There's an interesting discussion about a whole lot of things — for example, the sincerity of climate scientists and think tanks, the behavior of scientists, the relative funding of "skeptics" and climate scientists and others who believe climate change is happening and is caused by human activity — between my colleague Ann Carlson and Professor Jonathan Adler in the comments on Ann's recent post Peter Gleick and the Heartland <u>Institute Expose</u>. I have some thoughts, inspired by Jonathan Adler's comments and the recent controversial op-ed in the Wall Street Journal authored by 16 scientists who oppose policies that would address climate change through lowering greenhouse gas emissions, which mischaracterized the scholarly economic analysis it relied upon for a crucial piece of its argument.

First, Jonathan says that climate "skeptics" — both ideologically-based think tanks and scientists — have a genuine belief that climate change isn't happening, or isn't caused by humans. In Jonathan's words, "they may be wrong, but they're not dishonest."

I have no idea what anyone's inner motivations are. And I'm sure that in some cases, this statement is true. But Jonathan also says that "There are many people who are more afraid of climate change policy than they are of climate change." This is telling, in that it is rather clear that this (probably quite genuine) fear of certain policy outcomes is not only precisely what motivates various interest groups to support attacks (based on "skeptic" theories that appear to inappropriately emphasize what most scientists believe are trivial points), but also what likely motivates some of the "skeptical" scientists themselves. For example, the scientist-authored Wall Street Journal op-ed "No Need to Panic About Global Warming" is a recent, high-profile example that is rather transparent in its motivation. Here's an excerpt:

Alarmism over climate is of great benefit to many, providing government funding for academic research and a reason for government bureaucracies to grow. Alarmism ... offers an excuse for governments to raise taxes, taxpaver-funded subsidies for businesses that understand how to work the political system, and a lure for big donations to charitable foundations promising to save the planet. \*\*\*

Speaking for many scientists and engineers who have looked carefully and independently at the science of climate, we have a message to any candidate for public office: There is no compelling scientific argument for drastic action to "decarbonize" the world's economy. Even if one accepts the inflated climate forecasts of the IPCC, aggressive greenhouse-gas control policies are not justified economically.

Putting aside the authors' stated cynicism about the motives of everyone who believes that climate change is a serious problem, what I see underlying these scientists' arguments, as well as those of many rather sophisticated people on that side of the "debate," is this chain of thought: Regulation, and state-imposed limits on market actors' choices, are bad, or at least presumptively bad; fear of climate change may be precipitating a dramatic expansion of the regulatory state, and/or imposition of limits on market actors' choices; therefore, we must cast doubt on the premise that climate change is a serious problem, to avoid this outcome.

By contrast, most of the sophisticated people I know who believe that global warming is very likely real and anthropogenic have arrived at diverse policy prescriptions informed by their view of the science, rather than because of ideology. This includes people with views as diverse as Jonathan Adler's (he's a libertarian) and mine about the proper role of regulation in society. It also includes many scientists; market economists such as William Nordhaus and many others; environmentalists; and many everyday people, including progressives as well as some Christian social conservatives. Diverse strategies have been proposed (though, as with any major policy initiative, there is a lot of pressure to coalesce around a strategy that might be politically workable). Some major environmental advocacy organizations have shifted their resources in deep ways, and have even advocated solutions that are in significant tension with other values held by their members, and in tension with strategies they had advocated in the past, in order to address what they see as a serious problem. While I know that some libertarians and conservatives believe that progressives and environmentalists sit around dreaming up ways to justify more state intervention into the economy, I have never, ever seen even a hint of this.

Moreover, regardless of their sincerity, the "skeptics" aren't just wrong, but in most cases are aggressively wrong, promoting theories that just don't stand up, and attempting to magnify the appearance of uncertainty. (The RealClimate website, run by climate scientists, has many resources explaining what most scientists believe, and why, in detail.) Again, the "Wall Street Journal 16" provide a case in point. Nordhaus, no ideological environmentalist or promoter of socialism, explains the deep mischaracterization by the "skeptical scientists" of Nordhaus's own work that provides the underpinning of their argument in their op-ed:

The skeptics' summary is based on poor analysis and on an incorrect reading of the results.

The first problem is an elementary mistake in economic analysis. The authors cite the "benefit-to-cost ratio" to support their argument. Elementary cost-benefit and business economics teach that this is an incorrect criterion for selecting investments or policies. The appropriate criterion for decisions in this context is net benefits (that is, the difference between, and not the ratio of, benefits and costs).

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This leads to the second point, which is that the authors summarize my results incorrectly. My research shows that there are indeed substantial net benefits from acting now rather than waiting fifty years. A look at Table 5-1 in my study AQuestion of Balance (2008) shows that the cost of waiting fifty years to begin reducing co2 emissions is \$2.3 trillion in 2005 prices. If we bring that number to today's economy and prices, the loss from waiting is \$4.1 trillion. Wars have been started over smaller sums.

My study is just one of many economic studies showing that economic efficiency would point to the need to reduce co2 and other greenhouse gas emissions right now, and not to wait for a half-century. Waiting is not only economically costly, but will also make the transition much more costly when it eventually takes place. Current economic studies also suggest that the most efficient policy is to raise the cost of co2 emissions substantially, either through cap-and-trade or carbon taxes, to provide appropriate incentives for businesses and households to move to low-carbon activities.

Jonathan also argues that interest groups promoting the generally-accepted view of climate science are far better funded than those trying to discredit that view. While I don't have data at hand on this, Naomi Oreskes' recent book Merchants of Doubt makes a rather persuasive case that there is significant corporate funding behind the "skeptical" view. And William Nordhaus's reply to the WSI 16 op-ed explains similarly that

The big money in climate change involves firms, industries, and individuals who worry that their economic interests will be harmed by policies to slow climate change. The attacks on the science of global warming are reminiscent of the welldocumented resistance by cigarette companies to scientific findings on the dangers of smoking.

Jonathan argues as well that scientists on both sides have behaved badly, including

"blackballing" of scientists from peer-reviewed journals.

Nordhaus responds to a similar argument, also made (in a stronger form, comparing the treatment of "skeptical" scientists to the treatment of some scientists in the Stalin-era Soviet Union) by the WSJ 16:

The idea that skeptical climate scientists are being treated like Soviet geneticists in the Stalinist period has no basis in fact. There are no political or scientific dictators in the US. No climate scientist has been expelled from the US National Academy of Sciences. No skeptics have been arrested or banished to gulags or the modern equivalents of Siberia. Indeed, the dissenting authors are at the world's greatest universities, including Princeton, MIT, Rockefeller, the University of Cambridge, and the University of Paris.

I can speak personally for the lively debate about climate change policy. There are controversies about many details of climate science and economics. While some claim that skeptics cannot get their papers published, working papers and the Internet are open to all. I believe the opposite of what the sixteen claim to be true: dissident voices and new theories are encouraged because they are critical to sharpening our analysis.

Finally, Jonathan says that "The broader point is that so long as you believe that those who disagree with you are necessarily dishonest or evil, you won't convince them — and you won't convince those who find them to be credible." I agree with this statement (though I see far more of that framing, at least in the blogosphere, on "skeptic" sites). But I wonder whether we should be spending any time or resources at all to try to "convince" people who already have their minds made up to the contrary on this issue. I think we need to be more convincing to those who don't already have their minds made up.

I recall speaking on a Federalist Society panel several years ago, along with Jonathan Adler and Jason Johnston (a committed and believer that climate change isn't a problem). Jason started his presentation (right after mine, I think) with a simple – yet dramatic – statement: "This is madness!" And he went on from there, attacking the premise that climate change is occurring or being caused by human activity. I simply had no idea how to respond to that type of rhetoric, spoken to a crowd that had a strong ideological bias in favor of his position (also, this was on a panel that was ostensibly about regulatory efforts to address climate change, not about the state of the science). And it was 100% clear to me by the end of that

session, based on the audience response, that there was no value to trying to "convince" that audience of anything. They had their minds made up.

Nordhaus concludes by speaking directly to those whose political or economic ideology might incline them against believing climate change is real and human-caused:

The group of sixteen scientists argues that we should avoid alarm about climate change. I am equally concerned by those who allege that we will incur economic catastrophes if we take steps to slow climate change. The claim that cap-andtrade legislation or carbon taxes would be ruinous or disastrous to our societies does not stand up to serious economic analysis. We need to approach the issues with a cool head and a warm heart. And with respect for sound logic and good science.

So I ask libertarians and conservatives who believe that climate change is real and caused by humans: Do you really think your ideological brothers' and sisters' views on climate science are not based on their political or economic ideology? Do you really believe they can be convinced that climate change is real and human-caused? And if so, how?

NOTE: I have shortened the title of this post from the original version.