Felix and I negate.

Contention One is Catalyzing Innovation

<u>Adams of Biotech</u> writes that of 17% of pharmaceutical companies' budgets go towards Research and Development, and the percentage is only increasing.

Pursuing such innovation is expensive and risky. <u>Feyman of the Manhattan Institute</u> writes that the average cost of developing a drug is \$2.6 billion, and <u>Petkantchin of MEI</u> furthers that for every ten thousand molecules tested, only one will ever go on sale. Thus, it is imperative that pharma companies have adequate capital and incentives to innovate.

The imposition of price controls, however, inhibits such innovation in two ways.

First, by decreasing revenues

Because they decrease the profits that can be made on drug sales, <u>Sood of Health Affairs</u> writes that price controls would decrease the revenues of pharma companies by 20%. To make matters worse, <u>Kessler of Stanford</u> writes that lower revenues decrease investment in pharmaceutical companies, further depleting their capital reserves. Indeed, he furthers that after President Clinton's proposed 1992 healthcare legislation so much as implicitly endorsed price controls, the stocks of pharmaceutical companies dropped by 52%.

Charging higher prices in the US is necessary for pharmaceutical companies to have the capital to invest in R&D. <u>Walker of WSJ</u> writes that 80% of the growth in profits for US pharma companies stems from price increases, and <u>Goldman of Brookings</u> furthers that 78% of global pharma profits can be attributed to the ability to charge higher prices in America.

Thus, Schwartz of Health Economics finds that a 1% decrease in pharmaceutical revenues leads to a 3.5% decrease in new drug releases.

Second, by making R&D investment less profitable

<u>Vernon of Cato</u> writes that by decreasing the profit to be made from developing new drugs, price controls reduce the expected return on investment in R&D.

That's important because <u>Scherer of Health Affairs</u> writes that as is, the rates of return of investment in R&D are only modestly better than risk-adjusted capital costs.

Thus, <u>Calfee of the NCBI</u> writes that price controls would decrease returns from R&D investment to the point where it would no longer generate enough profit to warrant investment, and the percent of pharma companies' budgets allocated towards R&D will fall sharply as it has in other developed countries with price controls.

That's why <u>Howard of the Manhattan Institute</u> explains that in the past, just the threat of price controls decreased American companies' R&D spending by \$1.6 billion.

Even if larger companies could brave the storm, <u>Drug Cost Facts</u> writes that small companies account for 70% of the pharmaceutical industry's future clinical pipeline. That's bad because <u>Dean of Emory</u> writes that small companies lack the capital reserves and steady base of investment necessary to keep spending on R&D after price controls, and furthers that the effects of price controls in India were worst for them.

For these reasons, <u>Vernon of Cato</u> writes that a price controls would lead to a 48% decrease in R&D investment. <u>Giaccotto of UConn</u> furthers that this would lead to a third fewer drugs being developed worldwide.

Unfortunately, under price controls, the innovation that would go away is most useful innovation to society for two reasons:

First, Abbott of the NBER writes that lower profits make pharmaceutical executives less likely to make risky, breakthrough products the one out of five on which they decide to continue development after showing promise in clinical trials. Thus, Abbott furthers that with price controls investment would almost exclusively go to safer "me too" drugs only marginally improving upon existing compounds because they are more sure to generate a positive return on investment. Indeed, Krieger of Kellogg corroborates that only with a sufficient level of surplus profits are pharmaceutical companies willing to finance potential blockbuster drugs, quantifying that for every standard deviation more novel a drug is, its chances of being approved by the FDA decrease by 29%.

Second, <u>Kessler of Stanford</u> writes that most forms of price controls decrease the prices of products with the highest prices and volumes by the greatest percent, uniquely disincentivizing investment into the most innovative products.

Thus, Danzon '97 confirms that the most innovative and socially useful drugs are those that stop being developed because of price controls

The Impact is Saving Lives Around the World

Because <u>Case Western Reserve</u> writes that each new drug brought to market saves 11 thousand years of life, <u>Kessler of Stanford</u> writes that increasing the number of new drugs will save 2 million lives every year.

And because <u>Boustany of Forbes</u> writes that the US funds half of the world's pharmaceutical R&D, these innovations save lives all over the world. As a result, <u>Gordon of UO</u> finds that medical innovations have the potential to save billions of lives over the next century.

Thus, Felix and I negate.