

THE BROOKINGS INSTITUTION  
PROMOTING K-12 EDUCATION TO ADVANCE STUDENT ACHIEVEMENT

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**PARTICIPANTS:**

**Welcome:**

ROBERT E. RUBIN  
Co-Chair Council on Foreign Relations  
Former U.S. Treasury Secretary

OVERVIEW OF HAMILTON PROJECT STRATEGY PAPER

ROGER C. ALTMAN  
Founder and Chairman  
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PANEL I: THE POWER AND PITFALLS OF EDUCATION INCENTIVES

**Author:**

ROLAND FRYER  
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**Moderator:**

MICHAEL GREENSTONE  
Director, The Hamilton Project  
Senior Fellow, The Brookings Institution

**Discussants:**

PETER GORMAN  
Senior Vice President, Education Services, News Corporation  
Former Superintendent of Charlotte Mecklenburg Schools

MICHAEL MULGREW  
President, United Federation of Teachers

ROBERT L. HUGHES  
President, New Visions for Public Schools

Panel II: Organizing Schools to Improve Student Achievement: Start Times, Grade Configurations, and Teacher Assignments

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JONAH ROCKOFF  
Professor of Business  
Columbia University

**Moderator:**

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Panel III: New Assessments for Improved Accountability

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ROUNDTABLE DISCUSSION: LESSONS LEARNED FROM EDUCATION REFORM  
AND THE PATH FORWARD

**Moderator:**

DAVID LEONHARDT  
D.C. Bureau Chief  
*New York Times*

**Panelists:**

WENDY KOPP  
Founder and CEO  
Teach for America

RANDI WEINGARTEN  
President  
American Federation of Teachers

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## P R O C E E D I N G S

MR. RUBIN: I'm Bob Rubin, and let me welcome you on behalf of all of my colleagues at the Hamilton Project for today's discussion of primary education K through 12 to advance student achievement. We began the Hamilton Project about six years ago and it was really a quite unusual combination of policy people, academics, business people and people from finance, and the idea from the very beginning was not to endure specific ideas, but rather to catalyze seriousness of purpose in policy development and, most particularly, in public discussion at a time when it seemed to us there was a tremendous need for that catalyzation.

If you look at today's world and the challenges we face, it seems to me that that need for seriousness of purpose has increased substantially even from the time that we started this project, and that certainly is true when you look at the dismaying nature of public discourse and political action.

Our consistent view has been that economic policy should pursue multiple goals, growth, broad participation in that growth, and economic security, and that all three of those are mutually reinforcing. We also believe that there's a vital stake for government in a market based economy.

Clearly, this has been a period now for quite some time where many Americans have been and continue to experience terrible hardship. Country's economic difficulties, it seems to me at least, are likely to continue for quite some time, and in that context, the Hamilton Project has had a serious focus on the issues of today.

We've conducted discussions of stimulus, discussions of mortgage relief and various other subjects. Let me just say in the context of the tremendous need we have as a nation, for seriousness of purpose in governance today, a more specific comment.

2012 faces a fiscal drag, and I don't think there's any question but that we need a fiscal stimulus that will fill that drag and hopefully add a bit beyond that, and that we need to enact now deficit reduction that would go into affect, that would be implemented two or three years down the road to give the economy opportunity for recovery to take hold, and that in that context, we will need to have constraint, cost constraint on all scores, on all fronts, and also significantly increased revenues. On the other hand, the politics around all of this are extremely difficult and ultimately all of this could make a material difference that will all come down to political will.

With respect to the long term, which is the primary focus of the Hamilton Project, the United States has enormous comparative advantages, comparative strengths. We have a dynamic society, we have entrepreneurial culture, we have flexible labor and capital markets, we have the rule of law, we have enormous natural resources, thus, we are well positioned to succeed in the longer term.

On the other hand, in order to do so, we have to reestablish a sound fiscal regime, we have to have vigorous public investment, and we have to have reform in a whole range of areas that are key to economic success, and all that, in turn, will come back again to our political system, to political will, and to having political processes in which are elected leaders are willing to work across party and ideological lines to base decisions on fact and analysis and to make difficult decisions.

Thus, political will is the ultimate challenge for our economy and for our society. And that takes us to the purpose of today's program, any discussion on long term challenges and prospects the American economy faces centrally on effective education in grades K through 12 and the many shortfalls that we experience in this area.

There is, as all of you know, a tremendous amount of activity, a tremendous amount of study in this area in both the public and the private sectors. What we at the

Hamilton Project have tried to do is to take account of all of this work and then to sponsor policy thinking that we thought could add to the vital national effort.

In that respect, the Hamilton Project issued a strategy paper and conducted discussions around policy papers prepared by outside academics and policy analysts at an earlier point in time. And today we carry forward with a second strategy paper; it's in your materials, and a set of papers by distinguished experts around which we will then have policy discussions. Each paper, in effect, will be the jumping off point for discussion on a different topic, and you can see the program in your materials.

Let me now outline the program very briefly and introduce our panel members. It is a truly remarkable and outstanding group of people. I will not go into the resumes of each because they are in your materials. Our program will begin with an overview of The Hamilton Project strategy paper by Roger Altman, former Deputy Secretary of the Treasury and now Chairman of Evercore Partners. Our first panel entitled The Power and Pitfalls of Education Incentives will involve presentation of a paper by Roland Fryer, Professor at Harvard University and recent winner of a Genius Award from the MacArthur Foundation.

Roland has done things with The Hamilton Project before, and I said to him this morning, this was the result of – shows what can happen when you associate with The Hamilton Project. Well, none of the rest of us have gotten genius awards yet, so it's not a guarantee. In any event, we have Roland, who we are delighted to have.

As discussants, we will have Peter Gorman, Senior Vice President, Education Services, News Corporation, and the former Superintendent of Public Schools at Charlotte-- Mecklenburg, okay, Robert Hughes, President of New Visions, and Michael Mulgrew, President of the United Federation of Teachers. The Moderator will be Michael Greenstone, Professor at MIT and Director of The Hamilton Project.

The second panel entitled organizing schools to improve student achievement, start times, grade configurations and teacher assignments, will start with presentation of a paper by Brian Jacob, Professor at the University of Michigan. The discussants who I've already introduced will be Peter Gorman, Robert Hughes and Michael Mulgrew, and the Moderator, again, will be Michael Greenstone.

The third panel entitled new assessments to improve the accountability will begin with a paper by Derek Neal, Professor at the University of Chicago, and the discussants again will be Peter Gorman, Robert Hughes and Michael Mulgrew. They will be joined by Jonah Rockoff, Professor at Columbia University, and the Moderator, again, will be Michael Greenstone.

And the fourth and final panel entitled lessons learned from education reform and the path forward will be a roundtable discussion amongst Wendy Kopp, Founder and Chief Executive Officer of Teach for America, Randi Weingarten, President of the American Federation of Teachers, and David Leonhardt, the Washington, D.C. Bureau Chief of the New York Times and last year's Pulitzer Prize winner in the commentary category. David will also act as Moderator.

It is really, when you think of what I've just described, a truly remarkable program on a vital subject. It will give us all the opportunity to listen to and engage with an incredible assemblage of thought leaders. For developing the intellectual construct of this program and then bringing together this remarkable group of people, let me thank three in particular, Michael Greenstone, Director of The Hamilton Project, Karen Anderson, the Managing Director of the Hamilton Project, and Adam Looney, the Policy Director of The Hamilton Project and Senior Fellow at Brookings.

Let me also thank what is truly a remarkable staff that we have at The Hamilton Project. They are enormously talented and they work endlessly to produce

what we'll be experiencing today. Thank you all very much, and Roger, I turn the podium over to you.

MR. ALTMAN: Good morning, everyone. I'm going to try to be particularly brief because I expect to learn a lot from these extraordinary panelists and they're not going to learn much from me. This is the second event which The Hamilton Project has dedicated to education. And the lights, I notice, have darkened. Any further and I'll stop my remarks. That is appropriate because most evidence shows that the single most important factor in determining an individual's lifetime earnings and standard of living is the level of education which he or she has attained. We could have a great debate about this, but I would argue that's the single most important factor, I think most of our panelists or all of them would say the same, and that ties directly to the premise of the Hamilton Project, which is to formulate and promote policies to achieve broad based economic growth in America.

So of all the policies we have focused on over the past five and a half years of our work, this may be the single most important one. Let me illustrate this, borrowing from the strategy paper on education which we released today and which I hope most of you have.

Increasing levels of education contributed one quarter of the productivity gains achieved in the United States over the 20<sup>th</sup> century. It also narrowed the historical pay gaps between men and women and between whites and minorities to the point where today the education levels of women in America now exceed those of men. In fact, over the past 40 years, the share of women receiving a college degree, I find this extraordinary and wonderful, has risen from 12 percent to 35 percent.

Our focus on education also is timely, because this American legacy of consistently improving education levels and standards of living has come to a halt, and that is truly a



profound and a profoundly negative development, and it is supremely important that we reverse it. But standard measures of student achievement have now been flat for some time. Results of national standardized tests given to high school students, high school completion rates, college completion rates for men all have been flat for some time. And the United States, for example, no longer leads the world in college completion rates and we are continuing to fall down that list.

In fact, as this paper points out, if GED qualifications are put aside, the proportion of our population with a high school diploma actually has fallen over the past 30 years.

Just to widen the context, I want to cite quickly five factors that I know we'll be discussing today and that are alluded to in the paper. One is that these stagnant levels of educational achievement are contributing to declining real incomes for most of the American work force. The real earnings of the median working age man in the United States have declined by \$13,000 or nearly 30 percent in real terms over the past 40 years, returning that level of real earnings for the average working man to a level of the 1950's. That's an astounding figure. Secondly, this stagnation is occurring while the United States spends more on education than we previously did, approximately 3,000 per student more than other industrialized nations spend. So as the paper points out, we're spending more and no longer achieving more, and if so facto, our approach isn't working very well.

Third, the pay of teachers in this country relative to other professions remains low. The gap between teachers and other workers in the country is approximately twice as wide as the OECD average, and that gap has been growing over the past 30 years.

Fourth, much of the vast research on education and education reform has shown, particularly in recent years, that the single most important ingredient in a child's education is a strong teacher. The difference in test scores between the most effective and least effective teachers equates to an additional six months of school. An above average kindergarten teacher, for example, raises the lifetime earnings of a class of 20 by more than 300,000 for each year of teaching. And finally, some charter schools in this country have achieved startling positive outcomes, although charter schools as a whole have not. It is important, and you'll hear a lot about this today, it is important to do more work to see whether the techniques and the costs of the star charter schools can or cannot be replicated on a meaningful scale.

As Bob said, we have an extraordinary program today, it will be one of the very best which The Hamilton Project has ever put forward, and I'm happy to say I think that's a high bar. It underscores one of the grounds of optimism when it comes to education reform, namely, that there is amazing talent at work in this field and you're going to see that today. Thank you and let's get onto the panel.

MR. GREENSTONE: Welcome; this is our first panel, the power and pitfalls of education incentives. We're very fortunate to have Roland Fryer here today, who is a Professor of Economics at Harvard and recently received the MacArthur Genius Award. We also have Pete Gorman, who was introduced by Bob, the former Superintendent of Charlotte Public Schools. We have Michael Mulgrew, the President of the United Federation of Teachers, and Bob Hughes, the President of New Visions. I think with that introduction, maybe we could have Roland start. And I just want to say from the outset, there will be time for questions at the end, and I think the way we're going to do it is, we're going to pass around cards and we'll collect them and then I will read a couple of the questions. So, Roland, if you want to get us started.

MR. FRYER: Thank you. All right, good morning, I think it's still morning, and thanks for The Hamilton Project for having me. Let's start out by talking about the racial achievement gap in America. And I'm sure you've heard a lot about it, but maybe not of seeing these numbers quite yet.

So these are data from the National Association of Education Progress, which are kind of annual assessments given – national assessments given to fourth, eighth and twelfth graders across the U.S.

What I want to show you here is that the green bars are the achievement of white students in America, the, I don't know what color that is, but yellow, let's call it, bars are the achievement of black students, and the purple bars are the achievement of Latino students. And what you see is, at least for me, pretty depressing. There's a couple things you see. One, in every city in which NAT data is collected, there are 21 major cities in America, there's enormous racial differences in achievement. These are proficient scores, so these are kind of kids at grade level, if you will. So we're in Washington, D.C., so let's check out D.C. In D.C., 72 percent of white students are proficient in reading in eighth grade. Now, you should compare that to roughly eight percent for black students, okay. I think the NAT test has like four questions on it or four answer choices. I think if you just marked A, you might beat eight percent. So this is like really not good, okay.

If you look across all 21 cities, there's not – none of these cities do more than a quarter ---- more than 25 percent of black students can do reading or math at grade level, so there's a big problem that we have in this country. And again, I'm sure you've heard about it, but maybe you haven't seen it so graphically.

Now, we've done a lot of things, so, you know, when we were doing the incentive experiments, I got a lot of emails, some from my own grandmother who was an

educator for 35 years, saying why don't you just do all – why don't you just do the conventional stuff, why don't you just do what we know works, and I was like, well, if you're keeping secrets, you should just tell me what works because I mean we're all out here busting our ass for nothing. And so, you know, a lot of things you say are like why don't we reduce class size, or why don't we – people just need more money, so I said, okay, let's check into that. So here's – we have some conventional wisdom here. So this is total expenditure per pupil in kind of '08/'09 school dollars. So as you see, our per pupil expenditure over the last 40 years has gone up nearly two--fold, okay, and that's in real dollars. We're spending a whole lot more on education.

Our student/teacher ratios have declined considerably, okay. So in 1970, we were roughly a little above 22 kids in a class, or 22 kids per teacher, now we're a little below 16, okay.

And if you look at just the mean reading and math achievement across that same time period, while these investments have gone, well, people would consider up, more investment, the math achievement and the reading achievement actually stayed flat, okay. And if you look at high school graduation rates, again, flat. So I would say then conventional wisdom, at least on its own, hasn't gotten us there.

So between 2007 and 2010, we did a bunch of incentive experiments in schools across the country, in six different school districts. We worked with about 25,000 kids and gave away a little over \$10 million into bank accounts for the kids. Every kid got a savings account set up for them. We encouraged them to save, it didn't work. As one of the kids told me, he says, Professor Fryer, I did what you told me, I saved my money for about a month and then I spent it all. But in the eyes of a fourth grader, the discount rates, you know, a month is a long time.

So we kind of designed the experiments such that we would have inputs, kind of paying for inputs, paying for behaviors, and paying for outputs, the ultimate thing that you actually wanted to reward in the first place. So in three cities, Dallas, Washington, D.C., and Houston, we paid for inputs. So in Dallas, for example, we paid \$2 a book to read, in Washington, D.C., the kids got up to \$100 every two weeks if they did things like came to school on time, didn't punch the person next to them, et cetera, low hanging fruit.

In Houston, we paid \$2 per math objective. And in Houston, we did something which I think is kind of interesting, we aligned the incentives, so we had teacher incentives, we had student incentives, and we had incentives for the parents all focused on one objective, which was math achievement. So the kids got \$2 a book ---- \$2 a math objective every time they mastered an objective, and the parents also got \$2, and then we incentivized parents to go to the school and have meetings with the teacher to discuss their student's math performance.

In New York City and Chicago, we paid for outputs, okay. So in New York City, we paid kids just for the test. So a fourth grader could make up to \$250 in that year. And you may ask, Roland, how did you set the prices, that was the current price of an Xbox at that time. So you could make up this \$250 for being paid for output. If you got a good grade on a test, you got more money. So you got \$5 for actually just taking the test, because 18 percent of the kids in New York City in the previous year just kind of turned in the test with their name on it, so we gave them \$5 for completing the test, and then every question you got right, you got more money, up to \$25 per assessment. In Chicago, we paid kids for grades, you got \$50 for an A, \$35 for a B, et cetera, okay.

Here's what we found, in the cities where we paid for inputs, Dallas, D.C. and Houston, we got, wow, this time goes quickly, we got positive results, statistically

significant in two out of the three cities. D.C. is marginally significant. In New York City and Chicago, we actually just got zero results. I mean the co--efficients were negative, but they were statistically insignificant. So the Dallas result, if you look, it's about a .23 standard deviation increase, that translates into almost three months of schooling, and this is something that costs us \$20 per kid, okay. So the return investment, if you will here, is very, very large, okay.

I have like 15 seconds, so let me just quickly tell you what I think we learned in those three years of doing those incentives. Number one, do provide incentives for inputs, not outputs, especially for younger children. Do think carefully about what to incentivize, okay. This miraculous idea that I thought we're going to go in, give kids incentives, they were going to get excited about school and do a lot better, no, they did exactly what you told them to do and no more, it's true. Do a lot of the incentives, I think we found some powerful results in Houston. Do implement what works.

One of the most disturbing conversations I've had since I've been working education was with a very high ranking policy official after these results came in. He said, wow, if you pay kids to read books, you get a big effect, I said, yes, sir, he says, all right, so we're going to pay them to do their homework, but not really cash, we're going to use something else, I was like what are you talking about, I don't know if that's going to work or not, I've just shown you this is going to work. So implement what works, not what you get up in the morning and think works.

Do stay the course. My own grandmother wouldn't talk to me for the two years we did this. It's a very controversial thing to do, but I think there can be a high return investment. Don't think the effects go away after incentives are removed. We found in Dallas that 60 percent of the impact was still there a year later. Don't believe

incentives are destroy intrinsic motivation. Every incentive experiment we did, we did the social psychology inventory of intrinsic motivation, we had no effect either way on intrinsic motivation.

Don't worry, students waste their money. A lot of them actually – don't worry about it, they do. But a lot of them saved actually. And we did like a survey asking what they spent their money on, video games, shoes, savings, that's what it went to. Don't be cheap. What we found was that the more money you gave students actually, the more they earned, so when we doubled the incentive in Houston, we almost got double the amount of math objectives mastered for that period. So it was really, really interesting that students were very much weighing the cost and the benefits of doing their math objectives.

And the last thing and probably the most important thing is, do not think that incentives are panacea. They are not going to solve those big numbers that I told you about in the beginning, but they do have a positive return on investment when you incentivize the right thing. But again, you can give kids incentives, they're not going to come in and say, wow, you've changed my world, I'm going to totally invest in education, but if you pay them to do a math objective, they'll do a math objective. Thank you.

MR. GREENSTONE: Thank you, Roland. I thought I would direct my first question to Pete. Pete, you oversaw a major school district. Roland has – one thing that I like about Roland's work on this is, he takes very seriously our spending for people has gone up by a great deal and we haven't seen returns, maybe we should be looking for new tools and new mechanisms. How would that work on the ground, and did you think of something like that during your tenure at Charlotte?

MR. GORMAN: Well, Roland and I had dinner in Austin, Texas about two – three years ago and we discussed this, and I went back and talked about it with

some of the individuals on our team and some of our school board members, and there was a segment that was horrified that we would even look at the concept of incentives.

And then actually before I left Charlotte as Superintendent, Roland and I had had some discussions about us doing some reform work with Roland. But it's funny, I'm a parent of a 13 year old, and I spend my entire life thinking about incentives with our daughter, but I do it in a different way that it just seems okay, and I have justified it for my life because I have the ability to do certain things for our daughter which really fall in the category, to me, of incentives.

But yet when I go to work and talk with others, and as a Superintendent, I'm not willing to let the policy piece stand up to the political piece. And we really get frightened by school leaders with taking on challenges like this and make decisions of what battles do we want to fight. And I think Roland nailed it when he said it's not a panacea, but it is one part, and, to me, this truly points out the multi prong approach that we have to use, and right now we seem to be exclusively focused on approaches related to adults and reform work than approaches that directly go to the student. So I continue to be intrigued by this work and think that it is a piece that we've got to dig deeper on, and then also how we determine what is that trigger point for what incents a child, because what I'm finding with a 13 year old is, what I think it is today and what she thinks it is today is different tomorrow, and I've learned I'm not cool, and I don't know what those trigger points are. So those are some initial thoughts.

MR. GREENSTONE: Michael, so you represent teachers?

MR. MULGREW: Uh--huh.

MR. GREENSTONE: How do they think about this?

MR. MULGREW: Well, we've tried the incentive – I'm fascinated by his work. He studied the Whole School Incentive Program that we did in New York City, and



like – as our teacher incentive programs, it did not prove to do anything effective. I was – I'm very interested on the incentivizing of the input because the input side is something that, as a teacher, I find to be much more effective. If you're looking at what are the inputs in terms of education both for a teacher and a student, then that's going to lead to stronger outputs. But there hasn't been a lot studied on the input side. Right now we have a program where we're trying to create a career ladder inside of the teaching profession, and we've tried – we've created a master teacher position with increase in salary.

I was at a school last week who's been doing it for two years, who's really drove down upon it, and I think they're actually coming up with something where the master teacher is helping all the other teachers in small groups of five or six, and the teachers are very excited about it, they feel that it's moving them instructionally, and it keeps the focus on instruction inside of the classroom.

Now, right now it's only K--1 and 2. The administrators are very happy with it, they're seeing gains that they did not see beforehand, and I'm kind of excited to see where that goes.

On the student side, I was an at risk teacher for 13 years, so incentives would be very interesting, but very – what we incentivize is the real question. The students who I taught were students who would not behave well, who did not want to go to school, and it was more building that bridge of a relationship with them that allowed them and brought them to the place where they understood where school was important. I don't know how to incentivize that. And the question that you brought up was so poignant, what do we – what is the real question on where do we put that if we're going to use it. It would be interesting to see where that – where your work takes you in the future on that.

MR. FRYER: Can we respond and interrupt?

MR. GREENSTONE: Yeah, please, yeah.

MR. FRYER: Okay. I don't want to be kicked off The Hamilton Project.

MR. GREENSTONE: We did get you the Genius Award.

MR. FRYER: It was the first time my name and genius have been used without the words "he ain't no." So you might think, particularly for at risk students, that, you know, I guess I was really an at risk student, as well, and there's all sorts of incentives out there whether we admit it or not competing in the opposite direction.

MR. MULGREW: Correct.

MR. FRYER: And so, you know, you might think that providing incentives for students to come to school and then do – make the connections you're describing might be useful, although I totally agree with you on the teacher side. And I've been pushing this with some of my funders, and the hard truth is, I think we'll agree on this, it's just not sexy, and unfortunately, I haven't been able to get folks to do this, which is, I've wanted to run a teacher incentive experiment on the input side, where it's tied to coaching or professional development or, you know, access to a master teacher or whatever, you might think of doing it that way instead of just doing it on the output side.

MR. MULGREW: If you're in New York, I'd love to bring you to the school. It's exciting. I mean I got very excited sitting and speaking with them. They've done a lot of different things, they've done change of format, but the excitement and the level of actually meeting with these teachers in a group with their master teacher, and the master teachers truly enjoy helping, and they're inside of the classrooms, they're dealing with instruction, they're making sure that the student's data is being analyzed in a way, and they're then aligning the instruction to it, and the conversation is just all about how we can enhance instruction and help our students move, and it's very exciting. And

anyone who could ever – I'll be more than happy to try to, anyone who wants to come down, to take a look at it. But you're right, and that's the first time – you know what our whole school – teachers were like – it was like, yeah, you gave us extra money, that was nice, but we were doing the work anyway, we spend all the extra time and it didn't make a difference.

MR. GREENSTONE: So, Roland, you know, I don't think you had as much time to talk about the results from the teacher incentives, do you want to just give us a quick feel of what those showed?

MR. FRYER: Sure; so in New York, they spent I believe \$75 million over three years implementing a teacher incentive program that was school based. So if a school met goals, a school – it's like an airplane dropped, I believe it was \$3,000 per UFT teacher, and then the school decided how to actually distribute the dollars, okay.

That teacher incentive program and others, at least in America, have not shown significant effects, and this is one of them. If anything, the New York teacher incentive program was negative. And so –

MR. GREENSTONE: Now, one thing before we go to Bob, and maybe Bob will just take this, and this is a theme that's going to emerge over all of the panels I think, is, when we wrote our paper on this, one thing that we were surprised by is, it looks like at least with respect to wages, we can't measure full compensation because we can't see benefits, with respect to wages, there have been a decline in teacher wages over the last 20 or 30 years, and that's relative to their outside opportunities, that's on the one hand.

On the other hand, in addition, teacher compensation seems to be heavily back loaded with lots of pension benefits and not so much pay up front – and not as much pay up front, and I think there's an open question, does that kind of

compensation system provide access to the widest pool of potentially talented teachers, and I wondered if any of you had some thoughts on that, and the ways that that might relate to incentives being part of the compensation package.

MR. HUGHES: Sure; I mean I think there is a significant problem the way we compensate teachers, largely because we've inherited that structure from a time when the work force was largely female. We were looking for much greater stability, you didn't have necessarily the competitive labor market that you worried about in attracting the best and the brightest into school. So I think the challenge we face is rethinking that compensation system to ensure a couple of things, one, that we can attract different types of people into the profession, but secondly, that we can ensure that for a significant part of that labor force, they're going to be able to have a working wage job that enables them to retire appropriately.

So I think there are giant questions about the structure we have. I think that things like portability matter, particularly to younger workers. I think the idea of five year tranches for vesting may not make sense for the typical teacher, we may want to start to think about more annualized vesting procedures.

I think it's going to be a tough set of issues. You've got a group of people who worked hard under a contract and are entitled to what they've earned. I think going forward, we're going to have some very difficult conversations, but important conversations about how we restructure that labor market to make it work.

MR. FRYER: Can I push back on that, or at least push on that? I think there's an argument out there that totally goes with what you're describing, but also with a layer on top of that, totally restructuring teacher training, because if you think, hey, if we had extra money or allowed the front loading of pensions or what have you, we could attract really, really smart people into the teaching profession. Well, we kind of have

something similar to that experiment in Teach for America, right, and Teach for America has shown that they have small positive gains, but, you know, if incentives aren't a panacea, neither is that.

And so the question would be, how can we actually transform the training of teachers, because I've never seen anything like it, frankly. At Harvard Law School, you graduate, you don't go lead a merger and acquisition, you graduate from the business school, you're not negotiating a deal, you're doing PowerPoint, man. Only in education do you like graduate and then go have an enormously consequential job on day two.

MR. HUGHES: Well, I would push in the same direction, let's join forces. And really, I don't get invited to a lot of deans of schools of education parties.

MR. FRYER: Me either.

MR. HUGHES: Because I think that entire sector has been left out of the accountability debate. And so in New York State, for example, we were very excited in the Race to the Top application, to see that there was the possibility that non--universities could certify teachers and grant masters degrees, that went zero when we ultimately landed into the politics of universities in New York State. So a very exciting program led to one institution, the American Museum of Natural History getting the opportunity to grant masters degrees.

I think we have to fundamentally rethink how we train teachers. I think we have to – Roger Altman talked about learning from good schools, I would expand that and say there are extraordinary district schools and extraordinary charter schools, and those should be the locust of where we train our teachers.

We should be thinking about residency programs, we should be creating teaching hospitals, we should be using that space to build the next generation, and until

we do that, we're going to replicate the types of teacher experiences survey after survey, so as the teachers enter the profession feeling completely unprepared for the demands of a classroom with 30 or 35 students and giant challenges and differentiations. So I'm 100 percent with you.

MR. GORMAN: And I want to add one more piece to that, too, and that is that the folks who are doing school leadership, and we make it even harder because we assign them then to the most challenging and difficult classes. We did some work in Charlotte where we looked at what is the likelihood of a student that is at least one year below grade level to be assigned a novice teacher, and they were three times more likely in Charlotte, which showed me that we had set up a structure or system to take the most fragile of students, to put them with the teachers that face the greatest challenges and structure that to then create dissatisfaction for those teachers to drive them towards leaving the field of it, so we created this self--perpetuating churn, and that until we started to do some things where we said how do we get our teachers who are the most effective to take on these most challenging assignments, we found actually it wasn't money that triggered it, it wasn't money, they wanted to be with a great leader, they wanted to go in with a team, they wanted to be mentored along the way, they wanted to have time for planning, and those were all things that I thought about, wait a minute, but our colleges of ed don't link back to those areas, so we certainly know that we are creating this problem for ourselves at the local school district level, too.

MR. GREENSTONE: So, Mike, I wonder if I could –

MR. MULGREW: Go ahead.

MR. GREENSTONE: ---- ask you to speak to this. So I think what Pete just said is very insightful. And on the other hand now, we've got a system of pay where teachers are largely rewarded based on the number of years that they've been in the

profession, and so one way I think to probably reward better teachers is to let them choose their school assignments or have some say in that. And I think all of that must relate to the form of compensation. And what is your view on how we could restructure things to kind of better serve students?

MR. MULGREW: That's why we've pushed over the last year and a half to actually use Race to the Top to try to create this career ladder which can incentivize teachers who want to do this very difficult work. But the incentive piece, as you said is, it's not so much the financial, it's they want to make sure if I'm going to move, I'm going into a school that I know that there will be support for the work that I want to do with other teachers.

So we have two positions which we're playing with at this moment. One is called a turnaround teacher, which is basically the Japanese lesson plan. I'm sorry if I'm going out of people's – it's a Japanese lesson plan sharing, which is for a teacher who's proven to be an exceptional teacher, they would open up their classroom for other teachers to come in, and they would have to spend some time speaking with teachers about how you prepare a lesson and deliver instruction.

The master teacher is a much more complicated one. And what we have found, we originally were choosing master teachers based upon – only on the outputs, it was a mistake, it was a big mistake. Just thinking that if someone can move students doesn't mean that they can help other teachers. And what we now are finding out is, their ability of – the human relation ability, the ability to work with others is just as important, if not more important, than their pedagogical skills.

So there's room to do both, but we can incentivize people in a career ladder. In terms of how we get people to go into and stay in the profession, that's a challenge we face as a country, we'd lose too many teachers. And my first full teaching

assignment, I was a – I had substituted for a while, but I was literally put in a basement with 30 children who did not behave well and did not want to go to school, that was me. I would not have stayed in this profession if I didn't have, you know, fortune that – it so happened that there was a teacher, one teacher who shared the room with me who was actually bigger than me because we were the only two people allowed to teach in the basement because they figured we could keep ourselves safe, who finally, after about two or three months, he said to me, are you going to ask for help, and slowly he mentored me over that – over the next 18 months. I would have never stayed in this profession. But most teachers don't have that experience, and that is something we have to look at and really change.

And Bob and his organization, my organization, have done some very creative things with residency programs, and more time inside of that classroom in real teaching environments is critical to preparing someone.

MR. GREENSTONE: I want to go back to what I think is an underlying theme in all of this, and I think your incentive work really pulls it up, and one of your do's and don'ts, it's about the alignment of systems in schools. I think what you're really talking about is the culture that exists in schools and the way we incentivize with money or the way we incentivize with a scene or peer competition, or messaging. There are a variety of things that we need to be doing in that culture for both students and adults. And I think what's so provocative about your work is, it starts to talk about the inputs. I'm curious, Roland, are there pieces of evidence that suggest that financial incentives on inputs work for different sub populations? Do they work better for boys than girls? Do they work for particular economic groups?

MR. FRYER: They tend to work for, and this is probably why it was so natural for me to think about it, they tend to work for bad behaving boys as a general rule.



And it's one of the few interventions actually in education reform that I've seen that works better for boys than for girls.

So, yeah, there are certain sub populations, but we have a, you know, these are six experiments, there needs to be 600 of them before we can have any definitive conclusions of how to think about this, right. I mean there's a ton of things we can do on the teacher side, there are a lot more things we can do on the student side with messaging and the things we were talking about before the panel today. And I think the key for me is, and I hope this is a reoccurring theme throughout the day, is to try stuff, measure it, and then repeat.

MR. GREENSTONE: I'd like – and this might be my academic hat on, but I just want to underscore that. I think one problem with education reform and reform of many systems, not just education, has been, there's an element of the merry-go-round, like ideas are popular, and they come around, and people get on them, and then the merry-go-round goes away, and they get off, and get on a new idea, and we never kind of learn what works and what doesn't, and I think that's part of what's so important about Roland's work.

You know, I think one way that they've tried to do that I think in medicine is, they've created these registries, which is any time you're going to try something new, you'll commit to doing it with a randomized control trial, you'll publish that you're doing that, you'll post that on the web or some public place, and then there's an expectation that there will be results, and if the results never come, I think that speaks for itself.

So I think that's one thing that has been especially exciting I think in the last ten years, is this combination of really creative thinkers, and access to new data sets, and increased computing – allowed for really a large increase, and we know it works, but I think what Roland was saying is important, which is, I think we're probably just

scratching the surface. Like the master teacher thing sounds like a great idea, but like a lot of great ideas, it might not actually be. I have a lot of great parenting ideas all the time, you know, I'm below 50 percent, but above zero.

So I wanted to – Bob, you know, you've been doing some really creative work on kind of reconceiving how to – reconceptualizing schools kind of from the – as if you could build them from the beginning. In what way can these incentives or even students – and I know you've done a lot, you guys have focused a lot on high schools and a lot on younger kids, but I wonder if you think, would that population ----

MR. HUGHES: Well, we've talked a lot about that. I think Pete gets to an important point. When you start to look at adolescent incentives, you have to start to think about newer development, for example.

MR. GREENSTONE: Yeah.

MR. HUGHES: There's a lot of emerging work about reward pathways and kids, so the types of incentives you need may need to vary over time. I think your point about being cool or not cool, very important that the incentive structure actually meshes with the desires of young people. And I do think that there are a whole host of incentives that we don't take seriously. The communication stuff that we touched on a little bit, I think there will be a lot more coming out on that. But also questions of esteem and peer competition are giant, and we need to be thinking about those strategies, as well.

One final thing that I do want to – I think it's really important that we start to build a common language around this, as well as a registry. And so I can't sit on the stage without making a pitch for the common core, this idea that we are actually going to be studying the same things. Having kids know and be able to do the same things

across multiple states means that we're going to have a much richer ability to study what work and doesn't work, and it's really crucial that we ensure that that occurs.

MR. GORMAN: Let me give just one real life experience related to what you just said. So on Sunday I said to my daughter, I'm going to this conference, I'm going to be talking about incentives, one of the things was recognition, honey, how would you feel if an assembly – she was horrified, really horrified to think that she would be called up in front of her peers. And then when I asked her about it, I said, so for school work, she said yeah, and then I said, now, your softball, what if it was for, oh, no, that would be great. So it's even more nuanced –

MR. GREENSTONE: Right, yes.

MR. GORMAN: ---- than what we realize it is in that agitation for being recognized for a physical endeavor was cool for her, but not the other piece.

MR. GREENSTONE: One issue that I think will surface, and I believe it's the last panel on Derek Neal's important work, is when you set up incentive structures, people – it then creates a possibility for people to game the system in a way where they'll achieve whatever you incented, but not actually in this case maybe achieve mastery of the overall topic. I wondered if any of you guys would be interested in commenting on that and what – and I know you set up some incentive systems, so I think you've thought some about that, Pete.

MR. GORMAN: We did; I want to talk about one piece that was really kind of strange, that we didn't expect. With our teachers, one of the incentives for going to some of these turnaround schools that were doing good things was the fact that certain individuals wouldn't be present, and it was an incentive in a different way.

MR. MULGREW: There you go.

MR. GORMAN: But first and foremost, it was the controlling principal who was going to top down manage everything, and the second piece was, with the adults, we found a big driving force was, our finest teachers didn't want to be with poor performing teachers, that was a huge incentive for them.

Now, they didn't want to be self--policing, though, in that process, they wanted someone else to remove those individuals, but that made it incredibly attractive for them to go to that school, because what they said was, it'll be a true professional learning community where everyone will contribute, and what they said from there was, to take it to another point, and then they said, and in my previous school, I would want you to evaluate me and judge me on my work alone, but now that everyone is up to a particular standard, I want to be done on the body and breadth of work we're doing as an entire group.

So in the work we've done in Charlotte, it's just – this is just incredibly nuanced, and you've got to dig and look and do what Roland is talking about, and then you've got to tell people what worked and what didn't, and that's painful.

MR.FRYER: I agree; I think incentive schemes are enormously complicated to think about the exact right one. I'll give you a quick story, Michael, I can't wait for this one. So my wife and I got a puppy two weeks ago, and so I decided I'll try another incentive experiment, and I really wanted him to go outside to the bathroom, and so I started giving him treats to do so, and when he realized this, my wife didn't do it, she said that's silly, so she doesn't do it.

With me now, it took him two days, and now he's decided instead of going to the restroom once, he'll go four or five times over a span of two minutes and he gets four or five treats and he thinks this is really great. So if an eight week old puppy

can figure out my incentive scheme in two days, a 15 year old is going to figure it out in two minutes, right. And so we have to really, really think creatively about how to do this.

When we did our work in Houston and kids were mastering math objectives, right, and we aligned the incentives, the kids in the treatment group mastered one standard deviation, more math objectives than the kids in the control group, okay. That is a huge number, right. So we thought, oh my gosh, this experiment is going to be enormous, and when it came back to the actual results, the test scores did go up, but not nearly as much as we would have expected given the amount of math objectives, and the reading scores went down.

And so when you asked what happened is that, you know, in a fifth grade class, there's this kind of – there's no switching of classrooms, so, you know, the teacher would say, okay, put up your math books, it's time for English, and the kids would say, no, I need to master some more math objectives because I want to buy some sneakers.

And so there's always this trade--off, right, that you have to be really, really careful with. And again, as I tried to say, incentives can be very, very, very powerful, but in the same token, there can be pitfalls, and we have to be really, really creative how we design these incentives going forward.

MR. GREENSTONE: So incentivizing inputs are not the solution by themselves?

MR. FRYER: No.

MR. GREENSTONE: I mean in terms of solving this problem of teaching to the test or –

MR. FRYER: No, I think you have to – if you can find the right input, it's great. I think in Dallas we stumbled on a really great input, which was reading books, right, that was a great input, and, you know, it was done outside of class time, so it didn't

actually crowd out what was going on inside the classroom. So that – we stumbled on something that had enormous power.

How you do that for math or for science and social studies, I don't pretend to know. I just want to keep it going forward. I mean what's problematic, as you said, the merry--go--round, some people have decided, looking at my work incentives are great, let's do it, others have decided, no, incentives are terrible, let's not do it, and I said I have no idea if they're good or bad, let's just keep thinking and honing, understanding of the potential power.

MR. GREENSTONE: I think maybe now is a good time to take some questions from the floor. I think we have them here.

SPEAKER: (off mike) ---- what you said about Dallas, and – programs have done in isolation that I know, I think a Texas teacher of the year in Dallas – teacher of the year. Since then, she's an incredible – she's become a teacher trainer, she did remarkable things with – reading – a whole bunch of teachers – some impact on this? I think it might. And, you know, you talk about how to bring in good teachers, put people into teaching, we have a core of great teachers who, at this point, are so – so unhappy most of the time and who are leaving the profession – talk about using the, you know – there's one other thing, there's a school in Oregon that I know, and they break all the records. Last year two of their students – graduating students got perfect scores on the SAT, I think that happened – but they – Harvard and MIT – public high school, but for the past three years –

MR. GREENSTONE: Thank you. I think we're going to do the rest of the questions from the cards. This is a question to everyone, although –

MR. FRYER: I would agree with you that there's not enough celebration of teachers. As I said, my grandmother was an educator for – a teacher for 35 years, my

great aunt was a teacher for 51 years, both who raised me, and I would agree with you that there's not enough. I wouldn't agree that there's not any. And I work with lots of school districts, and, you know, I have seen great teachers celebrated, just not enough.

MR. HUGHES: I would add to that, there are emerging things. Fun for Teachers, a group out of Texas, is doing really interesting things where they let teachers actually define a semester that they can use themselves and give them money to do it, so their own professional development, their own travel, their own kind of work with their own students.

I think there are incentive structures that are very creative that can appeal to the intuitive reason why people go into teaching. It's not all just money, and we have to start to think about other ways of doing that.

MR. GREENSTONE: So to that point, one of the questions from the floor is, what do we know about uses and effects of non--pay incentives for students.

MR. HUGES: My mother used little stars on the refrigerator and that did okay with me.

MR. GREENSTONE: Yeah, I know, we used those, too.

MR. FRYER: My grandmother had an incentive program, it was called go get your own belt program.

MR. HUGHES: That's what happened when you didn't get the star.

MR. FRYER: Really popular on my street. So we've done two things in this regard, one of them we – when I was in New York, we partnered with Def Jam Records and L.A. Reid and had – I was meeting with L.A. Reid about something else, and his accountant came in in like army fatigues and this gold chain, and I was like, now that's what kids need to see, that this guy has got like an MBA from, you know, Yale, and he dresses like this.

And so we did this program where instead of – we didn't give kids financial incentives, but if they behaved and made certain test scores, they could go hang out at Def Jam Records and see all of their favorite musicians and hang out with the accountant, et cetera.

And the other thing we did in Oklahoma City was, instead of financial incentives, we actually gave encouraging messages over text message. So we gave all the kids cell phones, and the only reason we did that is so that we could keep in touch with them, and half of the kids, they got incentive minutes for doing well in school, the other half, they got encouraging messages regardless of how they did. So we just sent them and we partnered with a marketing firm that actually kind of did what I would consider edgy messages, but I agree, I'm not cool either. They said things like, you know, life expectancy is 72 years, that's a long time to be broke, go to school. That was rather encouraging. And to my surprise, the preliminary results that we're not ready to – these aren't ready for prime time, but the preliminary results are that all the treatments did well, but the actual encouragement, the actual text messages did more than the incentives.

So it could be that non--financial incentives through encouragement and other means, kind of like Michael was talking about, could be even more effective than financial incentives, we just don't know.

MR. GREENSTONE: Here's a question on teacher retention. President Obama's centerpiece on education is to revise the NCLB how can we attract and retain teachers to enter the teaching profession; is hiring teachers from other countries a good alternative?

MR. MULGREW: We've – we've done that in New York City. We've hired a bunch of teachers, we recruited in Austria, in the Caribbean. The results – it



comes down to, if they were put in a school where they felt supported, where there's a proper work environment, they stay, if not, they leave, and it always comes down to that. We have schools in New York City who have retention rates of 95 percent over a ten year period, that's what I look at. I have other schools in New York City who have 20 percent retention rates over a ten year period. It clearly comes down to the culture and the climate of the school.

People get into this profession because of intrinsic values more than anything else and they want to make a difference, they want to help children learn, and they get – if they feel that they're in an environment where they're frustrated, where they didn't get the right – look, they go in unprepared to begin with, let's just put it on the table, they're going in completely unprepared for the job they're about to do, so if they're in an environment that's going to help them be successful with helping students, because that's what drove them into the profession in the first place, then they're going to stay. But if they're in an environment that's not supporting them and helping them be – help students, then they leave. And you don't – I have seen nothing in NCLB that deals with that issue.

Incentivizing pay, moving – it's not what drives someone who gets into education. The basic instinct is, I want to help children, and if I cannot be successful in doing that, then I do not want to stay here.

MR. FRYER: But that's not really fair, because that's analyzing on a set of people who are already here.

MR. MULGREW: Uh--huh.

MR. FRYER: They chose to come because the pay is bad, that doesn't mean if you increase the pay, a whole more people wouldn't be interested, right. And so one question I have, Michael, would be, what about doing like the – kind of the obvious thing, which is, what about the barriers to entry into the profession? One of the things I

think that frustrates me just as a citizen is that my Harvard undergraduates who major in chemistry can't actually go teach a chemistry class straight forward in New York City, but if they were to major in education and not take that many chemistry classes, they could teach chemistry, that just seems strange to me.

MR. MULGREW: Well, that's not correct.

MR. FRYER: Really?

MR. MULGREW: We have an alternative cert program, and if they have a chemistry degree, we can bring them in, and then all they have to do is say they will take the education credits after they start. I think alternative cert programs are very important, we've used them a great deal, and in terms of paying more, I mean we had an experimental charter school in New York City that starting salary was \$125,000, it really hasn't flushed out very well.

MR. FRYER: But didn't they get like 10,000 applications?

MR. MULGREW: But in the end, we still have to look at the issue itself. The alternative cert programs I think are something we need to look at. I was – I have an English Lit degree, I did not go and get an education, credits to later on. I think it's very important, especially when we're talking about career development for students, being college and career ready.

The ability to engage them in different tracks of study that we aren't traditional I think is something that should be growing through career and technical education. You're not going to get those teachers to education programs, you're going to have to get them from industry or from I'm a chemistry major, and I think that's something we should be looking at. But the pedagogical skills, we have to be able to deal with that issue also in terms of helping them get it. But you can go into New York City now, and if you have a chemistry degree, say I would like to – especially chemistry, it's a – well, actually

probably not since it's not one of the tested part of their progress reports, so therefore, there are very few chemistry programs left anymore, but other areas we can.

MR. HUGHES: And can I just throw the one thing you said, which is, we're doing some work with TNTP, The New Teacher Project, looking at the retention of teachers, and what's interesting is, as a country we're fixated on that 40 percent value added data, but what we're finding is the 60 percent seems to be where teachers are retained or not retained.

MR. MULGREW: Right.

MR. HUGHES: And so young teachers who leave the profession are increasingly saying they wish they could stay if they felt their principal was giving them accurate feedback on a regular basis in their classrooms, and they felt that the school was invested in their success as a teacher. These are people we actually want to retain who are leaving the profession. So I think we have to start thinking about the management structures that we put in place and really incentivize leadership to make sure that they're in classrooms or providing the kinds of feedback that teachers need or restructure the principalship so that the business stuff which takes so much of a principal's time is put to the side so they can focus on what's going to lead to higher outcomes.

MR. GREENSTONE: So I'm going to give Pete the last question here. I think this has been just a fabulous discussion. I can't quite believe the incredible credentials of the people here, and a lot of really fantastic ideas have been flushed out. I think if we think about going ahead, just to repeat something I said, we're going to have to learn about which of these ideas work, and some great ideas don't always end up working.

In your role as a superintendent, are there challenges to like putting in a research and evaluation component directly into the budget and how would that work?

MR. GORMAN: Maybe we weren't normal in Charlotte, but our board dramatically supported us adding to our research and evaluation group over the last several years of budget cuts, because we gave them all of the data, we gave them the good and the bad, we actually showed that the worst after school program you could be involved with in Charlotte was the Charlotte--Mecklenburg Schools after school program, just the quality was just so poor, but creating that culture of where you share the good and the bad. And I think another piece that has to come with that, as well, is, there's not only got to be that direct reporting out, then you've got to go back and work on it and tweak it and not have the summary execution at noon the next day of everyone if something didn't work.

So we created a culture where you could try different things and where you had to have a component of how it would be evaluated and how we would bring back that information. What we typically found was, though, we never had enough information to completely declare something a success and decide we could replicate it everywhere. And what we found is, context matters, and it all came back to the quality of the people.

MR. GREENSTONE: Okay. Thank you. Can all of you join me in thanking the panelists of this fabulous discussion?

(Applause)

MR. GREENSTONE: Okay, we're going to -- we're on a very strict schedule here -- no fun, all work -- and we're going to go right into Panel II, which is Organizing Schools to Improve Student Achievement: Start Time's Great Configurations and Teacher Assignments. And we are very fortunate to have Brian Jacob from the University of Michigan here. He'll make presentation, and then we'll have a discussion

about his work. And Jonah Rockoff, his co-author, is also on stage. And you'll be able to -- we can pester both of them about what they did wrong in their research.

Okay, and again the way we'll do questions is we'll pass out cards and collect them and we'll answer them at the end.

Okay, Brian, do you want to start us off?

MR. JACOB: Okay. Hello, good morning.

Let's see we're -- so, we'll be talking about the paper, "Organizing Schools to Improve Student Achievement." I think as we heard a little bit on our first panel, a lot of the education reform debates that people talk about focus on very controversial and/or political issues, and student incentives is certainly a prime example of this. Others are vouchers, charter schools, merit pay, etc. And ironically I think history shows that many of these kinds of glamorous, you know, dramatic reforms fail more often than not. I do think I need to keep trying them, but what Jonah and I wanted to bring out in this paper is the fact that there are many less glamorous reforms that really have a great deal of potential, a very high benefit/cost ratio.

In this paper we talk about three such reforms: shifting school start times later; converting middle schools to K-8 structure; and a variety of proposals involving teacher assignments. And so while we think each of these three issues is kind of important and promising, our broader message is not these three per se, but it's shifting the mindset of policymakers, practitioners toward kind of less flashy reforms that focus on organization and/or management practices in schools.

So, start times is the first one. So, adolescents and teenagers biologically need later sleep wake times. There's just a wealth of physiological evidence on this. My children are not adolescents yet, but I certainly believe that it will come. The sleep-inducing hormone, melatonin, physiological studies have shown, that peaks at

about 4 a.m. in adults doesn't peak till 7 a.m. in adolescents, which led one prominent researcher to quip that, you know, waking a teenager at 7 a.m. is like trying to wake an adult at 4 a.m. And, yet, all of our schools -- a vast majority of high schools in the United States start by 8 a.m. And in our paper what we discuss is the fact that there are a number of very high-quality, convincing studies that show start times have a large impact on student achievement and, for example, shifting start times for middle and high school students back one hour from 8 a.m. to 9 a.m. would kind of lead over the course of their career to about almost two standard deviation increases in achievement, which is a substantial impact.

Now, we also discuss the cost associated with this proposal. You know, the primary one in many school districts is student transportation. But we show that even under very, very conservative assumptions the benefits for this reform would far outweigh the costs.

Okay, grade configuration is I think the next topic there I'd like to focus on.

So, middle/junior high schools are very popular in the United States. Three quarters of seventh- and eight-graders nationwide attend middle/junior high schools, and there's been a longstanding concern among educators that middle schools are a less-than-ideal learning environment for pre-adolescents. They note that the transition from elementary to middle or junior high school forces students to adapt to new teachers, peers, and a much larger, less personalized learning environment at a particularly difficult time in their lives. And earlier in my career I was actually a middle school math teacher myself, and I can personally attest to the difficulty that students and their teachers faced with this transition. But I think, more importantly from our perspective now, there really is, you know, quite a large body of very rigorous, convincing

evidence that shows that students that switch from elementary to middle school show dramatic decline in achievement relative to their peers who remain in a K-8 setting.

I think, even more importantly, this is not a one-time transition effect. It's not as if they kind of -- it's difficult in sixth grade or seventh grade when they make the transition but that by eighth grade or certainly by high school they're back on track.

A recent study in Florida that was able to follow students throughout high school finds that the dramatic drops that they experience in sixth grade or seventh grade when they make the transition are never erased, and they, you know, end up leaving high school significantly less prepared than their peers in a K-8 system.

And so our proposal on this realm has kind of encouraged districts to shift from middle school/junior high school models toward a K-8 model, or to work in other ways to ease the transition of students from elementary to middle school.

And, finally, teacher assignments. So, as we have talked about today, teachers are a key input in the educational process. There's, you know, a wealth of evidence. There's a large variation in teacher effectiveness, and many of the debates that we're consumed with today focus on very controversial issues, which I think are very important and can have some benefits involving alternative certification, teacher evaluation, merit pay. But I think what we point out in this paper is I think there's a less recognized importance of teacher assignments -- within school teacher assignments -- important influences on teacher effectiveness. And what I'm talking about here is assignments to grades and or subjects. So, in addition to kind of the well-known returns to experience -- general experience, that is -- teachers learn on the job. They get better in their second, third, fourth year.

There's very good evidence that they are also returns to grade-specific experience. So, if you look at a second-year teacher who is teaching fourth grade for the

second year and compare that to a second-year teacher who taught second grade last year and fourth grade this year, the one who's in their second time teaching fourth grade is noticeably more effective than an otherwise identical teacher who is bouncing around in grades.

And so we cite some evidence, some work that others have done and that we've done in New York City showing that every year 20 to 40 percent of teachers, elementary school teachers -- kind of K-5 classroom-based teachers -- will switch grades each year, and actually in New York City only 28 percent of third-year teachers have been teaching the same grade for all three years. Only 28 percent. And what we discuss in the paper is that there are substantial gains in student achievement that could be made by kind of principals within schools, district officials focusing on these within-school teach assignments.

So, I see my time is up, and so I'm going to just, in conclusion, kind of point you to a table that we had in the paper that shows the cost/benefit ratios for each of these reforms. I think some of -- Pete in Charlotte Mecklenburg has kind of implemented some of these reforms, so hopefully he'll be able to talk about them. But these are very, very conservative estimates that we have for the benefit/cost ratio, and I think these and other less glamorous reforms to organization management are, again, an important piece of the puzzle. We certainly don't think these are a panacea, but we think they've been overlooked by policymakers and practitioners.

Thank you.

MR. GREENSTONE: Thanks, Brian.

So, I'll just start by noting I went to a middle school, and as far as I can tell school always started at least at 8 or maybe even earlier. So, what would have happened to me if I had gone to a K-8 school and started school later?



MR. JACOB: Well, you would have been much more successful. For example, you might have been teaching at the University of Michigan instead of at MIT. (Laughter) But I think, like -- but you've done fine for yourself as it were -- we're less worried about folks like you. I mean, one thing that I didn't get to mention is that each of these reforms -- the school start times and the middle school transition -- the research shows these work on the average benefit and the average cost/benefit ratios that we show. If you focus on low-income, non-white students, for example the evidence on school start times, the benefits are twice as large for black and Hispanic students who are eligible for free lunch starting school one hour later, twice as large as the average affects they showed here. So, I think --

MR. GREENSTONE: My only question is to teach in the University of Michigan do you have to live in Ann Arbor? (Laughter)

MR. JACOB: You have the pleasure and the honor of living in Ann Arbor, that is true. (Laughter)

MR. GREENSTONE: All right, ha-ha -- so, we could go on, yeah, yeah. So, Michael, you're, like, deeply embedded in the New York system, and I know this was not your decision, but I just watched this fascinating presentation --

MR. MULGREW: Mm-hmm.

MR. GREENSTONE: And then I remembered, I think I read I read in the newspaper last week -- I think the New York City Public Schools just announced that they're going to start middle school.

MR. MULGREW: A new middle school, yes.

MR. GREENSTONE: Did they not see this presentation?

MR. MULGREW: You know, it's one in a series of middle school initiatives in New York City. Every couple years we have another middle school initiative.

Well, look, we're a very large system. We have a lot of K-8s. We have middle schools.

I applaud you for being a middle school math teacher.

You know, one of the things that they announced in their initiative was that when they're recruiting teachers now they're going to tell them we're not going to give you a job unless you agree right now to go into a middle school. I don't know if that's going to help recruitment by and large. (Laughter)

We have some middle schools who work very well. We have others who -- look, the data is clear. It is a big problem. There is learning loss. It is significant in middle schools, in a lot of the middle school settings. So, looking at changing the system -- but it's just all right, this isn't working, we need to figure out exactly why it's not working -- should it be K-8 all the time.

But then you have some middle schools who have been extremely successful, and they would have an argument. Rightfully so. But then what are they doing that we can bring to other schools.

So, it's a very complicated question, but to every two or three years have a middle school initiative, okay, it gets a little frustrating to say the least. The way the schools are organized, that could be part of this. It's very -- I believe in trying all sorts of different structures.

We have schools now who have changed their configuration of their day. Our contract -- the teacher's contract in New York City -- allows the school to do a school-based option. If the staff wants to change, go right ahead. We have schools who go to school in the summer. They've decided to do that. We have other schools who have open classrooms, where you have three classes inside of one big classroom and you'll have four teachers inside of it. You have three classes with four teachers. If they

want to do it, if there's a real plan behind it that deals with the students' needs, I'm all for it.

As an average teacher, I tried starting the school later in the day, because a lot of my children have lateness problems, so I went from 8 to 9. My principal allowed me to do that. They were still 20 minutes late, because of the bus and the train. It doesn't -- if I would have moved it to 10, they would have been 20 minutes late because of the bus and the train. (Laughter) I would have to look at some sort of different incentive to make that work.

MR. GREENSTONE: Was that a technical term, "delateness problem"?

MR. MULGREW: "Delateness problem" yes, yes.

MR. JACOB: Yes.

MR. MULGREW: Yes. It was a lateness problem that those students had because the students I worked with that was something that was a problem beforehand. And we all know people, adults, who have that issue I'm sure also. (Laughter) So, I think that was a learned behavior, that we'd have to figure out something else.

MR. HUGHES: Let me just jump in for one second.

MR. GREENSTONE: Yeah.

MR. HUGHES: Having worked in New York City for a number of years, this was on the table in the prior administration, and there was some conversation about consolidating to K-8s.

A couple of things that I think are important in that conversation -- one is we have our community school district that has complete K-8s --

MR. MULGREW: Mm-hmm.

MR. HUGHES: -- and is not particularly knocking it out of the park, to

say the least. So, you've got strong evidence from New York City; there's that anecdotal evidence that drives so much of the conversation in education.

I think the second thing is I both love your paper and am frustrated by your paper, to be honest, because I think you're a hundred percent on the money. Organizing schools for success means that we're going to need to look at leadership, look at professional development. We're going to have to look at interlocking systems in schools, one of which is the overarching structure that we've put into place.

So, I am a hundred percent in agreement that there is low-hanging fruit. This, though, I think when you actually sit and do the numbers in transitioning, even if it's a one-time cost from a wheel-and-spoke system to a K-8 system, is going to be extraordinarily expensive. I know you started to address that in the paper.

MR. JACOB: Yeah, my --

MR. HUGHES: That was the primary impediment when it was discussed internally six years ago.

MR. JACOB: Right. We actually -- we did, and Jonah has worked extensively in New York. We had the benefit of a discussant in kind of a pre-conference, who was involved in, you know, running the numbers for the New York City, you know, potential transformation of middle school to K-8. And kind of very, very large, surprisingly large.

The other district we had talked to that's done this is Denver, and we got kind very detailed cost data from Denver that takes into account not only the one-time transition costs of reconfiguring capital, buildings but also any sort of ongoing operational cost differences.

I don't know why, but the costs were dramatically lower in Denver than in New York City, but even in New York City, taking their numbers at face value, that's

where we get the 40-to-1 benefit-to-cost ratio. If we use the Denver numbers, it's 200-to-1 benefit/cost ratio for transitioning, and I think -- so, there might be some, as the Congress referred to it, liquidity constraints. The benefits are, you know, realized down the road. You have to invest the money now. But -- and I wasn't inside the room, but I -- it seems hard to believe, even using numbers that were given to us, that it would pass a benefit/cost test.

I guess the last piece -- I think you -- you weren't advocating this yourself, but I think I have a notion that oh, there's this one district or there's this one school that's K-8 and it's lousy, so the hundred rigorous research studies that I showed that K-8 is more effective, well we're going to let this anecdote trump it. I mean, I think that's --

MR. HUGHES: That's a problem.

MR. JACOB: I mean, I think that's -- for those who are guided by this anecdote, that's a problem. Along with the fabulous middle school -- I mean, this research -- no research is showing that some middle schools aren't great. This research is not telling us that are K-8 structures that are ineffective. This is showing on average, particularly for low-income, non-white population of students, that K-8 tends to be more effective.

MR. HUGHES: I don't know, I didn't see the numbers. All I can say is that the conversation I had with you very recently in preparation for this panel suggested there's still --

MR. JACOB: Yeah, I mean, they --

MR. HUGHES: -- economics that aren't captured in these numbers. But it is what it is. I think there is a transition cost, and there's political ramifications involved, economic --

MR. JACOB: Yes, we discussed -- yes.

MR. HUGHES: That's right, that's right.

MR. GREENSTONE: I'll just underscore. It's a problem, I think, the research says all the time, which is well, you know, I've crunched the data and there's millions of observations here. And then someone has a personal story, and how can you outdo a personal story with millions of observations that are basically zeros and ones hidden in the computer somewhere.

MR. MULGREW: Right.

MR. GREENSTONE: And I think -- you know, my own view is that there just has to be an acceptance that the zeros and ones can tell us something, and even if they make us uncomfortable or go against what our neighbor told us, I think the path to improving achievement has to be by paying attention 0-1.

But none of that's really the important question. The important question here is for Pete. So, now, Brian and Jonah have showed us 40 to 1, 200 to 1, 9 to 1 -- these are just total no-brainers it seems, according to the zeros and 1s in the computer. But what they did not put into the calculation, as far as I can tell, is football, and the problem with starting later is that football teams can't practice, because middle schools don't have lights. But, yet, we are on stage with the super hero who overcame this very problem and implemented late start times.

MR. GORMAN: We have K-8s this year in Charlotte.

MR. GREENSTONE: So, how did you do that?

MR. GORMAN: Our number one concern was how are you going to do middle school football. (Laughter) It was, far and away, the number one concern. We started the season earlier and you put games on Wednesday night at high schools.

When high schools aren't playing and the kids get the opportunity to play

on a high school field, it's one of the coolest things that ever happened to them instead of this detriment, because instead of playing on their middle school field.

We actually did all three things, though, this year in Charlotte, and we did it largely based on the economic challenges that we looked at doing some things differently. And we did close some large, low-performing middle schools, and we went with a K-8 model. But we didn't then put the kids in low-performing elementary schools. We looked and we reconfigured how we were doing things, and in doing that I spent two weeks ago answering questions for the civil rights complaint that was filed for closing those schools and giving less opportunities for kids because they're now not in a middle school.

So, don't think this is easy. This isn't a main contributor why I'm a former superintendent of Charlotte-Mecklenberg Schools. (Laughter) But it is one of those pieces. And what us makes us think that a large, hulking, low-performing middle school can just be converted that easily? So, we did go to the K-8 model. What we found was a lot of the costs were capital costs, not operational costs. We had to redirect some bond funds that we had done, but they worked as long and ongoing.

We do transport kids to change sporting events. We group kids together a little bit different way. We're able to accomplish that.

I'm probably also one of those folks in a unique position that my daughter is in eighth grade and has a 9:15 start time. And it fits her so well, because she doesn't do well. We moved 108 of our school start times this past year. And, again, we did it because of a financial push, and what we did was we moved the middle schools back. We extended the day for elementary so we could still do some of the triple run and quadruple-run types of things.

But we haven't tackled high school. And we have got to tackle that high

school piece, because we are disadvantaging our kids. But we just made a decision last year -- there are only so many times you can poke people in the eye. You know, we just couldn't take on that high school piece last year.

We also did the work that we actually looked at, and I know we're going to talk later about different methodologies for looking at measuring performance, but we looked at value-added data and found that we had a severe drop for teachers when we changed what they taught. So, while we create a structure for system, where we disadvantage them by an area that they were really -- granted, there's so much more to measure than just that. What we realized was we were structurally doing things that disadvantaged our teachers. But with all three of these things as well, we didn't do it across the board, because not every middle school needed K-8. So, if you've got to be strategic and do that, then come up with what's the best model that fits for her particular school. And it's working.

MR. GREENSTONE: Bob, I know New Visions has done a lot of thinking about how to help students transition between grades think I think is at the heart of what's only concern is about the middle schools. Do you want to talk a little bit about that?

MR. HUGHES: Sure. I mean, two things really. One is, what's interesting for us is we've not gone to the K-8 structure, just for a variety of political reasons in New York City.

Secondly, we have gone to a 6-12 structure and have, frankly, not been as successful as we might have imagined in that 6-12 structure. So, we're spending a lot of time trying to figure out what that is.

But I do believe that the transition piece that's -- you can't argue with that. When you look at longitudinal data across school systems, you see a significant drop after third grade and then particularly after fifth grade.



And so I do think we have to start thinking about rituals and routines that are common across those areas and start to think about the underlying causes of why kids aren't successful in middle school.

If you look at adolescent literacy research, for example, young people in urban areas face three problems. They face their own developmental issues. Middle school students are very complicated individuals, to say the least. They have -- and the increasing complexity of the material we ask them to undertake is significant. They're no longer just reading for comprehension; they're reading to create product themselves. And in an urban environment you have an enlarged number of kids who, because they're starting to fail, because they don't have coherent social structures -- which I do think speaks to the K-8, our argument -- they start to feel alienated and angry in school, so that by the time you get them in ninth grade, you've got very angry, low-performing young people; and you've got a remediation challenge that is double what might be there.

So, I think we have to think about the K-8 structure, but I would also argue that -- you know, I'm going to defend the chancellor here -- I think that there is a comprehensive set of systems that have to be in place ranging from literacy to relationships to community to youth development strategies, like rights-of-passage programs in some of our schools are absolutely crucial to be part of it.

So, I agree with the comment, one step back, we shouldn't drive by anecdote. But by the same token I think we should recognize that the best research findings have to land in a system that's complicated and needs to be taken into account as you move or reform agenda forward.

MR. GREENSTONE: Yes, please.

MR. MULGREW: I think that what you said in allowing the flexibility of the school to meet the needs is -- and putting some really pragmatic ideas in lace -- there

are schools in New York City that I know you have -- the middle school student actually is responsible -- and these are not anecdotal, these are large numbers -- are responsible for taking their younger siblings to school in the elementary school. So, that later start time would be an automatic no-brainer in that situation, because there's -- if you don't do that, the detrimental effect on the older student is problematic. So, having the flexibility to match the school's communities needs to the design of the school is something that you don't see a lot of but I think it's something that we need to move forward into. We're saying look, it's about having a decision made based on the needs of the student population and the needs of the community at the same time. And if we can move towards that, that would be something we would completely endorse, because it's stronger and you're basing it off of the actual needs versus the system's needs. You are actually basing it off the needs of the person who's most important, which is the student.

MR. GREENSTONE: Jonah, yes.

MR. ROCKOFF: I'll defend the chancellor a little bit, even though they didn't kind of take -- the advice that comes out of paper at least didn't take it too far. But I think there are a couple of things that I heard when I saw the video of his talk last week, which was this is still a problem, we've been here before but we recognize it's still a problem, and I know it starts to sound like we'll never get this right, but I think if you know it's a problem you've got to keep the focus there until you get it right.

MR. GREENSTONE: Yeah.

MR. ROCKOFF: He does say there are a lot of great middle schools out there, and I agree with that.

You know, I think one of the pieces of evidence I find so compelling about -- you know, power for middle schools comes from the charter schools, like Harlem Children Zone schools; like Pokips schools; like a whole bunch of high-performing charter

schools. But they're running middle schools. They're taking kids that have come from very different areas and they're coming in at fifth and sixth grade and they're doing great with them.

So, there's nothing in our research that says you can't make it work with a middle school. But what it does say is primarily if you had to start from scratch, middle schools might not be the right way to go, okay?

Too, if you're already serving a whole bunch of students through middle schools, you're probably not handling that transition very well, okay? Maybe there are a couple of schools that are doing it well, but overall, there's got to be a lot of schools that are not handling that transition very well and they need to put a lot of focus on that entry point, because that seems to be the place where middle schools perform the worst. And the students just don't recover after that. And that I heard from the Chancellor of New York City Schools, which was we need to figure out what works and get connections between middle schools and the elementary schools that serve them, have continuity, create structures like team teaching within the school where a group of students are all taught by the same set of subject teachers so that different teachers can share information very easily about students and come to agreement and share ideas about what reaches particular students, how to tailor instruction to particular students. And those are all ideas that come easily in a K-8 school, because the student body is so much smaller.

In the middle school, just because of the way that the school system is structured with school buildings that serve roughly 800 to 1000 kids, if you only serve three grades, you've got a lot more kids per grade. Trying to narrow -- trying to make a small school environment within that big building requires a little bit of creativity, a little bit of ingenuity. And in a K-8 model, when you're serving nine grades you automatically only

have 80 or 100, so it comes natural. That small feel comes natural. And so I think, you know, I would like to see more places experiment with the transition to the K-8, because I think the evidence points in that direction.

But I'm not saying that everybody's got to go there; they've just to focus on how to make middle schools -- all middle schools -- as successful as the ones we've seen can do a job.

MR. MULGREW: I'm sorry, did you do any -- on the middle schools themselves, did you find middle schools that were using small learning communities, house structures type of things? The high schools have now -- because the high school entry point is also very problematic, many more of the high schools -- Bob does a lot of this -- is ninth-grade academies. So, we note there's extra support and extra focus right on that ninth grade. Did you study any middle schools that were doing that type of work?

MR. ROCKOFF: So, the short answer is no, and the reason is the data. So, we need to find -- you know, the problem is when you're doing research on a district like New York City, the fantastic thing is you've just got lots of schools, you've got lots of data points, but understanding what all of the hundreds of middle schools are doing and the hundreds of K-8 schools are doing is just not feasible for the kind of research that Brian and I are doing. We do look at things like class size, teacher experience, overall spending, how much are courses that are offering things like art and music and technology and those kinds of things, and there the K-8s performs just as well both on efficiency grounds and also on course offerings and (inaudible).

And they also do really well on parent-student satisfaction, and middle schools don't.

You know, I would love to know more about programmatic aspects and I think if you had a great date on programs all across the city you could then start getting

inside that lock box and get to your question.

MR. JACOB: I mean, I completely agree with -- kind of Bob's point that we, eager for research, are very convinced is compelling in general certainly doesn't mean it could or should be applied universally to context. I think that's why I opened up by saying we could highlight these three specific types of reforms, but the bigger picture or the bigger theme of our paper was not these three per se, but the theme of kind of focusing on the less glamorous low-hanging fruit out there. And I think there has been -- I mean, it's interesting, this middle school thing. This has been (inaudible) program. I know when I was teaching, I was actually teaching in junior high -- JHS45 -- that was at that point trying to transition from a junior high to a middle school, and there's a hole in the '80s and '90s, a middle school movement that was going to try to institute block scheduling, team teaching, smaller learning environments, etc.

I mean, to address this exact issue, there's a very well known Carnegie Foundation report. I have focused on the middle school model. And it is just a very difficult issue for a lot of the kind of historical, political, financial reasons. It's not a simple thing.

MR. GREENSTONE: I want to pick up on that. When we talked to you guys originally about writing this paper, the appeal was well, there might be lots of things laying around, none of which are going to transform schools over night. But there might be some beneficial gains available for students. And I think a lot of the pushback on some of those ideas tends to come down to political interest, I think, and the system is built in a particular way, and what that reminded me of is when we were considering where to send our children to public school -- I went to a -- granted Cambridge, Massachusetts, is not the rest of the United States, but I went to a Cambridge, Massachusetts, school board meeting -- and what I was really astonished and

unprepared for was the number of goals that people had for the school system. There were the people who had more organics in the schools, and that was a very loud part of that meeting. (Laughter) There were the people who were very concerned about scheduling of recess time and could the two fifth grade classes have the recess time at the same time because the kids in the two fifth grade classes -- and it was just on and on and on and then people were extraordinarily passionate about it -- all -- on each of their topics. I'm not sure any of them was less passionate than the other. (Laughter)

What was missing from that was how are we going to get better student achievement. And people had lauded on all these extra goals onto the poor public schools who were -- you know, teachers trying to show up and do their job and supposed to 11 other things. But my brother's a high school teacher and he'll be the first to tell me this.

So, I wanted to shift the conversation a little bit. Let's just suppose that Brian and Jonah have scratched the surface of all the wonderful things that we could do that might give us .2 standard deviations. But you add them up, might add up to something. What can we do to get schools better focused on a little more single-minded about student achievement? Is there -- and I understand it's a deep and hard question, but does anyone want to try and take a bite at that?

MR. MULGREW: And New York City has schools graded every year -- A, B, C, D, F -- and 85 percent of that is just on the math and ELA test score. So, I want -- you know, is that the right question to ask -- is something that needs to be looked at more? But right now there is -- we have a school system that is saying that student achievement is their performance on a standardized test. So, the entire school system and the principal's annual performance review is based upon that. So, there is a focus. The question we're asking is, is that the right focus for student achievement? But the

focus on student achievement amongst the teachers, the administrators is clearly there in New York City. The question again is, is that the right -- and I know that's part of our third, you know, discussion, but there is a lot of -- but what you're saying -- yes when you are dealing with a whole school community, the parents -- and they have their needs, which they're bring in, too, and a lot of it has to do with what time they go to work, what time they can get home, what time they can arrange for child care. It's tough, but in New York City we are definitely focused on student achievement.

MR. HUGHES: I mean, I think what's interesting is the culture shifted when I started 10 years ago in New York City. If we wanted a cohort graduation rate, we literally had to send people into guidance counselors' offices and pull individual student records. That's gone. I mean, we have much more sophisticated data systems now. We're starting to get to the place where we're capturing microdata as well as macrodata. We still have a long way to go in building systems that are coherent against what we want kids to know and be able to do. Just witness the recent work that Kip has been doing around character education and the role that that plays undergirding the types of resiliency you want to see with young people to be successful over time.

What I do -- I really want to want to just underscore -- I think his paper is right on the money in the sense that we need to now start looking at issues like high school schedules, like the first five minutes in class and how teachers transition into instruction. The time between fifth and sixth grade may be a very appropriate time to go to K-8 or it may be an appropriate time to go to year-round schooling in that one instance to get the transitions right. I mean, there are a multitude of things that happen in a school building that we just don't pay attention to, and when you look at industries like health care, we kind of embrace the Deming, Shewhart types of analysis to really look at how they're structured at micro and macro level. They are making real improvement on basic

things that lead to significant better health outcomes.

So, I think we're just at the cuffs. Tony Bryk is doing a lot of this work at the Carnegie Foundation for the Advancement of Teaching. We're doing some of it; others are doing it. I think it's really important to start to really hunker down and get the management of schools right, because if we can get the management right I think we're going to have a significant bump -- as much as -- and I think it's equally important to make sure we have the people in front of kids for producing outcomes.

MR. MULGREW: In Carolinas you're doing the 6-2 models in certain schools. That's six weeks on, two weeks off throughout the entire school year. And I'm very interested in that. I've spoken to a lot of teachers in New York City about -- their first response also is -- you know, some of them would be, like, well, that would be great, and others were, like, I'm not sure, I have child care issues. But I'm very interested to see where that leads and if that does have a direct impact on student achievement.

MR. GORMAN: In Charlotte we are. We're picking certain schools and experimenting with year-round options coming in, and we're looking at that. But I think you mentioned a piece, and that is in many cases there's a huge disconnect obviously with what goes on at a school board meeting and what goes on in a school. (Laughter) And I often viewed that my job was -- and I enjoyed the board (inaudible) what was to protect our staff from the craziness that occurs at our board meetings. (Laughter)

But we've set up systems and structures that bring that. We have an unlimited number of speakers for public comment for three minutes each at the start of the meeting. You might as well say why don't we get as many people to come and take us off target as possible (laughter) as we -- you would never run a meeting that way.

And I think also we really bear some of that as well in that we don't focus it and we don't come and report back the right data, the right information, because it's not



sexy.

I remember we did something about what some of our teachers were doing with a family model. They were trading kids -- they were just doing great work. And we presented that, and I'll never forget one of our board members came afterward and said that was the most boring presentation ever. And I thought so we just talked about the highest level of engagement and growth any of our kids have in any of our middle schools and it bored you, I'm sorry. That's the kind of stuff we need to be talking about at those meetings.

MR. ROCKOFF: Can I add a point from some work that Brian did, not, obviously, this paper but, you know, thinking about parental motivation and what parents care about. I think that it's worth saying in response to the point that Michael brought up. And if I -- correct me, of course, if I'm misstating.

I think he shows that, particularly among low-income and minority parents, there is a big emphasis on student achievement, that there does seem to be a lot of value placed on getting particularly teachers -- this is from Brian's work -- having their child placed with a teacher who is fantastic at improving student achievement. And among more affluent parents, there was actually less emphasis on the student achievement piece, as we measure it, and of course how we measure is very important. But a lot more evidence on the student satisfaction on how their child felt. Were they happy in school, that sort of thing.

And, you know, I puzzle over that, because we often think that more educated or affluent parents put more emphasis on education. We have this preconception that ultimately their parents care more; that's why these kids are doing well and the poor kids -- their parents must care less. And that actually wasn't true in what Brian found, and I -- that's thought provoking.

And it also makes me wonder well, why are they putting less emphasis when they think about which teacher they want their child to be with. They want the teacher that makes the kid happy and not the kid that raises their achievement test scores. And one reason -- one answer is well, the achievement test scores aren't measuring what the parents care about and that the happiness actually implies learning other stuff. That's possible.

But I think another reason is information is difficult overall. And if you're the parent of a poor child, you maybe have a good sense that look, I need my child to do well on these basic skills tests. I need to know that they're reading, they're doing math, they're doing well on all these things in order to be successful in the world. As a child of an affluent parent, you've got to take some of those things for granted. And you don't have good information about all the other things that your kid is learning in the classroom. So, the only thing you base it off of is happiness.

So, I think a challenge for motivating the parents who are focused on the organic food instead of the fact that their child may not be able to compete with children in China who are, you know, acing those international exams are going to have jobs for them waiting, you know, 10, 20 years down the road is they need to add more information about what goes on in the classroom, what their kids are learning, and how important those are for those kids later on.

MR. GREENSTONE: Okay.

MR. HUGHES: Could I just -- and we've been doing experiments on different types of report cards. If you look at the typical report card that comes out of a school district, it is very hard to figure out where you are, particularly if your goal is to go to college or, you know, some sort of career. So, we've been just trying to figure out how you do the visualization of where the students are with skills so that parents get a better

sense of it. But take a policy example in New York City. Up until five years ago, we said the promotion standard was eight credits at the end of ninth grade. What's fascinating is when you do the longitudinal analysis, if you have eight credits at the end of ninth grade, you have about a 40 percent chance of graduating three years later. Are we really being honest with parents in the policies that we've set up?

You know, when we look at our college readiness numbers, we're tracking our kids into college. If students don't have a Regents or Advance Regents diploma, it's highly unlikely that they're going to succeed in college. When do we have those conversations with parents about what the standard really is to be successful in college. I think we're afraid to have them, because we aren't managing our system against them. We're starting to have them, and I think it's important because it's going to change how we think about where we put our resources, how we talk about what we're doing, and what the standards for ourselves and everybody -- the adults in the building as well as the students. But this information piece is absolutely crucial, and we have to get better at it.

MR. GREENSTONE: Okay, I think we're going to turn to the questions, and I wondered if Bob Rubin wanted to ask the first question. (Laughter)

MR. RUBINS: I apologize. I know your handling (inaudible). Let me try one.

You have had two remarkable conversations at least deeply thoughtful. What is the principal impediment to moving forward either on a pilot process, pilot project basis, or, more broadly, an arrangement where there is clear evidence of progress so that you don't wind up with the kinds of graphs that Roland started us off with?

MR. GORMAN: A couple of things initially come to mind for me. The first is this desire to have whole scale changes in school districts that we tend to have,

that we want to be able to do it across the board and not try different things and to take away -- it's that piece of local control versus district-wide, and we struggle with that greatly.

And I think the other piece that we talked about was that one individual who comes and gives a narrative taste for something that could happen that is so compelling that gets to sway folks and brings fear to individuals. In many cases it's elected board members. In a lot of cases in superintendents. And I'm not willing to try that so I'll go the safe route. And I think we back down and we don't try different things or give schools the leeway to do that. As a superintendent, those are two things I'm worried about.

MR. GREENSTONE: Michael, you want to try?

MR. MULGREW: All the change I'm looking at right now has to deal with instruction inside of a classroom. There's been a lot of debate about outside, looking at what happens as a result of what happens in the classroom. Children learn much differently now, and children -- learning modalities will continue to change as our society changes, as the use of technology and everything else. So, we as a profession and as a country -- we don't look at that. So it's how do we adapt the classroom to the learning needs of the student. Yet, that's not sexy. That's not fighting. That's not on the front page of the papers. That's not an ugly debate. Because when you get deeply into that discussion, people start to yawn. But that's really where the focus has to be, and the political navigation, as you thought about, is a tough one. But I do believe if you have people saying this is what's going to make a difference, there's a way to figure out the navigation. It might be tough at times, but there's a way that you can get to it with good research, and that's why I wanted to take part in this when you invited me. I said this is research that can start adding to that discussion about how do we -- yeah, there is low-

hanging fruit out there for schools. I agree with you. But how do we adapt it so that the schools have the ability to do those changes.

And there are certain incentives. When you -- when I read your piece about the inputs and looking at that I said, you know, that's interesting stuff. We've done so much on the outputs, and the research is pretty clear on it, that we have to start looking at these things. How will that be able to enhance the teacher-student interaction inside of the classroom, because that's what's going to move the student and therefore move education.

So, creating an environment where you're allowed to have flexibility based off of accepted, good research and just do that navigation, I am more than happy to do all sorts of experimental things in New York City. We have a benefit, because we have so many schools and we can play. But let's play based on real good ideas versus, you know, political agendas, ideological ideas. Let's do what we know is actually working, and I would support that and push it politically at all different levels.

MR. HUGHES: I would agree with everything that's said. We need multiple tests of change that are low stakes. We need intensive, new investments in the research community. We need people thinking about high-quality research like the research you presented. Here it is. You go to the typical education research conference, you walk away thinking never have so many labored so hard for so little. (Laughter) And so I think we need substantially different kind of research. I would say we need room for failure. We need white papers, and I affectionately call them red papers -- we tried this, it didn't work. That needs to be incentivized down to the teacher and the principal level. We need morbidity and mortality conferences where you can talk about why the patient died and know what you said at that conference is not going to show up in a lawsuit in two weeks. If we can be honest about what's working and not working, I think we do

have a shot. Until we build those conditions, we're not going to make it.

MR. MULGREW: Yeah, I think, you know, culture experimentation and willingness to accept failure, you know, not all good ideas are going to work out just way like this.

MR. GREENSTONE: Okay, I think we have time for one more question, and we are in Washington, D.C., home of the federal government, so this question seems appropriate. Are there are (inaudible) indications at the federal level on this topic in what might those look like. And I guess in the shadow of the President's recent announcement about waivers for No Child Left Behind, maybe one of you would like to take that on.

Yeah, you start. (Laughter)

MR. GORMAN: Well, I spent a lot of time with already talking through things, and, you know, there's that -- I don't know that I want them to get involved. There are -- be careful what you ask for sometimes. And -- but I do think there is certainly legislation that could be supportive or help you move in a particular direction. And let me give you just an example. So we had to report out some high-stakes assessment results in the way we were grouping kids that best fit their needs. We had a very difficult time identifying them and tying them back to a specific grade and standard. So, we had to restructure what we were doing that was having a benefit. So, to say yes, my advice is give us more waivers doesn't exactly seem like the best piece of advice. But I'd just say be cautious when you ask for something that is going to impact a hundred thousand schools being made in one blanket sweep. Reminds me to be cautious.

MR. MULGREW: I'm not -- the idea that we're going into waivers all over the place because we have a law on the books, that when it was passed people said oh, well, we can never get to the end of it, we're going to have to change it before we get to the end of it. Now we're near the end of it and now we have to give waivers because

there's no way to change it because of the political climate and the federal government asking me if it would be a good idea for federal policy -- I'm probably on your side on this one. If you're having a discussion based on politics and making decisions based upon that, then please stay out -- stay out of this. It's just not going to work anymore. Political gains are not good for the children of the country. It has to stop. If you want to have meaningful legislation and policy based upon real research, then sit down and let's work on something. But right now schools are jumping through hoops to try to supply all sorts of data. They're spending I don't know how much of their percentages or their budgets just meeting all the testing mandates, reporting out mandates, and all that information is going out, and nobody really knows what to make of it all. It's confused the public, and it's made education probably one of the hottest political topics in the country. But I don't see real policy that's trying to help students inside of the classroom. I can see a lot of adults struggling here in D.C.

MR. GREENSTONE: Okay, Bob, you're going to, I think, lose your turn here for a second. I think we're going to have an eight-minute break, and then I assure you that the next panel will be thought provoking and entertaining.

Join me in thanking the panelists.

(Applause)

MR. GREENSTONE: Okay, we have our third panel. Derek -- we are very fortunate to have Derek Neal, who is a professor at the University of Chicago, a former colleague of mine, current friend. And he's going to talk about new assessments for improved accountability.

MR. NEAL: Okay. So I think one way to understand what I have to say today is that Roland was correct when he said that a lot of the incentive systems that have been used for educators haven't worked. And what I want to talk about in broad

terms is the idea that the vast majority of incentive systems that have been used in education, if you took them to a professor at the Sloan School or the Harvard Business School or the Booth School at the University of Chicago that teaches personnel, economics, and incentive design and contract design, and you asked them would this work? They would have told you no before you started.

And so one of the things that you want to think about when I go through what I have to say today is, I'm talking about taking seriously the task of designing incentive systems for teachers that have a chance to work. I'm not confident that if you did things the way that I described you would necessarily get wonderful results. But I think it's time for policymakers to either take seriously the issue of designing incentive systems in ways that make sense from what economists know about how incentive systems work, or abandon the notion of assessment-based accountability altogether. That what we've done so far is really try to do things on the cheap in a very haphazard way.

And the first aspect of doing things on the cheap is that we use two tests -- we use one test for two different purposes. So in most accountability systems or performance-pay systems, you have a test that's being used to measure how the students are performing in a system over time. So you want to compare the 5th grade scores in 2005 to the 5th grade scores in 2010. And at the same time, you're taking those test scores and creating performance metrics for the educators.

However, the properties that you want in a system that's going to be creating consistent information about student achievement over time are not the properties you want in a performance metric system for incentives. The thing you want for consistent measures of student achievement is, you want enough predictability and overlap and common formats that you can rest assured that you can score the 2005 test



the same way you scored the 2010 test.

But if there's that much repetition and that much predictability, the best response of the educators is to actually have test prep sessions and memorize answers, rather than teach. If you have, on the other hand, I want to start with a system where I'm going to design it to create performance metrics for educators, what you would want is to have a new format every time. You would want it always to cover the curriculum, but with different types of questions, different formats, completely unpredictable in any kind of coaching way. But then if you did that, there'd be no way to put the scales together, okay?

So you can't come up with one type of assessment that's going to serve both functions. And when you try to do that, what happens is that the predictability that makes the scaling possible in theory leads to the coaching and practice that corrupts the scale. Okay?

And the most important point about this is that there's actually huge losses that aren't measured in the data. If you have a lot of creative activities that are being crowded out that build true subject mastery, that's a big loss for the kids that's not captured in the data. Okay?

Now, there's a paper in empirical sociology, it's 30 years old now. Where a guy named Campbell who was at Northwestern reviewed a bunch of case studies of different government agencies that took some statistic that they had been keeping just to monitor how they were doing. It was a performance thing, a consistent scale thing.

They took it and said, okay. I know what we'll do. We'll turn this into an incentive device. And what happened in every situation that Campbell reviewed -- and then since then in Heckland's work on job training and all of my reviews on education and in a paper by Rothstein on many different government agencies -- the performance

measure gets corrupted by the gaming behaviors, and the gaming behaviors hurt the citizens that are supposed to be served. And ex post, the performance statistic doesn't measure what it's supposed to measure anymore, okay?

And so this is not just about education. This happens in every realm of government when you take a statistic that wasn't designed for use in an incentive system and say, look. We can have accountability and incentive on the cheap. We'll ex post, just attach money to the statistic. Okay?

And Race to the Top is not going to get you around this, okay? It might get you better coaching because the exams will have other than multiple choice questions. But so does the CPA exam. The CPA exam has demonstration of its et cetera, but it's on one of these IRT systems that are supposed to keep a consistent scale, so they repeat a lot of questions and keep the same format for the computer simulation.

And when they went to this IRT-type format in 2005, in just 5 years the pass rate went from 39 percent to over 50 percent. That was not the improvement in accounting education in America. If you look at the exam -- if you look at the websites that offer these courses, you know what it is. Over time, these places where you pay to learn how to take the exam developed simulations that looked exactly like the exam. And you practice those test taking skills. In 2011, they changed the computer format, okay? And it dropped dramatically.

So -- I have to go much faster. (Laughter) You have to design the first step is to have two tests, and you have to design them to avoid coaching. This is a new project we researched.

The last thing is, you don't have to have scales to have incentives. You can put the kids in groups with their peers, rank them at the end of the year according to how they're doing relative to their peers, and that is -- that percentile score is a fraction of

the kids in California like me that I beat. You take that number and average it over all the kids in a grade in a school that are taking, say, fifth grade math. That's a winning percentage for that fifth grade math team. And I have a paper that shows how you can use that winning percentage to -- and contest and tournament theory and economics to build sensible accountability practices and incentive systems around that winning percentage. (Laughter)

I'm not hooked up. Oh, there. All right.

For me, that was pretty good, Michael. (Applause) I was close.

MR. GREENSTONE: I was impressed. (Laughter) We had put in a little extra time in the session, but now we're going to take that back.

Okay. So one thing that we really pride ourselves at the Hamilton Project on is taking just super-fabulous academic ideas and trying to make them -- and I can say this is not about Derek's -- this is about my own academic ideas. They're misshapen, they're ill-formed, there's an arm sticking out here, there's an arm sticking out there. In a way that I have sadly found out, people in Washington and in government in general find disconcerting and not very useful.

And so I think the question I want to ask our panelists is, I think Derek really has a fantastic idea. What can we do about it to turn it into something that could be implemented in a way that would be used to a new method to reward -- assess teachers and reward achievement?

Bob, do you want to try to take a stab at that?

MR. HUGHES: Derek's presentation --

MR. GREENSTONE: Remember, you got off -- you didn't have to talk about the Secretary of Education --

MR. HUGHES: Yeah, I didn't get the last one. I understand that, and

now I'm being punished.

MR. GREENSTONE: Yeah. (Laughter)

MR. HUGHES: I'm still struggling with the concept, to be honest with you. I made the right decision becoming a lawyer and not an economist.

But as I understand it, in the system you're doing a tournament style where you're basically ranking kids based on how other kids do, their peers. And you're dropping the scale score and using that ranking to make judgments about teachers. Is that right?

MR. NEAL: The big features is -- and this goes to the New York City bonus program that Roland talked about.

I wrote this survey paper surveying all the studies on teacher incentive systems. And there are only three that produce decent results. And one of them was one in India where they brought in a new test that nobody had seen before. The other two were in Israel and they were real tournaments where there was a fixed number of winners and you weren't competing against a standard.

And one of the things, if you look into the details of this New York City bonus program, 89 percent of the people won. And they won in a year where it appears that there was some funny business going on with the scaling of the state assessment.

And so if you wrote down a standard contest model, you would predict that that wouldn't have big effects in terms of output because this is a contest that everybody knows they can win without putting forth a lot of extra effort. And so what I wanted to do was to have a system that uses only the ordinal information and it's a real contest. For every implicit student comparison in PS 105 to a kid in PS 107, there's -- one is going to win, one is going to lose. And so every dollar of bonus money that the teachers in this school win is a dollar of bonus money that somebody somewhere else

lost.

MR. HUGHES: Got it.

MR. NEAL: And that's the other main feature of incentive design that you see in business schools that you never see in education, which is you use relative performance measures in environments where you're worried that if you tried to set targets, those targets could be manipulated. And because psychometric scales are so fuzzy, targets can always be manipulated. And so having true contests where there's always a winner and a loser is a discipline device that is almost never brought into accountability and incentive --

MR. HUGHES: Got it.

MR. NEAL: -- pay in education.

MR. HUGHES: So, you know, consistent with the last panel I think it would be interesting to do models and small tests of change to see how it actually plays out and correlates with what we know about good teaching.

But even at the description that you made, I think there are a set of questions that are problematic. And we kind of know this based on the New York experience, which has been mixed.

One is, the statement comparing peer-to-peer is much more complicated in a system as diverse as New York City. We have a peer horizon in our current assessment system. What we found is those peer horizons don't actually capture a set of intangibles, like admissions policies in schools or the mobility of students in a particular school. Or the absence, frankly, of entering test scores. So that getting that peer-to-peer is very complicated to do.

Secondly, depending on how sophisticated you get in your ordinal ranking system, it seems to me you're never going to be sure if you have enough of any

particular type of student to make it meaningful.

MR. NEAL: So, 10 states are already doing this implicitly. Because every place that uses -- like Colorado that uses a student growth percentile software to come up with a student -- every time you see the word "student growth percentile", that's one of the scores that I'm talking about.

Now I've been working -- I've got a beta version of it. I've been working on my own version of that software to try to refine it and get better estimates. But there are 10 states out there that are already trying to estimate if we take a rich set of the student's prior achievement and use that as conditioning information, what's the distribution of scores that students with those characteristics are drawing from? And then you take an actual score and put it in that distribution and you get a percentile.

So, the measurement aspect is not anything new. Everybody that uses that Bet and Beaner software in those 10 states is already doing this. I'm trying to look at ways to actually improve that software and do it better.

But in terms of the practicalities of estimating these percentiles, it's going on already.

MR. HUGHES: Okay.

MR. GREENSTONE: Michael, I think one thing that there's been a big concern about with accountability is that teachers feel pressured to teach the test. And that might not be the best --

MR. MULGREW: His research clearly shows that, yes.

MR. GREENSTONE: So what would be a more holistic way that teachers would recommend to judge teachers, I guess?

MR. MULGREW: Well, even on the New York City whole school bonus, when they researched their findings -- and yes, one year 89 percent received a bonus --

the teachers at that time did not know that the scales on the test were being -- let's say this correctly. Were being moved in a direction that would show greater achievement. (Laughter) The teachers had no idea.

This is not the teachers making these decisions. But the findings, when they studied it, they clearly said the teachers were doing the work. They were not incentivized to do more work because they were in an incentive program.

So we're getting down to -- what you're proposing is that we start everything as a straight-up competition between peer groups. Well, if the teachers who have been involved with incentive programs -- and we all -- the research is clear that these have not worked. But the one finding we keep coming up with is that teachers are saying this is not what incentivizes me. More money. That is not the reason, that is not something that is moving me in the profession which I have entered into.

So when you look at accountability you have to look at a multiple measure system. When I -- we look at the countries who we always speak of -- the Singapore, the Finland -- they have -- their evaluation processes are professional growth systems. They're not evaluations. It's framed upon being a professional growth system from the first day you enter the profession to the very last. You should always be growing.

That is not the approach here in most places in the United States.

MR. GREENSTONE: Okay, so can I push back on that for one second? So the thing that I am hearing when you say that is, but on the other hand we know that getting a masters of education doesn't lead to more effective teaching.

MR. MULGREW: Correct. So that is why when I said before your first day in the class is usually not your best day by any means. And we've spoken about already about the preparing someone. If you have a teacher accountability system that is

-- the framework is first and foremost, how are we moving, helping teachers move constantly in the profession of pedagogy?

But at the same time, take -- if we have that type of system, I know there are places. We have New Haven, who has very interesting findings after a year or two. You have Montgomery County, Maryland who has used a professional growth system. There are very interesting things going on and we're getting positive results. So, I think that's where it has to move in terms of accountability.

You also have to have a fast, fair process for removing teachers who do not do their job well. I was a mentor. I was a union leader. And I clearly, at times, I would have to tell people, listen. I know you want to help kids, it's great that you want to do that. But this profession is not for you. And just make it fast and fair.

MR. NEAL: So, I want to be clear here. I didn't have time in seven minutes, but I've written in many places that these percentile performance indices based on test scores can only be one small component of a larger system. Because if you only pay attention to the achievement, you won't get attention to the arts, to music, to social development, to the other things that we all want to go on. And I've also written that you want to somehow bring things like school inspections or the Cincinnati Teacher Evaluation System into it --

MR. MULGREW: Very interesting stuff, right.

MR. NEAL: Okay? But the point is -- where we probably part ways is that I want all of those to be on this same relative performance criterion. And so that you end up with a performance -- these set of performance indices where everybody is ranked relative to each other and there's always going to be some level of relative performance where if a team of teachers or school falls below that, we come in and we, you know, deny public funding, reorganize -- that there's a distance between the median



performing school and how you're doing. That if that gets big enough, you lose your right to receive public support as a school or as a team of teachers.

And I think that's a very important discipline because then the standards move endogenously. If there are new developments in pedagogy, if people are figuring out how to do things better, then that median point in the distribution moves with it. And you don't have to come up with some new projected standard, and you don't have to worry about somebody in the psychometrics division at the State Department of Ed monkeying with the scales.

And so, teacher incentive systems have not worked well, but they haven't really been seriously designed to work well. Because they haven't been based on assessments designed for use in incentives, and they haven't been --

MR. GREENSTONE: Well, hold on here.

MR. NEAL: -- true contexts.

MR. GREENSTONE: Now we are very fortunate to have someone here who has, I believe, set up a system. At least partially -- part of the compensation was based on assessment. Would you want to talk a little bit about that, Pete?

MR. GORMAN: Well, first of all Charlotte is nowhere near there. There is so much more work to be done, and I'm a heck of a lot smarter now that I'm not there then I was when I was there. It's remarkable how that happens.

I like the fact that this proposal takes out the within-school non-random assignment of students to teachers. I like that piece. That it goes and looks at things in a larger aggregate. And I think that piece is incredibly powerful.

But the nuance is, what is the right amount? What is the piece that it plays? Because you've clearly said, it's not the whole thing, it's one component. What are all the other components?

For example, we're trying to figure out in Charlotte of what is -- how do we measure in an evaluation the impact of teachers on other teachers? What do they contribute to a professional learning community that makes other people better teachers in how they share? And then how do you measure that? Because that's a huge piece we're finding out that our kids who grow the most in Algebra 1 have teachers who work as a team, share, trade kids back and forth through the course of a day, and do those things. So how do you nuance and measure that?

And I really made a huge mistake when I was in Charlotte. I came out too quick and too early on value added. And then once you put that out you can't go back. So that's why I think the system is going to get better now that I'm gone. Because that can be tied to me as a person, and then they can go now and fix those things. And I think that's powerful.

But we use student learning objectives. We added a component that was student growth. And I like this example, though, at looking at a student growth model that is more towards a format such as this. The question is, though, should there be a piece that's individual, that's team of teachers, that's school? Should you get that nuanced? Do you get so far along the line that you have so many measures that no one measure is impactful or meaningful any longer?

And what I'm learning is, I don't like the current system. We're trying to do something that is better and we're experimenting with different options. And the biggest mistake we'll make is if we tell folks we've now got it, here's what it is.

MR. HUGHES: I think -- yeah, just to build on that. I think we've all pushed hard kind of for some sort of empirical basis for making judgments about teachers. The problem is as I understand it, we end up with curves that don't tell us how to move the middle. And we've got a few saints out there in the education reform

movement and we've got a lot of sinners. And the challenge is to move the middle and make them better.

So in some ways I'm saying what Michael said. We've got to figure out evaluation systems that give teachers actionable information on how they improve their performance as much as we need to figure out how to make decisions on who stays and who goes. And we've spent an enormous amount of energy in this country proving that we can demonstrate the tale statistically.

But we also have correlational evidence that says principles know who those teachers are. And so the question I think is, what are the systems that are going to move that middle to create vastly larger numbers of good teacher?

And you're part of that, and I think the multiple measure question is the crucial version.

MR. GORMAN: So it's got to be a teacher development and evaluation system? Not an evaluation system standing on its own.

MR. HUGHES: Exactly, right.

MR. MULGREW: When the -- where you were speaking before about looking at whole schools, which is why we tried in New York City the whole school approach, I think in your system -- because as you pointed out in your presentation and everybody here is agreeing, the current systems that we have on the table for doing this are just -- they're not working. We can go into the scandals, everything else. Be teaching to the tests are just bad enough on its own. Looking at whole schools it's a little bit more -- I think there's a lot of value there to look at to see how whole schools are performing. I don't know if this would ever work on an individual level, but I think the approach and coming at it from your point of view is interesting. And at least -- it's changing what we're talking about.

And it's -- like right now, what concerns me is there needs to be a sharing. If someone is doing it right, we have to make sure we set up a system where that information will be shared. Not, oh, I'm doing it right, I want to keep my bonuses. You're not going to learn what I'm doing. We don't want to go to that.

MR. NEAL: I'm very opposed to ever using this to give scores for individual teachers. Because I want the situation where if Ms. Smith is a master teacher across the hall and knows Ms. Jones is screwing up, that she walks across and helps her.

MR. MULGREW: That's --

MR. NEAL: And it is insane -- and I get very annoyed with some of my colleagues in the economics of ed literature that pretend that if we put really high stakes on individual measures that we wouldn't weaken that cooperation. I mean, I think everything we know about how people respond to true zero sum games like I've proposed is that you don't want to use those among people who are supposed to be helping each other.

But I don't think there's anything wrong with PS 105 competing against PS 106.

MR. MULGREW: I don't -- I agree with you there. Right -- I was in Williamsburg two weeks ago in a school in New York City because it's a school I know who does very well with a tough population. And I've seen their enrollment trends over the last two years increase significantly in the two hardest populations to educate, which are newcomer ELL students and children with special needs.

And I get concerned quickly when I see that happening. Is it an enrollment issue actually that the school should be dealing with? Is someone from outside the system? New York City, we think of a lot of conspiracies a lot of times.

(Laughter)

So, I went --

MR. NEAL: Everybody is so honest in Chicago, we don't worry about it.

MR. MULGREW: Yeah, I know. (Laughter) So, I went to the school and it's a school that any teacher would want to be in. And it's a school that any parent would want their child to go to. But there was this significant increase. And I asked them -- and it's a great staff, because it's always the principals and the teachers talking to me together and pushing at me.

And they said, no, no, no, no. We're recruiting these students. I've never heard that answer before. I said, why are you recruiting them? They said, all of the other principals are closing programs around us so they don't have to take these kids because they know they're the hardest kids to educate. And they're afraid that their grade, which is a competition piece, will drop. So they said, that's not why we got involved with education.

So, I've never been in a small elementary school where they had four self-contained ELL special education classes. Because they went out and recruited those kids to go to the school from the neighborhood. And that's the work -- see, that's what I'm always afraid of. If -- when I have concrete evidence of that. But it's anecdotal only. But when you see that that's how people react to this, that's scary stuff. That is very scary.

And how we get accountability right and also deal with that type of issue, that's what I hear you're really pushing at trying to get to that. And that's why I thought your paper was so interesting to me. You're pushing at it, but that's the realities we're dealing with in the schools and in the communities. That there are schools who are now saying, no. Those kids are very difficult. And I would love to do it, except my school's

very existence is based upon my grade and I know if I don't have those kids I have a better chance at a better grade. Because the weightings are still nowhere near nuanced enough to deal with it.

MR. NEAL: But in mine, you only compete against the other schools that are serving those kids. So that's not a disincentive.

MR. MULGREW: But on the special education side, we've been dealing with this in New York -- how long have we had progress reports? How long?

MR. HUGHES: Four years.

MR. MULGREW: Four years. And they've changed the weighting constantly in trying to get the peer groups right. But all of the principles -- you can sit there with them, they will tell you there is a disadvantage. And the schools that have been slated for closure all have high percentages of those students. So they think it's just a disadvantage to have that type of student, and that's just wrong. We shouldn't have a school system like that.

MR. GREENSTONE: I think Bob wanted to -- yeah.

MR. HUGHES: Yeah, I appreciate the kind of ambition of the strategy. And when you posing the question as choosing between two schools in a competition, one you close and one you open. I mean, New Visions is on record as supporting school closing in controversial times, and we stand by that.

I do think getting that decision right is very hard for the reasons we've talked about. The nuance of measuring the data. But also, the capacity of the organization making the decision. So you know, frequently school districts will look -- and just as a psychometrician puts the cut score politically because that's how many kids they need to have pass or fail, I think districts inevitably choose the number of schools they're going to open or close based on a political calculation of where that cut score should be.

And a legitimate question about the capacity they have to undertake the types of reforms that will substantially change what happens in the building.

So you know, I would disaggregate those two questions, respectfully --

MR. NEAL: So if you look at these first --

MR. HUGHES: Just let me finish: And say, yeah. We may get a more accurate sense of what's going on in the building, but then I think whether we want to use a single measure or multiple measures for those decisions about closing schools is an open one.

We need to close failing schools. But the decisions need to be really --

MR. NEAL: Use multiple -- obviously. But if you -- I calculated these for Chicago for -- they have like 400 elementary schools in Chicago. And if you looked at the percentile performance indices for Chicago, you know there would be about 10 schools that would stand out on this graph where you would go, you know we need to go look at these closely and get these multiple measures.

And the interesting thing is that in some years if you take their VAM reports, there are a couple -- they've got these huge, enormous negative VAM scores that don't look bad according to PPI index. And so, I think it's important to create multiple statistical measures, to create multiple measures based on school inspections, et cetera. But have this commitment to relative performance so that the standard you're judged against is how well people who are willing to work with the same students are doing and not some target that comes out of a formula. Because those targets can be manipulated and those targets can be handicapped wrong so that ex post you don't work -- want certain types of students.

But if it's always a fair fight, then the people who are best with special ed kids are going to want to work with the special ed kids.

MR. GREENSTONE: Okay, I want to move the conversation a little bit. Let's -- taking this important idea. And now I'm going to cite a statistic which I'm not certain is true. But Adam Looney in the back of the room has told it to me many times. That in the next X -- I think X is 10 years? We have to hire 5 million new teachers. You guys probably know if that's right.

But let's just say it is, and let's say it's in the ballpark.

MR. MULGREW: Are you guaranteeing budget on that? (Laughter)

MR. GREENSTONE: I'm guaranteeing the budget that I control on that.

How does all of this fit into attracting, you know, from the broadest pool possible of teachers? And what is the way that we can use these assessment-based systems as we're continuing to try to learn how to operate them best in a way that will make sure we're getting the best and the brightest into the teaching profession?

MR. GORMAN: Well, first comment I would say is I think the biggest problem we have with the accountability for adults is we don't tell the truth to adults. It's funny, we'll tell the truth to kids that they're not performing but we don't go and tell folks this is what you're doing really well and this is what you're struggling with. And let's work on that development piece. It's just -- it's very difficult to tell the truth to adults, it seems.

And if we just started with that as step one, we could move a heck of a lot farther down the pipeline without even doing some of these other things. Just from what we've got already. It's just difficult.

Related to that piece, that whole HR pipeline for school districts is really not one of the higher-functioning parts. If I think about the way we on-boarded at Charlotte would be an utter disincentive for someone to say, I got hired last week, I'm one week in, man have you got to come and join me here. That just wouldn't happen. Everything from the impersonal way we hire and on-board and things like that.



So I think one of the first pieces we've got to do is look at that whole HR pipeline for how do we recruit, how do we hire, how do we place, how do we professionally develop, how do we evaluate, how do we retain, how do we reward? And if we're going to tackle this issue, I think we've got to approach each one of those separate points along the way. And it's not just the one of how do we evaluate?

Because I use this -- I was on the panel with Randy before and I said, we're not going to fire our way to be a great district in Charlotte. That's not going to get us there. It's going to be almost more important for how we hire and coach everyone we've got along the way.

So I think it is this discrete piece of tackling every part of that cycle along the way and involving teachers in the development of these solutions for how we do that. The best systems we've come up with so far in Charlotte were developed by our principals and our teachers working together, far and away.

MR. HUGHES: Yeah, I would just echo that. I think that when we look at New York City, one of the things that we found is that teachers who leave who you want to keep leave because they don't feel the school has made an investment in their professional growth and development.

Everybody wants to be on a team, everybody wants to win. And we frequently don't focus on those managerial strategies that are going to keep good people there and weed people who shouldn't be teaching out. And so we need to do that.

New York did a study a couple years ago and it found that almost 67 percent of the principal's time was spent doing administrative activities that were unrelated to the building and were created by authorities outside of the school. Then when you add the actual operation of the school, it was something like 15 percent for instructional time. So we somehow have to get our priorities right on this, otherwise we

aren't going to make it.

MR. MULGREW: And I agree with both of your statements. I would take it even a level further. The teachers are spending more and more of their time out doing work that has nothing to do with instructional practice also. And that is the most important thing that they do.

So in terms of the HR pipeline, I am convinced personally that if we wouldn't -- if we weren't in the economic situation we are in right now we would see a complete fleeing of the teaching profession because of all of the politics that have been put around teachers right now.

I go into schools constantly and they're just like, why are we the enemies? That's not good for recruitment, you know? Why am I lazy, greedy, and hate my students, as the papers portray me? All I wanted to do is sit in a classroom all day with 25 to 30 children and help them learn. That is not going to bode well for recruitment in the future.

Having -- and Bob is 100 percent correct. On the exit interviews they all say the same things. I do not feel that there are people and there is a system designed to help me help students. And that is why I am leaving this profession. And until we tackle that, we're not going to tackle the bigger issue on education.

MR. GREENSTONE: Okay. I think we'll turn to questions from the floor. Derek, I think that there was -- there's -- this came across in a couple of the questions that came over. Maybe you could talk a little bit more about the ways in which critical thinking skills could be incorporated into your idea?

MR. NEAL: So, let me be clear. I've never developed a test. Okay? What I know from contract theory and economics is that the whole idea here is to design a system so that when the teachers act in their own self interest to maximize their own

job security, their own paycheck, they do exactly what you want them to do in terms of best practice.

And so you're trying to reverse engineer a contest so that the best strategy is the best thing. And my grand vision is that if people knew and trusted some independent testing agency, that every year the exam was going to cover the whole curriculum. But from year to year, it was going to be very different in terms of the mix of essay questions or fill-in-the-blank or possibly, you know, requiring you to synthesize and do case studies. You know, different type -- then the only way to say I'm going to prepare my kids effectively for this is to try to teach them in ways so that they can communicate their mastery in a lot of different settings. Which is what I think we want.

And one of the questions that I would have is, do we think there's the political will to have an independent testing agency that was not giving students what they expected but really kind of challenging -- and because there would be some students some years that would under-perform simply because they didn't kind of match with this year's way it was set up. And there would -- so there is a question about the political will to have a testing system that is less predictable, because I think that as much as everyone hates the predictability and the coaching, I think sometimes teachers take a little comfort in at least they know how to prepare for it if it's going to have high stakes against it.

And so I think that's another one of our initial comments were about political will. That's one of the things we have to gauge, is whether there is the will to really put people in this contest where the only way to prepare is just to try to know it well.

MR. HUGHES: But it strikes me in your comments -- that was helpful to get a better sense of it for me.

The working conditions we put teachers in right now need to

fundamentally change if we're going to be serious about what -- holding them accountable for what kids know and are able to do. And I mean that in two ways. The way you described assessment I think is too frequently the reality. That teachers can predict some of the test but not all of the test. And there's no consensus on what should be happening in the classroom. So we typically don't have scope and sequence, we typically don't have curriculum in our schools. And I think starting to get clearer on what we want teachers to know and teach would be helpful.

Because I think the second point for me is, teaching has traditionally been defined as an individual profession. And I think you're starting to see in Charlotte, Mecklenburg and New York the best schools conceptualize teaching as teams of teachers working with groups of students for an extended period of time with effectiveness at the core of professional identity.

So getting to that place is important.

MR. NEAL: I agree on both of those, and everything I write works on the assumption that those things have already been worked out and fixed. (Laughter)

And it was -- I wrote -- in the first paper I ever wrote on this I was asked to come down to the thing at Vanderbilt, the Center for Performance Incentives. And they wanted an economist at their first conference to write a paper. And I started with it has to be -- you have -- the first thing you have to do before you do anything else is you have to have a detailed curriculum and communicate clearly the importance weights on each part of it.

That there's no way you can design an incentive system to get people to do a certain thing unless you give them clear guidance on what they're supposed to do. And if you don't do that first, then -- and I also talked about the importance of teams and sharing information and coaching each other up. And everything I say assumes that those two things are fixed before we start.

What I'm suggesting doesn't really help much if those two things -- I assume that people were already doing that. So.

MR. GORMAN: So a new title for this panel is, Utopia Meets Dystopia. (Laughter)

MR. MULGREW: We had to push in legislation when we changed our valuation legislation to put a line in that teachers have to be supplied a curriculum. People thought I was nuts. I said, no, they don't have it. This is a problem.

And the fact that we had to put it into legislation -- and I'm glad we're able to get it there -- but just shows you how sometimes -- how sad it was, that that had to be put into legislation. And we have a lot of people breaking the law right now.

MR. NEAL: With all the stuff about state standards under NCOB, I just assume that every school had a big curriculum from the state. (Laughter)

MR. GREENSTONE: Okay.

MR. MULGREW: You want to go back to the federal policy issue again? (Laughter)

MR. GREENSTONE: Okay, I think we have time for one more question. And this question has been asked in various forums on a couple of these cards. And I think this question must be driven by the statistic that Eric Hanushek waves around that if we could just find a way to remove the worst 5 or 6 percent of teachers suddenly and replace them with a median teacher, 50th percentile teacher, we would -- our school systems would perform as well as Finland or whatever the top of the rankings are.

And the question is, you know, what are the political constraints and how can we remove them to taking the most readily identifiable teachers who are not performing particularly well and bringing new teachers in --

MR. MULGREW: This would be for me, right?

MR. MULGREW: Two years ago in New York City, there were the famous rubber rooms. So I said, this is not acceptable, this doesn't work for anyone. This is ridiculous. So we went -- I went and I pushed and pushed and pushed so we could close them. So yes, we were the pushers to get them closed.

It wasn't just closed. I said, when I looked at all of the issues inside of it, I said, this is absurd. My responsibility is to give people -- to make sure due process is being followed.

The law was clear, but it was the exceptions in the law that were being followed all of the time. So the changes that we made, I'm -- you know, New York City, you know people don't speak about it now. But once some allegations or charges have been made to -- for a teacher, the average case now is 38 days.

When -- with insiders signing that agreement, our backload -- we remove the entire backload of New York City that was there for years and took up so much of this educational debate. We removed it in four months. And 188 teachers left as a result of 30-28 charges -- that's a removal of license -- in New York City. Yet you never heard anything about that.

So making the fair and fast process -- and now right now I am in -- I am trying to -- we don't need the arbitrators we have anymore because all the cases are so quick. And the cases that go full 30-28, the average case is 92 days and it can't go over 105. So there is a way to do that, but we're not seeing the results of the piece that you said, that this will now make us Finland.

You know, Finland doesn't have standardized tests. Finland has a longer school day, but the children spend less time in school than the children in the United States. Their longer school day is based on the premise that teachers are working together and planning collaboratively on instruction. You know, you never hear

that in the debate. Let's make a longer school day, like these countries have. But the children aren't in the school. They have less seat time than our children. It's about doing real planning around what happens inside that classroom.

So I think that's what will get us to Finland. Not the other piece. And I will be more than happy to show anyone all the statistics that we have. We have proven that you can do this fast and fair, just -- it took the political will. And it was not an easy political will to get through, because there were people on the other side who liked that idea of having that issue out there and using it politically in the media. And it was really a push to say, this just does not work for the kids. It doesn't work for schools, it doesn't work for the running of a school system, so we need to fix this. And we were able to happily get to that agreement.

MR. GREENSTONE: Did you want to talk about this?

MR. GORMAN: Yeah, I would just quickly say. You know, to me it comes back to something I alluded to before. If we don't tell the truth to adults, we could be lying to kids.

SPEAKER: Right.

MR. GORMAN: We could be telling them that the teachers are doing what they need to, et cetera. But we need to coach and help them along the way as well. But if we start off early being truthful to people and look at how many schools do we look at -- and if you have a 4-point scale, 98 percent of the ratings given were a 4. What kind of diagnostic sitting down with the staff and giving them coaching and development? If we just started off with telling the truth. And I think that piece can start with the leadership of the district and working with the principle and some other pieces of just telling the truth.

I know it sounds -- so that's a common thing. But we don't.

MR. NEAL: And a commitment not to have scales, but to have relative performance rankings puts discipline and forces people to tell the truth.

If no one remembers anything else I said today, you always want these performance measures to be contest-based because then you can't systematically lie for everybody. We need to take Lake Woebegone effects out of accountability in the United States. We have to have systems where we commit upfront that everyone can't be exceptional, or we will continue to have fudging and distortion.

SPEAKER: Correct.

MR. GORMAN: I couldn't agree more. Because the way we started that telling the truth piece was, I sat with all the area superintendents and I said, rank order and effectiveness all your principals. And they gave me the rank order list. Then I had HR pull the evaluations of those individuals. And I said, so how come this is not Lake Woebegone? Because rank order person number 1 and person number 25 have been evaluated exactly the same. What are we doing to coach those folks? We're not telling them the truth and giving them the support and help they need.

MR. GREENSTONE: Okay. You know, I'm just -- so as Roger said, you know, we chose to do another event on this. I think -- we think that there's no more important issue facing the country. The stagnation of test scores, the decline of living standards for many Americans -- and this has got to be part of the solution, if not the primary part.

And I'm just inspired to be onstage with you four, and the other people who were here earlier today. And you know, this is just fantastic. And we will be back with more research in a couple years. But for now, if you could join me in thanking the panelists.

(Applause)



MR. LEONHARDT: Let me ask everyone to sit down so we can get started on our final one before we break for the morning. I'm David Leonhardt of the *New York Times*. We're here with Wendy Kopp and Randi Weingarten. Thank you both for joining us; we appreciate it.

And we're going to have a conversation here. I'm actually going to rely on someone else to tell me when we're out of time. So I wanted to start by mentioning my sort of torn feelings about the state of education today.

I feel like I bounce back and forth between optimism and pessimism. On the one hand it seems really clear that there are reasons for hope and each of you embody some of those reasons. We've learned much more about what works and we seem to have more teachers, and more schools, and more administrators, and more entire school systems focused on what works and trying to put it into practice. And all of that seems a reason for really significant long term hope.

I think you could argue that of all the mess of the last few years, there is a chance that we will look back decades from now and say that the biggest most important long term change that happened was in the realm of education. And all of that seems reason for optimism.

On the other hand, when you get beyond all of these efforts to change things and you begin to look at results, it can be significantly humbling. As we had a story in the *Times* this morning, college graduation rates continue to stagnate.

Men today are essentially no more educated than their fathers were, which is quite striking, SAT scores are flat or even declining, school systems that spend an enormous amount of money have relatively little to show for it in terms of results, reformers who have come in pointing that out find that reform is harder than they thought when they came in and the results they can point to are often humbling as well.

And so, I guess I'm sometimes left thinking that the reasons for optimism are some combination of efforts and anecdotes and the reasons for pessimism are data. And I'm guessing that the two folks around me at root are optimistic and so starting with Wendy, I guess I wanted to ask you to cheer me up a little bit and cheer us all up a little bit. But with some proper pessimism --

MS. KOPP: With some data.

MR. LEONHARDT: -- and -- yeah.

MS. KOPP: Yes -- no.

MR. LEONHARDT: And skepticism.

MS. KOPP: So, you know, I've actually been reflecting on whether I think if I look broadly at the state of U.S. public education I would be as optimistic as I am if I think about our schools in our urban and rural communities, which is what, you know, we're focused on through Teach For America. And I can't actually say that I have true reason for optimism when I think about it as an aggregate.

But let me share why I do feel enormous optimism when I think about, you know, the challenge of ensuring that all of our kids, including kids in low income communities, 15 million kids who live below the poverty line in our country, like the effort to improve their educational outcomes and to close the incredible gaps and achievements that still persist, you know, along socioeconomic and racial lines.

I just think back to where we were when I first got into this 22 years ago. When the prevailing notion, backed up by all of the research, was that socioeconomic background determined educational outcomes, we truly did not know of educational interventions other than super heroic teachers who we viewed as incredible outliers and made movies of, *Stand and Deliver*, Jaime Escalante, or you know, schools lead by people who we viewed as one of a kind, charismatic leaders like Marva Collins in

Chicago where we assumed that her school was making it happen but when she left that school it would fall apart.

We truly thought -- we didn't know how to provide kids who faced all of the extra challenges of poverty with the kind of education that would actually put them on a different kind of life trajectory.

Today, I mean, and I think this is an enormous statement, we know that it's possible. And we know it's possible not just because one or two schools or ten schools, but because you know, dozens of communities have growing numbers of schools.

We could argue how many, maybe 3 or 400 of them, that are showing us that this is possible. That, you know, we actually can provide kids with the kind of education that regardless of, you know, what they're bringing in, incredible challenges that meets them with both the level of expectations, and rigor, and the extra supports necessary to, you know, literally double, triple, quadruple college graduation rates for kids, like meaningful, meaningful impact. So that's one reason for optimism.

The conversation today is completely different around this issue. I mean it's not can we do this, it's can we do this on the level of a system. Can we create whole systems of these kind of transformational schools? And to that question, the verdict is still out but I think that there's lots of reason for optimism even there.

You know, you think about where we were a mere five, six years ago in this. If we had pulled together this room and said let's agree on the school systems that will never change, we would have had a big debate. We'd still be debating but we would've put New Orleans, Washington, D.C., Detroit, at the top of that list. There's just no doubt about it. And you know, those are systems where there is, in some cases, like true progress.

You look at New Orleans; the percentage of kids who are proficient based on the state exams has doubled in the last four years. In New York City, which 10 years ago we would've chalked up to -- I mean literally if you remember, and we have such short memories, but the state of affairs in the New York City Public Schools System, 1.2 million kids, 32 community school boards, had lines in the paper which were all about fights between mayors and chancellors and almost nothing at all about kids.

When you think about the fact that, you know, we've rationalized the New York City School System, I could go on and on, but just look at the fact that fourth graders today in New York, just based on the national norm test, (inaudible), you know, are a full year ahead of where they were seven years ago.

If you're a parent and you've got a fourth grader in New York, that is meaningful difference. So I actually think we are seeing, in some communities, that this is possible. And I mean, to the other side, we can certainly look at the aggregate data and be really pessimistic because as a whole, we haven't moved the needle at all.

I mean the same data that we were all citing 20 years ago we could cite today in terms of just the nature of the achievement gap. And I think that's worth exploring; like why haven't we seen the aggregate needle move but why is it happening in some communities. And I could really go on about that but I'll leave it there for now.

MR. LEONHARDT: Thank you.

MS. WEINGARTEN: So I actually go back and forth between being pessimistic and optimistic as well. However, I don't think we have a choice, those of us actually who work with kids, we have to be optimistic. We have to be realistic and we have to be pragmatic, and we have to be very urgent and very deliberative at the same time.

Now some people think that's oxymoronic but I think we can do both of

these things. So the reason for optimism is some of the reasons that Wendy said, which is that demography -- our value system is that demography ought not be destiny and I think we have found ways to -- and we have examples of both schools and districts, both nationally and internationally, where it isn't, where we bust through that.

The flip side is that it can't also be a slogan. Poverty does matter, socioeconomics matter; I don't know if anybody has read the other *New York Times* front page article today. This is not an advertisement for the *New York Times* though.

MR. LEONHARDT: But we'll take it.

MS. WEINGARTEN: But you know, front page, the nature of joblessness has changed the nature of the country. The fact that poverty has gone up for the first time in decades, the fact that 40% of African American youth are poor, the fact that 35% of Hispanic youth are poor; those numbers are actually not what knocked me for a loop this summer. The numbers that knocked me for a loop this summer were the census numbers that said that wealth of Hispanic families have dropped 60%, wealth of African American families have dropped 35%.

So the whole notion that the environment outside of schools doesn't matter -- you hear teachers -- the last -- I'm in every -- and I'm sure Wendy is doing the same thing.

I try to be out of Washington, D.C., not just in New York City, at least twice a week; all around the country and internationally because that's where you see and you hear teachers talk about this all of the time in the last couple of years, how the world has changed for kids and their families.

So the reason for my pessimism is oh my God, look at what's happening in terms of the economy, not just what's happening in terms of budgets and schools, but look at what's happening in terms of the economy and what this means for our kids'

families, not just for teachers themselves. We see 300,000 fewer educators in 2008.

But the reason for optimism, because I lean there, is I think, just like Wendy said, and I'm actually really optimistic because of what we've seen internationally. I focus on one thing these days, and I was sharing this with David beforehand when David, you know, asked us, you know, he gave us a homework assignment last night and asked us this question so we wouldn't go -- today. We have not just high flying charter schools; we have high flying public schools that are doing great jobs.

I can point to the green dot school that we started with; Steve Barr in New York City, UFT members working there every single day. They are on the trajectory of an 85 to 90% graduation rate and the stats of the kids who have just taken and passed their regions are really something that everyone ought to be proud of.

We can talk about what those things do. That's not what I'm interested in. I'm interested in whole district change, which is kind of like what we heard before. I'm interested in what countries are doing to actually break through to ensure that kids are really ready to compete in the knowledge economy.

So I'm much more interested right now in what's Finland doing, what's Singapore doing, what's South Korea doing. What are districts like the ABC School District in L.A. County -- what are they doing to help all of their kids? What's Plattsburgh doing to help all of its kids? And the reason I'm optimistic is in some ways the same reasons that Wendy said.

It's not -- control; it's not the -- leadership is important. It's not the accountability issues that are driving this, with all due respect. It's some of the systemic issues like the environment -- or, let me start with, kids are being engaged.

Yes, of course we have to have high expectations for kids. But we also have to have an engagement strategy so the kids want to be in school and stay in school

and see a future for themselves. And we're seeing that in the districts and internationally where places are out competing us.

Number two; teacher quality is huge. Teachers matter. We know it's the largest most important in school factor and the sessions that we had beforehand in terms of how to incentivize or not, how to do evaluations or not, I think when the Superintendent said we have to make evaluation about teacher development as well. It is a huge lever, Michael said it, Bob said it as well, it's a huge lever when we do it right.

Number three; districts that work, countries that work, not just truly respect their teachers, but there's also real collaboration and real working together, both inside communities, inside schools, and inside of communities.

So engagement, not just high expectation strategies, that means really good engaging curriculum, broadly defined, not just math and English, teacher quality hugely matters, collaboration hugely matters.

And the last thing, which is probably the most controversial, is that we can't say poverty doesn't matter. But we also can't pretend that we can't deal with it. And so that's why we are very big on this issue of wrap around services. Not that that's going to solve everything. But if you know a kid is hungry or something really terrible happened at home the night before, we have to try to find ways of dealing with that.

MR. LEONHARDT: Let's talk for a minute about how we know what's working and what's not because -- I don't mean to make every question a version of I'm torn between two things, but there seems to be this fundamental question of how do we know what works and how do we measure and hold systems, and schools, and even individual teachers accountable because I'm aware of the weaknesses and the flaws with using test scores; right. I'm aware that people can teach to some test. I'm aware that they can be less meaningful than they might seem.

But I also feel like a lot of the critics of test scores ultimately are arguing for no accountability. That's not what they say, but what they basically are -- at the end of the day they are not replacing test scores with something that we can actually look at and say okay, we know whether this school is working.

And so that if we simply rely on schools to tell us whether they're working. Whether they're actually working or not, they'll use many of these words, right. You didn't use holistic, but they'll use engaging and holistic and they'll say we care about all of these things.

And at the end of the day, we shouldn't just use test scores because they're imperfect, but how can we actually get some sense for whether they're working or not rather than just asking them whether they're working because I'm pretty sure of what answer we're going to get if we do it that way.

MS. WEINGARTEN: So you know, we actually have to have all of these measures. We have to have measures of success. I often say that we don't actually have a good definition, a good common definition, for what constitutes success. And so as a result, we default back to English and math test scores.

There are some places that also now default back to attendance rates for students. We default back to dropout rates. But now we're seeing what are the completion rates in college. So I'm not against data and I'm not against accountability. We need it. But does accountability -- does the measurements actually drive everything that we do or do they guide and inform everything that we do?

And so when you actually look at the PISA results -- PISA is a random, you know, randomly selected test, not given to every child, countries are opt to be part of it, and it is a huge touchtone for all of us. But then we then look at what is Finland actually doing to get to where it's gotten. What is Singapore actually doing?



So I think we need to actually balance better between the accountability measures as a guide and as a touchstone as opposed to as a goal. The last thing I'll say is this, the best accountability systems are the ones that are -- where everyone reinforces each other, where it's not top down but where it's what I keep calling 360 degree accountability, so that people feel much more responsible as opposed to accountable to somebody else.

The districts that seem to work, meaning that seem to move the needle for helping close the achievement gap, helping all kids succeed, showing growth, showing real knowledge, are the ones where you see everyone, parents, community, teachers, principals, students, taking responsibility.

MS. KOPP: I think all of that is true. I mean I'm just trying to think, you know, how to put forth what I really believe about this because I think it's -- we clearly, as Randi said, we need to, you know, we need better and better assessments.

We should be investing in the quality of our measures to, I think a discussion that took place earlier today and gain more and more meaningful assessments. And we certainly have to have them, I think, so that we can -- first of all, for teachers.

I mean any good teacher is constantly figuring out where are my kids versus where I need them to be and using that information to inform their practice. We need it for parents, and principals, and to Randi's point, for everyone to inform our practice.

I think one of the problems in the nature of the discussion and the debate around all of this is we somehow think -- I mean the real trick is it is a people question and it's a leadership question. And you know, I think David Brooks wrote a beautiful column on this earlier in the summer where he said you know, we shouldn't be blaming

the tests, we should be blaming our leadership.

You know, when we blame a standardized test for the fact that principles pull their kids out of classrooms and put them in the cafeteria for two months to do test prep. Really; should we blame the test? Or is that an unbelievable lack of leadership and commitment?

And I guess that's, you know, when you spend time, and I think it's worth just, you know, every question we're going to ask all I can think is are we fully, fully grounded in what is happening in the schools, in our highest poverty communities that are getting results that are meaningful for kids, not just incrementally better, not the schools where we've got 33% of the kids reading on level instead of 30% in the school next door, but the schools that are actually meaningfully changing kids' trajectories, which is what we need given the magnitude of the problem that we currently face. What is happening in those schools?

I, you know, my simple explanation for why we haven't moved the needle at all in an aggregate sense as it relates to the achievement gap but we are moving it in some schools and systems is that in some schools and systems, we now have a constellation of leaders who are deeply, deeply grounded in what is going on, what has been learned in those schools. So I think it's worth spending some time on what is happening in those schools. And I mean -- and Randi cited the results from their school.

I have spent time as well in I don't know how many dozens of these schools by now and always, always, always there is a school leader who has assumed full personal responsibility for ensuring that their kids make the kind of academic progress and gain the kind of character strength necessary to usually have access to college and ultimately get through college and have access to a full range of professional options; like they are on a personal mission and they then do what a great leader does when they are

pursuing something very ambitious because I mean to Randi's point again, this is very ambitious.

To take kids who face all of the, in some cases, inconceivable challenges of poverty and actually afford them access through an excellent education, did the tools to get out of poverty, that's exceedingly ambitious. We've done it so few times so they go after it with a level of energy and discipline that great leaders use to accomplish anything in any endeavor.

They focus first and foremost on their team. They are obsessive about recruiting the teachers into their school and investing in them. They invest massively in their development. They work together with their faculty to build a powerful culture at the school level that aligns the kids, and the faculty, and the parents all on the same mission.

They are aggressive about managing to where they want to go and they do whatever it takes and they realize it takes more time, it takes more supports, and so they figure out how to lengthen the school day and lengthen the school year and partner with the local community organization that will provide various services and what not.

And this is what gives me hope about urban and rural schools versus the state of affairs at large because I think there is a growing sense of momentum and sense of energy around improving educational outcomes in low income communities and I don't sense the same level of momentum when we look at the aggregate. But this is about, I mean most fundamentally, it's about purposefulness, it's about our saying we've got a big goal and we've got to go after that goal and do whatever it takes to get there. That's what I don't see in my own kids' school and what I do see in the schools that are working for kids in the communities where Teach for America is working.

MR. LEONHARDT: Randi.

MS. WEINGARTEN: You know, we were talking before and I don't know

how many people have read the book *Drive* by Daniel Pink, of late, but it's probably been the most important book that I've read in the last five years because it does actually show a very different view about motivation and about motivation being about people having autonomy, mastery, and purpose. And I think Wendy just, I'm sorry, David too --

MR. LEONHARDT: No, no.

MS. WEINGARTEN: -- to jump in here, but Wendy just hit it. Both of us are very concerned about kids who have been left behind in the past. That's why we both focus very much on rural and on urban environments and on how you actually change the trajectory for those kids. And again, what keeps on running through my mind is we are littered with gray pilots.

David Sherman is in the audience. David and I, with Sandy Feldman and Rudy Crew, did the Chancellor's District in New York where we actually -- you know, Mayor Bloomberg and Joel Klein, where every single elementary school was turned around within a year or two and we did a combination of things, which is part of what's so hard in public education, it's not just one thing. You do have to have a good leader. But you also have to have a combination of other things taken together.

So the issue becomes -- again, I go back to how when you do something that works, what do we need environmentally to sustain that and to scale it up. And that has become the issue that I've now become much more concerned about. Like when we see schools that work, how can we share that practice so that people believe that the sharing of it is important, not competing with it is important.

MR. LEONHARDT: Let me throw out an idea and ask each of you to react. Last year, I think it was, the *Los Angeles Times* did this project that garnered a huge amount of attention, and controversy, and criticism in which it published the individual test scores associated with teachers.

Let's set that aside for a minute and twist it and say what if we had a system, a state for example, spent a lot of time developing tests, right, tests that they didn't think could be easily taught to, tests where the kids weren't locked in the cafeteria, tests across a range of areas, not just fill in the blank tests but tests that had scores on them and they said we are going to publish the input scores and output scores at a school level, not a teacher level, but a school level.

The principle will get all of the teacher level scores and can react as appropriate with Union leaders, but the school level scores, inputs and outputs, right, we don't want to know the kids in Scarsdale are doing better than kids in the Bronx, we know that.

It will allow us to focus on which schools are actually making progress. It'll allow us to find more of these kind of gems that you're both talking about. It will also allow us to find suburban schools in relatively middle class or even upper middle class places that simple aren't doing that well; that are coasting --

SPEAKER: Yeah.

MR. LEONHARDT: -- off of their inputs. What do you think about that?

MS. KOPP: I think that's the answer. I mean, yes. That's what we need. We absolutely -- I think we've got to focus on the school as the unit of change. And I won't since you said let's not go there, to the *L.A. Times* thing, but this idea that we should fix the system by fixing 3.7 million teachers is just -- I still -- it's the latest silver bullet.

It's just we're not going to get there and in three years we're all going to be making speeches we thought it was the teachers. We all know teachers are important, it's just, it's very hard to be a teacher who produces truly transformational results.

Again, in the urban and rural context in which we work, that's what we would need to do to serve kids well outside of an environment that supports that. It's much more sustainable to be an effective teacher in an environment that in fact -- within a transformational school. And so to blame the teachers for the weaknesses of the system, I mean, yeah, I could go on and on and on. I just think -- but we -- absolutely, we need to figure out how do we create whole systems of transformational schools.

And we should be holding school leaders accountable for that and freeing them up in my view over how they spend their resources and giving them much more autonomy over how they build their teams and the inputs that they need in order to get the results that we should hold them accountable for.

MS. WEINGARTEN: So, I think you'll find it surprising that I agree with Wendy. I mean we have to -- what the *L.A. Times* did in terms of individual teachers and where teachers actually have to work together, build on what each other does, it just totally misunderstood the nature of the work that we do as school teachers.

Having said that, even though we have to actually move entire districts because that's how you move and how you ensure that all kids, not just some kids, are meeting -- are succeeding. The school, in our -- the school is the unit of work. That's the unit of work. That's the environment, that's the place that kids go, teachers go, principals go, community goes. So there has to be a way of transparent data for the school. Having said that, that's essentially what No Child Left Behind did. But it focused simply on the sanctions and the penalties and not what do we need to do to create the supports.

MR. LEONHARDT: Is it school level? I'm not aware of being able to get input and output data on any school.

MS. WEINGARTEN: Well not -- what I'm saying is that it is -- if you think about the architecture of No Child Left Behind, No Child Left Behind says if you do not

get to X or Y or Z, cut scores in a school, then the school will be closed or this will happen with the school. So it is -- the accountability system was school based, based upon these kind of -- this annual yearly progress.

But what I think you're saying is you're suggesting a much more both nuanced and complicated multiple factor assessment and accountability system, which roughly some states have done in terms of the A, B, C, D, E, F, report cards.

We actually proposed something like you're proposing, David, in 2007 in New York, like a report card per school that was nuanced in the way, or multi factored, in the way you're proposing and we actually I think still have some of the kind of report cards that we proposed at that time.

MR. LEONHARDT: That's interesting. To me one of the big problems with No Child Left Behind is that it's not market based, right. If individuals want to go and look at how much progress kids are making in a school they just can't do it. Right, it's all sort of bound up in what the Government ultimately does in terms of the sanctions.

Let's talk for a minute about structure of schools and particularly about boys. Allen Blinder, who I presume is not here, but has written -- a former Vice Chairman of the Federal Reserve, Princeton Economist, has written a paper raising this question of do our schools look too much like the 20<sup>th</sup> Century economy that we don't now have.

Do they basically look too much like factories? Are they organized in terms of time of day, in terms of desks, in terms of everything essentially to produce factory workers? And I'd be interested in getting each of your thoughts about that. Should schools look and feel much different than they do now? Although, I understand they've already started to change. I'll let you decide who should go first.

MS. WEINGARTEN: Both of us have said I think my stock speech is our schools are organized for the economy of the 20<sup>th</sup> Century. And a lot of people who say

our schools are organized for the agrarian society, but if you -- anybody been to a high school of late? Our schools are, you know, they're basically organized as factories, as very large factories. Even our small schools are organized that way. And we need to be organized around knowledge and skill, as opposed to around factories.

Now, they're organized this way because, you know, in the 20's, the 30's, the 40's, if somebody dropped out there was work. There's no longer work. Having said that, there's also a huge need for -- and I know Michael, I don't know if you got into as much of this before, Michael was an amazing Career Tech-Ed teacher who really spent a lot of time in transforming schools in New York City from the old vocational model to a career, technical, and engagement model.

So there's a whole bunch of things that we can do to have much more project based learning, have many more internships, have ways of really engaging kids so that they're prepared for the knowledge, economy, and prepared for what some people call the soft skills, not just for math and English, but skills like problem solving, creativity, ingenuity, application of knowledge. Those are the skills that we need to prepare kids for and right now we're still much more focused on (inaudible) memorization.

MS. KOPP: I mean I just think that there's a hierarchy of issues. Like I think, you know, when I think about the things that have been on the agenda here this morning as well. I mean, you know, we could get into the micro details of lots of stuff but there's so much that is wrong foundationally about the system that I can't even let a 10<sup>th</sup> of my mental energy go there.

So like if we had the right set up then yes, bring on the innovation. And honestly, the right set up would foster the innovation. So the question is, you know, are we setting up our systems to foster more of the absolutely transformational schools that we now know it's possible to build?



It would take pushing out a lot more responsibility and freedom. It would entail trusting our educators, something that we're not inclined to do. I mean I don't know how much time you all have spent talking to the folks on the hill or the folks in any state department, but driven out of the best of intentions because we want to protect our kids and keep them safe, we just think we've got to micromanage everything and yet find a school that is getting the kind of results I'm talking about and you will find educators who are saying either they've been given through the charter system or they have just taken through the force of their own like will, the flexibility to do what it takes to meet the needs of kids.

So it's about putting in place a system that fosters that and then investing in our people, in education, in a way that we are not even remotely in the vicinity of doing; to develop the leadership pipeline necessary to actually, you know, then execute on that.

I don't think anything short of those two big strategies will have a -- we can tinker around the edges, we can test out giving kids a dollar for reading a book, we can test out all sorts of things but in the end it will only amount at best to incremental change until we can get the foundational elements right.

MS. WEINGARTEN: But in Singapore and in Finland they actually -- even where you see schools that also still look a little bit like factories --

MR. LEONHARDT: Mm-hmm.

MS. WEINGARTEN: -- they invest in their teachers, they do a lot of preparation, they treat preparation, and this is not -- I frankly believe in the alternative pipeline too. So this is -- every time I say this, I just say this is not a knock on Teach for America. They believe in training their teachers like we train our doctors and then they also spend -- in Singapore they really invest in evaluation as a teacher development tool and as a focus on continuous improvement. And they also have real collaborative

environments.

In Ontario, which went from 5, or 6, or 10 years ago having a terrible achieving gap to now being -- closing at further than any other country; they focused on two things, building teacher capacity and the investment in teachers and the respect of teachers, creating those supports, and also collaborative environments.

So it is doable. When you look at -- I go back to the optimism. When you look at the countries that out compete us, it is doable if there's two, or three, or four things we do at the same time.

MR. LEONHARDT: Perfect segway to questions. My little mention of boys, which is -- we have a question here. How do you account for boys? I'm cutting it off but I mean how do you explain just how much worse boys are doing in school than girls, which isn't for a second to suggest that sexism still is not an enormous problem in society and we look at the Fortune 500, we look at anything, you name it, but in schools, boys have really fallen behind.

MS. KOPP: You know, I'm actually not an expert on the gender differences here but I have to just say, I mean, okay, 15 million kids growing up below the poverty line, half of them do not graduate from high school. The half who do, who we applaud, they go across the stage, they graduate, they have an average 8<sup>th</sup> grade skill level; 80% of our top -- kids get through college within six years, 8% of our 15 million kids living below the poverty line will do that.

It's -- and I know you're right. I mean clearly, we've got -- within that, within that tiny percentage, more girls than boys are going to make it. The problem is, we've got our kids in low income communities who face literally challenges that it's hard to relate to, just massive, right, who show up at schools that are there, just like the school I went to in Highland Park in Dallas, Texas. It was there. It was waiting for us.

Now, I showed up as part of a community that calls itself a bubble for its complete lack of diversity or disadvantage, you know, destined to go to college and graduate from college like 97% of the other kids in Highland Park. And I went to the same school that we expect to meet the needs. Essentially, I mean I guess you could argue more resources; they had like a much better football field.

But literally, we meet all of our kids with schools that are waiting for kids, are expecting that some of them are going to be on a real mission, others, you know, it doesn't work. It's not going to work for our kids and what we've seen does work is to align our -- like to actually build schools that are on a mission to put their kids somewhere else, that get the kids on a mission.

That's what engages boys and girls who face so many extra challenges and it's what -- I mean go visit these schools and you see kids who are fired up and will be our future leaders of the country by the way. Thank heaven there is hope for us as a nation because these are kids who have overcome every challenge and are gaining the kind of education that, you know, is going to set them up to assume real leadership roles.

MS. WEINGARTEN: So there's a lot of data on this and I don't want to, also like Wendy, this is not an area that I'm an expert on, but if you think about boys, every one of our children need mentors, need role models, and we need to ensure they are not anonymous. I've spent a lot of time with groups that have tried to figure out, like Council for Unity and others, how to deal with gang behavior, how to deal with bullying. And when you look at gangs, what gangs are about is people having a structure and a place to go.

And so if you look at some of our communities, some of the instability in families now because of everything is going on, some of the enmity, we have to try and find ways to engage kids and help kids where they are, not where we want them to be.

And so part of -- I was at Ed Nation last night and there was a CEO panel and people said -- and Tom Brokaw asked, what's the one thing you could -- if you were Czar, what was the one thing you would do and to that group I asked them -- I said there are 100,000 public schools in the United States of America, adopt one of them. Have your employees work with kids.

Kids need to see, boys, girls, they need to see that there is a future for them. They need to -- so it's this engagement, this mentoring, this loving, this look that even -- David Brooks said, you know, we need to love kids. So we have to actually get -- understand that there's a lot of enmity and of kids that we have to get through. And boys have it more than girls.

MR. LEONHARDT: We have a question here from an optimistic Teach for America alum. Do the two of you envision working in some kind of partnership to improve the educational outcome for all students?

MS. KOPP: Um.

MR. LEONHARDT: I can leave.

MS. KOPP: I'll -- well I mean, what is going to improve outcomes for kids in my view is reaching the point where we have enough leaders at every level of the system and of policy and in our Unions who are actually grounded in what you learn when you've taught successfully in a low income community, which is basically that we've got a big problem but it is solvable and who have the kind of grounded understanding of what it takes, know that no one silver bullet is going to solve the problem, understand what is going on and what we have learned about what it takes to provide kids with a whole school that works for them.

When we reach that point we are going to have real change and I'm actually optimistic. I mean it's about leadership. We need strong leadership from within

the Union, from within our systems, from within policy and we're hoping to generate more of that leadership that's clearly Teach for America's mission.

And I'm hopeful that some of our folks will in fact assume leadership within Unions, as well as within school systems, and that ultimately that will create a much more collaborative kind of -- not just that it needs to come from Teach for America, but meaning yes. Like I think we can have reformers from within the Union work with reformers from within the system and within policy to get where we're trying to go.

MS. WEINGARTEN: Look, I think we have to work together. We have -- if we actually really both believe as we do in ensuring that all kids, particularly poor kids, have an opportunity to do what they want and need to do in the world, then we'll have to.

Too often in this debate in the last few years has been about how you get somebody else off the stage as opposed to how you actually work together. You know, how this person shouldn't be in the room, this person shouldn't be at the table. It's ridiculous.

There is not a monopoly on good ideas, you know, and much of what we need to do is how we implement and we both think about it a little bit differently but, you know, Wendy leans into leadership but that's a way of scaling and sustaining.

I lean into, you know, how we help create capacity of educators and how we help create collaboration because I worry that if the charismatic leader leaves, what happens the next year when you don't have that same principle. But we're actually spending more time together thinking about how to do this as opposed to, you know, how people point fingers at each other.

MR. LEONHARDT: Roger.

MR. ALTMAN: I want to ask a question about something Wendy said and hopefully you'll (inaudible) address it. You know, Wendy, you said that invariably the

success at the school level comes down to leadership and what we now -- we now know so much about what it takes to succeed, which we didn't know 20 years ago. That statement puzzles me.

Is it to say that 20 years ago or 30 years ago we did not have leadership at the school level? I personally attended a public elementary school and I thought we had passionate teachers and extraordinarily skilled people in that school. So I'm confused by what you mean by that.

MS. KOPP: I'm not saying we didn't have committed people in schools --

MR. ALTMAN: I mean is it your point we have more leadership today than we used to? I'm just baffled by that.

MS. KOPP: No. Well, my point is that I actually think that we know something today that we didn't know 20 years ago and that is how to create -- I don't want to either minimize the challenge of poverty. Poverty is a very, very real challenge for kids. What we've learned is how to create a school that actually meets the needs of kids who do face the extra challenges of poverty.

I'm not saying there weren't some teachers who figured out how to beat all of the odds. I mean there clearly were. I mean we made a whole movie out of Jaime Escalante. But instead of diving in and saying what did he do differently, we just assumed the guy is a charismatic super hero.

And we have, as Teach for America, dived in. I mean it took me 10 years to say let me go back and sure enough what we learn differentiates our most successful teachers in urban and rural areas within Teach for America. It is exactly what Jaime Escalante did. I think what we've learned in the last 20 years is how to describe that, how to replicate it.

It turns out it does take a super hero. I mean honestly, if you look at

what Jaime Escalante did, if you look at what our rare transformational teachers who do work within the classic underperforming urban school do, it's hard to replicate and it's why I keep focusing on schools because I think, you know, literally we didn't have -- I mean I think so much of the education community actually doesn't understand what we have learned in the last two decades.

If you go spend time in the KIPP schools, and the uncommon schools, and the achievement first schools, and to Randi's point, in the growing number of schools within the system that are producing transformational results, they're doing something very differently than most people would describe as the function of a school. They're certainly operating differently than the school I went to, which didn't have the same set of challenges on its hands.

So yeah, I think we know now what to do. I don't think there's any way to produce, to create, one of those schools without extraordinary mission driven school leadership. Now, I believe you can develop that; absolutely. We need to become about - - we need to create -- if we don't become leadership development machines and people - - I mean I think teachers are leaders too. I mean I think we need to understand, just like great companies understand that their greatest asset is their people.

I mean if we had a group of CEOs up here explaining how much they spend on the development of their work forces and then we looked at what we do, like what they do, and what we do in education, it would be absolutely humiliating; right.

Like we don't come near, we're not even on the same planet of what any high performing company does and yet we're trying to do, especially in urban and rural areas, we're trying to accomplish extraordinary outcomes.

We will never get there; we will never get there in a sustainable way if we don't create that kind of capacity within our school systems. So yeah, I think we need a

lot more leadership. You know, we need to develop it. I don't think we've done that well.

MR. LEONHARDT: That reminds me of something you said before about scaling. And let me just throw this in that you can address either in your answer. You talked about how hard it is to scale, right. You both have and is the main problem there that the things that work little don't actually work big? Or is the main problem --

MS. KOPP: It's leadership.

MR. LEONHARDT: -- that we haven't yet figured out how to expand the things that work small?

MS. WEINGARTEN: That's actually really -- I know that the issue, or I think that the issue is how to scale and how to sustain. But we're just starting to figure out how to answer your question. So let me try to answer Roger's and then try to answer yours together.

MR. LEONHARDT: Yeah.

MS. WEINGARTEN: If that's okay. Something, believe it or not, Roger, that Rahm Emanuel said and then Lamar Alexander just said it in an op-ed too, actually I think goes to your question. And they both have said it different times. Rahm, at a CGI meeting in June in Chicago when he was welcoming everybody, said my job as Mayor is to create an environment that is conducive to business; that's my job so that you will actually employ people in Chicago. Lamar just said -- Senator Alexander just said in you know, criticizing what Arne Duncan had just done in terms of the waivers, he said something about how environment -- creating an environment is really important.

When I go to schools that are working and I pull teachers aside and I say so what makes this school work, they will inevitably say several reasons, including the principle, to Wendy's point, but when I just then push down on that and say -- or push at that and say well what about the principle and they'll say things like well, whenever I need



something the principle will make sure that I get it.

She'll make sure that the, you know, that the environment is there for me to actually succeed in teaching. She'll create an environment or he'll create an environment; there'll be a real collaboration. So I think that there's a big difference between the way in which we see leadership today versus several years ago.

Several years ago it was I am the school. I am the Union. I am the nation. Now it is how do you create an environment for the people who actually are closest to the kids doing the work for them to be successful. So in terms of attributes of leadership that I see now, that's why I lean towards collaboration in terms of how you ensure that so many other people can actually do that.

And that's a big difference today in terms of what makes a good leader in schools versus maybe years and years ago. How you create the environment so that others can succeed because now it's about knowledge as opposed to about -- memorization. It's about application -- the skills we have to teach kids these days are so much more complex. Not that some kids didn't get that before, but now for all kids to be successful, all kids have to get it.

MS. KOPP: Can I just say one more thing to both of these questions?

MS. WEINGARTEN: I think -- and that's why scaling is so hard because it's creating the environment.

MR. LEONHARDT: Mm-hmm.

MS. KOPP: If you pull together the people who run the big charter school management organizations and the superintendents who have seen lots of good stuff proliferate and are trying to figure out how do we scale it and you say to them, what is your biggest problem, they will say numbers one through five, talent and leadership at every level.

MS. WEINGARTEN: All right.

MS. KOPP: They are desperate. The bottleneck is enough people who can run great schools. You can't have a transformational school without a transformational leader; there's no way. But how do you speed up the development? You can't just have them. You need to develop them. They need to come into teaching with the personal characteristics necessary to be an exceptional teacher. I've never -- you can't have -- you can't become a transformational school leader without having been a highly effective and transformational teacher in all honesty, in the same environment. It's a very rare person who can get there without that.

And then they need to gain the experiences necessary to develop the leadership skills necessary to do it at a school level. Talent and leadership; it is -- I mean I'm sure I'm preaching to the choir of anyone who is out there as a former superintendent or a superintendent or someone trying to scale what works. This is the constraint.

MR. LEONHARDT: You've walked right --

MS. WEINGARTEN: But we learned in the Chancellor's District that leadership was not the be all and the end all. We still had the same leaders as we had beforehand in many of the schools. We did not have -- and yet we were able to create -- to your point about talent, we were able to help prepare and develop teachers in a very different way and also have a bunch of other resources that turned around those schools. Because at the end of the day, the reason I'm just pushing back at this is we have 100,000 public schools. We have to actually help all kids. You know, if we can't get 100,000 great leaders, we still have to help all kids.

MS. KOPP: It's just that we haven't begun to even try to develop the people and leadership force necessary to have a purposeful, effective education system. So I'm thinking let's try and when we try and we come up against the wall, then resort to

something else.

But I've never seen the kind of change we need for kids, something more than incremental improvement, because that doesn't get us anywhere when we're dealing with the situation we're dealing with without -- and I think you might agree at some level, Randi, like without a different -- and I'm not saying it's about the people. Like I actually think we bring good people into a system that does nothing --

MS. WEINGARTEN: Right.

MS. KOPP: -- to bring out the leadership and talent that exists. I mean I think we need strong people coming in and we need a system --

MS. WEINGARTEN: Right.

MS. KOPP: -- that then fosters their leadership.

MS. WEINGARTEN: Right. I'm all for trying to get great leaders to -- and I'm all for that.

MS. KOPP: Yeah.

MS. WEINGARTEN: But what happens to kids right now? And I think that what we've learned from the international comparisons is that when we have leaders who can create an environment so that the teachers get the tools and additions for success and when we also really invest in teacher ongoing preparation and development and use evaluation --

MS. KOPP: I think teaching -- yeah, I think it's all one thing.

MS. WEINGARTEN: -- as that, I think we --

MS. KOPP: Definitely.

MS. WEINGARTEN: -- but we have to work on three or four things at the same time and that's when you see schools and districts move the needle.

MS. KOPP: Just to be clear, I think this starts with teachers. I don't think

you can look at leadership development separately --

MS. WEINGARTEN: Sorry.

MS. KOPP: -- from teachers. Teaching is the foundational experience for the leadership we need to develop our teachers. We need to develop our overall people pipeline in a way that we just never have.

MR. LEONHARDT: I just got the time is up sign, I'm sorry to say. Thank you both.

MS. WEINGARTEN: Thank you very much.

MR. LEONHARDT: It's been great.

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## CERTIFICATE OF NOTARY PUBLIC

I, Carleton J. Anderson, III do hereby certify that the forgoing electronic file when originally transmitted was reduced to text at my direction; that said transcript is a true record of the proceedings therein referenced; that I am neither counsel for, related to, nor employed by any of the parties to the action in which these proceedings were taken; and, furthermore, that I am neither a relative or employee of any attorney or counsel employed by the parties hereto, nor financially or otherwise interested in the outcome of this action.

/s/Carleton J. Anderson, III

Notary Public in and for the Commonwealth of Virginia

Commission No. 351998

Expires: November 30, 2012