



U.S., et al. v. Anthem, Inc. and Cigna Corp.

Rebuttal Testimony of David Dranove, Ph.D.

**PLAINTIFFS'
EXHIBIT**

U.S. v. Anthem et al., Civ. No. 16-cv-1493

PDX018

Response to Dr. Israel's Regression Regarding Supply of Health Care Services

- Dr. Israel uses regression models to test whether insurer concentration or the presence of a very large insurer (with 50+% share) affect provider supply (hospital beds, number of doctors, number of nurses)
- Dr. Israel claims there would be no reduction in supply as a result of increased concentration
- Dr. Israel's analysis is not grounded in institutional knowledge and is sensitive to modeling choices
 - **Hospital Beds:** Not expected to respond quickly to changes in market prices. Determined by capital investments years in advance and often cannot be increased without a certificate of need.
 - **Advanced Practice Nurses:** Lower prices can lead to replacing physician care with less costly nursing care
 - **Physicians:** Supply more correctly measured as physicians per capita
 - **Modeling:** HHI and insurer with 50+% share are highly collinear. Leaving either variable by itself leads to the expected result - lower physician supply when concentration is higher

Responses to Dr. Israel's ASO Bid

Regression Analyses

- Dr. Israel uses a regression model to test whether Cigna's bids are affected by Anthem's presence
- Dr. Israel claims there is no statistically significant relationship between Anthem's presence and Cigna's bid; and concludes that Anthem and Cigna are not particularly close competitors
- Measurement error in the key explanatory variable (Anthem's Presence)
 - Including *all* accounts with at least 5,000 projected lives (1) improves the explanatory power of the model, and (2) indicates a statistically significant relationship between Anthem's presence and Cigna's bid

Responses to Dr. Israel's ASO Bid

Regression Analyses

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- Measurement error in the key explanatory variable (Cigna's Presence)
- Dr. Israel's model also does not capture Anthem's full competitive response: Anthem may improve its offer without changing its ASO fee bid through, e.g., shared savings and/or performance guarantees

Responses to Dr. Israel's ASO Bid

Regression Analyses

- Dr. Israel uses a regression model to test whether Anthem's bids are affected by Cigna's *competitive strength*
- Dr. Israel claims Cigna's competitive strength (as measured by its discount relative to Anthem's) has no statistically significant effect on Anthem's bid
- Measurement error in the key explanatory variable (Cigna's relative discount) and noise in the dependent variable (ASO fee bid)
 - Regressing the component of Anthem's proposed ASO fee that is associated with medical administration on the estimated discount differential results in a statistically significant relationship