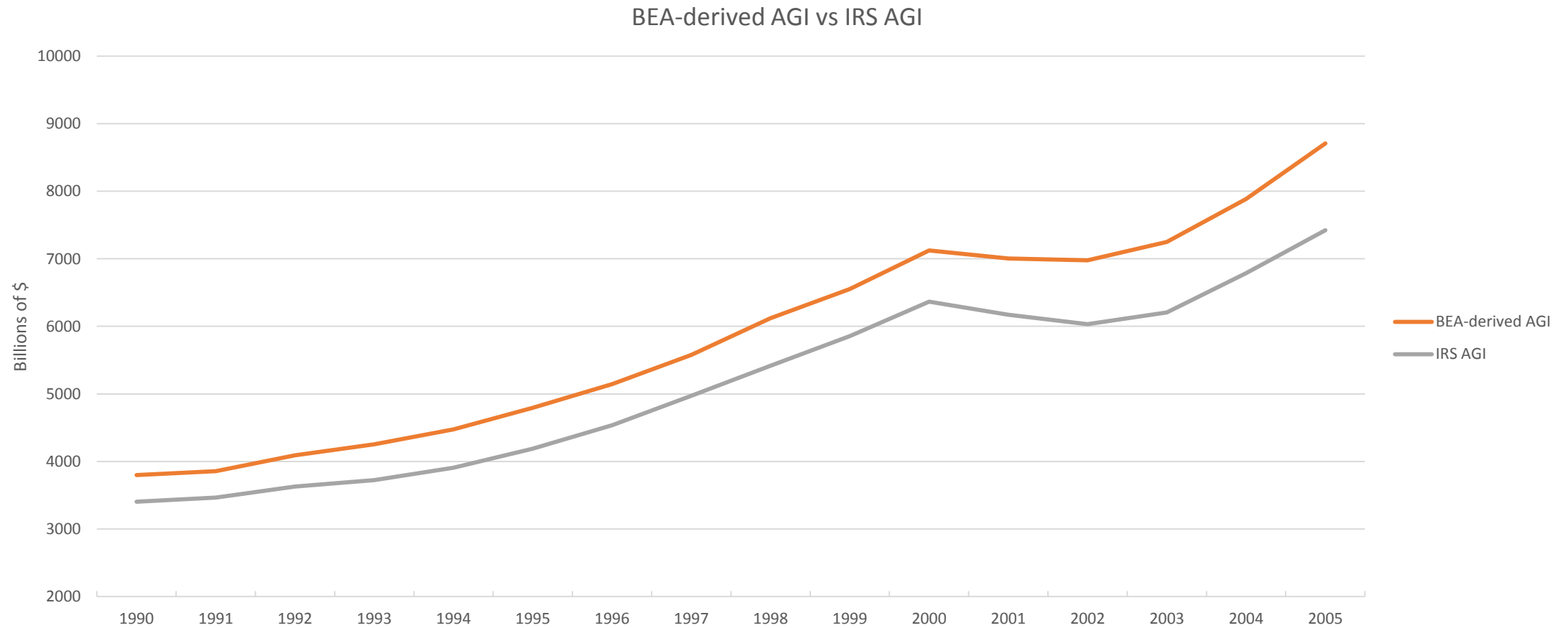
CCEA 2005 Report

- We looked at state revenue and expenditure limitations in other states.
- We looked at the chronology (genesis) of Connecticut's spending cap.
- Our analysis offered one of several possible alternative rules for limiting spending.
- We did not consider revenue limits.

NEPPC 2008 Study of Income Measures

- Looked at income measures to see which might be better for tracking Massachusetts' capacity to support its Medicaid program.
- Each income measure has advantages and disadvantages, e.g., PI does not contain realized capital gains, corporate income or taxable insurance premiums.
- NEPPC recommended adjusted personal income as the most appropriate income measure for their purpose.
- $\text{Adj. PI} = \text{PI} + \text{Net Realized Cap. Gains} - \text{Residence Adjustment}$

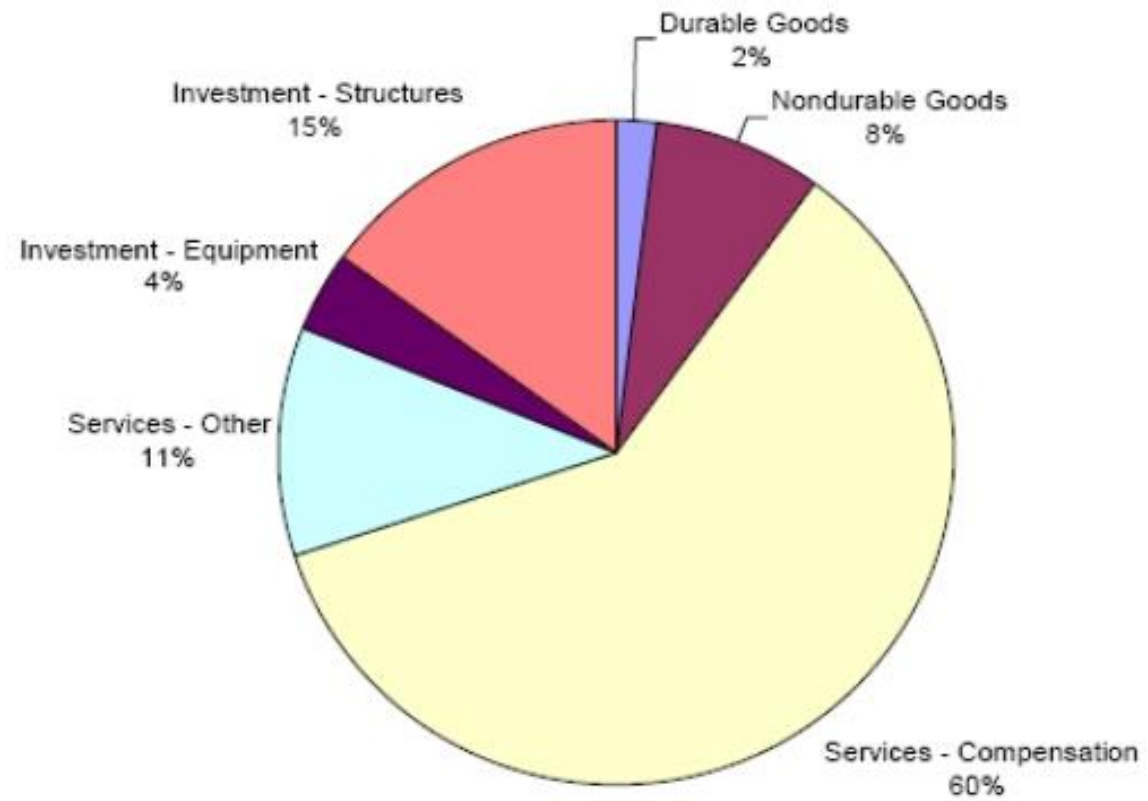
Comparison of PI and AGI (BEA 2007 paper)



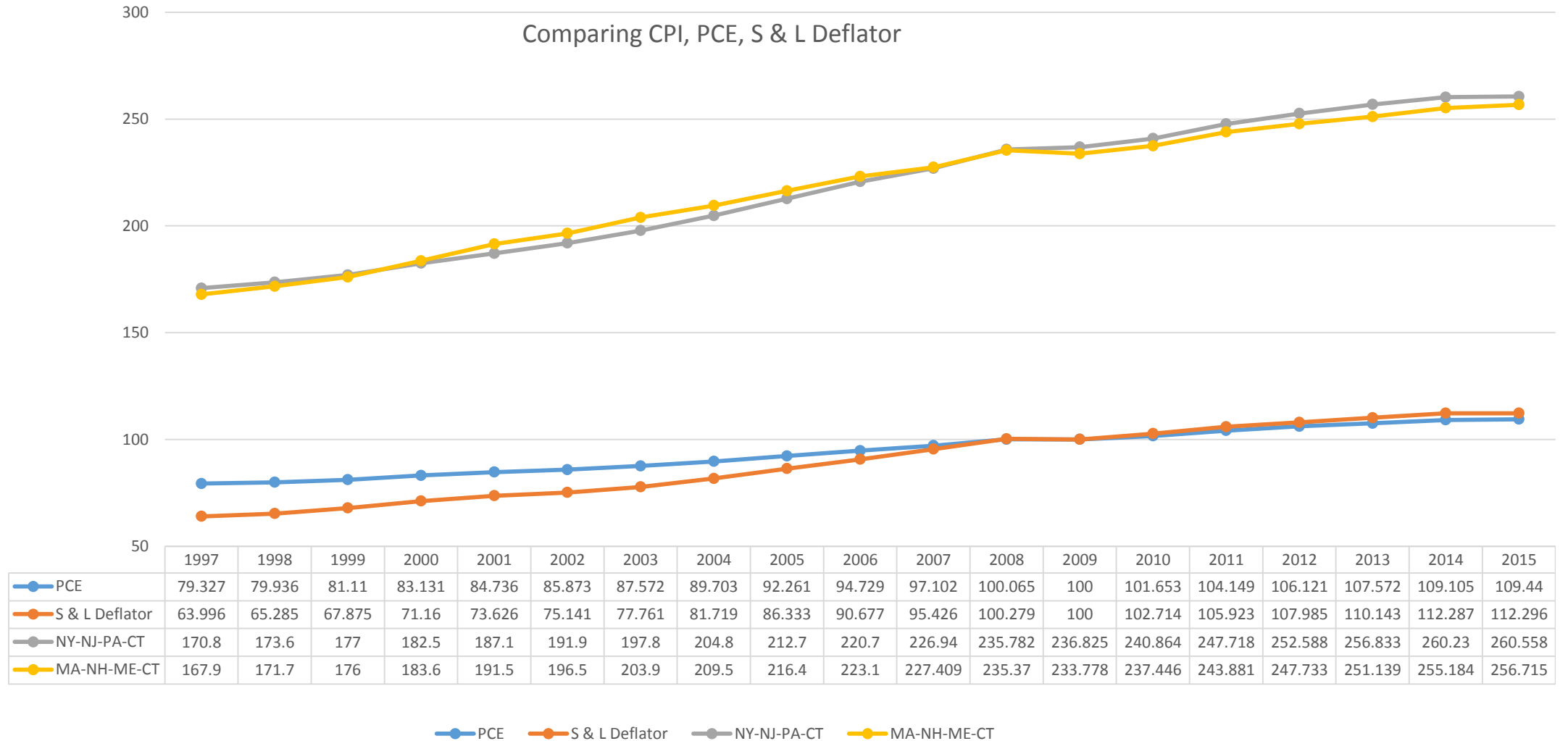
Implicit State and Local Price Deflator

- The ratio of the current-dollar value of a series, such as gross domestic product (GDP), to its corresponding chained-dollar value, multiplied by 100. Examples: SLPD and PCE.
- “The index reflects the cost of purchasing inputs used by state and local governments. The basket of goods measured by this index changes over time as the actual purchasing patterns of government change due to price changes, technological changes, and other factors. This is a more accurate measure of the costs facing school districts than the Consumer Price Index, which measures the cost of purchasing a fixed basket of *consumer* goods.”

Composition of the US State & Local Government Price Index



Implicit State and Local Price Deflator



Baumol's Cost Disease

- Baumol and Bowen (1965) AER, 1965, suggested that we expect:
 - average costs and prices in stagnant industries – ones with relatively low productivity growth – would grow relative to the average.
 - because of the rapid rise in relative prices, that real output in low-productivity growth industries would grow slowly relative to the overall economy.

Baumol's Cost Disease

- Further, other implications of Baumol and Bowen's analysis:
 - The impact of low productivity growth on nominal shares is ambiguous because it depends on the interaction of rising relative prices and declining relative outputs. Baumol sometimes assumed that demand would be price-inelastic, so low productivity growth would generally lead to rising shares of nominal output in stagnant industries.
 - The impact of low productivity growth on labor inputs will depend on the impact on output as well as on the structure of production. Generally, those industries with price elastic demand for output will experience a positive impact of productivity growth on employment, and contrariwise for industries with price-inelastic demand.
 - Who captures the gains from higher productivity growth, and who loses from stagnant productivity. Bowen and Baumol argued that stagnant industries such as the performing arts were likely to be financially stressed because of rising costs and prices.
 - What would be the effect on aggregate productivity growth?

Baumol's Cost Disease

- William Nordhaus in his NBER 2006 paper analyzed the implications of B & B's analyses and arguments and found:
 - The hypothesis of a cost-price disease due to slow productivity growth is strongly supported by the historical data. Industries with relatively lower productivity growth show a percentage-point for percentage-point higher growth in relative prices.
 - The real output/stagnation hypothesis is strongly confirmed. Technologically stagnant industries have shown slower growth in real output than have the technologically dynamic ones. A one percentage-point higher productivity growth was associated with a three-quarters percentage-point higher real output growth.

Baumol's Cost Disease

- Further, Norhaus found:
 - There is a negative association of productivity growth with the growth in nominal output. In other words, stagnant industries tend to take a rising share of nominal output; however, the relationship is only marginally statistically significant.
 - Industries with more rapid productivity growth tend to displace labor and show lower growth of hours and employment. However, this relationship appears to be reversed within manufacturing industries, which show higher growth of labor inputs with higher productivity growth.
 - The differential impact of higher productivity growth on factor rewards is extremely small. While the impacts are statistically insignificant, there is a suggestion that higher productivity growth leads to slightly higher wage and profit growth, but at least 95 percent of productivity growth is passed on to consumers in lower prices.

Baumol's Cost Disease

- Finally, Nordhaus finds:
- Because demand is on average price-inelastic, stagnant industries have experienced rising nominal output shares. As nominal output shares increased in those industries, overall weighted productivity growth slowed. The changing shares over the 1948-2001 period had the effect of lowering productivity growth by slightly more than $\frac{1}{2}$ percentage point per year, indicating that Baumol's growth disease was an important factor during this period.

Baumol's Cost Disease

- Nordhaus includes an important caveat:
- Second, the data are sometimes poorly measured estimates of true output and therefore cannot correctly calculate true prices or the correct numerator for productivity. This shortcoming is particularly serious in services such as health, education, and personal services, for which the output measures are in reality measures of inputs. We have dealt with measurement issues by taking different slices of the data, such as examining data for different periods or for subsets of industries that are well-measured, but we cannot wholly overcome the mismeasurement difficulties.