Good afternoon and welcome to the University of Chicago.

I appreciate the opportunity to talk to you today. The Aims of Public Policy address is a uniquely Chicago kind of event. An expression of our deepest held values—no matter the setting, ideas are front and center.

I’ve chosen a topic—doing good vs. feeling good—with two goals in mind.

First, I’m hoping to set the intellectual agenda a bit, by explaining what I take to be the motivating thought animating most everything we do at Harris.

Second, as you start your time here, I want to open a frank discussion of an important tension underlying a professional education at a great research university like this one—namely, the tension between abstraction and practicality.

**The Perils of Passion**

Many of you come to us passionate about a problem in the world. Maybe you want to improve education for under-privileged kids, help cities use data better, make health care delivery more efficient, slow global warming, enable people in developing countries to start businesses, reduce government corruption, or create affordable housing.

Being passionate about a problem is important. It motivates. But being passionate about a *solution* can be dangerous.

Public policy deals with hard problems. Much of the time, obvious-seeming solutions are, in fact, not solutions at all. Indeed, often they are counter-productive.

Pursuing an obvious-seeming solution to a problem you are passionate about feels good. We are all familiar with the exhilarating feeling that you are making the world a better place. But, and here I’m going to talk straight to you, doing so without rigorous examination is self-indulgence. That feeling of righteousness is too easily achieved. And it’s for amateurs.

Actually doing good, when working on hard problems, is serious business for serious people. It requires maturity—you must be willing to throw away pat solutions that don’t
withstand scrutiny. And it requires rigor. Seemingly obvious solutions’ flaws are often subtle. Otherwise they wouldn't seem obvious. Spotting those flaws, and knowing how to find better approaches, requires skills that even very smart people, like yourselves, don't come by naturally. Our goal is to help you build those skills.

This is reflected perhaps most clearly in the core. In each core sequence, we push you hard to develop the skills to rigorously assess whether ideas that feel good will in fact do good. To show you what I mean, let me give you three examples, each highlighting a component of the core.

\textit{Causal Inference: Charter Schools}

Let’s start with a key theme of the statistics and econometrics core—figuring out whether some policy intervention caused some observed outcome. I'll illustrate the challenge with a classic example: charter schools.

For many school reformers, charter schools—schools funded from the public coffers, but run by private corporations—are the key policy lever for improving educational outcomes for under-privileged kids. They are supposed to do so by reducing institutional barriers to change, fostering competition, and encouraging innovation. But do they work?

Secretary of Education Arne Duncan, who has been a great advocate of charter schools, offers an optimistic take.

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He sounds passionate. And I’m certain it feels good to give a rousing speech about debunking “the insidious myth that poverty is somehow destiny”. But let’s notice a couple things that, right off the bat, should make us worried about whether he has any evidence that the policies he advocates are actually doing good.

First, look at the outcome on which he focuses. It isn't graduation rates, college attendance, post-school employment, or even test scores. It’s number of hours in school. Charter schools, he tells us, succeed in sending kids to more hours and days of school. Not really the end goal. Especially if all that extra schooling doesn’t result in better life outcomes.

Second, Secretary Duncan uses a bit of clever phraseology that should make your hair stand on end. Can you spot it?

[PAUSE]
He speaks of the accomplishments of “high performing charters.” Of course high performing charters have good outcomes. If they didn’t, we would call them low performing charters. But, if we want to know whether investing in charter schools is good policy, we don’t want to know if the most successful charter schools do well. After all, the most successful gamblers do well. But that doesn’t make trips to Vegas a good retirement plan. We want to know whether the average charter school (which is the one you should expect to build) improves outcomes for kids.

Answering that question is tricky. Let’s see why.

If you want to assess the efficacy of charter schools, you better start by comparing their performance to public schools’ performance. I’ll start with one prominent example.

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The Preuss School is a charter created by the University of California at San Diego to provide high-quality middle and high school education to low-income students. UCSD is very proud of its investment in Preuss and of the high-achieving kids it graduates.

To see why Preuss is regarded as the “#1 transformative high school in the nation”, let’s look at some comparisons of its performance relative to the San Diego public schools, which also serve low-income students.

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This looks like good news for Preuss. Preuss students way outperform San Diego public school students, despite coming from the same low-income background. Preuss appears to be doing a lot of good.

But is this interpretation of the data convincing?

One thing you might be concerned about is that there are other things that are different about the two student bodies that we are comparing. For instance, you might think that kids who seek out a university-run charter school are, on average, more academically gifted or ambitious than the typical student. You might also imagine that they come from families more invested in their educations. If either of those stories is correct, you would expect to see a difference in performance between the two student bodies, even if the schools themselves offer the same educational value added. So, while it feels good to laud the great outcomes of Preuss School students, this kind of evidence certainly doesn't confirm that the
Preuss School itself deserves the credit. From this comparison, we just can't know whether the Preuss School educates better, or just attracts better students.

So how might you figure out whether the Preuss School is adding value? As you'll discuss in great detail in econometrics, you need to find a way to compare apples to apples—that is, to compare students who attend different schools, but are otherwise similar.

Happily for us, the way students are assigned to charter schools creates just such an opportunity. When a charter school is oversubscribed, by law it must allocate spaces by lottery. This randomness means that applicants who were or were not admitted should not systematically differ in ability, ambition, family, or what have you. As such, comparing the performance of Preuss students to non-admitted Preuss applicants isolates Preuss’ value added, purged of any differences in the student bodies.

When you make that comparison, the data look much less encouraging for the Preuss School. In multiple subjects, over multiple years, there is no systematic evidence of academic value added. Preuss applicants all perform the same (much better than the typical San Diego public school student), whether or not they were admitted to Preuss. This suggests that the Preuss School does not, in fact, cause good outcomes. It simply attracts good students. This is important because it means that building a bunch of new Preuss schools should not necessarily be expected to improve educational outcomes.

Not surprisingly, given the stakes, these kinds of lottery studies have been done for charter schools all over the country.

Looking at estimates from all those studies, there are indeed what look like effective charter schools. But there are just as many, if not more, ineffective charter schools. On average, charter schools do not outperform public schools. So, while Secretary Duncan is certainly right that scores and outcomes improve at high performing charters, this does not imply that charter schools are obviously good policy. Especially since we have no way of identifying before hand whether a new charter is going to be one that raises performance, lowers performance, or has no effect at all.

Now let’s turn to our second core topic.
Theory of Incentives: College Affordability

People often think of economics as the study of markets, prices, supply and demand, etc. But at Chicago, we tend to think of it as the study of incentives. And it turns out that in many policy domains, if you don’t take incentives seriously, you make big mistakes. I want to illustrate this with an example that may be near and dear to those of you who are recent graduates—college affordability.

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To the dismay of many, the cost of college has risen quickly in recent decades. (Though so, too, have the returns to a college education).

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Policymakers across the political spectrum have embraced what seem like obvious ways to reduce the cost of college. Republican senator and presidential candidate, Rand Paul, proposes making college tuition tax deductible—a policy idea sufficiently attractive to the Left that there was an entire episode of the West Wing devoted to it. And the Democratic Party platform calls for an expansion of both tax deductibility and federally subsidized college loans.

It sure seems like subsidizing college, making tuition tax-deductible, or subsidizing loans should make college more affordable. And it definitely feels good to advocate such policies in front of college students and their families. But will it work? To answer that, we need to think about incentives.

Offering a college tax credit or subsidized loan is equivalent to lowering the price of college for students. If tuition stays fixed, this will obviously improve affordability. The problem is that colleges are free to increase tuition to whatever level the market will bear. And they have an incentive to do so.

Even at current prices, admission to research universities is highly competitive. If new subsidies or tax deductions reduce the effective price, demand will increase.

Two things can happen in a market when there is excess demand: increased supply or increased prices. (Of course, typically you’ll get some of each.)

To the extent that the market clears through increased supply, following the introduction of a new subsidy or tax credit, affordability improves and students benefit. In the jargon,
we say that the *incidence* of the subsidy falls primarily to the students. However, to the extent that the market clears through increased prices, affordability does not improve. And universities benefit. In this case, we say the *incidence* of the subsidy falls primarily to the universities.

Economic theory tells us that the incidence of a subsidy depends on the supply and demand elasticities—that is, how responsive supply and demand are to changes in prices.

The thing about research universities, unlike many other businesses (e.g., gas stations, grocery stores), is that it is very hard for supply to increase in the short- to medium-run. Research universities depend on enormous, expensive infrastructures (physics labs, libraries, dorms, faculties, and so on). They also depend on reputation. So an entrepreneur cannot easily increase supply by creating a new research university where there wasn’t one before. To be sure, existing universities might increase supply by admitting more students. But universities are only willing to do so to a limited extent because they care about selectivity, student to faculty ratios, and the like. The supply of higher education at research universities is fairly inelastic.

If the supply of research universities won’t expand to meet the excess demand created by a new subsidy or tax credit, only one other thing that can happen. Prices must go up. That is, universities will increase tuition or, equivalently, decrease internal financial aid, to suck up the new federal money. In this scenario, the federal subsidy doesn’t do much to make college more affordable. It just enriches universities.

Recent evidence demonstrates that research universities do in fact adapt to policy changes in just this way. The best study concerns the Pell Grant Program, which, in 2011, provided over nine million low-income college students with subsidies of $35 billion (Turner 2014). Research universities appear to reduce institutional financial aid by about 66 cents for every dollar a student receives in federal grants. So the federal subsidies help students a bit, but most of the money flows to the colleges.

Interestingly, the same is not true at community colleges and technical schools, where it is easier for supply to expand to meet excess demand. And, indeed, subsidies do appear to increase affordability for students at these schools.

This example, to me, makes a stark and important point. Policy solutions are difficult and subtle. It seems obvious that if you give people money to help pay for college, it should make college more affordable. But that really might not be the case. And good as it may feel to hand out that money, if your goal is to help students afford an education, you aren’t in fact doing a lot of good. Moreover, once you have this theoretical insight, it can get you
thinking more creatively and seriously about what kind of policies actually might improve college affordability.

For instance, suppose you instead use resources to keep tuition at state universities lower. This has two positive effects on college affordability. First, there is the direct effect that students can attend relatively inexpensive state schools. Second, there is an indirect effect—low state school tuition creates competitive pressures that may keep private school tuitions down. We don’t know how effective this policy would be (I am actually working on trying to figure this out in a project joint with my colleagues Anthony Fowler and Ofer Malamud). But it has a better shot than tax deductibility because it avoids the incidence problem by using direct competition, rather than subsidization, to try to improve affordability. So, you can see, doing the hard work of thinking through the incentives can both suggest that some attractive-sounding idea won’t work and help lead you more promising paths forward.

Now, let’s turn to our last core area: analytical politics.

*Analytical Politics: Climate Change*

Policy is made by political actors facing political constraints. No matter how good a policy idea you have, it isn’t going to do any good if it is never implemented. And so, rigorous political analysis is essential to a thoroughgoing policy education. Indeed, what I want to try to show you is that, even if you have the econometrics and the economics entirely on your side, once you start thinking about politics, your idea of what constitutes a good policy idea can change dramatically. Let me give you an example.

In June of 2013, the Obama Administration released its *Climate Action Plan*. The plan starts by making a case for action:

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There is a straightforward diagnosis of the problem that gives rise to climate change, agreed to quite broadly by social scientists and policy analysts. That problem is called *externalities*.

Each of us who consumes fossil fuels bears only a tiny fraction of the social costs associated with our personal emissions. But we enjoy all the benefits. As a consequence, each of us emits too much relative to what is socially desirable. You’ll talk about this externalities problem extensively in both my fall class and micro 2.
There is also a widely agreed upon way to address the externalities problem that underlies climate change. Increase the price of carbon so that people’s individual costs reflect something closer to the true social costs.

This price-based approach has at least two virtues. First, an increase in prices works directly on individuals’ incentives. If the price of carbon is higher, people will use less of it, all on their own. They don’t need to be monitored or further regulated. Second, even among existing technologies, there is uncertainty about whether the most cost effective way to reduce emissions is through increased fuel economy, greater investment in alternative energy sources, cleaner power plants, or what have you. Moreover, who knows what new approaches to reducing emissions will emerge if people have stronger incentives to innovate? A price increase incentivizes reduced emissions, but is agnostic as to how this should be achieved. This gives people and firms the flexibility to choose the most cost effective strategies and encourages them to innovate.

Broadly speaking, there are two ways of directly increasing the price of carbon through policy. First, the government could impose a carbon tax. Second, the government could create a cap-and-trade system—capping emissions, issuing permits for those emissions, and allowing firms to trade those permits.

Textbook policy analysis prefers the carbon tax to cap-and-trade for at least two reasons. For instance, here is Harvard economics professor and former CEA chair, Greg Mankiw, making the argument for a carbon tax over cap-and-trade. Mankiw makes two key points.

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First, the carbon tax is more flexible. If there are significant fluctuations in the demand for carbon emissions over time, cap-and-trade might impose an inefficiently low level of emissions in certain years. By contrast, a carbon tax allows firms the flexibility to use more carbon in years when the benefits are sufficiently large. Second, a carbon tax generates revenue that could be used to offset other, less efficient sources of government funds. A cap-and-trade system does not generate such revenue unless the permits are auctioned off at the outset. Thus, standard policy analysis suggests that a carbon tax is preferable to cap-and-trade and, further, that if we must do cap-and-trade, we should auction the permits, using the revenues to reduce other distortionary taxes.

While these arguments have a lot of merit, the analysis is incomplete. Before we get on our soapbox and start giving sermons for the carbon tax, let’s think about the politics.
A central theme in political analysis is that concentrated interests wield greater power than diffuse interests. Here’s the idea. When an issue is important to a small group of individuals or firms, it is relatively straightforward for that group to organize and invest to achieve its preferred outcome. But when an issue is important to a large group of individuals or firms, organizing is more difficult. Because there are a lot of them, each has an incentive to free ride, hoping the others will bear the expense of organizing. (A fun thing to notice, here, is that this is the same externalities problem as we talked about with respect to carbon emissions.) Thus, even when they are smaller and care less, concentrated interests are typically able to exert greater influence on the political process than diffuse interests.

The logic of concentrated vs. diffuse interests, when applied to climate change policy, flips the standard policy advice on its head. If you want to achieve an increase in carbon prices and reduction in carbon emissions, you should prefer cap-and-trade without a permit auction (i.e., permits distributed to current emitters) over cap-and-trade with an auction, which you should prefer to a carbon tax. Why do I say that?

First, let’s think about getting the policy adopted. The winners from a carbon tax are the broad public, which benefits from mitigating the risks of climate change. But the broad public is a diffuse and unorganized interest. It exerts relatively little political power. The losers from a carbon tax include oil and gas companies, automobile manufacturers, truckers, and other emitting industries. These are highly concentrated and organized interests. They can exert significant political power to block a carbon tax.

What about cap-and-trade? If cap-and-trade is coupled with an auction for emission permits, the same analysis holds. Powerful, concentrated, and well-organized interests are being asked to pay for emissions that they previously made for free. They have every incentive to block such a policy.

But what about if the permits are distributed for free based on some measure of assessed need? Now the policy has costs and benefits for emitters. On the one hand, they are being forced to reduce emissions, a cost. On the other hand, they are being given a tradable asset of considerable value. Current emitters who believe they can reduce emissions relatively cost-effectively will be able to sell their permits for a profit. This might create the sort of concentrated interest needed to move the policy through the political process.

Now, let’s think about policy sustainability. Even if a carbon tax were somehow implemented, the earlier analysis holds. The supporters of a carbon tax are diffuse, unorganized, and relatively weak. The opponents of such a tax are concentrated, organized, and strong. It would require remarkable vigilance to keep a carbon tax on the books.
Cap-and-trade, with or without an auction, is just the opposite. Once permits are issued, they become a valuable financial asset. In addition to the owners of the permits themselves, once a market for such permits emerges, there are brokers, investment bankers, institutional investors, and a variety of financial services providers with a stake in the market. An organized and powerful set of interests will fight to sustain the policy. No matter how you look at it, the politics favor cap-and-trade.

This example, again, illustrates the importance of clear minded analysis. If you care about climate change, it might not feel good to abandon what you know is the very best solution for some second-best measure. It might feel particularly bad to form an unholy alliance with emitting industries and financial services providers to get it done. But, a cap-and-trade plan that works within the political constraints, though it may not feel as good as preaching the virtues of a carbon tax, will likely do much more good for the planet.

**Conclusions**

I’ve given you three examples of policies that sound and feel good—charter schools, college tuition deductions, and the carbon tax. But in each case, rigorous analysis suggests that different approaches are needed if you actually want to do good.

Such negative conclusions can be disheartening. When you care passionately about a problem, it is natural to become passionate about a putative solution. But you owe it to yourselves, and to the people affected by the problems on which you work, to make sure your ideas survive this kind of scrutiny. This a discipline and integrity that will push you to find those solutions that actually have a shot at doing good.

And this brings me to the last issue I wanted to talk about—a tension at the heart of a professional education.

Professional students are, by and large, pretty practical people. You see hard problems in the world and you want to fix them. You came here to do a better job at it.

Professors, and here I know I’m going to shock you, are, by and large, pretty impractical people. We see hard problems in the world and we want to think about them.

But we aren’t wholly impractical. We want to think about hard problems because we believe that hard problems typically have hard solutions. And so they merit hard thought and serious analysis. There is, in our view, no short cut that skips theoretical abstraction and empirical rigor, yet still gets to the right answer.
To see what I mean, let me turn quickly back to this address. With no mathematics, and only the most modest of abstractions, I've illustrated for you three important principles of rigorous policy analysis. These principles were pretty simple to grasp as I explained the examples. But that doesn't mean you yet understand them as you need to.

You see, our goal isn't for you to be able to simply follow our explanations. Our goal is for you to have sufficient facility with these kinds of ideas that you can apply them yourself, in the wild. And for that, you need to understand the abstract principles at work, not just the examples. To see what I mean, ask yourself the following:

"Would incentivizing supermarkets to open in so-called food deserts, in fact help the poor residents of such underserved communities?"

The answer to that question requires an analysis that uses very similar principles to one of the examples I discussed earlier. Once you learn the model underlying that analysis (which you'll learn from maybe colleague Kerwin Charles this fall), it will be straightforward to apply it to a question like this one. But with just the example, and no model that highlights a general principle, I suspect it is pretty hard to see how to think about it.

For this reason, we require that you take rigorous, technical, abstract, analytical courses. Not because we want to turn you into professors. (We do, but that isn't why we make you take the classes.) But because we simply do not believe there is any path to doing good on hard problems that doesn't run through this kind of rigor. And a lot of problem sets.

This tension, between the abstract and the applied, can be frustrating for a practical person. And I want to be frank about that frustration so that, later, you can recognize it in yourself and remember that I asked you to be patient and to trust us that all the abstraction would pay off in the long run. Because at one point or another, many of you will find yourselves buried deep in problem set 3 of some core class (probably mine), asking, "Will I ever use this in my job?"

In a shallow sense the answer is no, you won't. Most of you will never have a job that involves running a regression or calculating an elasticity. Perhaps none of you will ever solve for a Nash equilibrium at work.

But in a deep sense the answer is yes, every day. The whole experience of the core (and, indeed, your entire education at Harris) will give you the intellectual skills that are a prerequisite for think seriously about policy. We don't expect that you will feel passionately about all the abstraction. But it is our hope that your passion for solving the problems that brought you here, combined with the understanding that policy is serious work for serious
people, will be sufficient to give you the patience and intellectual fortitude to do the hard work necessary to become the kind of person who can distinguish the policies that feel good from the ones that actually do good which, in the end, is the aim of public policy.