

**COMMENTS TO THE CALIFORNIA PUBLIC UTILITIES COMMISSION
ON THE CUSTOMER CHOICE DRAFT GREEN BOOK**

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The following comments are respectfully submitted and strictly represent my views alone and are not presented on behalf of any other participant or entity.

The “Draft Green Book” paper on Customer Choice in California is a serious and thoughtful contribution to an important initiative of the California Public Utilities Commission to address growing discontinuities between the existing electricity regulatory framework and the developing new realities of the electricity world.

Converging Unprecedented Conditions

While various circumstances may, to varying degrees, distinguish California from other states, California is not immune from general conditions in the electricity arena. Three unprecedented conditions are converging to exert pressure on the traditional monopoly utility structure and on its regulation.

- 1) *A Decade of Flat Load* – In 2017, grid-served electricity consumption in the United States was no greater than in 2008. Spreading increasing fixed costs over growing sales volumes had traditionally been a standard expectation. Stagnant load means that under traditional rate regulation prices rise even in the face of slack demand for the product.
- 2) *Generation “Dys-Economics”* – The shale gas revolution, energy efficiency and the increasing deployment of renewable generation and distributed resources have dramatically disrupted the traditional central station investment model that worked well for many decades. The pressure on coal-fired production has been especially significant.
- 3) *The Digital Revolution* – The digital revolution has arrived with full force in the electricity industry and is having impacts across the board. There are smart grids, smart meters, smart thermostats, smart appliances – and increasingly smart consumers. The most important feature is the one that we have come to appreciate in other aspects of our lives and in the economy – digital empowerment, customer sovereignty and more degrees of freedom.

The attached illustrations show that in a decade of flat load and disruption of traditional generation economics, there have been opposite price trajectories in the group of 14 customer choice jurisdictions (13 states and DC) and the 35 traditional monopoly states (including California and 6 other “hybrid” states with highly restricted direct access). The weighted average all-sector price in the monopoly states rose nearly 19% between 2008 and 2017, while falling 7% in choice states. This Great Divergence, a nearly 2600 basis point spread, has significant dollar implications. If prices in the monopoly states had followed that same path as in choice states, customers would have paid one-third of a trillion dollars less for delivered electricity service over the 9-year period.

Traditional utility regulation that grants too much in the way of exclusivity over supply to utilities and restricts options for consumers is incompatible with the new conditions in the electricity sector. A 2015 report that I prepared for the Retail Energy Supply Association (RESA), *Restructuring Recharged: The Superior Performance of Competitive Electricity Markets 2008-2016*, already is part of the record in this CPUC proceeding, provides substantial empirical analysis on these topics.

Misplaced Concerns about a Repeat of the California Energy Crisis

It is entirely understandable that the Draft Green Book would address the 2000-2001 several month experience of California that is customarily referred to as the “energy crisis.” However, the paper reflects misplaced concerns over a repeat of the situation.

None of the conditions associated with the crisis over fifteen years ago maintain today. Current conditions are quite different. It is the case that there are problems that should be addressed, as the Draft Green Book ably describes, but those problems do not include the specter of a reprise of the old crisis. The central enabling condition of the 2000-2001 chaos was a rule, against which the CPUC had been advised, that utilities had to procure unhedged default supply through the Power Exchange “day ahead” market. Absent the “no hedging” standard for utilities at that time, the crisis could not have occurred. No such condition currently exists. It is worth noting that no other state that made the transition to customer choice made any similar error.

If anything, it might be argued that the pendulum has swung too far in the other direction, with mandates that utilities enter into long-term contracts, especially for renewables. The migration of utility-served load to community aggregation is, among other things, symptomatic of the above-market prices for utility renewable supplies procured in prior periods.

The CPUC's focus, therefore, should not be on a crisis that occurred under long gone conditions. Rather, the CPUC needs to address facilitation of changes now well underway rather than considering ways to slow down the process. Solutions to the problems identified by the Draft Green Book reside in customer choice, not in market restrictions that can only further complicate matters.

The Illinois Example

The Draft Green Book is especially helpful in its examination of the four examples of retail choice markets – New York, Illinois, Texas and Great Britain.

The Illinois example is of special interest to me and I wish to provide some perspective.

I served as chairman of the Illinois Commerce Commission (1983-85) when we issued an ICC policy paper in 1984 that advocated a movement toward wholesale and retail electricity competition and customer choice. I have been deeply involved at each stage of competitive development in Illinois, including the 1997 restructuring legislation and the ongoing refinement of the “rules of the game” by policymakers and regulators and standing up a competitive provider that is no part of one of the nation's largest.

The Illinois model has succeeded in providing market-based pricing and competitive options to all types of customers served by investor-owned wires delivery utilities. The competitive conditions in the two main delivery utilities, ComEd (northern Illinois, including the Chicago metro area) and the three downstate Ameren service areas are similar. Some details differ between ComEd, which belongs to the PJM RTO and Ameren that belongs to the MISO RTO.

I will not nitpick details of the Draft Green Book description of the Illinois system and practice. Rather, I will suggest several features that ought to be emphasized

as guideposts, relying on the situation in ComEd in which a great majority of statewide load resides, as illustrative and representative.

- The commercial/industrial customer segments have embraced competitive options, without any adverse impact on residential customers. For example, the most recent switching statistics posted on the Illinois Commerce Commission website show that in the ComEd delivery service territory (the majority of statewide load, includes the Chicago metro area), 99.6% of load for customers over 100kW of demand is served by competitive non-utility providers or by hourly service from the PJM RTO. (<https://www.icc.illinois.gov/electricity/SwitchingStatistics.aspx>)
- All residential and small business customers in the ComEd area have four market-priced options for supply services. None is served under rates set under the traditional “cost-based” approach. Nearly all ComEd residential customers now have smart meters as a result of deployment pursuant to Illinois’ 2011 Energy Infrastructure Modernization Act. The current utility “price to beat” supply service has nothing in common with the utility supply service that maintained during the original transition period completed at year-end 2006. The old “price to beat” was simply the pre-restructuring full service regulated rates that had been reduced by varying percentages for different utilities and then frozen for the multi-year transition period.

For more than a decade, all residential and other small customers have been served at market-determined prices. The four supply options are:

- 1) Dozens of licensed Alternative Retail Electric Suppliers (ARES) serve customers with supply, generally on a fixed price basis for a year or more, procured on a proprietary basis, with some utilizing capacity procured in the PJM RTO auction and others securing capacity bilaterally.
- 2) Customers are free to elect hourly priced energy supply combined with peak demand capacity charges from the PJM RTO.

- 3) Municipal aggregation programs, from which customers are free to opt-out are authorized by local referendum, with supply procured under negotiated or sealed bid transactions with ARES.
 - 4) Residential and small non-residential customers not served under the three options above are served by utilities with supply procured in blocks by the Illinois Power Agency, a state government body, under the supervision of the Illinois Commerce Commission. These auction-derived prices are largely fixed for a year forward, but do incorporate a monthly reconciliation mechanism to account for higher or lower than expected load.
- As shown in the attached illustration, the benefits of the competitive market have been appropriately shared. One reasonable measurement of performance is the change in Illinois' average price position relative to the national average all-sector price, before and after 1999. In the years prior to competitive restructuring, average all-sector prices generally were 10% above the national average and about 10% lower since. The cumulative improvement in price position by year-end 2017 totaled more than \$50 Billion, with more than \$24 Billion allocated to residential customer, a larger share than the residential share of load.
 - Illinois' price path performance is not unique. Attached is an illustration showing the percentage price paths of 6 states in the Great Lakes region that share many basic characteristics. Three are choice states: Illinois, Ohio and Pennsylvania. Three operate under traditional monopoly: Indiana, Michigan (with only 10% of load permitted direct access) and Wisconsin. The three choice states have had considerably more customer-friendly price paths than have the three monopoly style states.
 - Illinois has aggressive renewables and zero-carbon emissions programs that are integrated with supply competition and customer choice. These programs have either been updated or created by Illinois' 2016 Future Energy Jobs Act (FEJA). Illinois currently produces more non-carbon kilowatt hours than any other state, due in great part to the size and high-performance of its nuclear fleet which is under competitive, non-utility

ownership. FEJA has also charted a course for greater renewable development, including community solar. As noted in the Draft Green Book, the Illinois Power Agency has been charged with major procurement responsibilities for renewable portfolio procurement.

A Better Path for California

There are some basic principles for progress that deserve recognition in order to effectively address current conditions in California. These conditions include

- the strength of the Community Choice Aggregation movement;
- the satisfaction of Commercial and Industrial customers fortunate enough to have been able to take service through direct access; and
- the problems evident in continued expansion of utility renewable procurement.

The overall success of customer choice in other states and in other developed economies can serve as encouragement and sources of confidence.

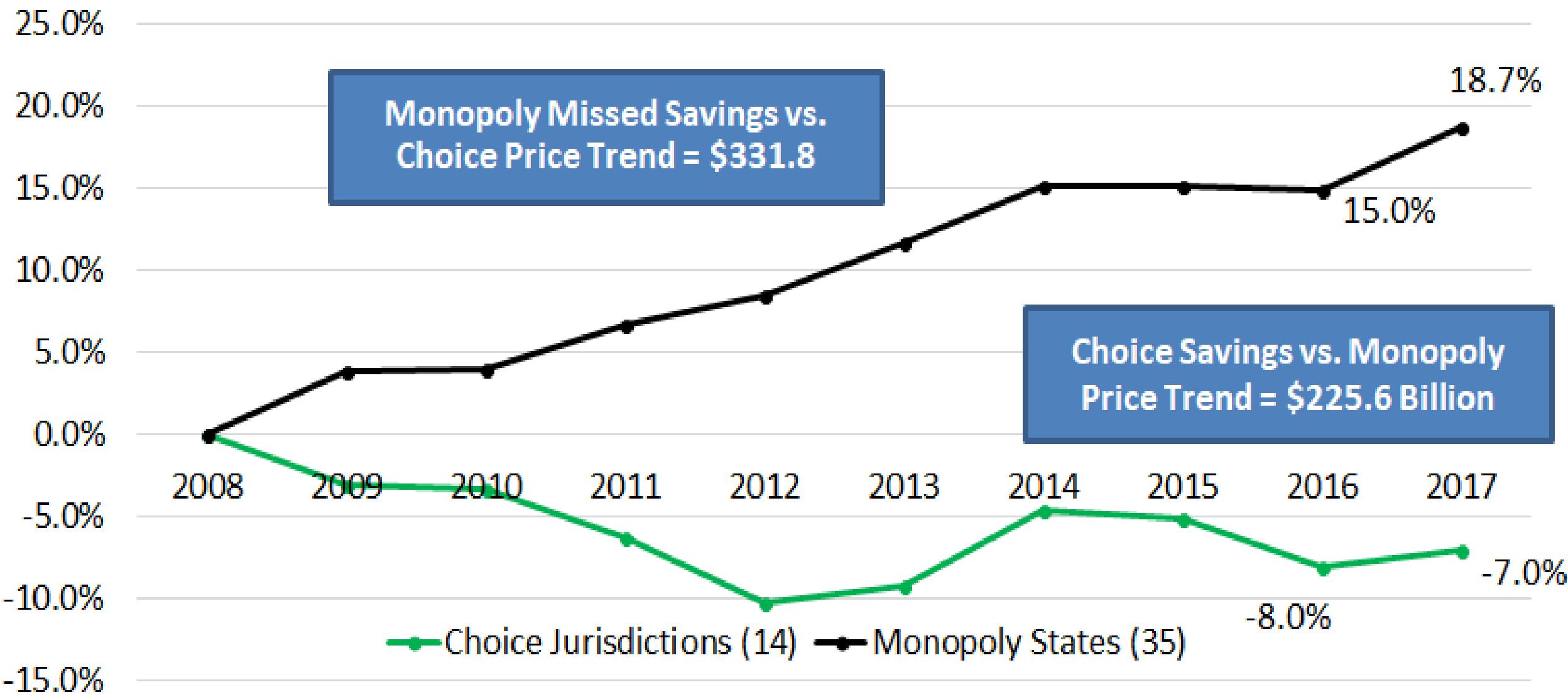
- 1) Extend direct access for all non-residential customers as soon as possible. There is no need for a lengthy transition period.
- 2) Facilitate market rules that support both CCA and direct access.
- 3) Promptly relieve utilities of the financial and political risk of ongoing long-term supply procurement duties. Substantial “stranded costs” have already likely been accrued.
- 4) Place greater reliance on flexibility in procuring renewables such that customers have the benefit of the prices and optionality under shorter rather than longer term procurement commitments, especially in light of changing technologies and declining costs.
- 5) Open discussion on a fair transitional solution to what likely are significant accumulated supply related “stranded costs” by utilities.
- 6) Anticipate the need to gradually accommodate increasingly sophisticated mechanisms for facilitating millions of daily small distributed energy resource transactions.

THE GREAT DIVERGENCE

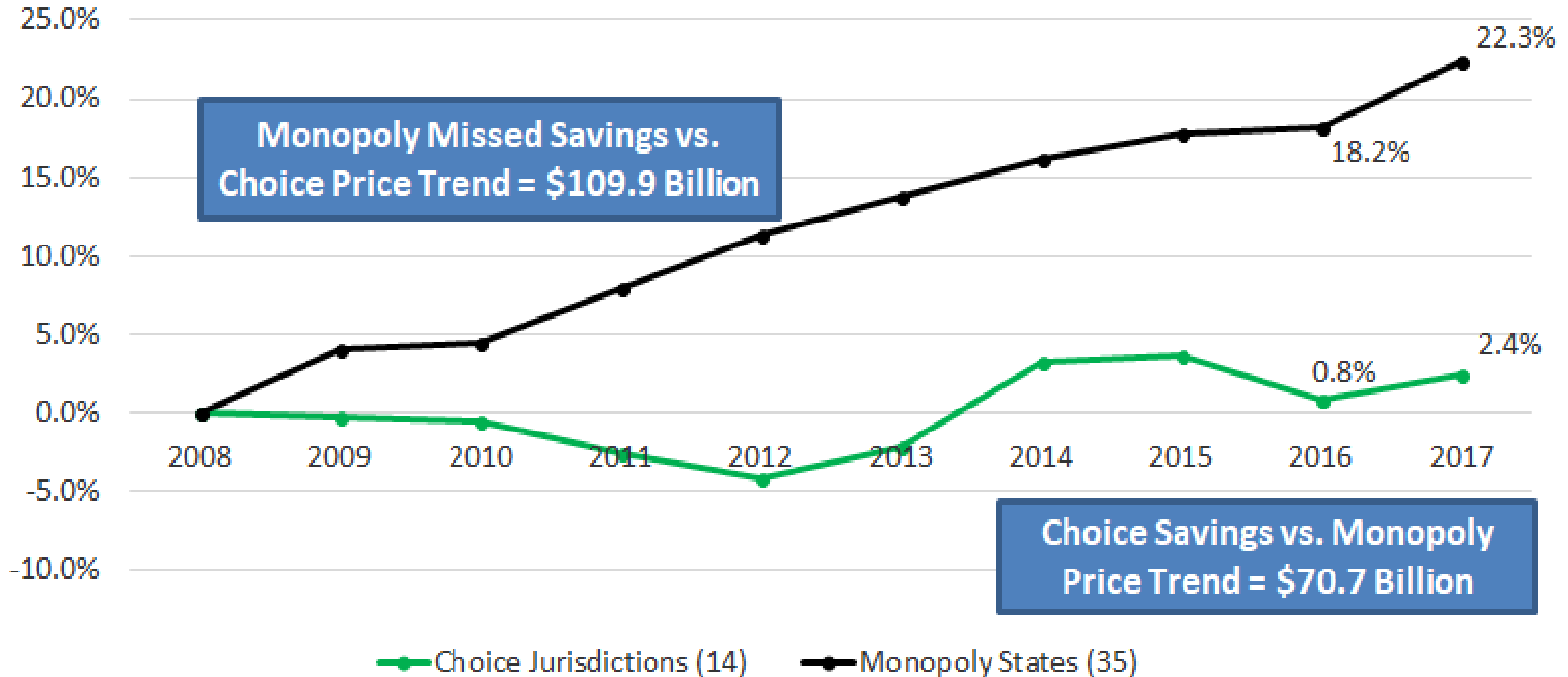
THE GROUP OF 35 TRADITIONAL MONOPOLY STATES (INCLUDING SEVEN HYBRID STATES WITH HIGHLY RESTRICTED DIRECT ACCESS) AND THE GROUP OF 14 RETAIL CUSTOMER CHOICE JURISDICTIONS HAVE TAKEN DRAMATICALLY DIVERGENT PERCENTAGE WEIGHTED AVERAGE PRICE CHANGE PATHS 2008-2017, AN UNPRECEDENTED PERIOD OF FLAT NATIONAL ELECTRICITY LOAD. A RANKING OF THE 48 STATE AND DC IN THE CONTIGUOUS U.S. BY PERCENTAGE PRICE CHANGE SHOWS THE 14 CHOICE JURISDICTIONS CLUSTERED IN THE LOWER PART OF THE DISTRIBUTION 2008-2017.

Submitted to the California Public Utilities Commission by
Philip R. O'Connor – President, PROactive Strategies, Inc.
Exhibit in Support of Draft Green Book Comments – 11 June 2018

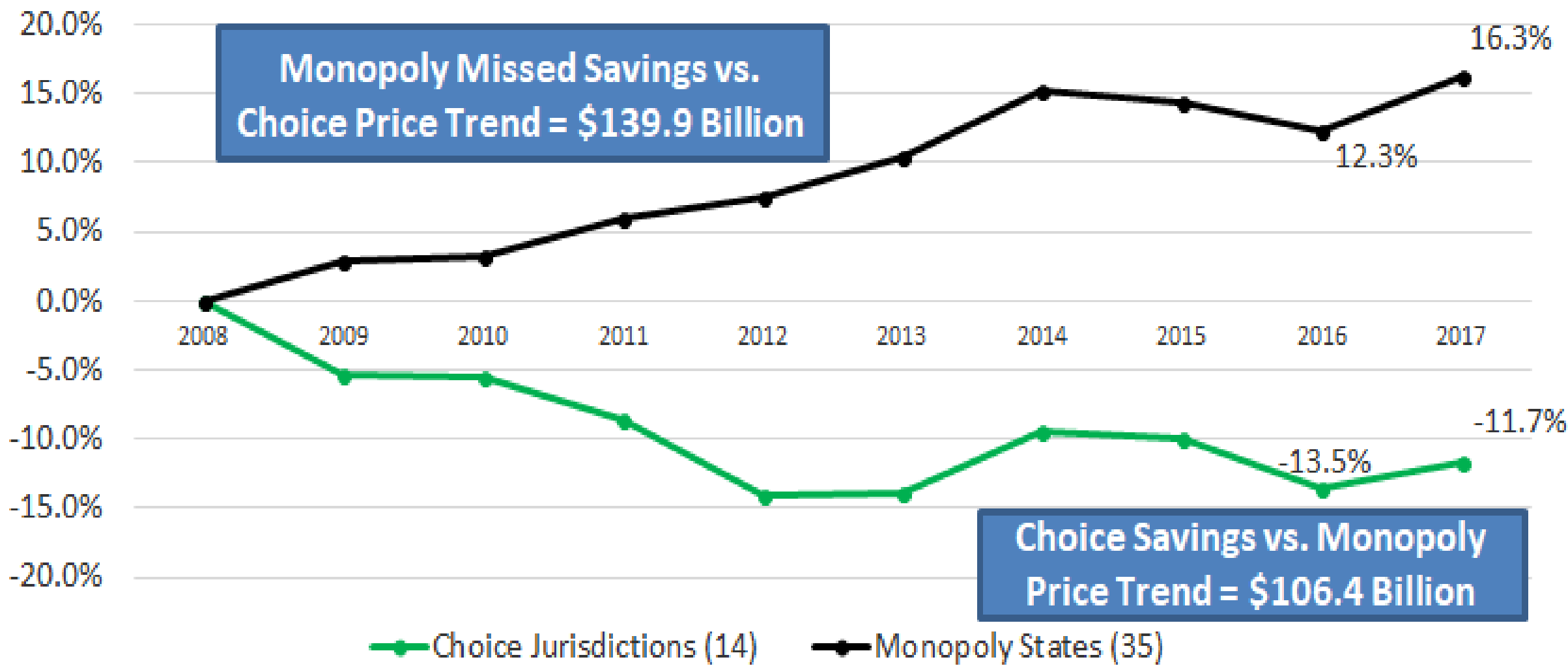
2008-2017 SIMULATION OF IMPACTS OF RELATIVE MONOPOLY & CHOICE STATE WEIGHTED AVERAGE PRICE % CHANGE PATHS -
 IF 35 MONOPOLY STATES HAD THE SAME PRICE PATH AS 14 CHOICE STATES, ALL CONSUMERS WOULD HAVE PAID \$332 BILLION LESS
 – WHEREAS IF CHOICE STATES TOOK SAME PATH AS MONOPOLY, ALL CONSUMERS WOULD HAVE PAID \$226 BILLION MORE



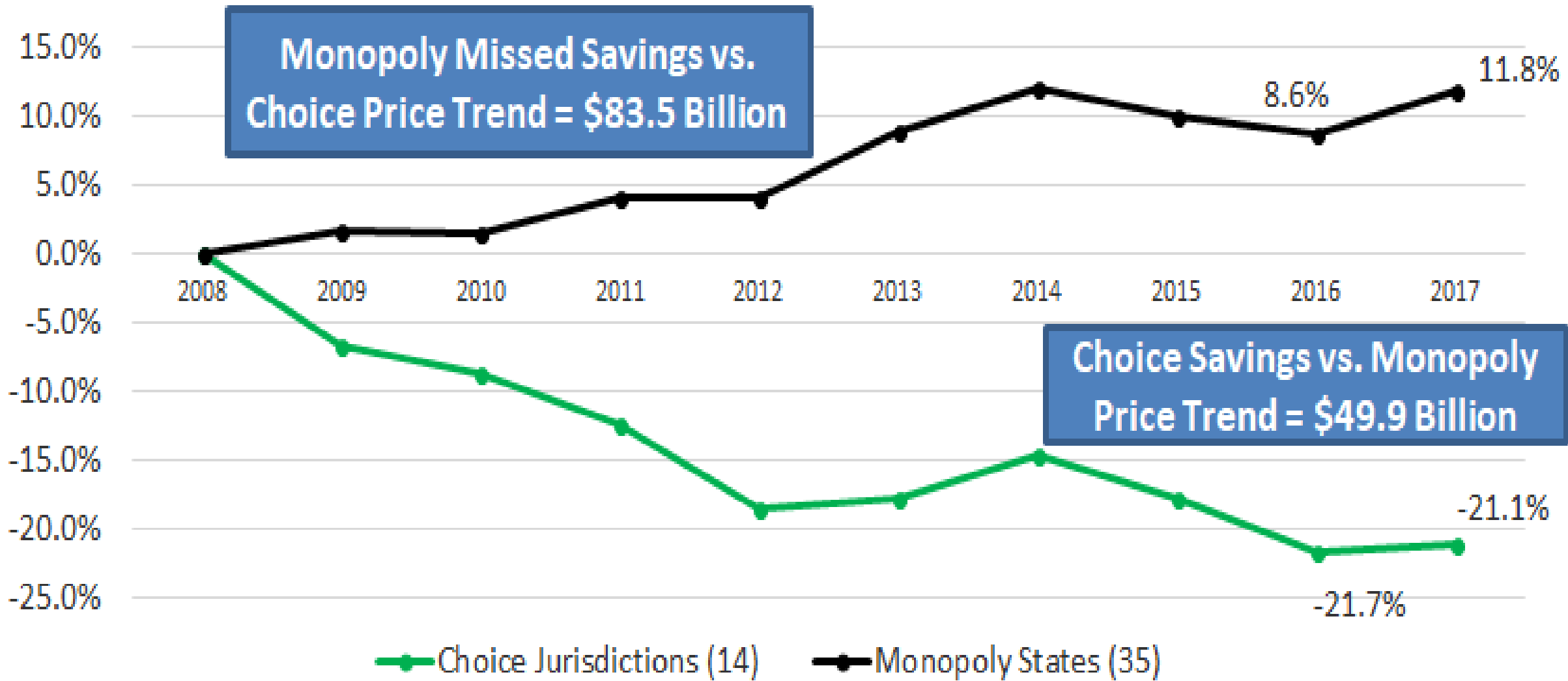
2008-2017 SIMULATION OF IMPACTS OF RELATIVE MONOPOLY & CHOICE STATE WEIGHTED AVERAGE PRICE % CHANGE PATHS - IF 35 MONOPOLY STATES TOOK SAME PRICE PATH AS 14 CHOICE STATES, RESIDENTIAL CONSUMERS WOULD HAVE PAID \$110 BILLION LESS – WHEREAS IF CHOICE STATES TOOK SAME PATH AS MONOPOLY, RESIDENTIALS WOULD HAVE PAID \$71 BILLION MORE



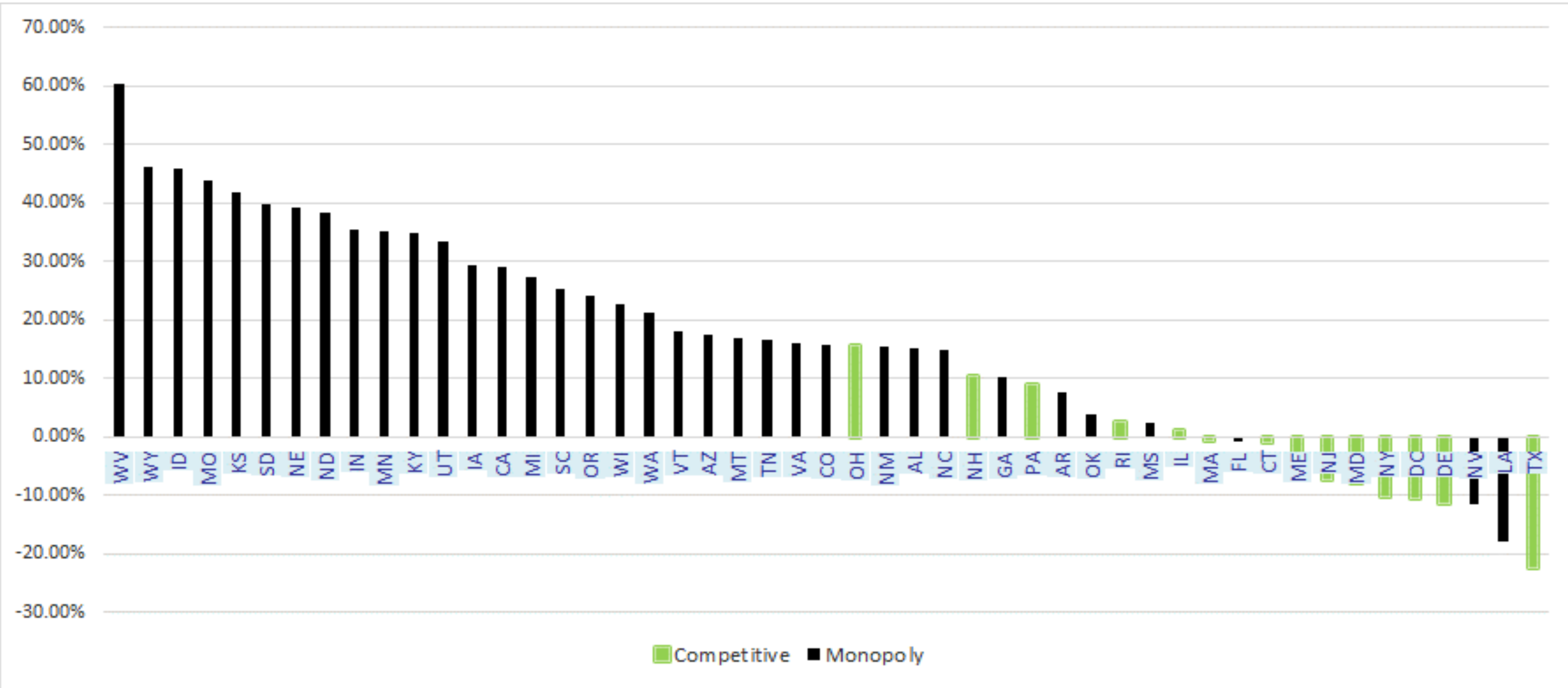
2008-2017 SIMULATION OF IMPACTS OF RELATIVE MONOPOLY & CHOICE STATE WEIGHTED AVERAGE PRICE % CHANGE PATHS - IF 35 MONOPOLY STATES TOOK SAME PRICE PATH AS 14 CHOICE STATES, COMMERCIAL CONSUMERS WOULD HAVE PAID \$140 BILLION LESS – WHEREAS IF CHOICE STATES TOOK MONOPOLY PATH, COMMERCIALS WOULD HAVE PAID \$106 BILLION MORE



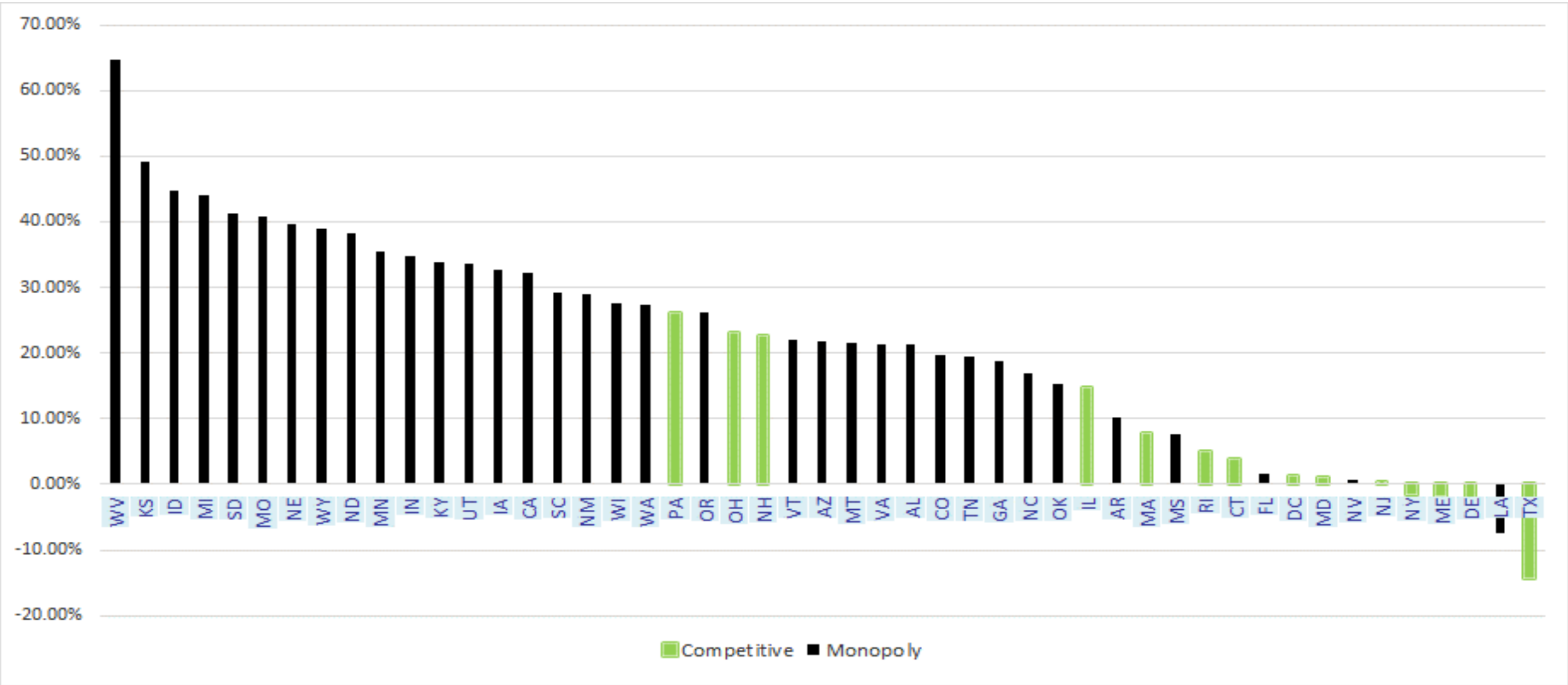
2008-2017 SIMULATION OF IMPACTS OF RELATIVE MONOPOLY & CHOICE STATE WEIGHTED AVERAGE PRICE % CHANGE PATHS
 IF 35 MONOPOLY STATES TOOK SAME PRICE PATH AS 14 CHOICE STATES, INDUSTRIAL CONSUMERS WOULD HAVE PAID \$84 BILLION LESS – WHEREAS IF CHOICE STATES TOOK SAME PATH AS MONOPOLY, INDUSTRIALS WOULD HAVE PAID \$50 BILLION MORE



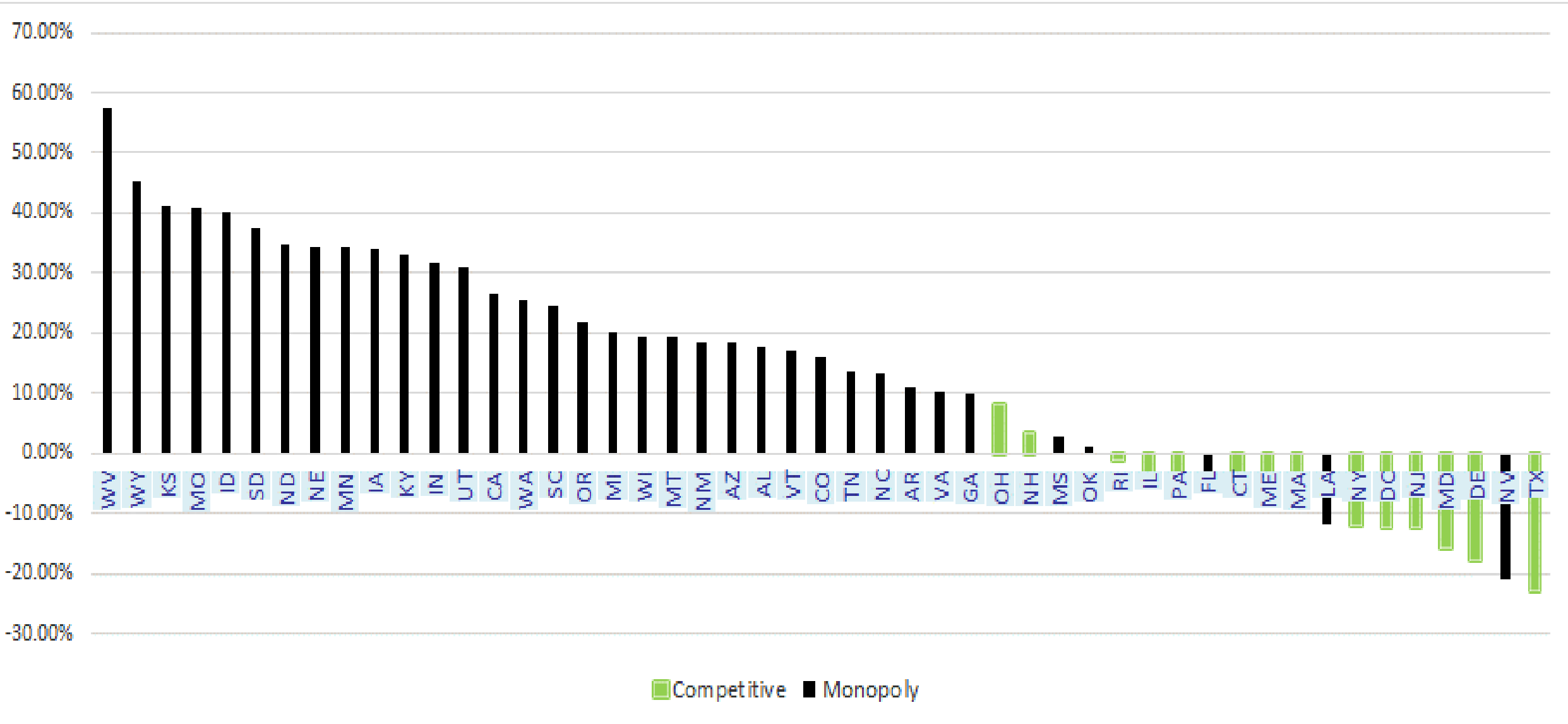
2008-17 RANKING OF 35 MONOPOLY STATES AND 14 CHOICE JURISDICTIONS BY % CHANGE IN ALL-SECTOR WEIGHTED AVERAGE PRICE - ALL 14 CHOICE STATES ARE IN THE LOWER HALF OF THE RANGE AND OCCUPY 9 OF 12 NEGATIVE % PRICE CHANGE SPOTS



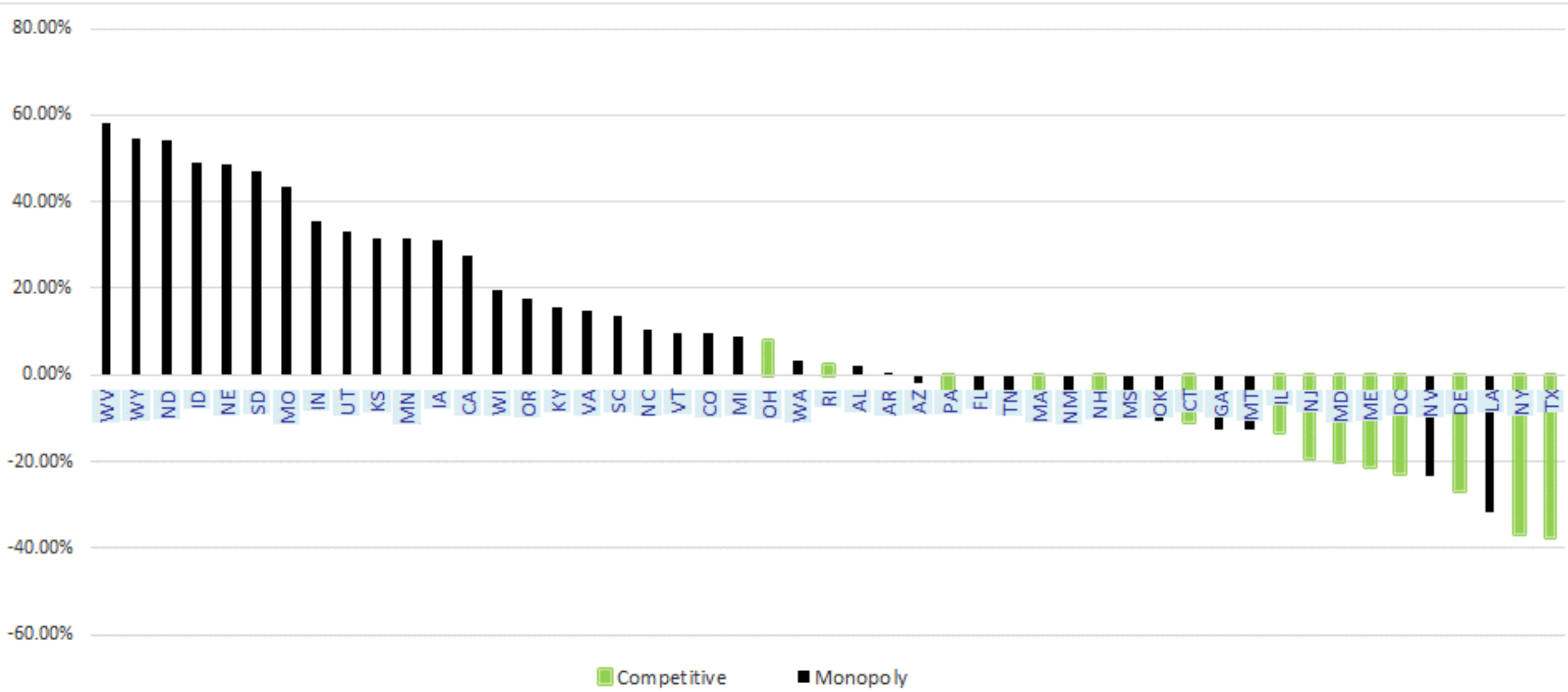
2008-17 RANKING OF 35 MONOPOLY STATES AND 14 CHOICE JURISDICTIONS BY % CHANGE IN RESIDENTIAL WEIGHTED AVERAGE PRICE - 11 OF 14 CHOICE STATES ARE IN THE LOWER HALF OF THE RANGE AND OCCUPY 4 OF 5 NEGATIVE % PRICE CHANGE SPOTS



2008-17 RANKING OF 35 MONOPOLY STATES AND 14 CHOICE JURISDICTIONS BY % CHANGE IN COMMERCIAL WEIGHTED AVERAGE PRICE - ALL 14 CHOICE STATES ARE IN THE LOWER HALF OF THE RANGE AND OCCUPY 12 OF 15 NEGATIVE % PRICE CHANGE SPOTS



2008-17 RANKING OF 35 MONOPOLY STATES AND 14 CHOICE JURISDICTIONS BY % CHANGE IN INDUSTRIAL WEIGHTED AVERAGE PRICE - 13 OF 14 CHOICE STATES ARE IN THE LOWER HALF OF THE RANGE AND OCCUPY 12 OF 22 NEGATIVE % PRICE CHANGE SPOTS



COMPARATIVE PRICE TREND PERFORMANCE OF THREE RETAIL CHOICE & THREE TRADITIONAL MONOPOLY STATES IN THE GREAT LAKES REGION

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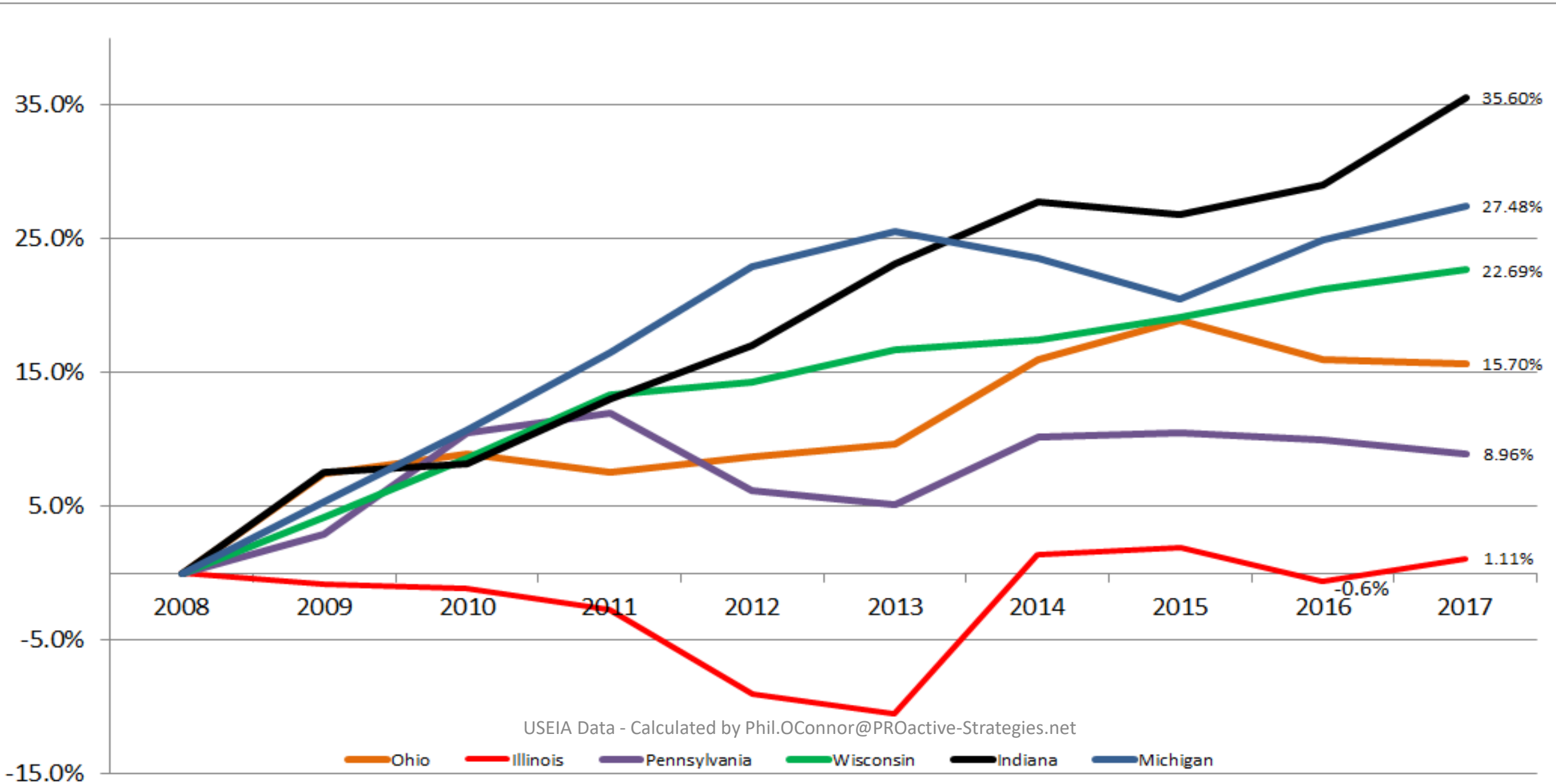
RETAIL CUSTOMER CHOICE STATES

- **ILLINOIS**
- **OHIO**
- **PENNSYLVANIA**

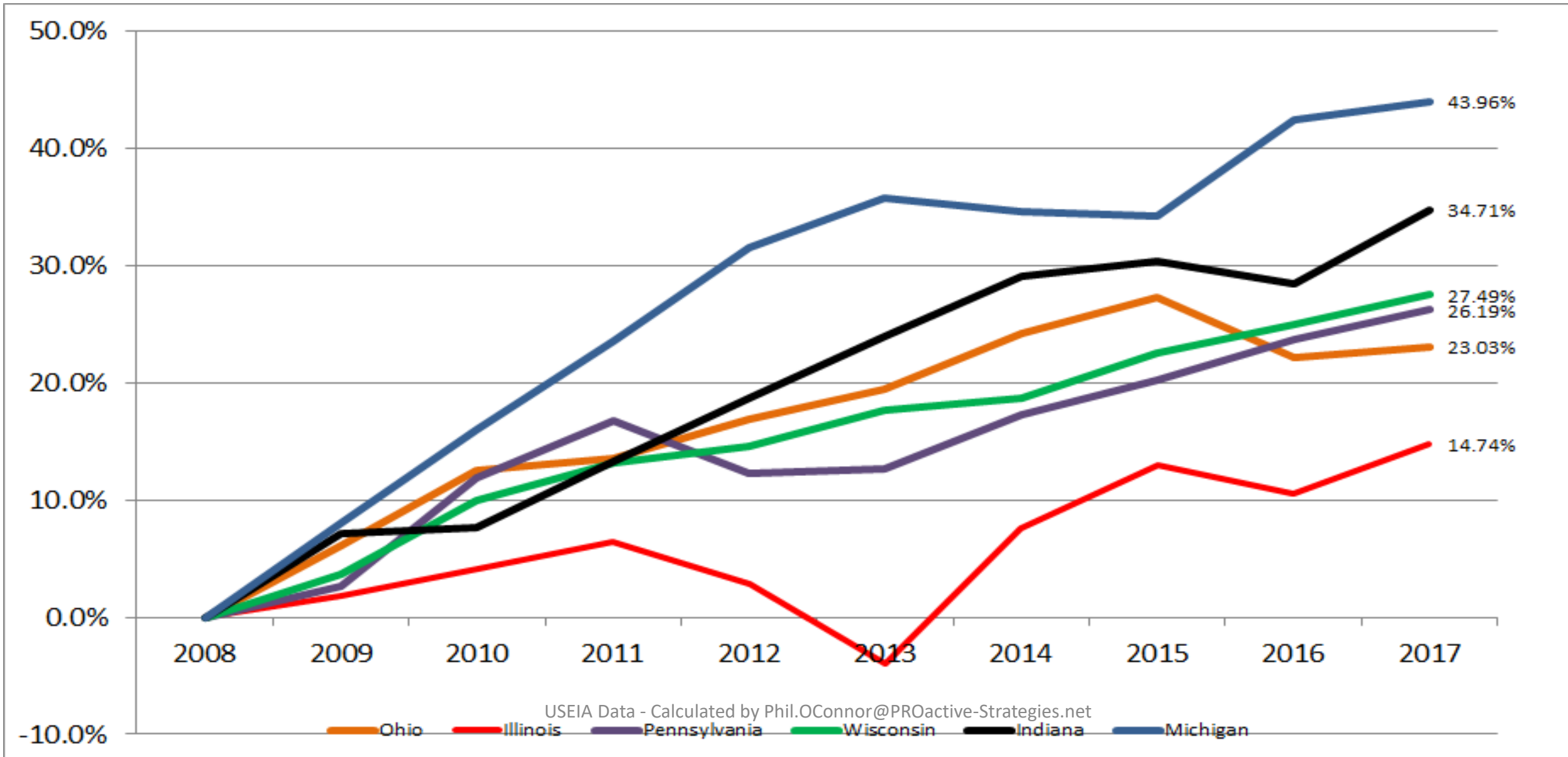
TRADITIONAL MONOPOLY STATES

- **INDIANA**
- **MICHIGAN (10% CHOICE)**
- **WISCONSIN**

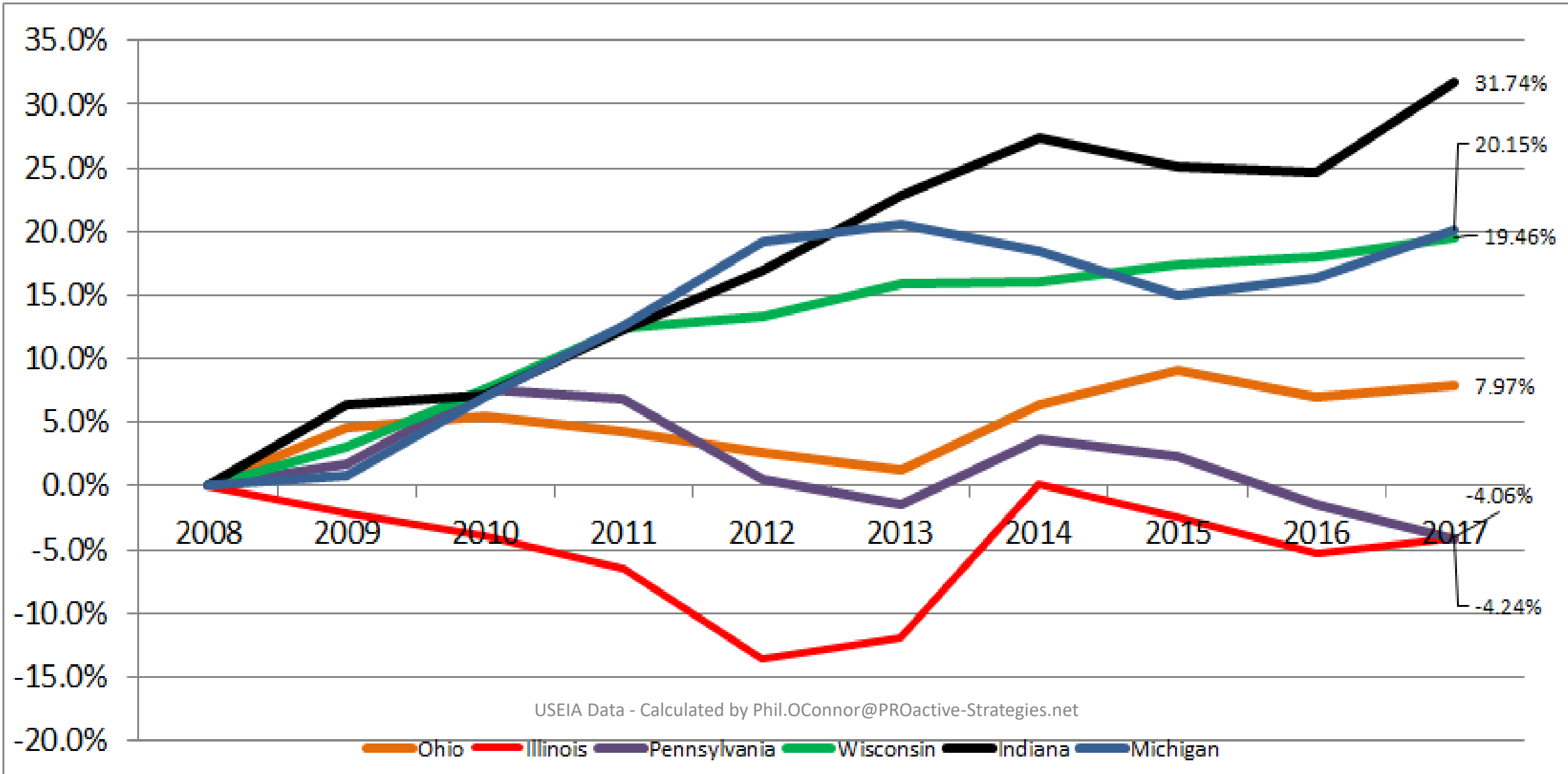
GREAT LAKES ALL-SECTOR % PRICE CHANGE 2008-17



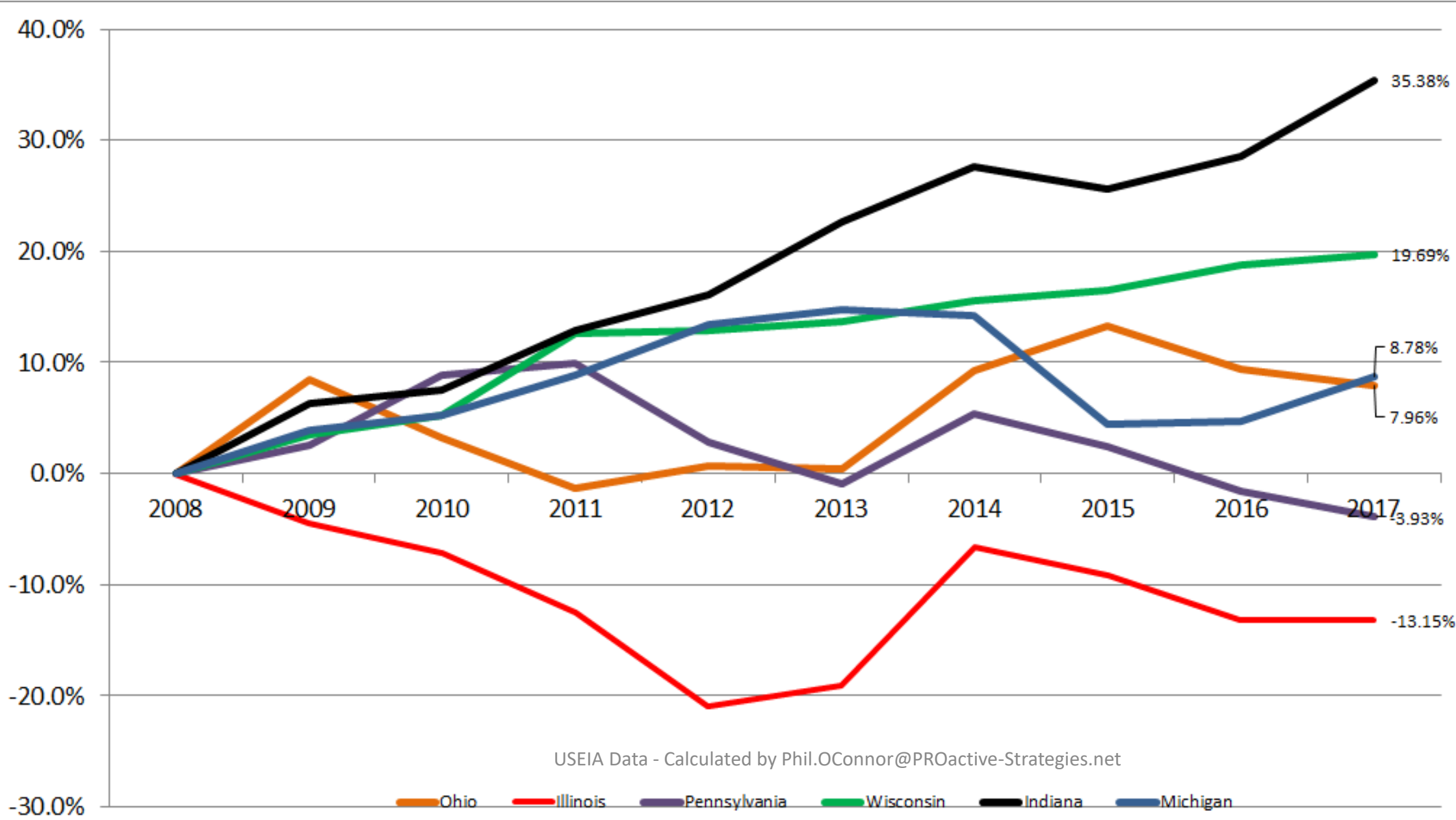
GREAT LAKES RESIDENTIAL % PRICE CHANGE 2008-17



GREAT LAKES COMMERCIAL % PRICE CHANGE 2008-17



GREAT LAKES INDUSTRIAL % PRICE CHANGE 2008-17



USEIA Data - Calculated by Phil.OConnor@PROactive-Strategies.net

Ohio Illinois Pennsylvania Wisconsin Indiana Michigan