Mackinac Center for Public Policy

Issues and Ideas Forum

"Do Michigan Charter Schools Get More Bang for the Buck?"

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BEN DEGROW: Good afternoon. Welcome to the Mackinac Center's Issues and Ideas luncheon "Do Michigan Charter Schools Get More Bang for the Buck?"

And in just a moment we'll be hearing from our special guest, Corey DeAngelis, from the Cato Institute. Corey and I met last year. We were brought together on – with this idea that we needed something a little more definitive about – to show what kind of advantage charter schools in Michigan have. He was looking to do a new cutting-edge kind of study, and I was looking for Michigan to be studied, and we found a happy match there. So you'll be hearing more about that today.

Over the course of the presentation, if you have any questions there should be cards at the table. If you jot your questions down, one of our – one of my colleagues at the Mackinac Center will be collecting them, handing them in, and then we will have a question-and-answer time toward the end of the hour.

But now on to our conversation for today, "Do Michigan Charter Schools Get More Bang for their Buck?" Michigan is a – a lot of people don't realize Michigan is a place where school choice is – we've been one of the leading states in the country as far as school choice. So the question of whether choice is working and effective is very important.

Michigan has the most stringent, arguably, limitations on private-school choice in the country. At the same time, we have one of the very highest rates of public-school choice in the country. About 10 percent of students enrolled in public schools – probably a little over 10 percent now – are enrolled in one of the state's public charter schools.

About 12 to 13 percent of students are attending a traditional public school outside their district of residence through the Schools of Choice program. We will not be talking about that today. We'll be focusing specifically on the value and effect of charter schools.

Most of you here, I'm sure, are familiar with what a charter school is. But just to kind of lay the groundwork on what a charter school is and the background for the state of Michigan, in 1993 Michigan was one of the very first states to adopt a law allowing for the creation of charter schools, or public-school academies as they're known in our state law. Charter schools are public schools. I always have to start out saying that. They are tuition-free. They're not allowed to discriminate on the enrollment of students. They have to provide educational services to students regardless of disability or student ethnicity or poverty.

In fact, charter schools in Michigan serve a significantly larger population of low-income and minority students. Fifty percent of students enrolled in Michigan's charter schools are African-American, compared to about 13 percent of the state's total population. Seventy percent of charter-school students in Michigan are low-income, as determined by the federal free and reduced lunch program, compared to about 43 percent for traditional public schools.

This often leads to a lot of faulty comparisons. So, if you look at just raw test scores overall and compared state averages, charter schools might not look that good because in part of the fact that student demographics are more challenging. The Mackinac Center has broken

ground with the Context and Performance Report Card – which figures into our report today you'll be hearing more about – which takes into account student poverty and measures that as – factors the student poverty rate out of the demographic, so that when we calculate the performance of a school we're getting a better picture of the value that school adds to student performance.

Nevertheless, we still hear opponents or critics of choice, who have escalated their voices in recent years – especially in the last year – make arguments like The New York Times, which says Michigan has gambled on charter schools and lost. We're going to hear today that – instead that Michigan hasn't gambled, we actually made a pretty sound investment.

We've also been hearing the phrase repeated from opponents both on the local level, including the superintendent of Detroit Public Schools, and U.S. senators have described charter schools in Detroit particularly as "disastrous." And yet, we'll also see today that the performance and the return on investment from attending a charter school in Detroit is actually quite the opposite.

And now I'll introduce our speaker. He'll take it from here.

Corey DeAngelis is a policy analyst at the Cato Center for Educational Freedom. He is also a distinguished doctoral fellow and Ph.D. candidate in education policy at the University of Arkansas in Fayetteville, and a policy advisor for the Heartland Institute. His research focuses on the effects of educational choice programs on student achievement and non-academic outcomes such as criminal activity, political and economic freedom, schooling supply, and fiscal impacts. To talk to us today about "Do Michigan Charter Schools Get More Bang for the Buck?" let's welcome Corey DeAngelis. (Applause.)

COREY A. DEANGELIS: Thanks for the kind introduction, Ben. Hopefully I can live up to the expectations that you've put forth for me today.

So how is everybody doing this morning?

AUDIENCE MEMBERS: Great.

MR. DEANGELIS: Was lunch very good? Everybody enjoy it? OK, great.

So how many of you have heard the claim that Michigan charter schools do no better, and sometimes worse, than district schools? A lot of people in this room. Pretty much everybody, I would think. I've heard it tons of times, and I don't even live in Michigan. (Laughter.) And it was especially prevalent in the time that Betsy DeVos was appointed at the secretary of education in the United States. We heard a lot of claims that – if you look in the media, it's not very hard to find that "DeVos' experiment of charter schools failed in Michigan." And when you look into those reports, they don't even look at experimental results. So it's really not a great way to look – to frame the debate.

But then, also, all of these claims never take into any consideration the difference in how much each of these educations cost the taxpayer. And that's really what we're looking at today, asking the question of whether Michigan charter schools have the advantage of having more bang for the buck or doing more with less, whichever phrase you prefer or sounds better to you. But we went with the "Doing More With Less" for our study today.

And if you want to tweet any of this stuff, my Twitter handle is @DeAngelisCorey. These results have been publicly released yesterday, but you guys are the first public audience to actually see them. So don't worry about taking pictures and posting them on Twitter or Facebook. The only rule I have is if the picture looks not very good of me, please don't post it on social media – (laughter) – especially if I'm making a weird face like this or something. Please be kind. (Laughter.)

And so it also begs the question, these claims around Michigan charter schools being an absolute failure or Michigan taking a gamble and losing the gamble, so to say, it doesn't take into – any of the cost savings into account. Has anybody here invested in, like, a stock or a mutual fund? So not as many as people that have heard the ridiculous claims, but still about half the room. You all have savings accounts. That's an investment too, right? So if you had two stocks or mutual funds – you had mutual fund A and you put $50 into it today, and you had mutual fund B and you put $100 into that one, if you found out a year later that they both were equal to, let's say, $500 after a year – that would be a great investment for both, to be honest – but you'd say that A was the better investment. You wouldn't say that that was a failure of A. You would say, no, you'd say this was a very good investment. So this is exactly what we're looking at today.

So I'll go over the study that we just released yesterday. Hopefully you guys grabbed a hardcopy, but it's available online as well. I will tell you that the online version has very pretty graphics. There is color. So check it out even if you have a hardcopy. But I'll go over the theory behind why this may be the case that charter schools would have a return-on-investment or cost-effectiveness advantage. I'll go over the literature that exists on the topic. I'll go over the data and methods we employ – which is publicly available, so if you don't believe anything we're saying you can go check us. There's a lot of fact-checking going on these days, so we tell you all of our methods in the paper and all of the data is publicly available. So please go check it out if you'd like.

And then we'll go over the results that we found, the discussion, and I hope you guys are writing down your questions on the papers as they come to you during the presentation. Really looking forward to that part. I really want to hear what you guys have to say and your comments on the study.

So the background, just to set the stage a little bit for this. Has anybody done a Google Trends search? Yeah. So if you got to Google, you type in Google Trends, you can type in any search term and it will tell you the public interest in that search term over time. And recently, in 2017 in February, it hit the maximum public interest since 2004, since Google started collecting these data.

And it shouldn't surprise anyone that's also the same time that DeVos was appointed education secretary. In the news, a lot of people didn't even know what school choice was before DeVos entered the picture. So there was a ton of stuff going on in the media, a ton of false claims. And we're taking on one of those false claims today, which is that charter schools do no better or worse than their traditional public-school peers.

So here are some of the claims. We have a journalist, Alexis Stephens, saying that "charter schools perform no better or worse than public schools." Yeah, you hear that one all the time. No big deal. It just doesn't take into any consideration cost savings.

Another one, Betts and Tang, these are researchers. I think these guys are very good researchers. I am not trashing them right now. They are very good academic researchers at UCSD. But they happen to find in their analysis of all the studies about 100 different effects they put together just to find an overall effect of charters on test scores. And they found that when you take the overall average of all these studies, the effect was not statistically significant in reading. But again, this claim also – while true – does not take into consideration cost savings.

And then so we have researchers like Betts and Tang making these claims. We have people that are journalists from this place called Newcity. And then last, I always have to introduce the person that's from another planet, I think, as far as I can tell, Diane Ravitch, because she's taken it a step further and made claims on her blog and other outlets, public speaking events such as – now get a load of – tweet this one. I think Diane Ravitch is the new – is the flat earther of education debate, because this is – the evidence is – it's not true, based on what she's saying. There is no evidence that students in voucher schools get higher test scores. That is absolutely false. She must be a flat earther. Tweet it. I don't care. But, again, none of these – none of these take into account cost savings.

So the theory is pretty simple, the basic Milton Friedman economist theory. Every serious economist believes in the theory that if you open an otherwise closed market, if you introduce choice, quality levels should increase because monopoly power is weakened. And cost should decrease as well, especially when the government's giving you a lot less money. You have to be more efficient. And charter schools, they need to attract their customers.

And if they're spending all their money on fancy buildings, and they're spending money on administrative bloat, they won't be very successful in attracting their customers, and they may have to face a shutdown condition if that's the case. It's not the case in traditional public schools most of the time. The only competitive pressure that they have is if a family actually gets up and moves, which is very highly costly to do. You have to have a very bad time in your school to actually put – go through actually moving houses to a different district.

So literature on charters. I already talked about Betts and Tang's made an analysis – it's the best analysis of the evidence and what the evidence says about charter schools so far. As I said, they found a zero effect on reading scores. But they did find a positive statistically significant effect from all the evidence, about 100 different data points of studies effect sizes – and found a small positive effect on math test scores. There's about a 20^{th} of standard deviation.

That's not very big. But if you convert that to days of learning, that's about a month of additional learning granted from having access to a charter school.

Graduation rates, this one – this review is released publicly, but it's still under review. But Leesa Foreman at the University of Arkansas did a systematic review of all the studies that are either experimental or quasi-experimental, looking at the effects of charter schools and magnet schools on graduation rates and college enrollment. And she finds mostly positive effects as well. She does not find any negative effects. And if pictures are more preferable than me talking on and on and on, here's the Betts and Tang metanalysis.

It looks kind of funny. It looks like a tree. We call that a forest plot in the research. But essentially, as you can see, each plot is a different study. And while the studies are dispersed, if you take the overall average, which is that diamond, it's the 20th of a standard deviation increase – statistically significant increase in math achievement. And this is the Betts and Tang metanalysis. I think it was published in 2011. You can fact check me on that one as well, but I'm 99 percent sure it was in 2011.

Here's the Foreman review of the evidence. That's some small writing. But luckily, all you need to know is if you can tell the difference between red and green. Does anybody see any red boxes here? No. So the effects on graduation and college enrollment are mostly positive as well. Some are not statistically significant. But none are negative, as far as the experimental and quasi-experimental, most rigorous studies show.

So to get more into what we're actually talking about today, these return on investment or funding inequity studies. First, we'll talk about the funding inequity studies. The first one was out of Ball State in 2010. And then there have been two out of the University of Arkansas, most recently in 2017, that I took part of. But what we found all across the country, essentially, is that charter schools receive significantly less funds than their traditional public-school peers, even after controlling for certain types of differences in the student bodies.

Return on investment, which is even more relevant to today, Wolf, et al, the 2014 study – we used the same exact methodology that they used. It was the first study to look at how charter school investments can lead to long-term outcomes. And they look at the effects of charter school investments on – effects on their – the student's lifetime earnings, using research from – previous research from Stanford economist Eric Hanushek in a 2011 article that he published. So we used the same exact methodology here. We actually – the DeAngelis and DeGrow study actually beat the DeAngelis, et al study, which is coming out in a couple weeks.

But this is the first study that actually does the – or, the DeAngelis and DeGrow today – is the first study that actually does this return on investment at a city level. The other studies have all done state-level analyses, which is not very meaningful. And what's really beneficial about doing a city level analysis is you have enough data points and enough statistical power to control for differences in student populations, which is very important. So that's where we really add to this body of knowledge here today. DeAngelis, et al, for example, only has data for eight cities. DeGrow and I have data for 70 to 90 different cities in Michigan, which is – which is a big study. A lot of statistical power that we have today.

So the data, as I said, are publicly available at the Missouri – or, Michigan Department of Education. The Michigan School District Revenue and expenditure report, so we look at revenues and we just compare the differences in revenues for charter school students at the city level versus traditional public-school students. And so we have data to look at over half of the students in Michigan, for 92 cities. It represents about 770,000 students in the state. We don't have data on all the children, which is a shortcoming, but we do have a lot of data at our disposal that is publicly available.

And then for the cost effectiveness and return on investment part of the analysis, we also use that same report, and look at expenditures. How much are you putting into a student's education for 13 years? And how does that translate to lifetime outcomes – or, test score outcomes, and how test scores translate to lifetime outcomes as well. And we have data to cover 71 cities in Michigan for this particular analysis. So funding inequity, this is the easy analysis. We just compare average funding allocations per student for traditional schools within the city and compare that to the average funding allocations for students in charter schools. And we just compare the differences, and calculate a percentage in each city, and then aggregate that to the state level as well. And we also break it down by local, state, and federal public revenues as well.

So here's an example, Detroit. I should have done one for Lansing. It would have been more relevant to this event. But everybody knows Detroit, so this is what we put in the report. Detroit traditional public-school students, on average, receive around $18,000 in funding per year per student.

AUDIENCE MEMBER: Wow.

MR. DEANGELIS: Yes. Just imagine – just imagine if you could multiply that 13 and give that to everybody. That's a lot of money. What else could be done with that money? I – anyway. Charter school students only receive around $10,624 per year on average. So if you take the difference of that, that's about a $7,313 difference in funding favoring the district school students. So if you – if you feel like the charter is the best school for you, well, you're getting the short end of the stick as far as public revenue. And that translates to around a 41 percentage lower funding for charter school students, which is a huge funding disparity.

Cost effectiveness, it's not as easy to calculate, but, yeah. So there's a division sign in here, but still pretty straightforward. We take the amount of CAP points, so the traditional – the test score points that adjust for free and reduced lunch status – and we take the CAP points for the average student in a city and we divide that by how much money is going into their education. And we compare that across sectors for each city, and then we also aggregate it to the state level. And if you want to do an example of this, well, we will do that with Detroit again.

So their students on average earned 92.86 CAP points. If you divide that by the amount of funding, $16,004, that's about 5.8 CAP points achieved by students for every thousand dollars that are invested in them in the traditional public-school sector. In the charter sector, if you do the same analysis, it's about 9.44 CAP points per thousand-dollar investment. So the cost

effectiveness is a lot higher in the charter sector in Detroit. It's about a 63 percent advantage for cost effectiveness in Detroit.

Return on investment, this gets a little more exciting. So you find the cost of investment. So if I'm in a school for 13 years, I take the per pupil funding amount for 13 years of my education, that's how much the state invests in me for my educational experience. Turns out to be a lot when you multiply it out by 13 years. Think about that for a second. But we use methodology by Wolf, et al, 2014, which used methodology by Eric Hanushek, the Stanford economist, that found out with his analysis that a one standard deviation increase in test scores is associated with a 13 percent increase in lifetime earnings on average.

So we used that fact, and the fact that test score gains – only 70 percent of learning is retained from year to year. So we used that. That's where that 0.7 is right there. The years, which is the exponent, will be 13 in all of these, because it's 13 years of education. So, anyway, that's the income returns – the expected lifetime earnings. So we take the predicted earnings from the – which is the average earnings in the state and multiply it by the Hanushek equation to find your expected earnings for the child based on their test scores. We take that outcome and divide it by the input, which is cost of investment. How much did it cost to invest in your education for 13 years? We can do an example of that.

So, in Detroit, if you do it for traditional public schools, you find a – the CAP score is a 92.86 actual CAP score on average, which is about a half of a standard deviation below the state average because 15 CAP points is one full standard deviation. So if you do the difference on that, it's about a half a standard deviation below the average. So if you plug that into the Hanushek equation, the average lifetime earnings in Michigan, while that is around 1.2 million (dollars) for an entire lifetime, the expected lifetime earnings is $662,000 from attending a Detroit public school. So if you do that divided by the cost of investment, that's about $3.18 of a return on each dollar spent on your education. So you're at least getting some type of return, but that doesn't tell us much unless we compare that to the other sector.

So if you do that for district schools, they achieve a little better test scores. They are only about a 20th of a standard deviation below the average. Plug that into the Hanushek equation, the expected lifetime earnings is 1.115 million (dollars), which is about $8.16 of a return on each dollar input into the educational experience. So if you compare that to the 3.18 (dollars) that was found for the traditional public-school sector in Detroit, that's over a 2 ½ times larger return on investment for charters, which is huge.

And so we actually saw a lot of this in the urban areas. It seemed to be that there was a more – a more significant effect in urban areas, like Detroit. And we think it's because there's more need for a quality education in Detroit. So it could be that. Or because markets work better when you have a lot of options available, when you have a big enough population to entice market entry. All of the economist lingo. But it's working at theorized, as we would expect.

So going over the overall funding results, if you just take the straight average for all of the 92 cities that we looked at, it's about a $2,000 advantage per year per student for traditional public schools. If you weight that by the number of students in each city – because, of course,

Detroit's bigger than Lansing so you would like to correct for that statistically. So we weight for the number of students in each city. If you do that, it turns out that the funding advantage is even bigger for district schools. It's about $2,800 or – yeah, about $2,800 or about 20 percent higher for district students each year.

So it's a pretty huge funding disparity favoring district schools. We found that 95 percent of students are in a city where there's a funding advantage favoring traditional public schools. Of course, not all cities have this – have this advantage, but 95 percent, the vast majority, do have this advantage. And most of these are driven by local funds, which I'll show you in the graphics. Here's the local funding – or, here's the total funding disparity. As you can see, the red is where there's a charter disadvantage. The green is a city where there's a charter advantage. While there are some that have charter advantages for funding, the vast majority, again, are red, indicating that there's a traditional public-school funding advantage.

And the picture gets even darker as you look at local funding. So if you're just – so now we're breaking it down local, state and federal. Most of this disparity is driven by local funds. Charter schools receive significantly less local funds. State funds – this is states really meant to close the gap, but they actually don't do. So they don't fully close the gap with state funding. Federal funding is about even, but the main picture here is that – is that overall funding picture. That's the main takeaway here.

So this is a pretty interesting scatterplot. So in this top left quadrant – this is – these are schools that – or cities that have a charter school advantage on test scores, but have a disadvantage on funding. So the horizontal axis is funding, whereas the up and down vertical axis is test scores. Here, the charter schools are getting less money and they're also outperforming the traditional public schools in these cities. If you're interested in what cities these are, you can come to us later. We have the actual spreadsheet. We don't report it in the report. I think that would be too much calling out of cities. But if you guys are really curious, you can come to us afterwards or via email.

And if you look at this one, this is where there's a funding disadvantage, but the charter schools actually underperform on test scores. But again, most of these people will look at this line and they'll say – they'll say, look, half of the schools are above – or, half of the cities are above the line. Half of them are below. So, you know, they only look at this one dimension, the up and down dimension. What we do here is we take into consideration the funding dimension as well. So while it may look like they're performing essentially the same, half are above and half are below the line, these analyses do not look at the difference in the X-axis.

So here are the main – the main results for cost effectiveness and ROI at the state level, is we find a 32 percent cost effectiveness advantage for charter schools relative to traditional public schools within the same city. Essentially, we find that every $1,000 spend in a charter school results in about 10.51 test points achieved by students, whereas it's about 8 points in traditional public schools. That's around a 32 percent cost effectiveness advantage. When you look at return on investment, it's about a 36 percent advantage for charter schools.

And here's just looking at the percent of students in cities with charter advantage. So 96 percent of students live in a city where there's a cost effectiveness advantage, and 80 percent of students live in a city where there is a return on investment advantage for charter schools. Again, not every student lives in a city where there's a charter school advantage, but overall we're finding the majority of them – the majority of charter school cities have an advantage favoring charter schools.

So if you're interested in regression analyses – some of you guys might like stats – but here we take each observation, which is a specific sector, charter or TPS within each city, and we run a regression to see the effects on per pupil expenditures, so the funding disparity, and also the cost effectiveness and ROI. The advantage here is we can control for all of these student demographics – English language learner status, minority percentage, gender, economic disadvantage, and special education students as well. So we account for all these differences, and we still find that the effects are there. They actually get a little smaller, but the effects for ROI, for example, go down to 30 percent instead of 36 percent, which is still a large ROI advantage, even after taking into consideration all of these differences in student characteristics.

So this is the first ROI study in Michigan and it's also the first study that looks at city-level data. So I think that's really a good addition to the literature. And especially for Michigan citizens, they get to look at what's going on with their charter sector. And it really, you know, tackles this claim that Michigan charter schools are doing no better, or sometimes worse, than the traditional public schools because, again, when you look at any investment you always look at the initial investment. You don't only look at the outcomes. And that's what we do here.

And hopefully this information will be very useful. But essentially, again, to go over the effects we find a 32 percent, on average, in the state, cost effectiveness advantage for charters, and a 36 percent cost – or return on investment advantage for charters as well at the city level. And I'd recommend expanding charter options. I know you guys have a – I prefer private school choice for various reasons. We can get into that during the Q&A, but mostly because the scientific evidence is mostly on the side of private school choice. And just based on pure economic theory, private school choice should outperform charters. But this is the best that we can do here in Michigan for now. So I think we should expand charter school options based on our results today.

And as the previous report of the adequacy study reported, we should equalize funding across sectors. You shouldn't go to a charter school because that's what works best for you and lose 20 percent of your state funding. That's just – it doesn't seem fair to me. And it seems like a bad investment when you look at the data as well. So thank you for coming out. I hope you guys enjoyed the talk. Thanks for having me. And then I hope you guys wrote down some questions, because that is where things usually get interesting. Thank you. (Applause.)

MR. DEGROW: All right. So I'll echo what Corey just said. If you guys have questions, have them on those cards, hand them in. in the meantime, I know you just were given a lot of material to digest there, and I know not everybody's a math or economics or statistics scholar. So there'll be some time for us here to clarify and delve into a couple things. I wanted to start off with one just so in case anybody's who's really astute or following the slides there

may have noticed some different fiscal figures that we use between the funding and equity piece and the cost effectiveness, return on investment piece. And there are different numbers there for different reasons. Can you explain what those are, and why we – why we went the way we did?

MR. DEANGELIS: Yeah. So in the funding equity study – I don't think this is on. Oh, it is. The funding equities part of the study, we looked at revenues rather than expenditures, because that really looks at the total amount of taxpayer investment in the traditional public schools and the charter schools. How much money is going towards the child. But if you're looking at an actual investment study, we want to look at expenditures because whenever you – you don't look at how much money is in the bank. You look at how much you put into your investment. So that's why we switched to expenditures on the second part of the report. We want to look at how much we spent in the different sectors, and how that translated to outcomes. But it goes – it turns out that the expenditures and revenues aren't all that different, because typically schools will spend the amount of revenues that they have. So the effects are, if any different, not very large in difference.

MR. DEGROW: And another point of clarification, which I don't assume too much knowledge here on the part of the audience, we introduced the – we used the CAP scores, the context in performance report card, which factors – adjusts the school's test performance average based on the rate of students with free lunch. In that scenario, a 100 CAP score means that the school is attaining what would be expected statistically given the amount of students they have in poverty. Below that means you're underperforming expectations. Above means you're overperforming.

I noticed, you highlighted in your slides particularly, that Detroit public schools was rated a 92-point-something. And Detroit charter schools were a 99-point-something. We know poverty's high in Detroit. Are we saying that Detroit schools are underperforming that much, even compared to what you would expect given the poverty rate?

MR. DEANGELIS: Yes. So all of these CAP – the CAP score, as you said, adjusts for free and reduced lunch status, which isn't a perfect measure of poverty, which is important for the regression analysis to introduce all of these other types of student characteristics, such as economic disadvantage, English language learner status, special needs status as well. So that's why I think the effects of the regression analysis are important to look at to tackle claims like that. But really, we don't find much of a big difference, even after controlling for all these other types of characteristics as well. But the initial question, yes, this – the CAP scores always take into consideration student background, as based on FRL status.

MR. DEGROW: Let's go to – we have a card here with a couple questions. We'll do one at – we'll do these one at a time. Since we did emphasize the significance of our study being the first ROI to look at the city level – with a city-level comparison, we have a question here: Why is using city-level comparisons important?

MR. DEANGELIS: Thanks for asking that. Well, one is it gives us more detail. If we just looked at the state overall, first, we'd only have two data points. We'd have Michigan charters and Michigan TPS. We could not do a regression with that. We wouldn't have enough

statistical power to tease out anything. So that's one of the advantages of going down to the city level. But then you may ask, why didn't you go down further? Why didn't you go to the district level? And that's where I tried to start – where we both tried to start. We tried to start at the most granular level that we could. But the thing is, you can't match charters and district schools within the same district because charters have their own, what is it, PSA code?

MR. DEGROW: Right, charters in state law are considered essentially their own district.

MR. DEANGELIS: They had their – so you cannot group charters and TPS within the same district, because charters are in their own district. You have to go up to the next level of data available, which was the city level. So there's two advantages. One is it gives you more detail, but then there's also statistical advantages as well.

MR. DEGROW: And I'm going to come back to the other question on this card here, but this is a good one. One I'm sure that probably a lot of people were thinking about. So under – the person asks: Under this formula, could charter students who perform below traditional public schools be considered or rated a, quote, "better investment," just because they spend less per student?

MR. DEANGELIS: No, because of the fact that you – our calculations look at outcomes too. They don't only look at funding amounts. So we look at inputs and outputs. Do you have anything to add to that?

MR. DEGROW: Well, if – I mean, is it conceivable that a charter school could have a lower CAP score – charter schools in a certain city have a lower CAP score, but because they're also funded significantly less be considered more cost effective?

MR. DEANGELIS: Yeah. Yes, yes. Yes, so you could – you could have an average score in your city that's lower for charters and higher for TPS. If the funding amount is different enough, the ROI calculation could still find an ROI advantage for charters. But that's the whole point, right, that we need to look at investments as well as outputs, not just outputs.

MR. DEGROW: All right. So we'll go back to the first card, and there's a second question on here that kind of gets to the point, the meat of this, why are we talking about this. What do we do about this? What is the policy recommendation for funding inequality? You mentioned the adequacy study that was just put out here in Michigan a couple weeks ago, which could be its own conversation in itself. But what is the policy recommendation for funding inequality? What should we expect? How do we actually – how do we actually equalize funding? I'll let you go first.

MR. DEANGELIS: Yeah, so the adequacy case also recommended equalizing funding across sectors, which I agree with. Why should you get less money for going to a school that's a charter school rather than a traditional public school? And oftentimes, these are the students that need the most help, because they're not being served well in the traditional public school. Rich people already have good traditional public schools. Why do they need to opt out to go to a charter?

So I think we should equalize funding, and that that would produce a higher return on investment there. We should be allocating funds towards the best investment. Again, with the A and B investment that I came up with earlier, you wouldn't pour all of your money into B. You'd pour more money in A. You'd at least equalize funding, if not pour more into A. So that's one recommendation that I would have.

MR. DEGROW: So here in – here in Michigan, which I think is common in most states, but 44 states have charter schools. Charters just typically do not have access to local property tax funding. Those local property taxes are directed toward the local districts in the areas which they represent. And those property taxes will go to fund the main student funding formula, the foundation allowance. And that's why the state will backfill that part with state funding for traditional districts, whereas charters have zero local dollars to start off with. All the state dollars have to come in and fill up that difference. That's why you saw the state disparity.

The one – the other area where local property taxes come into effect, probably in a much more significant way, are facilities construction. And I know charter schools are always having to look to other alternative ways to finance facilities that they can't raise money to fund – to finance debt on school construction and maintenance projects. So that's one area to look at. The legislature actually just passed her Senate Bill 574, which is a small – another small pot of local millage funding that is called the regional enhancement millage. So all future elections for these regional enhancement millages will be shared equally with charters. That will help a little bit toward equalizing. That, and finding ways to help charters fund their facilities, I think are the two biggest policy area that would give us more equity.

All right. So, along that line here, somebody asked: Do we include local capital funding or local capital finances in our data.

MR. DEANGELIS: As far as, like, building expenses and things like that? I'm pretty sure that it's all total revenue, right? Yeah. So we include that.

MR. DEGROW: So when you look at the total – we look at the total revenue, we're looking at all sources that can be used for schools to fund anything, so.

MR. DEANGELIS: And you know what? Some people will bring that up. And they'll say, well, why are you punishing the traditional public schools for having bigger buildings and more administrative bloat. Well, and they'll say, well, why don't you take out that funding? And why don't you control for differences in building funding and capital investments? But researchers have a term called controlling away the treatment. We're comparing charter school spending to traditional public-school spending. You wouldn't want to control away the inherent differences across sectors, because you'd be controlling away the treatment. It's kind of like trying to find the effect of medicine, and then controlling away the fact that it has X chemical in it. You wouldn't want to do that. You just want to see the effect of the medicine. Same here. Same comes along here, is we want to see the effect of the actual sector overall and everything that comes along with it, buildings and all those things included, instead of controlling those things away.

MR. DEGROW: So we have a good question here. Is there a better definition of charter school? And I probably didn't provide a really thorough one during my introduction, so it's a good opportunity to fill in that gap. Person recognizes that their children benefitted from attending a charter school that offered all-day classes, grade-based pretesting, intense evaluation and performance, and school uniforms. Those are – I mean, those can be common characteristics of charter schools.

The things that separate charter schools from other public schools in the state of Michigan would be they have not popularly elected local school boards, but they have independent boards that are appointed to serve over them. They're accountable to their authorizers. So authorizing agencies in the state of Michigan. We're one of the few states in the country where universities can authorize. So there's a role that the university plays in helping to ensure quality program.

I think probably the biggest difference, and probably the most fundamental difference that probably explains why maybe this charter school that's reference here offered these programs, is that charter schools have more direct accountability to parents, and – because if you're a local school district, the default option is you're going to come to that neighborhood school. Whereas, to even open a charter school you have to convince people that there's a reason to come attend that school. So it is a school of choice.

Anything else that you think that's significant to mention?

MR. DEANGELIS: Yeah. Just imagine you're residentially assigned to your nearest grocery store. Just think about that for a second and think about how good of a job that grocery store would do. People say, well, schools aren't grocery stores. I know that. But it's analogy. And there's – grocery stores provide goods and services just like schools do as well. Has anybody ever thought – I think there's an even deeper question there, is what's the difference between a charter school and a private school? Does anybody think they have the answer? It's kind of – what – in your view, what's the main difference between a charter and private?

Q: Private schools can pick and choose.

MR. DEANGELIS: So that's one of them, right. So they don't have to – they don't have to have random lottery to determine who gets in, for example. That's a good point. I'd say there's also another point too. So that's one of the things I was going to bring up. But charter schools also must not have a tuition level. So their price has to be zero. They're free to the public. And I think that's one of the main differences between a private and a charter, especially because there are private schools that aren't allowed to pick and choose. There's private schools in the Louisiana Scholarship Program, for example. Over there they have to use random lottery. So it gets really kind of mushy when you start talking about all these little specifics. But I think the main difference is your price has to be zero. You have to be free to the public. You have to funded through the property tax system.

Shall we call on?

Q: I just wanted to piggy back on the private school. Detroit does have two publicly-funded private schools where they discriminate against who they allow in. And it is considered part of their public-school model, but they do not allow anyone in in every school in Detroit.

MR. DEANGELIS: Huh. I hadn't heard of that one. I'd have to look into it further, but – yeah.

Q: You have to try to get into a public school.

MR. DEGROW: Right, so a magnet school – magnet school programs in the district that can be selective on their enrollment. Yeah. But that's – the other thing I would add as far as differences between charter and private school are religion. Obviously private schools can teach religion if they would like. And I think I lost what the other one is.

MR. DEANGELIS: Another point is that traditional public schools pick and choose too. You can only go to a good one if you live in a rich neighborhood. You don't get to say: I live in a poor neighborhood. I'm going to come to your rich public school. So we shouldn't be comparing private schools to perfect or utopia. We should be comparing them to the options we have today. And one of the options that we have today is discrimination as well, based on wealth. If you don't live in a wealthy district, you don't get to go to XYZ school. So that's something just to add. That's not even really directly related to the question, but it's something to think about.

MR. DEGROW: And that's kind of what the fundamental, underlying thing. The whole – the reason why we have a public-school choice mechanism in Michigan, whether it's charters or schools of choice, which is not mandatory and is not universal, but at least in a lot of areas enables – expands that – overcomes that residential choice barrier. But that's an excellent point that often gets overlooked in the debate.

We have another question here. And I don't know how helpful we'll be, but we'll throw it out. Great information and research. Hope this is part of a longer-term project. Are there any quality studies for the 50 percent African-Americans who choose charter versus traditional measuring graduation rates, et cetera? So essentially, breaking down results for African-American students.

MR. DEANGELIS: I don't know the charter literature as well as the private school choice literature. But if you look at the test score impacts from the experiments in private school choice, the effects are usually bigger for the least-advantaged students. And that makes sense, because they are coming from schools that are typically less advantaged than the people using the program that come from more advantaged schools. But I – in our analysis, we don't do any subgroup analyses for types of students. We don't have student-level data. We have school level averages for CAP scores. We don't have – but, perhaps that is something to look into in the future, to try to build off of this research to look at different types of return on investment for different types of schools, different school size. And that's definitely something we want to look to in the future as well.

MR. DEGROW: One of our other cards here had a question that is a little on the technical side, but will give us a chance to, I think, explain what some people might see as an objection to this. So the question is: Do you include covariates for differences in cost such as transportation, sports, et cetera?

MR. DEANGELIS: Yeah, so I brought that up earlier, right? It another question earlier, but I brought I up, that people say: Hey, you should control away the treatment. And that's just like saying: Let's control away for XYZ chemical that's used in the pill or medicine. You don't do that. You just look at the effect of the medicine. So the same thing with charters and traditional public schools, is we're seeing traditional public schools are spending more money on buildings and sports. That's true.

But that doesn't mean that's a good investment for test score outcomes. So if we're looking at academic outcomes, we don't want to control for things that are not being spent on academics. That's a choice that the school makes. And that's one of the advantages that charters have, is to have the flexibility. I understand that traditional public schools are – they might be mandated to have more buildings or something. But that's still part – inherent of the system for essentially assigned schools. And that's one of the sector differences. You don't want to control for that.

MR. DEGROW: This last question I have here on the card is a lengthy one, and it kind of touches on a topic I wanted to discuss, and that's kind of the limitation of using test scores to measure outcomes for students. So here's the question: Since traditional districts often offer other interventions and resources, what research should be conducted to review outcomes other than CAP scores? Should we be looking at real and not predicted student financial success for outcomes? Do charters fill the needs of struggling students and families who need community resources for kids and families? What do mental health and suicide rates look like in reality for kids in both charters and traditional schools?

MR. DEANGELIS: That's a very interesting question. And I completely agree that test scores are not the end-all, be-all, that we should definitely not only be looking at test scores. It just so happens that test scores are the most readily available metric. We couldn't do an analysis at this big of a scope and look at these other outcomes because we don't have student level earnings data, for example, and we don't have student crime data, we don't have student level suicide rates. So at least test scores are a proxy for academic quality, but of course it does not measure everything that a school does.

But we've seen in other reports that choice parents actually choose schools based on things other than test scores. So these effects that we're finding should be a lower bound. If people aren't picking schools based on – charter schools based on test scores and they're picking them based on other things, that we're seeing test score advantages should be a lower bound – if they're picking based on other things. So that's actually an objection that says that our estimates are actually in reality bigger than what we're presenting today. So we're being a conservative actually in our estimates.

But there are studies that are not in Michigan that have actually used random assignment. There are two charter school studies that randomly assign kids to charters or district schools, using lottery – so this is an experimental evaluation – finding kids that got lucky enough to win the lottery were a lot less likely to commit crimes as adults. The effect sizes are huge in these studies. The effect sizes for the test score studies are actually much smaller. For example, in the Betts and Tang metanalysis, there's a 20th of a standard deviation effect size in math. That's not very big. But these crime studies were about a 50 percent reduction in the likelihood of crime. So these non-test score outcomes are actually much bigger than what we find for test scores.

Same – ditto with the private school choice research. Test score impacts are very small, similar to charter schools, about a 10th of a standard deviation increase if you look at all the studies in test scores. But these crime reductions are similarly about a 50 percent reduction. There's one study on the author of that one on further crime effects in private school choice. Tolerance increases by over 50 percent. And these are random assignment studies for the tolerance studies. So it seems to me that people choose based on non-test score outcomes like character building in the school, the culture of the school, which has very, very big long-term effects.

MR. DEGROW: I will just add to that, that at a previous Issues and Ideas Luncheon we did back in September, we unveiled a survey we did of parents who were using school choice in Michigan – charter schools and schools of choice – and found 30 percent of those – 30 percent of those parents listed academic performance as the most important reason for making choice. And about a third of parents said another kind of academic program or pedagogy or philosophy, like a Montessori or something, an arts focus. And a lot of other parents said class sizes, extracurricular activities, in urban areas school safety. So there's a lot of other things that are going into the mindset and the equation for parents who are making these decisions. It's just that test scores are kind of the low-hanging fruit for us to measure in a lot of ways.

MR. DEANGELIS: And a lot of researchers will look at this. And they'll look at how parents choose. And they'll say, look, parents can't choose. They're picking based on safety and not test scores. Really? Has anybody heard of the Maslow hierarchy of needs? They're actually – parents are actually following that by choosing safety first. You have to have a safe environment before you can even focus on managing test scores. So I wouldn't look at these decisions and say that parents are not choosing wisely, like some researchers will say. I can give the study after the talk, offline. But, yeah, they're actually following what we would expect people to follow when given choice.

MR. DEGROW: We're running close to out of time, so this is going to be a last call if you have that question burning inside you and want to write it down and get it in. Now is the time. Otherwise, I will – I will ask one or two last kind of follow-up questions.

Considering Michigan has been prominent in the school choice debate because of our secretary of education we get a lot of attention, so that's great, but how far beyond Michigan – how significant are the implications of our findings? Or what other opportunities are there to do similar studies and find things about charter schools and choice in other states?

MR. DEANGELIS: Yeah, so you can't take the Michigan results and say, oh, this is going to work everywhere, that we're going to have a return on investment everywhere. But – and this is the typical external validity problem in social science. You always have an external validity problem, though, like even in Michigan. Next year the charter schools may perform a different way. So you always have to keep studying things over and over again, even if you're in the same location, because things change over time. So this is really an impossible problem to solve.

But we should still look at these results and say, hey, you know, in similar systems, in similar environments with similar types of choice programs we should expect similar results. And of course, that's not the end-all, be-all. We should always think about the differences across different locations. But the other study that I did with Dr. Wolf at the University of Arkansas, it's coming out in two weeks, we looked at eight cities across the nation. And we're finding similar big, positive effects of cost effectiveness and return on investment in other cities as well, and other states.

So it seems, from the existing evidence, that charter schools across the nation have significant benefits for taxpayers and the students that they serve as well. So, yeah. But, again, we need to keep studying this. This is the first city-level study to be released. And the biggest one yet, to have the most number of cities. Even that other study only has eight cities. I don't want to knock my own study, but that's the best we could do with the data that we had provided. But, yeah, it would be great to get city-level data all across the nation, and see where it works best, what types of charter schools are best, what state's doing best with their charter sector. All very important things to look at going forward.

MR. DEGROW: And this may be an unfair question to wrap up with about a minute or so, but in trying to measure the quality, effectiveness of how well choice is working in Michigan, we've gone beyond just measuring raw achievement scores, we've gone just beyond even measuring value-added. Now we're looking at cost effectiveness at the state level and at the city level. What's the next frontier, the next research project Michigan should be looking at? We're talking about not just test scores but other outcomes. What's the next thing we should be looking at to gauge how else choice is working here?

MR. DEANGELIS: Well, I heard there's an experiment coming out soon. So there hasn't been a Michigan true experimental study on the effects of test scores, has there?

MR. DEGROW: No. We have the CREDO study, which is good, but it's not the best standard, yeah.

MR. DEANGELIS: CREDO's pretty good. But – so I would like to see more actual experiments that use – you know, because Michigan requires a lottery, right? It requires students to apply to a lottery. So we should take advantage of that data and look at the effects experimentally so we can know for sure there's no selection going on here. It would be cool to look at crime rates. It would be cool to look at these other types of outcomes, especially because the debate's really going away from the test score type of mentality. It's going towards these more non-cognitive efforts – criminal activity, tolerance. So we should be looking at all sorts of

different outcomes, not just test scores. And, again, that's really – if we have the data available, it would be nice to look at all these other cool things. Yeah, it's –

MR. DEGROW: Well, who knows, Corey, maybe we'll – maybe we'll have you back somebody for future research on choice in Michigan. We really appreciate it.

Before we wrap up here, I wanted to make note, you can pick up a copy of our new publication at your table. There are extra copies of that and other Mackinac Center publications there in the back. Feel free to help yourself. But thank you very much for attending today and let's give Corey one more round of applause. (Applause.)

MR. DEANGELIS: Thanks for listening to me for so long. (Laughs.)

(END)