NEW YORK CITY COMMISSION ON HUMAN RIGHTS
PUBLIC ENGAGEMENT FORUM
AUTOMATED DECISION SYSTEMS TASK FORCE

April 30, 2019
The New York School of Law
185 West Broadway
New York, New York 10013
6:19 p.m.

BEFORE:

JEFF THAMKITTIKASEM, Task Force Chair
BRITTNY SAUNDERS, Task Force Chair
KELLY JIN, Task Force Chair

SOLON BAROCAS, Task Force Member
KHALIL CUMBERBATCH, Task Force Member
HOWARD FRIEDMAN, Task Force Member
DAN HAFETZ, Task Force Member
MICHAEL REPLOGLE, Task Force Member
SUSAN SOMMER, Task Force Member
VINCENT SOUTHERLAND, ESQ., Task Force Member
ANDREW WHITE, Task Force Member
MEREDITH WHITTAKER, Task Force Member
MAYA WILEY, Task Force Member
JEANNETTE WING, Task Force Member

Douglas F. Colavito, Court Reporter
Everybody, sorry. Good evening. I just wanted to kick us off to make sure we value everyone's time. Thank you for coming out today to our first public forum of the automated decision systems task force. It's a great honor to, kind of, welcome you all here and -- and to start off this public conversation.

I want to introduce myself, Jeff Thamkittikasem. I'm the director for the mayor's office of operations and the chair for the ADS task force. Before I go further, just from a logistics standpoint, if anyone needs any Spanish interpretation, please just right outside, there are people available. So if you need that, let them know, and they will identify a person to help you out with that. But to keep -- keep going, just -- we're really excited to have you all here and kick off the series of forums and community sessions throughout the spring and the summer.

Before we begin, I just want to make sure I introduce my task force co-chairs. To the left of me, Brittny Saunders, deputy
ADS TASK FORCE - PUBLIC ENGAGEMENT FORUM

commissioner for strategic initiatives at the city commission on human rights. As well as Kelly Jin, our chief analytics officer for the city, and director of the mayor's office of data analytics. We are all, collectively, very thrilled and excited to hear more from New Yorkers and -- and this opportunity to get public comment in.

I also want to acknowledge and thank all of the task force members who are here and who are not yet here. But these are members who are volunteering their time. And this is important work, and they are putting their own valuable time to it giving a lot of attention, thought, and energy. And it's an amazing group of people in their own right, but even more so as they contribute the range of experiences and expertise here. So their perspectives are going to be crucial for helping answer some of the more really complex and difficult questions we have going through the task force.

Now, I want to take a second just to go down the table and have the task members mention their name and their organizations.
MR. HAFETZ: Hi. Good evening. My name is Dan Hafetz. I am representing the Department of Social Services, which is also representing the Human Resources Administration and the Department of Homeland Services.

MS. WING: I am Jeannette Wing. I'm the director of the Data Science Institute and professor of computer science at Columbia University.

MR. BAROCAS: Hi. I'm Solon Barocas. I'm a researcher at Microsoft Research, and assistant professor of information science at Cornell University.

MS. SOMMER: I'm Susan Sommer, general counsel for the New York City Mayor's Office of Criminal Justice.

MR. FRIEDMAN: Howard Friedman, general counsel at the city Department of Education.

MR. WHITE: I'm Andrew White, deputy commissioner at the Administration for Children's Services.

MS. WHITTAKER: Hi. I'm Meredith Whittaker. I'm the co-founder and co-director of the AI Now Institute at NYU.
ADS TASK FORCE – PUBLIC ENGAGEMENT FORUM

MR. SOUTHERLAND: Hi. I'm Vincent Southerland. I'm the executive director of the Center on Race, and, Equality, and the Law at NYU School of Law.


MR. REPLOGLE: I'm Michael Replogle, deputy commissioner for policy at the New York City Department of Transportation.

MR. THAMKITTIKASEM: Thanks everyone. And there's more information on all of the members of the task force on the website. So feel free to, kind of, look that up, as well. So tonight, obviously, is a very big event for us, because it starts off our engagement with the public in a more concrete manner. And it's a really big, deal because this work needs your input and your feedback; so we really appreciate all of you being here. It's a great turnout, and so thank you all.

Before we start, I want to share a little more about the task force itself, our work up-to-date, and some of the plans for the
The task for is ultimately charged with coming up with a set of recommendations. They are recommendations to help city agencies understand and address how automated decision systems affect New Yorkers and increase transparency around ADS. It's an ambitious task in and of itself. But first, we have to ask: What is an automated decision system? And it turns out that's not an easy question to answer. Even the city needs guidance on that. So the local law that formed this task force defines ADS as the computerized implementation of algorithms, including those derived from machine learning or other data processing or artificial intelligence techniques, which are used to make or assist in making decisions. The definition is a bit broad, and I think that's something that the task force is, kind of, taking a look at and sometimes struggled with, because it could even include a pocket calculator. Just because a calculator processes data and helps people make decisions isn't a reason, necessarily, to keep it within the scope of this conversation.
Instead, I think people are thinking about more complex systems. Like an algorithm that the DOE uses to match students to middle school placements. But what does that mean for us, and what does that ADS mean in reality? I think, for us, we mean tools or complex data processing or analysis is being done through computerized means, and then those decisions are being made through those processes.

In general, ADS are tools that agencies can use to get services to residence, engage with people more efficiently and fairly, and use data more effectively. But, as you can imagine, these systems also have, very much, the potential for perpetuating bias and disproportionately impacting certain folks. In fact, they can hurt people, and they can misalign resources. And that's partly why this task force was created, to address those issues. The work is crucial because the ADS -- ADS on their own, from different agencies, can also connect New Yorkers with valuable city programs, improve services and benefits, and sometimes make decisions fairer and more
equitable for the people they're meant to
serve, and that includes all of you. And for
policy decisions, something we have to
consider.

So with all that being said, thank you for
being here again. Today is about that next
phase of our work, and it's an important one.
Our members have a wide array of experience,
but we need to hear from New Yorkers. So we've
invited expert speakers, who will give us
commentary about their own experiences in these
areas. This commentary is meant to not just
help inform the task force members' thinking in
coming up with recommendations, but to also set
the stage for all of the public commentaries,
as well.

After our speakers, we'll open up the
floor to public comment, and we can hear more
directly from each of you. Our task force
needs to hear and will document a lot of those
things within our final report and our
recommendations, as well.

So the theme of tonight's forum is
fairness and accountability. We want our final
ADS TASK FORCE – PUBLIC ENGAGEMENT FORUM

product to have those values. They are important to what we're doing.

We're also holding a second public forum on May 30th in this same space with the theme of transparency. So for all of you who are here, please feel free to come to that, as well, to contribute in that -- for that area as much as you can. And anyone is welcome to submit written testimony or written commentary on our website. Any commentary for our speakers, the public, and members' own research will all be part of the process as we build our recommendations. We'll even be giving -- we'll even have more opportunities for New Yorkers to get involved as we advance and include round-table meetings with community groups throughout the summer. So they are probably built off some of the commentary we hear in these public forums.

We are really excited to get this phase of our work started. It's ambitious and challenging task, but at the same time, it's very important for our future. It's not just about trying to make recommendations for
tomorrow, but setting up the stage for longer discussions that can go into the future, and address the fact that these systems and their uses are going to change. So we want to start that and continue it and build a framework for that longer-term discussion. We are determined to make our recommendations meaningful and practical to keep New York the fairest big city in the country.

And so with that, I want to invite up one of our special guests, Council Member Peter Koo, who is chair of the Technology Committee for the New York City Council. He will give a couple of remarks, and then we'll continue on with some commentary. Thank you.

MR. KOO: Thank you. Good evening, everyone. I like to welcome all of you to this evening's automated decision systems task force public forum. Thank you to New York Law School for hosting us. Thank you for all the task force members and administrators from different agencies, and thank you for our panelists, and Natalie Evans Harris, Sarah Kaufman, Jamai Nelson, and Andrew -- and Ginger Zielinskie.
I think I can say with confidence that we are all very happy that this forums have been created. This is a great chance for the task force to hear from the public, especially the many applicants who wish to contribute their talent, expertise, and ideas to the technology that runs the city. As the first of what I hope to be several forums, we aim to establish a medium for more transparency, public input, and participation.

Most of us know that the history of Local Law 49 of 2018. This law hopes to allow to us to gain an understanding on how the city use algorithms. These automated equations create the statistics that are responsible for everything from the school zoning to resource allocations.

Earlier this month, I chair a technology committee hearing on the task force where many questions were posed as to where we are in the implementation of the ADS task force goals. Well, since then, progress on this front is slow. I'm encouraged that we they are here today to continue these discussions.
ADS TASK FORCE – PUBLIC ENGAGEMENT FORUM

Ultimately, our efforts about coming together to bring transparency to an overlooked process that has existed behind closed doors, but one that has tremendous power in city government.

I look forward to continue our work together. Thank you.

MR. THAMKITTIKASEM: So with that, I'd like to turn it over to my co-chair, Kelly, to introduce our speakers.

MS. JIN: All right. Thank you, Jeff. And thank you to all who are actually joining us physically in person here in -- in New York City, as well as by live stream. I think the -- the furthest attendee we have is someone who emailed me saying they are dialing in from Australia. So a lot of folks around the world are interested in the conversation this evening. So this evening, we're really, really pleased and really excited. We have five esteemed panelists joining us, a handful of folks who make time this evening, who also came in from out of town. And so really, really appreciate you all taking some time.

I want to walk through just a few
logistics as we segue into the panelists portion and then before we segue into the public comments forum. So the first is that we'll have two panels this evening. Panel 1, which is situated right here with three folks. And then Panel 2 with two. And so we'll go through, and we'll actually read the -- each individual will read their public commentary. And then after that closes, we'll open it up for task force member questions and answers. And then we will shift from that -- from Panel 1 to Panel 2.

I -- as part of the preparation for this evening, we wanted to be really mindful that you all didn't have to listen to me speak everyone's esteemed bios here. So we have asked all the panelists to provide more information about themselves, their organization. But also, I think, more broadly the -- the policy and national context behind their work, as well. We've heard both from Jeff, as well as from Council Member Koo, that this is a first-of-its-kind task force, and what we're doing here is really a step one.
Andso without further ado, I will list the names, titles, and organizations of the first panel, and then I will turn it over to Andrew to kick things off. So first off on our first panel, we have Andrew Nicklin, futurist at large, John Hopkins University Center for Government Excellence.

Second up, we will have Sarah Kaufman, associate director, New York University Rudin Center for Transportation.

And third, we will have Janai Nelson, associate director and counsel at the NAACP Legal Defense and Educational Fund.

So I'll turn things over to Andrew.

MR. NICKLIN: Thank you. So I fully admit that "futurist at large" is a title I invented myself about four months ago. But I do think that it -- it reflects the kind of work that I personally focus on in my organization.

So I'm Andrew Nicklin. I'm from the Center for Civic Impact as we just renamed ourselves yesterday. So my name tag is already out-of-date in this very fast moving, innovative world. And we're based at John
Hopkins University, as you know, which is down in Baltimore.

The organization umbrella is the Center for Government Excellence where I worked for the past four years. We work with governments across the country to help them use their data more effectively for decision-making. This happens at both the leadership and the operation levels of government.

And my job is to, sort of, pay attention to the technology horizon, help governments use emerging technology and data practices to better serve the communities and, of course, some involve the use of algorithms, AI, automation, and so on.

Prior to this, I spent two years in Governor Cuomo's administration; so here. And I led the open government programs for the governor. And then prior to that, I actually worked here in New York City government for 18 years on a huge number of technology data projects. So I -- I am very well-versed in the public sector space and, particularly, in New York City space. I -- even though I am longer
a city employee, sadly.

So many of the colleagues we work with across the country are looking here to New York City for the transformative work, the data-informed methods that are used to improve the lives of your residence, your businesses, your visitors, and even your government employees. They are also watching as you face these challenges. Quite a few have spoken to me personally and expressed great interest in the work of this task force, and are eager to see the recommendations that will come out from you, presumably, at the end of this year. They all face similar issues of fairness, accountability, and transparency. They are all tackling the same issues of adopting algorithms, AI, automation into their -- into their programs. And so I do think that this is opportunity for New York City to, once again, set the tone or the pace for what happens in the rest of the country, at least, at an urban level.

So my opinion, the automation -- the use of automation in government is going to
continue to grow both in adoption and complexity, and there are three forces that, I think, are behind this.

First, the amount of data that we have is growing. You hear statistics every day that we are just, you know, inundated with data; that the amount data that we have doubles and triples every year and grows exponentially. But our capacity as humans to fully comprehend it does not grow. We don't grow as quickly as the amount of data we are gathering is. And so we need tools and we need analytics and we need ways to distill and understand that. And that's where AI automation come into play.

Second, is that governments are continually pressured to achieve more with the same or fewer resources. This is just the standard political constraint problem. Everybody wants more services from their government, but doesn't want to pay the taxes for it. I understand that. We are all taxpayers. We all feel that way.

Third, is that contractors, vendors of the government, will also use these technologies,
these tools, these data practices to stay competitive. And they are going to do so, because they want to obtain government funding for their work. Right. I mean, whether it's a non-profit that's providing social services, or whether it's a defense firm. All of these organizations are thinking about how to use these technologies, how to bring these data practices into their world, and use them to provide better services and more efficient services and so on.

So a large amount of resistance to this growth comes in the concern of deeply concerning impacts that the new technologies are having in our lives as -- as -- as already been alluded to. We constantly complain that government is behind the times when it comes to adopting new -- adopting new technologies, but perhaps in this case, we should be grateful for that lag. Because life might be a little bit better for all of us, but more people might also be needlessly suffering.

But I think this inevitability of automation pushes us to think carefully about
how it is used to improve everyone's health,
safety, and agency to the maximum extent
possible.

So with that national context in place and
the work that I do in place, I'd like to share
some specific recommendations for your
consideration. I've chosen to focus on the one
-- on the ones that were, sort of, defined for
today's discussion. And I'll be happy to send
some additional ones in writing, because I
won't be able to attend next month's session or
the one later this month.

First, the criteria for identifying
agency-automated decisions: This is a really,
really tough and thorny issue, as you no doubt
are experiencing, and I heard some similar
reflection when I attended the city council
hearing hosted by Councilman Koo earlier this
month. I have a really strong opinion about
this, and it's very simply that it should not
be technologically centric. So really, we
should be thinking about this in terms of
thresholds, not a decision defined by whether
it's an Excel spreadsheet or a complex case
manager system or a network of cameras doing
license plate scanning, but rather whether it
is in certain sectors of the public sector.
So, for example, public safety or criminal
justice or social services.

One sort of really obvious threshold is
whether or not there is human intervention to
review a decision before action is taken. We
know in some cases, particularly in the
criminal justice system, that judge -- judges
particularly, often rely upon risk scoring that
they see without necessarily understanding the
mechanisms that are coming up behind those risk
scores. There's still human intervention, but
we also have to question whether the human
intervention is -- but I do think that this is
a useful threshold to have. If there is human
intervention, maybe we want to not consider it
fully automated.

Another one might be whether it's an
effort that is one shot or something that is
operationalized. So, for example, when New
York City launched its pre-K programs a few
years ago, there was a lot of analytics work to
ADS TASK FORCE – PUBLIC ENGAGEMENT FORUM

try to make sure that both the students and
potential students could be reached, but also
that the facilities and services were there and
available for them. That was a -- I think a
very complex operation and a very monumental
achievement for the city. But it was, in many
ways, a one-shot effort. The same analytics
will not need to be repeated.

However, something like teacher
evaluations, which goes on a year-to-year
basis, those are repeated. And so we might
want to consider applying a threshold of -- if
these systems were operationalized, if they are
going to be used continuously over the years,
then they need to have these -- these
requirements applied to them. And one-shot
systems might not. That's not to say that
these one-shot opportunities don't create
disparate impacts, but just that the
opportunity to fix them is also a one-shot
situation, as well.

Or it could be something as simple as how
many people might be effected by these -- by
the decision system that's in question. Who is
affected? Are members of the -- are they members of a vulnerable populations of the city? Are they business owners or property owners, or are they even city employees? What are the potential negative impacts? Will they result in outcomes, such as poorer education, changes to credit reports that could hurt them for job opportunities and the ability to get housing. Or, you know, will it affect their incarceration? Will they be kept in prison longer or remanded without bail and things like that?

The other questions that I would, sort of, think about for thresholds are: How long does the impact last? Is it a week? Is it seven years? Is it permanent? If it's a shorter impact, maybe we need to de-prioritize those and think more about the things that are going to have longer term sustainable change for our city.

I think this group can also recommend tiers. I don't think that the city is going to be capable of implementing everything all at once. And so it may be appropriate for this --
this task force to think about what are the
most important things to tackle first, and what
are the things that should be tackled later.
And you may be able to use some of these
thresholds or some other thoughts that you have
on ways to do that. You might want to focus
with, you know, criminal justice first and,
say, automating the decision about which
potholes get filled much later on. I -- I
don't make that call, but I think that those
are very different. And so there's an
opportunity here to shape that.

Moving on to the development
implementation of a procedure that may be used
by the city to determine whether an
agency-automated decision system
disproportionately impacts. I'll abbreviate
that to Item D in the legislation.

I think this is obviously to address
systemic discrimination while related to
individual cases of harm -- individual cases of
harm may need different mechanisms. And those,
I think, are sort of addressed in Section E,
which I don't intend to get into.
ADS TASK FORCE – PUBLIC ENGAGEMENT FORUM

But I think this -- this way to address this systemic discrimination comes in two forms: One is by self-correction. So that is the opportunity for the city. Perhaps MOTO [ph.] Or DECAST [ph.] Or -- or another, sort of, centralized city operation. Maybe the mayor’s office can set up contracts with several trusted third-party algorithmic evaluation organizations, whether they are academic, non-profit, for profit, or a -- or a number – a variety of those. These contracts should be leveraged by agencies to conduct periodic assessments of the tools and platforms that they have in place, or the programs that they have in place that could be creating disparate impact. Again, back to your thresholds.

And I also think that the task force to recommend boiler-plate language to be included, which requires those parties to not only cooperate in algorithmic evaluations, but share the accountability when issues arise. And that goes to a vendor piece that I’ll get to in a second.
I also think that a mechanism is going to be needed to connect the reporting and resolution mechanisms in the subsequent item. The sort of individual reports to figure out whether there's a systematic issue at play, right. So we're going to get a series of individual complaints, and there has to be a point in which you recognize that this is not a one-shot problem. This is a serious problem. This is a systemic issue. And that means switching lanes in the way this law is defined. So being -- paying attention to that connection, making recommendations around it, I think, would be very useful. So that is, sort of, an internal, you know, how the city can, sort of, self-police.

And I also think there needs to be room for external correction. And so my feeling on this and -- and it's really based upon, sort of, how other structures that I've seen in the city work successfully enough. The government structures around the country works -- is that perhaps you want to consider creating the role of an ombudsman. It needs to have the
necessary independence and authority, separate from the mayor, to help city to see all sorts of public concerns. This could be an existing entity, maybe the public advocate, or pit could be something, you know, perhaps even within CCHR. So that when these issues arise, not just from advocacy groups, but also from the media or from the court system or elsewhere, there's a channel for them to go through and a way for them to be addressed. It needs to be people, time, and energy for this work. And you certainly have the power to make those recommendations.

So, I think, although it -- it functions a little bit differently, one potential model for this exists in New York State Freedom of Information Laws. There's something called a committee of open government. I don't know how many folks have heard of it. If you are well-entrenched in government, you have. And the committee on open government is independent from the governor. And while they do help state government agencies meet the expectations of the Freedom of Information Law, they also
ADS TASK FORCE – PUBLIC ENGAGEMENT FORUM

help those who seek information from the
government, and they use, sort of, both the --
the language in the law, as well as case
precedent to -- to form advisory opinions. And
I think that there is an opportunity here for a
similar model.

So finally, I'll move on to the
feasibility of the development and
implementation of the procedure for archiving
the agency-automated decisions. So as the law
acknowledges, ADS's are not just computer code.
They are also data. And even when the computer
code doesn't change, the data that is used to
inform decisions certainly does. So
documentation of simpler ADS's already happens
in, kind of, a scattershot way.

So, for example, when there's a lawsuit
that the city needs to defend against, or a
metric being reported to the mayor's management
report, it's often the case that there are
written narratives created to -- to provide
context for these data points and the decisions
that are being made. And so there -- there
already are some -- there is already some
ground work here that -- that potentially could
be leveraged and built upon.

Along these lines, making computer source
code -- source code open is, I think, something
that a lot of folks are very interested in.
But I think that that's only half of the
picture. I do think that there are some
intellectual property considerations and
private sector considerations that need to be
taken into account. And so you might want to
recommend the use of code escrows as a way to
ensure that the city has access to the resource
when and if issues arise. But that also
protects the interests of companies that you
are buying and using the services from.

Storing the state of complex systems
though, especially those that are designed to
evolve, how they arrive at decisions over time,
remains I think, as quite a few of you know, an
important question in the data science world.
Not certain it's completely feasible. It's not
just a data science problem. It's an archival
problem.

And I'll use as a parallel example that --
think about how many time capsules have been 
buried with CDs full of digital images, and we 
are now already in a state where CD drives that 
can read CDs are, pretty much, obsolete. And, 
you know, these time capsules are not going to 
be unearthed for another 50 or a hundred years. 
So how are people in the future actually going 
to look at and understand and consume this 
information is actually a real challenge in the 
archiving world. And I actually -- I think you 
probably would want to spend some time talking 
to professional archivists about this. Because 
just dealing with archival in a digital realm 
is a very difficult on its own, and then adding 
to it the complexity of automated decisions 
algorithms, the data behind them, and the state 
of a decision machine is -- is very, very 
difficult.

So finally, I'd like finish up my comments 
by talking about a few things that, I think, 
the Local Law 49 seem to miss consideration of. 
And I don't know if there's room for -- for 
this task force to consider them. But one 
thing is that the law seems to make the
ADS TASK FORCE – PUBLIC ENGAGEMENT FORUM

assumption that everything that can be automated will be. And I think, you know, sort of given my introductory comments, that's possibly true. But I also think this task force could make some recommendation on gatekeeping and ongoing evaluation methods. So before decision systems are put into place, are there, sort of, toolkits that can be used? Are there criteria that need to be met in order for those systems to actually be implemented in the first place? And are there ongoing evaluation methods that can, sort of, make sure that those are continuing to be steered and -- and operated in the correct direction?

Second is, I think, that the middle managers and senior executives in city agencies have a massive role to play in this work. I think that's, to some extent, represented by the leadership of the city here on this task force. But I also think that there's a huge amount of education and training that's needed for both senior executives and middle managers in the city. And I think MOTA and DECAST, in particular, probably have the capacity to
develop training resources. Again, not just for the data analyst and IT staff, who are sort of hands on the systems day-to-day, but for the leaders who think about the programmatic ways in which these work, and have to integrate with the successes they are trying to achieve.

And finally, I don't think the city is always the end of line when it comes to products and services. There are many, many vendors and partners that the city has worked with. Not just tech companies, but service providers that use automation. And it's my opinion that these organizations probably need to share the risks that are traditionally solely owned by the public sector. And this could done through, probably, a variety of contracting tools, such as requiring insurance policies provide adequate coverage, making sure that they are brought to the table when there's an accountability question; making sure that they are involved in the conversations as these issues arise both systemically and individual cases. But this idea that we are transferring -- essentially transferring the responsibility
that we have previously allocated to people into machines is concerning. And, you know, from -- from, sort of, before we spend a lot of time at the moment vetting senior executives and managers in government. You all go through anti-corruption programs. You all sign -- you all do financial disclosures. We don't have the same protocols for these technological tools that are also ultimately going to be making decisions on our behalf. And I think we, sort of, need to create that. And I look forward to your recommendations on that.

So thank you for having me here to spout a little bit, and I really appreciate it.

MS. WING: Okay. Thank you. Thank you, Andrew.

MR. THAMKITTIKASEM: Before we -- before we move on. Can we just have the mic a little closer to -- to once you're talking about -- just a little closer. Great. Thank you.

MS. KAUFMAN: Is this good?

MR. THAMKITTIKASEM: Exactly. There were a few people, kind of, flagging in the back. So I wanted to make sure they have heard.
MS. KAUFMAN: Can everyone hear? All right. Great.

MR. THAMKITTIKASEM: Thank you.

MS. KAUFMAN: Sure.

Good evening. Thank you for having me.

My Name is Sarah Kaufman. I'm the associate director of the NYU Rudin Center for Transportation.

So tonight, I'm going to discuss automated decision systems as they pertain to transportation. So it will be a little more focused than Andrew's excellent summary of the -- of the topic tonight.

At the NYU Rudin Center, we are heavy consumers of public data. We look at how people move around city every day. How they change their travel patterns when a subway station reopens, or how they travel to a new job center. In my previous role at the Metropolitan Transportation Authority, I helped open the data to the public and work to distribute real-time train tracking. More recently, I worked with the city in opening and organizing data, advising the Taxi and
So I'm pleased that New York City is considering how to incorporate automated decision making systems in municipal government. Transportation is often the first step to implementing new, intelligent technologies as the impacts are tangible and, often, instantaneously realized. So the timing for this discussion is just right for the sector of transportation.

This committee, in the evaluation of Local Law 49, should consider how artificial and intelligence and -- how artificial intelligence and data sharing can be used in the transportation sector, and how to ensure that the results are beneficial to the people of New York City; all the people of New York City.

In the realm of transportation, Local Law 49 is key to three specific areas: Data collection, detection of people and objects, and records retention.

Transportation planners collect huge amounts of data to process and optimize the movements of large numbers of people. In
planning for efficiency, the data often travels multiple ways between transportation planners, private mobility providers, and enforcement agencies. In these data exchanges, the sharing of movement data, often geolocated and in real time, can easily identify individuals. Data is collected at transit turnstiles, ride share hales, Citi Bike rentals, mobile parking payments, E-ZPass payments, and soon, congestion pricing gantries. Although data collection from these sources can help to streamline mobility in New York City, it can also have unintended consequences. Data can identify where people live, work, play, worship, and their personal contacts.

For example, license plate readers in most United States cities are managed by a private contractor, Vigilant Solutions, which shares its data with U.S. Immigration and Customs Enforcement or ICE. In turn, ICE uses this data to track persons of interest in real time, which is neither the goal of license-plate-reader technologies nor communicated to individuals who are paying
tolls. This data exhaust stream leads to inequitable treatment of individuals, particularly, to both -- malignant to those whose citizenship is in question.

When using artificial intelligence to streamline mobility, it is essential to consider the nuanced data collection sharing and privacy concerns, particularly for protected categories of residents as defined in Local Law 49.

Secondly, the detection of people and objects is a growing area in the transportation industry. As vehicles become increasingly connected and antonymous, New York City must regulate how these cars communicate and make decisions in relation to each other, the infrastructure, and the people around them. The city is already building antonymous decision-making infrastructure, including traffic-light prioritization for emergency vehicles and automated enforcement of bus lanes.

In the future, the city will build out rules for how antonymous cars must behave and
interact, particularly in collision paths. However, these vehicles are being designed and trained by the private sector without accounting for the entirety of a city population.

One consequence was recently revealed where antonymous vehicles in testing have been shown to fail at detecting people with dark skin. If New York City is not directly involved in establishing these vehicles' intelligence, the bias of programming will emerge during collisions.

Furthermore, I encourage this -- I urge the city to develop a procedure for addressing instances in which automated infrastructure has disproportionately impacted or harmed an individual to report the situation and correct the ADS for future instances.

For example, if it has been found that a person has been impacted for reasons of identity, and it was algorithm -- and they were algorithm -- algorithmically maligned, the ADS leadership must remain transparent about the causes and effects. Going forward, the
algorithms should be adjusted to account for the lessons learned in this instance.

Finally, Local Law 49 addresses the feasibility of archiving decision-making data. Anonymous infrastructure and vehicles produce an inordinate amount of data. Current estimates are that each vehicle will produce approximately four terabytes of data every hour, according to the anonymous vehicle intelligence company Aptiv.

The data is used to process the environment for functions like parallel parking, pedestrian detection, and collision avoidance. If every traffic signal, city-owned vehicle, and public bus is automated, archiving this volume of data will be infeasible. I encourage the city to predefine a reasonable period of time for anonymous vehicles’ records retention until contested events, based on the data, can be evaluated.

Overall, Local Law 49 fundamentally fits New York City’s mobility goals, and I encourage the automated decisions task force to consider the systems -- the impact related to mobility,
especially in the key areas of data collection and privacy, detection of people, and records retention.

Thank you for your time and attention.

MS. NELSON: Good evening, Chair Thamkittikasem and task force members. My name is Janai Nelson. I am the associate director and counsel of the NAACP Legal Defense and Educational Fund. On behalf of the Legal Defense Fund, I want to thank you all for holding these two public forums on fairness, accountability, and transparency. These are core components of Local Law 49, and we are pleased to be here tonight to represent our view.

LDF is the nation's first and foremost civil rights law organization. We were founded nearly 80 years ago in 1940 by Thurgood Marshall. And we have advocated on behalf of African Americans at the national, state, and local levels on issues of criminal justice, education, political participation, and economic justice.

As part of that work, the Legal Defense
ADS TASK FORCE – PUBLIC ENGAGEMENT FORUM

Fund has engaged on the use of data and technology in the perpetuation of racial discrimination.

LDF has also forged longstanding partnerships with local advocates, activists, and attorneys to challenge and reform unlawful and discriminatory policing in New York City, including serving as co-counsel in Davis versus the City of New York, a case which challenged NYPD's policy and practice of unlawfully stopping and frisking New York City residents in housing -- New York City public housing and their visitors.

While Local Law 49 effects decision-making in a wide variety of contexts, as you heard from the two previous testifiers, we focus today on the discrete, durable, and disproportionate racial impact it threatens to impose in the area of policing and law enforcement.

LDF is deeply concerned about law enforcements, including NYPD's increasing reliance on machine learning algorithms, on biased data, and on automated decision systems,
which I'll refer to as ADS's going forward, that rely on both. The NYPD's deployment and implementation of ADS's threaten to exacerbate inequity in New York City. And given this concern, the task force's recommendation to Mayor De Blasio and City Council Speaker Corey Johnson must ensure that all ADS's are fair, transparent, rigorously evaluated, and critically, do not undermine the city's commitment to public safety practices that are constitutional and non-discriminatory.

The Legal Defense Fund makes the following eight recommendations toward that end: First, the city must adopt a uniform definition of automated decision systems. The chair already gave us the current definition under local law. But we recommend adopting the same ADS definition that advocates and experts recommended more than eight months ago in an August 17th, 2018, letter to the task force. In that letter, the group of advocates and experts captured a full range of potential ADS's by defining them as, and I quote, "An
automated decision system is any software system or process that aims to aid or replace human decision-making. Automated decision systems can include analyzing complex datasets to generate scores, predictions, classifications, or some recommended actions, which are used by agencies to make decisions that impact human welfare."

This more expansive definition helps to ensure that all automated decisions that affect New Yorkers will be subject to the appropriate scrutiny and the public will be better protected.

The second recommendation is that the city clarify that all agencies using an ADS are within the task force's purview and subject to its recommendations. Neither accountability, fairness, or transparency can be achieved if some ADS's are excluded from the task force's purview. And given the far-reaching consequences of technological advances in the hands of the NYPD, coupled with the department's well-documented history of discriminatory and unconstitutional policing
and enforcement practices, any decision to include -- to exclude the NYPD from the task force's purview or recommendation would be antithetical to Local Law 49's intent and purpose.

The city must therefore clarify that no agency's ADS's are excluded from its review. Failing that, it must create an independent review process before any system can be excluded that includes an opportunity for the public to challenge the exclusion of any ADS from the task force's purview and recommendations. And we already heard one possibility earlier this evening that models the FOIA process.

The third recommendation is that the city must commit to full transparency, and disclose information about the NYPD's automated decision systems and how they operate. The NYPD has already implemented or considered implementing the following ADS's: Automated license plate readers, facial surveillance, predicative policing, and social-media monitoring. Without meaningful oversight or community engagement,
ADS TASK FORCE – PUBLIC ENGAGEMENT FORUM

this list is likely under inclusive, because 
NYPD continues to consistently conceal the 
internal development and use of ADS's from the 
public. By concealing its use of ADS's, the 
NYPD prevents the public from adequately 
studying the impact of these systems and 
shields itself from accountability.

Equally alarming, the NYPD plans to 
continue embedding these systems in their law 
enforcement and decision-making processes at a 
disturbingly aggressive pace. For example, 
just this month on April 3rd, the NYPD's chief 
-- deputy chief of policy and programs, Thomas 
Taffe, explained that the department hired more 
than 100 civilian analysts since 2017 to use 
ADS software to analyze NYPD's crime data. For 
these reasons, at a minimum, the task force 
must recommend that the NYPD publicly identify, 
categorize, and share a list of all ADS's that 
the NYPD has implemented, plans to implement, 
or is developing. Once created, this list of 
ADS's should be updated in real time moving 
forward.

Fourth recommendation, the city must ban
the use of data derived from discriminatory and biased enforcement policies and practices in automated decision systems. Because algorithms learn and transform through exposure to data, an algorithm is only as good as the data that is selected to inform the algorithm. Meaning, an algorithm will replicate any biases within its training data, which is called training bias. Bias in, bias out.

This training bias can lead to discrimination in, at least, two ways: One, reproducing the biases in the data. And two, drawing inferences from biases in the data.

In the policing context, this means that data derived from and reflecting the NYPD's discriminatory, illegal, and unconstitutional enforcement practices infect any algorithm and ADS that is trained with that data. The resulting algorithms or ADS will then carry out and perpetuate that same discrimination making all the ADS's decisions flawed.

For decades, the NYPD engaged in widespread racial profiling against black and Latino New York City residents. Between 2004
and 2012, the NYPD conducted an astounding 4.4 million stops of city residents as they simply engaged in their daily lives. A staggering 86 percent of these stops resulted in no further action. Meaning, a vast majority of those stopped were not engaged in unlawful conduct. In about 83 percent of the cases, the person stopped was black or Latinx, even though the two groups combined accounted for just over half of the population.

When these discriminatory practices were challenged in Floyd versus the City of New York, a federal court found the NYPD liable for a pattern and practice that violated the fourth amendment rights of New Yorkers to be free from unreasonable searches and seizures.

The court also found that the NYPD practices were racially discriminatory in violation of the equal protection clause of the 14th amendment. And that is just one case.

Similarly, in Davis versus the City of New York, in which the Legal Defense Fund was co-counsel, the NYPD unlawfully stopped and arrested people of color who lived in or
visited New York City Housing Authority apartments without reasonable suspicion or probable cause. The NYPD justified its racially discriminatory arrests by alleging the residents and their visitors were criminally trespassing.

Currently, the department's aggressive military-style gang take-downs primarily target public housing residents, the overwhelming majority of whom are people of color. Prior to executing these sweeping gang take-downs, the NYPD conducts criminal investigations relying in part on a secret database that erroneously designates thousands of New Yorkers as members of gangs or local street crews, often without informing the individual or offering any due process protections. Officers executing gang-policing strategies rely on vague and troubling terms and generalizations to justify their frequently erroneous designations of individuals as gang members.

As a result of these and many other discriminatory practices, the NYPD datasets are infected. They are infected with deeply rooted
ADS TASK FORCE – PUBLIC ENGAGEMENT FORUM

biases and racial disparities.

Consequently, any predictions or output from an ADS that relies on such data, in any capacity, will reproduce and reinforce these biases and disparities.

We are skeptical that such dirty data can never be cleansed to separate the good from the bad, the tainted from the untainted.

Therefore, we ask this task force to recommend that no ADS system incorporate or use any data derived from discriminatory and biased law enforcement practices.

Recommendation 5, the city must adopt practices for determining if an ADS has a disproportionate impact on an individual or population. Any data derived from discriminatory, illegal, or unconstitutional policing enforcement or practices that informed or is incorporated in an ADS, despite the previous recommendation that it should not be, should be presumed to produce a discriminatory impact. That places the burden on the agency using the tainted data. It places an affirmative burden on the NYPD rather than on
the individual or a community or a group. The NYPD will be required to demonstrate that the biased data has been removed and allow an independent third party to conduct, at a minimum, a racial equity impact assessment.

In addition, for all data used in any ADS, including data alleged as not derived from discriminatory, illegal, or unconstitutional practices, and data derived from sources other than the NYPD, the following steps must occur to analyze the impact of the ADS on individuals or community groups.

One, an equity impact assessment.

Two, a surveillance impact report.

Three, a pre-acquisition or development procedure to ensure non-agency experts and representatives from directly affected communities are consulted during the development of an ADS.

And fourth, agencies must maintain a public record of external participation.

These commitments and fail safes, along with the previous recommendations, are a strong starting point for the city and task force to
ADS TASK FORCE – PUBLIC ENGAGEMENT FORUM

fight against the perpetuation of racial bias
through data and technology.

The sixth recommendation is to remedy an
account for proxy factors that also produce
discriminatory results. In addition to dirty
data informed by racial discrimination and
bias, algorithms can learn bias behavior
through proxy factors. Factors that may appear
neutral, but reflect societal and structural
biases.

For example, an algorithm may purposely
exclude all references to race and ethnicity.
However, the algorithms still considers factors
that, due to societal constructs, correlate to
race, such as low-income neighborhoods or
employment history, the algorithm's outputs
may, nonetheless, be racially skewed.

To ensure against racial discrimination
and bias by proxy, this task force must also
develop recommendations that require agencies,
experts, and community members to address
societal and systemic factors that contribute
to discriminatory ADS's, and determine ways to
mitigate the influence of proxy factors in
The seventh recommendation is to establish procedures for addressing harms when ADS's disproportionately impact individuals and community members. Continuing to rely on ADS's without any pre-implementation processes, such as the recommendations suggested here, risk subjecting entire communities to continued discriminatory and unconstitutional enforcement and policing practices. ADS's could be used to justify disparate treatment of communities of color in terms of how suspicion is defined. Who is chosen as targets for increased enforcement and surveillance, and where these machine learning tools are employed. All raising significant constitutional concerns under the first, fourth, and 14th amendments to the U.S. constitution.

The use of ADS's threatens to destroy reasonable suspicion, the expectation of privacy, and freedom-of-speech doctrines. These potential constitutional harms further underscore why the task force must make bold and expansive recommendations to create
procedures and safeguards to protect the public from potential constitutional and other violations.

Eighth, the city must create accountability structures that empower all community members to participate and pre-impose acquisition decisions about automated decision systems. The city is experimenting on its residents by relying on ADS's to make predictions and decisions without fully understanding how these systems will affect community members. Worse, the city has not required complete ADS transparency or meaningful community engagement, meaning, the very communities that will be affected by ADS's are left out of the equation.

To date, the city has not provided sufficient mechanisms for non-agency experts and community members to be educated about ADS's and thoroughly evaluate them prior to their implementation. The city must reaffirm its commitment to accountability and transparency by creating structures that center community members, not machines, in the
That was my eighth recommendation, but I am going to ad lib with a ninth. And that is to say: The task force has been constituted for two-thirds of the time under Local Law 49. You have approximately six months to get this right. If it takes you more time to do that task, I implore you to take the time to do it, and to extend the time of your existence.

So in closing, the NYPD's use of ADS's already creates an unprecedented expansion of police surveillance while the expansion implicates all resident's privacy rights. As I've noted, the burdens and harms are not evenly shared among city residents. Communities of color, particularly black and Latinx residents, will continue to be disproportionately subjected to profiling, policing, and punishment, to the extent that ADS's replicate the biases of the current criminal legal system and law enforcement practices. The rapid unchecked deployment of
ADS TASK FORCE – PUBLIC ENGAGEMENT FORUM

ADS's without effective mechanics for public input, independent oversight, or the elimination of racial discrimination and bias is unacceptable and untenable.

Data and technology should not be weaponized by New York City against its residents. This task force should therefore make recommendations that hold agencies accountable for ensuring that ADS's, including ADS's currently in use and any future ADS's, are transparent, fair, and free from racial discrimination and bias.

Thank you for your time.

MS. JIN: Thank you to our first three panelists on our first panel.

Taking -- taking the time and being with us this evening and sharing with us your recommendations. I would love to -- I can, kind of, make out all of my fellow task force members down the row. But I would love to open things up for questions. I think just a quick note both for folks in the room, but also panelists here. All of the -- the comments will be made available afterwards on -- on our
website. So I think we were all taking notes, because we have questions for you all. But I will open things up for, I guess, Maya.

MS. WILEY: Good evening. I'm Maya Wiley. Thank you so much for participating in this panel. It's extremely helpful.

I want to ask a -- and I want -- and I'm going to start with Janai, but I would ask anybody to answer this. Are there any data sets that you believe the city might be using that you do not believe are infected with bias.

MS. NELSON: I imagine that they exist, but I believe that the burden ought to be on the city to ensure that they are free from bias. We understand how systemic racism and discrimination is. There -- I'm sure have to be some data that is objectively, you know, not influenced. Perhaps aggregative data that, you know, counts the number of births in the city or counts population. But even as we know, the current debate around the census, that some of that data isn't necessarily reliable.

But I think that that burden is on the
ADS TASK FORCE - PUBLIC ENGAGEMENT FORUM

agencies that intend to rely on that data to substitute their own decision-making to prove that it does not include that bias.

MR. NICKLIN: So I'll be more emphatic and say no. At least from - from our work, because we start with the premise that all people are biased. And, therefore, all data is biased and, therefore, all the automated decisions or algorithms that are based upon those decisions people make and the ideologies that they have and the data they use is biased. Does that mean that it can't be used? That, I'm not so sure about. I do think there are ways, in some circumstances, to -- to -- to address some of the systemic biases that exist in data sets. I do think that that requires a fair amount of attention.

One of the ways that we think about it actually is -- is when people decide to collect data for a specific purpose, it is often as close to as unbiased as possible -- as possible for that purpose, but the moment you take that data and pivot and use it for another purpose, you are actually introducing a whole new realm
of bias into it.

    Does that mean that it's unusable, no. I
think there are ways to address that. But --

MS. WILEY: Do you have a concrete example
of one where you could imagine how to address
it?

MR. NICKLIN: Not off the top of my head, but I'm happy to provide something in writing.

MS. WILEY: Okay.

MS. KAUFMAN: So I think the co-panelists
covered most of it. Most transportation data,
in particular, is -- it happens in the
aggregate. But one aspect that we are finding
in our research at the Rudin Center is when we
are looking at activities of -- of sexual
harassment on public transit and the reporting
rates are -- we believe about ten percent of
what actually occurs. And so when -- when we
develop policies around what we believe is
happening out in the -- in the public sphere,
we need to take into account the full picture.

MS. WILEY: Thank you.

MS. WHITTAKER: Hi. Thank you so much for
that.
Given that many of these systems are created by private vendors, I think Andrew mentioned the issue of IP, and given that, oftentimes, they are trained on data that may not be in the possession of the city. So you have a model that's trained on one data set that is then used on data inputs that may or may not be collected by the city. What mechanism can you imagine to validate that system prior to implementation to ensure that it doesn't have traces of bias from another providence that is not yet part of the city's data collection practices.

MR. NICKLIN: I think, certainly, in the same way that the city often transports -- or governments in general -- not specific to New York City on this. Governments, in general, transfer risk by hiring tech companies and having them build products, and then it's easy for them to say, Well, it was our consultant that caused that problem. I think that there is a way to codify that risk transfer or -- into a -- into a way that's shared so that vendors that come to the table with solutions
and products either, you know, are at the table in the court, which would hopefully be the last place -- the last step of a -- of a -- of a much more complex chain of events or, at least, have some liability for when things go wrong, which incentivizes them to try and do right. So that's, at least, one piece of it.

I do think that there are opportunities for third-party reviews. So, for example, there are private sector companies out there that will do independent audits of both data and the algorithms that are applied to them. I don't have any examples of them being used in governments at this point, at least at an urban level, but those mechanisms do exist. I don't know if they are perfect, but I do know that they are, at least, a step forward.

MS. WHITTAKER: I guess one of the other issues is -- is a follow up. There is that proving harm is very difficult without access to the initial data. So disparate impact or bias across populations is very difficult to prove if you don't know the system exists, and you can't actually get access to the data, the
design documentation, and the specifications of
the model that was built by a vendor. So all
of those things would have to be open to have a
claim of harm that would then hit a court and
be able to share liability. So that's one of
the concerns we've been talking through as a
task force.

MS. NELSON: Yeah, and I agree. And I
think in terms of process, you can have
independent and private oversight that does
have public input without, you know, breaking
the membrane of the -- of that privacy. I
think there are processes that exist where the
public can have confidence that there are
representatives of their interests in the
tribunal that is determining whether this
information is biased or not, and whether all
of the information has been transferred and --
and the entire process is transparent.

MS. KAUFMAN: It also impacts the
procurement process within the city, which
often -- often prefers the lowest bidder. And
often, the lowest bidder is able to be the
lowest bidder, because they are sharing the
data where it may not be shared -- possibly shouldn't be shared. And so, potentially, taking a long hard look at our procurement rules would help with that.

MS. JIN: I think we're going to go to Vincent first and then Jeff.

MR. SOUTHERLAND: Sure. So Andrew, in your -- in your remarks, you mentioned in terms of identifying systems that might be subject to the kind of -- the oversight process that maybe one of the thresholds we should look at it whether or not human intervention played a role. And I'm wondering if there's -- I guess I have a concern that we might miss a bunch of systems if that was a threshold in terms of -- in terms of our kind of oversight.

MR. NICKLIN: I'm not sure that's the only threshold that should exist. So I mean I -- I -- I think it's a combination of things. And as I even, sort of, mentioned in my remarks, I'm not entirely sure that human intervention or a lack thereof is a great one, but it is one that could possibly be used.
by people who are reviewing data. There are other decisions that are made by simply the virtue of data collection. So, for example, you know, a really basic one is when you call 311 to request a service. There is some categorization of that service that happens, kind of, transparently to you as a customer of 311. But that effects -- that provides a set of context for that service. So, for example, it sets things like how quickly -- how quickly the city needs to respond to that, which agency is involved, and so on.

So those are automations, and there's no human review of that. I'm not necessarily sure though that those would fall under the purview of a landscape like this, which, you know, implies that there could be a lot of bias there. I mean, there -- honestly, there might be. 311 is a very self-selecting audience. But the decision about where a particular service request will go is an automated, one and may not need either human intervention or human review once it's, sort of, set up and designed well. So I'm -- I'm sort of -- sort
of doubling back and forth across that boundary, because I think there are exception conditions on both sides. But I do think that it is a threshold that you might want to consider.

MR. SOUTHERLAND: And then for Janai, I'm wondering, because I really like this idea of, kind of, a presumption on the agencies to, you know, prove essentially that their systems are not biased. Who do you see as, kind of, the arbiter of that -- that decision?

MS. NELSON: Well, I think we go back to independent oversight. That there needs to be, you know, a third-party tribunal or some other entity that is the screen for the public. And I also think there needs to be a mechanism for the public to challenge it. There needs to be a right of action for the public to disagree with that assessment and, particularly, if there's any evidence of actual harm and bias to be able to challenge it legally.

MR. THAMKITTIKASEM: Along the same item actually, just in terms of once there is a challenge, I guess I'm -- I'm interested in
this idea of what the third party could be. Because I think that I'm struck almost by, maybe, the city cannot, kind of, stand it up on its own. But then how do you set up the parameters by which a private -- private entity could do it?

So in trying to assess for, kind of, the -- whether or not a system does have bias and how it goes about just -- I'm thinking practically almost -- how to set up a process by which they do it, and any kind of recommendations on places you've seen it done, or whether from a public function, the government stands up a third party, or they are bringing in private entities to do it, and what kind of protocols or criteria you would ask of that third party. Any experiences or examples that we could use to -- to look at just to develop what those more concrete recommendations might be. Anybody -- just --

MS. NELSON: I -- I think none of us --

MR. THAMKITTIKASEM: It's all right.

MS. NELSON: None of us necessarily wants
to endorse an existing system as being, you know, the perfect model.

MR. THAMKITTIKASEM: No. I -- just to learn from the thinking through, kind of, the options.

MS. JIN: This is -- we have not yet introduced her --

MR. THAMKITTIKASEM: Sorry.

MS. JIN: -- but Natalie Evans Harris from BrightHive.

MS. EVANS HARRIS: Sorry. Natalie Evans Harris, BrightHive, but also, I've spent 16 years in the federal government, including most of that time with the National Security Agency where we deal with this. We deal with this. How do we make sure that the data that we are using is accurate, has high quality, and actually is leading to the answers that we are drawing before we make policy decisions. And there are ways to set up independent boards that can have other members of the government in it that you have no undue influence over.

We -- I can't get into specifics, but there are -- there are bodies that can be stood
up who -- it's their other job to be convened in times like this. I would almost equate it, in the academic community, to the adjudication process when there's potential fraud. When a student has conducted a potential fraudulent behavior. You can set up bodies like that and -- and -- and create them just as an additional function in times of crisis or need.

Another way to look at it is New York City has a wealth of civic community data, and society lives and breathes this stuff. Columbia University -- like the universities, academics, the -- the non-profit organizations who only want to see good happen, they are the ones that you want to be on a board to govern this.

And then you also want to make sure that any instances of the way that the data is used and the -- the ADS that's put in place, you have a community advocate that can represent the users on those boards. So think about your board makeup. But -- but there are ways and I can -- I can look to see if there's non-classified ways to share the way that these
boards can be stood up, because they have been
down in the federal government on a regular
basis.

MS. JIN: Thanks.

I think -- did -- Susan, you had a
question?

MS. SOMMER: Yep.

Thank you. This is very helpful and
interesting.

Can you consider -- understanding, for
example, as Andrew put it that really, sort of,
so much data does encapsulates, to some extent,
bias from the world in which we live, can you,
nonetheless, give examples or cite research or
experience that, nonetheless, makes it
worthwhile to use an automated decision-making
system, even if it does perhaps embody some or
build in some of that historic legacy because,
in and of itself, it will help to correct bias
that otherwise might be part of human
decision-making. For example, by disproving,
in a sense, some assumptions that might embody
misconceptions about people.

MR. NICKLIN: So I'm, sort of, loathe to
use this because it's very, very controversial. And I'm immediately going to get a lot of groans from people here. But when the issue of Compass came up, the immediate response was it may be true that there's some bias in this work, but what we were doing is normalizing a whole series of individuals who were already making biased decisions, such that maybe there's less bias overall. I can't speak to whether that argument is true. My tendency is actually to not believe that. But that response, nonetheless, was very interesting. Of course, it was the response from the company that made Compass; so you have to take that with a grain of salt.

I do think that there are a lot of operational areas of -- areas of government that can benefit from automated systems with a much lower risk of bias than in the public safety and social service realms. I mean, you know, we're talking about, like, maybe more efficient routes for the Department of Sanitation or, you know, better pothole repair. I mean, there's a lot of operational areas
where these things can make life a lot better. And it is possible that, even in that work, there is some small degree of bias introduced.

But I think part of the question that has to be asked is: Overall, are we doing a better job than we were doing before? That's not always an easy thing to answer, but it may be worth -- and I -- you know, I shudder a little bit to say this: But in some cases, it may actually be worth that a little bit of pain to see that much gain.

Again, I think in the social services and public safety space, I think that's a much, much different set of challenges, and I don't a feel confident to speak with the same level of expertise that you have. So --

MS. NELSON: So my answer is, I can't think of an example, off the top of my head, where I would be comfortable saying that remedying bias with bias is acceptable and -- and should be subject to a cost benefit analysis that isn't certain to center the people who it costs most. So that's my answer.

I don't -- I don't -- I can't point to an
ADS TASK FORCE - PUBLIC ENGAGEMENT FORUM

-- an example. I'm not saying that one does not necessarily exist, but I would be very skeptical of the analysis that determines what -- what is most effective and efficient, and that it's worth it. You know, how do we determine what that worth is, and who is that cost extracted from?

MR. NICKLIN: I -- I also feel I just want to add here that there are also a number of companies who are introducing technological tools, you know, IBM, Microsoft and so on who are, essentially, making the claim that the tools can reduce bias in the data sets, bias in the use of algorithms. I have a lot of reservations about the use of those tools, and I would actually, kind of, maybe encourage the task force to consider putting all of those aside. I mean, these are human issues. They need to be solved by human beings, not by layering more technology on top of already faulty technology.

MS. JIN: Okay. Any other questions?

MR. BAROCAS: Just sort of a quick question. I'm curious if there is, sort of,
any particular scenario where you imagine there is some calculating interest that counsels against full transparency. Under what scenarios would the city justifiably have a position that says we can't disclose some information?

MS. NELSON: To whom? I think we've all been saying that there may be a scenario in which it's not fully publicly available. But that there is a set of individuals who represent the interests of the public, who are deemed the arbiter of whether that transparency is being appropriately applied. So I don't think there is any scenario in which full opacity is acceptable.

MR. BAROCAS: Right. So beyond the IP concerns to clarify. Right. So I understand that maybe there's some IP concerns; so we have a kind of private mechanism to have an advocate to look at these. But are there other interests besides IP that you see as legitimate reasons to actually limit disclosure?

MS. NELSON: I mean, I think the natural one would be security and national-interest
concerns that -- that could rise to that level. And I think, again, those could be met and addressed by having an -- some -- some mechanism in place to -- to be the filter for the public.

MS. KAUFMAN: This comes up a fair bit in the transportation sector. Mostly because not only do you not want to give people's origin and destination, specific addresses, but you also don't want to be able to piece together their entire lives from all the different trip types that they take. And so usually with -- in terms of transportation data -- and this could translate to other sectors as well -- much of the data is, kind of, snapped to the nearest intersection. So that -- so that it's not clear who's going where. Especially in sensitive locations like domestic violation shelters, where you don't want to show where people are coming and going from. So that there -- which compromises their personal safety.

MS. JIN: Okay. Do we have any more questions from task force members? All right.
Well, definitely a round of applause for our first panel.

So we will shift and move to our -- we've already, kind of, shifted into our second panel already. But if you all can move up to the first row, that would be terrific.

MR. CUMBERBATCH: I do have a request -- I'm sorry -- for Janai. You -- you said that one of your recommendations was impromptu. I ask that you submit that -- is it mentioned that those comments --

MS. NELSON: I'm sorry.

MR. CUMBERBATCH: One of your recommendations, you said, was impromptu. You said that you ad libbed it. And I don't think that it was in your written notes. And I just ask that you include that when you submit it to the task force for putting it on the website.

MS. NELSON: Yes. We will be submitting full -- full written testimony.

MR. THAMKITTIKASEM: Thank you. We really appreciate it. Thank you.

MS. JIN: Okay. We are switching name cards. Hopefully, the mic works, but we will
So our second panel: We are joined by Natalie Evans Harris, who you all just heard from a moment ago. Co-founder and head of strategic initiatives at BrightHive. And we are also joined by Ginger Zielinskie, president and CEO of Benefits Data Trust. So I'll turn it over to -- why don't we start with you, Ginger since Natalie have made a few comments.

MS. ZIELINSKIE: Can you hear me in the back? Okay. Good evening, and thank you for having me here tonight, and for hosting the first public forum of the New York City Automated Decision Systems Task Force. I'm certainly honored to be here with this group of thought leaders.

Benefits Data Trust is a national not-for-profit organization that helps people live healthy, more independent lives by creating smarter ways to access essential benefits and services. My comments today will focus on issues of access.

Our work is connected to the basic charge of this task force in that we use data,
technology, policy, and service to make it easier for large numbers of people to gain access to critical supports so that they can live healthier, more economically mobile, and thriving lives.

Since 2005, BDT has submitted over 800,000 applications and secured over $7 billion in benefits for people that need them. We're currently working in states across the country using data-driven strategies to increase access so that people may better afford food, housing, and healthcare. I wanted to take a -- a moment to tell you a little bit more about how we work with governments to use automated decision systems to streamline the enrollment process and increase access, as well highlight some examples of bright spots across the country.

We know from years in the field that many people are likely eligible for a suite of supports, like SNAP, Medicaid, WIC, LIHEAP, TANF, and others, but are not enrolled. There are many barriers to access, including awareness, a challenging application process, language barriers, fear, stigma, and others.
Through partnerships with government agencies, Benefits Data Trust has been able to use data to break down barriers by access -- by targeting individuals who appear on one program in order to help them with others, thereby serving people more comprehensively and increasing participation.

For example, Medicaid -- actually, I wanted to give you another example before I jump into that one. A specific example that I wanted to talk about was made possible through the Medicare Improvement Patient Providers Act or MIPPA. This act allowed low-income-subsidy data, which is prescription-assistance data, which is a federal benefit so you can submit your application speedily through the Social Security Administration. That data, with an opt-out clause in the application, not an opt-in, but rather would you prefer that your data not be used, was provided on a two-page application. When individuals did not check that opt-out clause, their data was then transferred back to State Department of Human Services in order to start an application for
the Medicare savings program, which puts about 
$105 a month back into an older adult's social 
security check. For individuals that are 
living on approximately $11,000 of income, $105 
a month is a serious increase in your social 
security check. So this is certainly an 
example about how that decision was made 
automatically by application of the low-income 
subsidy.

A second example of an ADS strategy that 
was deployed is around the connection between 
Medicaid and SNAP. In Pennsylvania, after it 
expanded Medicaid under the Affordable -- 
Affordable Care Act, Pennsylvania was able to 
deploy a policy option called fact track. This 
policy option was -- was able to use SNAP 
enrollment data that was already verified by 
the state agency to dramatically streamline an 
application for Medicaid, thereby helping close 
to 60,000 people apply for Medicaid with just a 
click of a button. Over 40,000 were enrolled.

The inverse is also an opportunity that 
should be considered. Individuals on Medicaid 
are also very likely eligible for SNAP.
ADS TASK FORCE – PUBLIC ENGAGEMENT FORUM

Verified Medicaid data with client consent can and should be used to streamline access for SNAP. Not only does this automation better serve people, it also improves health outcomes. Research is now increasingly robust around the benefits of increasing access to SNAP as a way to both improve health and reduce healthcare costs.

In regards to recommendations as you tackle your difficult charge of how to best implement automated data systems, I would first of all recommend that both the developer of the algorithm and the people that run these systems must put privacy and security first. Specifically, being proactive in understanding the role of consents and making sure that they are clear, concise, and easy to understand is absolute essentially. I would encourage you to look at the social security low-income subsidy website application as an example.

Second, the work in developing any algorithm or automated decision system should be iterative. An iterative approach creates the space to properly evaluate the process,
tools, and outcomes. The use of automated decision systems is not a once-and-done situation, but a cause for continual evaluation. Some things to consider include missing perspectives. Have we attempted to address blind spots in the analysis through engagement with relevant stakeholders, most importantly, the individuals that will be impacted in the community.

Data set or collection bias: I would consider sources of bias that could be introduced during the data collection and taking steps to mitigate those.

Fairness across groups: Have we tested the model or result for fairness with respect to different groups.

And finally transparency, which has certainly been discussed this evening.

Even when automated data systems are developed with talented people with the best intentions, there is always a possibility of an unwarranted decision. As mentioned earlier in the previous panel, we strongly recommended that there is always an exception process that
allows case workers or other frontline staff to override any decision. The details of this human intervention should be clearly operationalized and tailored depending on specific situations.

Similarly, we encourage the panel to consider language barriers. Specifically, in regards to clear communication around privacy and consent, and making sure that it is -- it is certainly accessible and, again, easy to understand.

Finally, in regards to the issues of access, context certainly matters. I'd encourage you to always look beyond the algorithm or the decision system and consider the bigger picture. An automated decision system is not a panacea, rather a component of an ecosystem of services and supports that should align on shared outcomes. Obviously, human-centered design is essential to ensure that people can be served in a way that's right for them.

Multi-channel approaches that serve people with dignity across channels, whether that be
self-service channel, phone-based work, text, or in-person will always be most inclusive.

Thank you for the opportunity to share my thoughts on this topic and for creating this space to engage in this important dialogue.

MS. EVANS HARRIS: Hello, everybody. My name is Natalie Evans Harris. Thank you for having me here. Thank you for having this discussion. It's one of many I hope. So that's one of my recommendations; that this just keeps happening.

So I co-founded and am head of strategic initiatives for a data technology company called BrightHive. We are a public-benefit company, who is focused on enabling states, local governments, anybody that has data that can serve the needs of people to increase access to that data in a responsible, ethical, and equitable manner. That's what I do. I do that, because my passion is to see data used to improve the lives of people in communities. So I spent 16 years focused in the federal government on ensuring the responsible use of data. I did that with the National Security
Agency. I did that as a fellow on Capitol Hill. I did that working for the Obama administration as a senior policy advisor. And then I started a company.

In addition to that, I launched the Global Data Ethics Project, which is a global community of practice -- of data practitioners transparently and voluntarily creating a set of principles that defines what ethics means for them, and what responsible data use means to them. I'll talk about a little bit about that here. I think their work can help.

I've also -- I've also served as a fellow with Beck Center in Georgetown in order to start delivering best practices and recommendation to state and local governments interested in adopting digital services. And how do you make data useful in those ways? In ways that will help and not harm the people you are most meant to serve.

This is the length that I come from today. It's centered around building trust and accountability early in your processes. What you've heard today from your panel, which makes
ADS TASK FORCE – PUBLIC ENGAGEMENT FORUM

me almost want to just throw this out and just have a conversation, is that people are most scared of automated decision systems, because we don't trust. We don't trust the people making the decisions. We don't trust the data that's been collected. And we don't trust that when a computer is making the decision, it's going to benefit people that look like me. I'm a girl from the Bronx. My parents are Jamaican. I know the fears, because my family still lives here and is afraid of it. Part of that is that they don't understand why it's happening. Part of it is they don't understand why it's necessary. And if a person can't make that decision, then how can a human [sic].

So the recommendations that I make today are centered around three key things: One is it is imperative that before any decisions be made around this, that a set of shared principles for responsibly using data in technology and capacity building is not only created, but it's adopted and shared out broadly to anybody that wants to see it and know it and understand it. And those
ADS TASK FORCE – PUBLIC ENGAGEMENT FORUM

principles be used to frame all other decisions that are made around automated decision systems.

It touches on what Janai spoke about. It touched on what Andrew spoke about. It's about setting up a framework to be able to communicate that you value protecting people. Because as government employees, as members of the New York City Automated Decision Services -- Automated Decision Systems Task Force, you are holders and protectors of people's data. So it's important that that message come out as a part of your transparency. And that message and those principles are what you are then held accountable for. As a member of New York City, I need something to hold you to. And that is what these principles become, almost a contract.

What the global data ethics project created was something called a FORTS framework, F-O-R-T-S. It's centered around fairness, openness, reliability, trust, and social benefit. That is how you can frame your principles. It's about fairness, and saying
things that before data can be used in an automated data system, that you have done the analysis to make sure that it's of high quality. That you have confidence that it doesn't have any gaps in the data that's being collected to create that algorithm.

It is also saying that you've engaged with the community so that they know that their data is being used in this fashion. You don't have to do it every time, but you have to do it in a way that people know: The data that I provided in order for my child to go to school is also being used to determine whether they can get lunch in that school, or determining whether the schools get funding. That's not obvious to everybody.

Openness is about saying things like in your procurement process and in your contracting -- most -- most state and local governments contracts when they're doing technology or data-driven efforts will say that any work product belong to the state.

You can change that language. You can change that language to be able to say that the
ADS TASK FORCE – PUBLIC ENGAGEMENT FORUM

things that are produced will be open source first, and then owned by the state. That way, the people, that way, the developers, that way, the academics, that way, anybody that can are an influence on the quality of your data can see it and have access to it and not have to know a friend.

Reliability, I equate reliability to consistency. The rules that you put in place in one agency should be consistent across the agencies when it comes to the use of that data. It should be about saying, Look, if you're going to make this data accessible, these are the ways that it can be done, and these are the ways it cannot. You can analyze data. There are tools out there. I know Andrew spoke to, you know, questions about the tools. But there are tools out there that are available now, that have been available for a long time, that can tell you the quality of the data. That information should be made available. Because one of the principles should be about responsibly communicating about the data that's being used to make those decisions.
ADS TASK FORCE - PUBLIC ENGAGEMENT FORUM

Trust: Everything we're doing is about trust, and then social benefit. That why really matters. If I'm going to contribute and answer questions on a survey, I need to know that it's going to benefit me, mine, my community, why? That's how you build trust. You say the what, and you say the why, and then you tell them how.

The second one -- my second recommendation is around establishing clear equity and outcomes measures. Outcomes measures that guide decisions and ensure purposeful use of data both in your automated decisions, but also that the data used represents the communities you seek to serve. Oftentimes, when you think about algorithmic bias, the bias is in the original data set. It wasn't comprehensive enough. It did not reflect the full community. It's your responsibility to make sure that if ADS's are going to make decisions, that the data that's used to create those algorithms is comprehensive enough to create data -- algorithms we can have confidence in.

Part of the discussion with the first
panel centered around how do we make sure there's no bias in data sets. Well, you can't. There's bias in all data sets. There's bias in all people. But what you can do is responsibly communicate about that bias or about your confidence in it. And that's the transparency that you want to look for. You can say, Look, we collected the data from this borough or from these districts or from these universities, and we didn't from these. Therefore, any decisions that are made based on this data only apply to these areas. Broad use of automated data systems, without broad consideration of the data that was used to create it, is irresponsible. Let me make sure I said all that.

And then also -- and then also a recommendation that you set up regular times when you're communicating. This is the data we've exposed. This is how it's used, and this is how it's benefited you. It can be done through a dashboard. We love our dashboards. It can be done through a dashboard. It can be done through a community meeting. But on a
regular basis, quarterly. It should be made clear and in open and transparent fashion.
This is what our automated decision systems are doing. These are the ones that have been -- these are the ones that have been created. These are the ones that are being used, and this is how it's being used.

My third recommendation: Take advantage of emerging technologies when appropriate, but ensure strong data practices underpin that. An emerging technology that we talk about, and I see often in cities and it's becoming more popular, is the use of data collaboratives. So instead of having MOUs where one agency delivers data to one company or to one other agency, data collaboratives allow for multiple parties to share under the same governance structure. So it's basically a -- I don't want to say a one and done, but it's an agreement that anybody that has access to this data complies with this governance structure that's put in place at the very beginning. And people can walk away. If an agency doesn't like what's happening, they can walk away and take
their data out. Or if somebody wants to join later, they can join that collaborative. But it allows for agencies; it allows for academics; it allows for social sector, multiple sectors to be able to share data in a way where everybody is playing by the same rules. That's the type of emerging technologies that can help this space.

We're doing it in Colorado with workforce data. Massachusetts -- Massachusetts has started opening up their administrative data to other agencies in this way. And it's cost effective, because in Massachusetts, if another agency wanted access to another agency's data, they have to pay them. This is government to government, and they had to pay them to be able to access the data, for data that they needed to solve the same problem. Data collaboratives help to mitigate some of these things.

So I just say look at emerging technologies with scrutiny. But also make sure that your data practices underneath are strong enough and confident enough that you can meet your equity and outcome measures.
And then one more that I'll add under the equity and outcomes measures: Think about --
And they should be -- they should be written and thought about from the individual. And not the individual in the education sector or the individual in the healthcare sector, it's the holistic individual that makes a difference. Because oftentimes, an ADS that's written just with healthcare data can have unintended consequences on an individual's education, or decisions made in education can have unintended consequence on the individual's rights in the criminal justice system. And it's because we don't treat people holistically. And we don't use the data we have to understand the breadth and depths of the individuals and their touchpoints in cities and social services.

So in closing, thank you. I hope to see you again in three months, and three months after that.

MS. JIN: Let's give a hand to our panelists.

I -- I would like to selfishly ask one question since I'm facilitating, but definitely
ADS TASK FORCE – PUBLIC ENGAGEMENT FORUM

want to get a question in. So, Natalie, you --
you opened and you closed with best practices
around engaging more broadly with the public.
You know, we have the public forums. We'll be
doing community sessions. What else are you
seeing across the country and with communities
on best practices there?

MS. EVANS HARRIS: Okay. So some of the
things I've seen is I've seen states and local
governments engage in really interesting ways
around how -- I mean, we do the hack-a-thons
and things like that. But they are actually
meeting people in their spaces. So they'll
partner with another organization that already
has strong community ties, and use those as
feedback sessions. So it's not necessarily the
City of New York is holding a public forum. It
could be data and society is holding a
databyte, and the topic that they're covering
relates to a topic of interest to the city. It
could be community colleges. I've seen some
states and local governments work with
community colleges to meet people where they
are and learn about issues, challenges, all of
ADS TASK FORCE – PUBLIC ENGAGEMENT FORUM

the things. But -- but it's making it real for people. It's making it real why you're doing it, and what you're doing it.

There's one locality that I work with that partnered with MBK, My Brother's Keeper, and then with churches -- churches in the area. I want to say it was in Chicago. I can't remember. But it was -- they realized that where people congregated the most was the most effective path to engaging people and sharing information.

Other best practices I've seen are newsletters are -- are archaic but -- but -- I hate to say "archaic," because everybody does newsletters, but it's not innovative. But it's -- it's -- it's something that has been used to meet people in the schools. Actually, I want to say it's Columbia University, or it's -- it might be -- it might be NYU, but there's a public -- a public service institute that does social research by actually going into the communities and talking to the people.

I've seen some -- I've seen some localities who are interested in getting data,
but they just can't get access to through surveys. Engage with organizations like that. I think the most important best practice in situations like this, if you want to engage people, is to meet people where they are. That's -- that's the best way to do it. And -- and -- and it doesn't have to have your face on it. Like use other people's already events happening. There's events happening everywhere all the time.

Another best practice I've seen around just ADS's is the independent reviews. So some -- some -- some localities, I want to say Virginia, while they outsource their IDS, their integrated data system. They outsource the development of their integrated data system. As a part of the contract, they have independent audits, as a part of the contract. So even though they can't see the algorithm, they can have somebody else see it. And they partner with a -- it might not be Virginia, but that is some of the best practices that I've seen.

I'm starting to see independent audits
ADS TASK FORCE – PUBLIC ENGAGEMENT FORUM

come up a lot. I'm starting to see the
development of principles that are measurable
and people can be held accountable, be
incorporated into contracts.

So this is where we get back into
procurement; right? So how do you put into
your procurement contracts that if you want to
use New York City data, these are the rules you
have to play by. And they're rules that are
based upon meeting these outcomes and equity
measures. And -- and -- and just on a regular
basis, say, Look, we stood up -- we set up to
create ADS's that would make sure children got
into schools. And because of this ADS, we are
halfway to that goal. That's the type of
information you want to communicate on a
regular basis to show your value.

MS. ZIELINSKIE: I would encourage you
take a look at Data Across Sectors for Health;
it's called DASH. And it's a national
collaborative of local community-based
organizations that have connected around some
data-sharing engagement, whether it be around
tackling opioid use or -- but there's a lot of
ADS TASK FORCE – PUBLIC ENGAGEMENT FORUM

bright spots there. It's funded by the Robert
Wood Johnson Foundation.

Also, I encourage you to look at the
current community information exchange
movement. San Diego 211 is certainly far
along. But they are also developing a lot of
materials around how to really think about
community engagement and rebuilding community
information exchanges where -- where social
service and governments and healthcare
institutions are beginning to think about how
to share data. So those are two -- two
specifics that I would --

MS. EVANS HARRIS: AISP, they run cool
boards that teach -- not teach, but help cities
and local governments be able to share data and
adopt integrated data systems. They have tons
of resources and materials on the legal and
ethical and technical and -- and all of the
pieces and all of things that cities and local
governments deal with when they have to adopt
strong data-sharing systems, integrated data
systems. They also have case studies and best
practices that they put out there, and it's
ADS TASK FORCE – PUBLIC ENGAGEMENT FORUM

free resources. I'm happy to connect you with
the person I talk to all the time. She's
awesome, Amy.

And then Urban Institute -- no. Aspen --
no. Urban, Urban Institute, Kathy Pettit.
Urban Institute has also done a lot of work in
this space around how do you share data
responsibly and ethically. And they -- she has
some good resources out there, as well. So
those are two folks that I would say are great
for you to talk to.

MS. JIN: All right. Thank you, both.

Questions?

MR. SOUTHERLAND: I have one question
about -- thank you both for your presentation,
very informative and very helpful.

I just have two questions: One was in
terms of the kind of a data collaborative idea.
How do you deal with -- when agencies have
conflicting data? So because there -- because
they may be creating the data themselves. But
the police department has data created in one
way, and another agency has data created
another way. And they're trying to share data,
but that data may be telling them different things, because of their own biases in terms of the collected data.

And then my other question -- well, actually, let me let you answer that.

MS. EVANS HARRIS: I, kind of, have two answers for that. So data is data. And so what a data collaborative does is make that data accessible; so you can do that analysis and see those conflicts. So that's a good thing.

The question is: What do you do with your processes on the other side to address those conflicts? Other than saying, like, talk to each other, I think what it is is -- and what I would recommend. So what data collaboratives do is allow for that data to be connected in a way that you can identify the different answers that are coming out based upon the questions you're asking of the data. So if conflicts come out of the data, you highlight those and then you use humans. You use humans to de-conflict and figure it out. I mean, ADS's can't answer all things. And if you do it
right, you want it to highlight those conflicts; so that you can then bring in people to -- to figure it out.

Did that -- I hope that answer --

MR. SOUTHERLAND: Yeah.

And then my other question was: Would you suggest that people have, kind of, like a -- just a right of action, just have whatever data is being collected from them, how it's being used. So if you just like make a request to the -- to some city agency generally.

MS. EVANS HARRIS: So we are starting to see more and more around self-sovereignty come up. And I -- I love it. There's some people who say that, you know, it shouldn't happen. That it takes a certain amount of knowledge and understanding in order to be able to say whether your data could be shared or not. And also, there's just fear that if people control whether their data could be shared, data is not going to be shared; no more things will be learned.

I tend to lean towards the more positive, hopeful, optimistic side of it. And saying
ADS TASK FORCE – PUBLIC ENGAGEMENT FORUM

that if people have more control over whether their data can be shared or not, and you give them the why, they will choose to share it if it's of value to them.

And so -- and what self -- and self-sovereignty comes in many forms. It could be blockchain. It's particularly coming up in the education sector. University of Washington has written a really interesting paper around how blockchain can help with self-sovereignty and giving parents control over their students -- of their children's -- access to their children's data. So that's coming. I haven't seen a really good solution for it yet; so I don't want to recommend anything. But there is a lot of talk around it, especially in the education and the talent -- talent marketplace.

MR. SOUTHERLAND: Thank you.

MS. EVANS HARRIS: Yeah.

MS. JIN: Meredith.

MS. WHITTAKER: I'm going to follow on Vincent's question. Speaking about the commensurability of separate data sets that may have been created differently. Oftentimes, in
my experience without very specific
methodological information that documents the
creation process, it's difficult to tell that
those data sets are incommensurate.

So if you took arrest data from a city
that had stop-and-frisk implemented and one
that didn't, they may look the same. But if
you didn't understand that there was racially
biased policing going on, you actually wouldn't
be able to recognize that those data sets
weren't commensurate unless, you know, may not,
you know, give you the same results that they
were fed through one ADS or another.

So what type of documentation do you think
is required to ensure that people, you know,
using this data can be fully informed about how
it was made, and what it does and does not
represent.

MS. EVANS HARRIS: So there is -- there is
-- so that's -- we call that responsible
communication, right. And sometimes when your
data is collected, meta data is collected about
it. So that you know some of that information
and, oftentimes, it's not.
What I have recommended in -- in other -- in other situations where that has come up, I have said, You put confidence scores on that data. There's like there are rules to this. You put -- you put tiers on it, right. And so you say, Look, this data is very well-documented. I have high confidence in this data. This data, I don't even know where it came from, and I don't have confidence in the source. Either don't use it until you can get that confidence in the source, or put it back on the police department or whoever collected that data to increase the confidence of that data, or you -- I -- I don't -- I don't want to say it. Or you -- you use it, but you caveat it, right. I wouldn't. I would say, If you don't -- I would say, Yeah, you have thresholds. And if you don't have confidence in where that data came from, you don't use it. And -- and you work with others.

And then I'll say the other side of that is there are mechanisms that can force data that's newly created to have that meta data attached to it. The City of San Francisco,
ADS TASK FORCE – PUBLIC ENGAGEMENT FORUM

their CDO, put out a very interesting pilot. And I want to say that they fully adopted it, where all the data sets that come out of the City of San Francisco, in their open data, has certain meta data attached to it automatically. So it can't even be released. It can't even be shared. It isn't even real unless it has this certain data type, this certain information about the data associated with it. And that includes, like, time stamp, and sources, and not necessarily who collected the data, but what organizations were a part of the collection of the data, and so they have a great template framework for it.

MS. WHITTAKER: Wonderful. Thank you for that answer.

Just a quick follow-up: When we talk about confidence, of course, we can talk about sort of, you know, statistical confidence intervals, and that's, you know, nice and reassuring, but we are also talking about larger social factors. So who should be assigning confidence to a data set in the case that it is created through, say, a police
department that has been found to be -- you know, again, back to the example, you know, engaged in racially discriminatory policing practices. How do we determine confidence in a data set that's created through social practices that may be complex.

MS. EVANS HARRIS: I like criterias and, at least in the federal government, that who -- that who makes the decision on the usability of the data is usually held in the chief data officer hand or somebody like that. Kelly is awesome. Maybe you can put it in the chief analytic officer's hands. But it's somebody who is responsible for the health and wellness of your data.

I would not, like, put it in your IT person's hands. I love IT people, but they're just going to make sure it can flow through their system. Data owner's hands, they're biased, right. But if you have a set criteria where everybody is playing by the same rules, they know how to make their data usable, then you can have somebody like a chief data officer, who is experienced. And that -- and
that's their role.

MS. ZIELINSKIE: I would just add to that around just having the right data standards. So that you have -- and independent of when you are trying to make a choice or a subject. And being iterative and erring on the side of being conservative versus aggressive, right. So it's just about making very deliberate choices slowly. I think that's what we've learned around using -- using state level data is that you don't want to -- you don't want to, like, jump over. You want to be very, very incremental in how you're using that data and building your confidence about it.

MS. JIN: Great.

We'll do -- Khalil, I think, had a question, and then we'll go to Jeff.

MR. CUMBERBATCH: Yeah. Thank you.

It was mentioned in this panel and in the previous one about technology that is available to identify if a data set is good or not. Do you -- can you give us some of those recommendation's of ones that are good that could help us, as a task force, kind of think
ADS TASK FORCE – PUBLIC ENGAGEMENT FORUM

about which pieces of technology we should be recommending?

MS. ZIELINSKIE: I think it's the benefit access space. If individual level enrollment data that's verified by health and human services agency is strong data, whether we're talking about Medicaid enrollment or expanded Medicaid, it's -- it's extremely good data.

Now, it can get messy, because it can get old quickly because of the level of -- people are transient; so communication information. But from our experience, using cross-program enrollment data, it has been extremely strong.

MR. SOUTHERLAND: What makes it such good data? Why is it strong? I'm not challenging. I'm just asking. Just asking -- just curious.

MS. ZIELINSKIE: That's fine.

Because of integrity issues. Because there is -- the use of data to make sure that people don't get benefits has also -- also pushed the conversation. So people really want to make sure that you're not making more than a thousand dollars a month.

MS. EVANS HARRIS: All right. I don't have specific products -- I don't have specific products that can do that, basically, evaluate the quality of data. But there are organizations who evaluate these things on a regular -- Data Kind, I think, who had -- whose -- who has a -- who has a spot here. Data Kind, regularly, is evaluating the quality of data sets and putting out information on how to evaluate data sets.

Kaggle is a community that, literally, is set up for data scientists and data practitioners to push data there, put challenges around it, and find fault with the data. These are organizations who -- who might be able to give you product recommendations, because they live and breathe this stuff. But I would pay more attention to the people in the space that are doing those types of evaluations, rather than looking for specific products.

MR. SOUTHERLAND: Thank you.

MS. JIN: Great. We're going to do two more questions just because we are -- we're
passed 8:15 here. We'll do Jeff and then Dan.

MR. THAMKITTIKASEM: I hope this isn't too vague. I just -- in terms of -- I'm struck by -- do you have any recommendations or process in terms of how do you develop or train, kind of, the people that can this across different agencies? This idea that you mentioned about have the confidence around the data itself, how it was derived; how it was collected. And thinking through, just from a city standpoint, like, each of the agencies are going to have to figure out whether it's from a central place or in -- I would just say, It's emergent; it's new. And so any recommendations on places to go to think about how do we even inform and train the people to start thinking about it that way, and then educate beyond maybe even us as a task force setting up certain standards. How do you get to the people and make sure they can do it? Does that -- that makes sense?

MS. ZIELINSKIE: Yeah. There's standards, and then there's culture.

MR. THAMKITTIKASEM: Yeah.

MS. ZIELINSKIE: And it does have to come
from leadership around intent and relying on outcomes and putting in the right safeguards. So that, you know, as we were preparing for this, our chief strategy officer said, The road to hell is paved with good intentions, right. So we need to make sure that while we may be aligned on intent, how, in the wrong hands, do we have the appropriate safeguards in place.

But as it relates to talent, I think it's around being extremely deliberate about how you are leading an organizational culture. And it's everyone's responsibility to protect this data. And it's -- it's just leadership.

MS. EVANS HARRIS: Yes to all of that.

There is -- I'll give you more recommendations. There -- because there are organizations who -- Andrew, John Hopkins, he has curriculums and help cities and local governments and understand how to use data. So if he had -- if he were here when you asked that question -- is he here? You should ask Andrew. Andrew can do it.

Also, GovLab. GovLab does this.

And it's a culture thing; right? So don't
trust anybody that says, I'm going to just give you a webinar, and you guys will be experts on using data. That's not it. It's a cultural thing, right. So it's understanding the changes that have to be made in the -- in the way that people are making decisions, in the way that data is used and treated and looked at and spread across. One of the things at NSA, which were -- it's a data agency, and so everybody, regardless of your role, had a responsibility related to the data and had to be trained on a regular basis, and reminded of that responsibility. Not just the policies that governed it, but also the systems and the consequences and the implications. And literally, there were, like, posters all over the place explaining, you know, this is your duty and why it's important. That's what you want to see to build a strong data-minded culture.

MS. JIN: Great. Do one more question.

MR. HAFETZ: Thank you. A question, I guess, primarily for Ginger, but Natalie, also, can jump in.
I think it would just be helpful if you could talk a little -- and I think it was, sort of, implicit in some of your statements, but how automation and benefits enrollment and use of data systems is a tool to advance fairness and equity. And then also, how should that be a criteria or consideration in some of the issues that were are looking about in terms of oversight of ADS's that have been talked about tonight?

MS. ZIELINSKIE: Sure. So the way in which we've been able to use ADS's across the country is really around serving people better. So -- and in doing so, you are able to break down historically fragmented silos of service delivery areas. And then -- also then align on better outcomes. So in doing so, all the way down to the individual level, the role of these ADS's, in some cases, as it relates to benefits access. And we can certainly have a conversation about when ADS's have been used to be punitive, and that's certainly a consideration, as well. So which then leads to, again, back to culture and intent. But as
ADS TASK FORCE – PUBLIC ENGAGEMENT FORUM

we think about aligning on better outcomes, the
ability to serve people across those program
silos is certainly available through better use
of ADS's.

And again, we're asking the same questions
for benefits applications. You know, 80
percent of the information is the same. So if
we can be thoughtful about aligning on
eligibility criteria in order to make it easier
for individuals to be served comprehensively.
I also think that in regards to data
sovereignty, individuals being able to own
their own data and apply it and have the choice
about how they can apply their data to
different programs and services, that would be
of best interest for them and their families,
certainly, has a lot of opportunity in the
benefits access space.

MS. JIN: Okay. All right. So we --
another round of applause, obviously, for these
women.

I am -- thank you all for being here on --
on a Tuesday evening past 8:00. I'm going to
turn things over to Brittny.
ADS TASK FORCE – PUBLIC ENGAGEMENT FORUM

MS. SAUNDERS: Yeah. And so, again, thank you, everyone. Thank you so much to our panelists. I know that -- or I feel that it's been a really rich and substantive conversation. And I feel excited, and I'm sure other folks on this panel feel excited about the way this information is going to help to advance the conversations that we are having amongst ourselves. And also, the tone that you set and the kind of concreteness of what you shared in terms of, like, upcoming conversation. So thank you so much. Incredibly grateful.

At this point, we were going to turn it over for public comments. I have to say I am astounded to hear that there actually -- there's no one currently signed up. I am not going to have us wrap up however, until I ask one more time, and allow for an uncomfortable amount of wait time. So the folks can build up the nerve if they're thinking about it, but not quite convinced that they want to share some comments.

So is there anyone who would like to share
KATIE: Hi. Thank you. My name is Katie. I don't have so much of a comment as a question.

I'm curious as to whether there's someone on this very large task force who is responsible, specifically, for community engagement. Mostly because I've -- I've heard a lot of criticisms, specifically, about the lack of community engagement over the last, at least, year and a half.

And I'm also confused as to why this conversation is happening at a -- a very beautiful space, like New York Law, but not necessarily a place that would be considered more accessible to the folks that have been called out in these conversations for the past couple of hours. So I'm curious as to how that decision was made, and what steps the task force is willing to commit to, to ensure that that -- this conversation is as broad as it needs to be.

MS. SAUNDERS: So I'm happy to start a little bit, and then if some other folks want
So I think I can say with confidence that everyone here on this task force shares a commitment to robust public engagement. I’ll say that, as we have thought about this, we have not only scheduled these, kind of, two large public engagement sessions here, we also are developing plans right now for community sessions that are going to take place during the summer. Our thought on those is that we would partner with community-based organizations, do those outside of Manhattan and other parts of the city, precisely for the reasons that you shared.

I also will say that, like, we have, kind of, used own networks of community-based organizations to make sure that we’ve pushed out information about these sessions to those. So I think it’s something that we’re committed to and will continue to work on. I don’t think there’s any one person here who is assigned that responsibility. I think it’s a commitment that we all share.

AL: Thank you for your time and for
ADS TASK FORCE – PUBLIC ENGAGEMENT FORUM

giving me the opportunity to ask you a few questions. My name is Al.

And so as the panelists have testified, identifying bias in ADS is a great challenge, and creating a public board to govern the use of ADS seems to be a strategy used by the federal government as suggested by Natalie Evans Harris.

In order to pursue many of the recommendations made today, it would be necessary to make the algorithms themselves available and transparent. Not to say the data itself, just the algorithms.

Is this something that the task force has considered, and what reservations do you have about publicly releasing algorithms used by government agencies?

And finally, should government agencies be allowed to use algorithms from private third parties when the algorithm are subject to IP laws and cannot be evaluated?

MR. THAMKITTIKASEM: I think, one -- I think we, as a task force, have been, kind of, taking a look at, kind of, the structure of
ADS TASK FORCE - PUBLIC ENGAGEMENT FORUM

what the law requires in terms of taking a look at ADS, and had the open conversation about what did or didn't qualify in criteria reviews.

Part of the discussion has definitely been trying to figure out what protocols -- one, what would fall in or not; what guidance we could give to city agencies and other people on, kind of, how they can start to evaluate?

Two, I think the focus has been on that and more on than what the process would be on what could be public, or what can't be public. I think, as people have raised here, there aren't necessarily, kind of, public forums per se, but there are different models that we would like to consider in terms of making recommendations on how to do that. Whether it be, kind of, a private, third party, a centralized versus a specific agency-by-agency. I think those are all things we've heard here that we're trying to evaluate and understand, kind of, effectively what recommendations we could put forth in that. So as opposed to, kind of, answering any specific questions about what we can or can't do right now, I think
ADS TASK FORCE – PUBLIC ENGAGEMENT FORUM

we're focused on the recommendations that will allow cities and the agencies to, kind of, understand what to contribute to, and then what structures we might place, and what actual processes we'll put in place to allow for that type of review.

MS. JIN: You really did make it a long --

MS. SAUNDERS: I know. I wanted to make it as much wait time as possible.

So I'll make one last call. Is there anyone else who would like to share a comment?

UNIDENTIFIED SPEAKER: Will the report include any recommendations based on actual evaluations of current or historically used systems?

MR. THAMKITTIKASEM: I mean, I think right now, I don't want to speak for everybody, because I think we all have our own different opinions on that. Right now, the focus has been on really trying to capture what would fall in or not. So I think that while examples are being gathered from agencies based on protocols we are trying to develop, I don't think we're going to get to everything.
Certainly, part of the task force recommendation should identify how to start identifying what would or would not fall in, because as a set-up to that, we also have several areas where we need focus in on, you know, identifying the potential systems that would have implicit bias issues. And then how you would go about evaluating what that is and, ultimately, making recommendations on how to -- not just ways to correct it potentially, also, in terms of what limits on use then that should apply. I think those are all types of recommendations we would like put forth as a process. And I think just something to reiterate: I don't think anyone and I think we both mentioned this kind of input -- you know, kind of, suggested in the timing. I don't think anyone here -- at least speaking for myself on this. I didn't think that there would be an end-all/be-all answer by the end of this task force for all purpose so much as guidelines, process, and other steps to take to continue the work. Because I think, certainly, personally believe, and I think the task force
ADS TASK FORCE – PUBLIC ENGAGEMENT FORUM

will agree: It's going to be an iterative process.

So there will be more examples. There will be more, kind of, things to consider. And we want to set up a framework, since it's the first time that we've done it in the city, to allow for that.

MS. WHITTAKER: Can I jump in as a task force member? Just a different answer to that question.

MR. THAMKITTIKASEM: Please.

MS. WHITTAKER: The task force was asked multiple times over months for examples of real systems that are used in New York City, and the city has not been forthcoming with us. So there are a number of reasons, I'm sure, for that. But that is a current barrier to the writing of a report that would include, you know, sort of an anchor on real systems currently in use in New York.

UNIDENTIFIED SPEAKER: Are any city agencies sort of not being investigated or exempt from the task force's investigation?

MS. SAUNDERS: Well, one, I would say that
the task force is not conducting an investigation. We are developing recommendations in the areas that are in the legislation. And there's not really any limitation of the legislation, at least as I understand it, in terms of like -- there's no specification around it. But --

MR. THAMKITTIASEM: I think that -- again, to reiterate, no investigation is going on. Like the task force is really just focused on starting the conversation, making recommendations, and we've heard, kind of, there are a lot of really good thoughts that can go into not just what -- you know, tiering things, considerations on how to approach it, but also, kind of. Process that we should consider.

So something that I asked about was just the practicality of how to do it in a way that can, you know, maybe have an immediate impact versus a long-term impact especially in the, kind of, the oversight in that third party, kind of, review. Where it should be; what the centralization should be? But those are -- I
ADS TASK FORCE - PUBLIC ENGAGEMENT FORUM

think no one is exempt from that. In terms of -- for each of those, it's kind of a broader look, because it would allow for a broad city with a lot of different agencies doing a lot of different things that they are not really sure whether or not they do follow it or not.

MR. REPLOGLE: If I could just add as a member of the task force, I mean, I think, you know, tonight at this hearing, as well through the task force process, I've been becoming educated about a lot of these different ADS systems, and the potential for disparate impact due to the bias in the data. And I think, you know, we're looking at the full array of how ADS applies to the city, as we think about making recommendations for the future.

MS. SAUNDERS: And I think we are going to maybe -- I see you have the mic -- maybe take one more, and then we're going to call it, because we actually have to get out of this room and allow folks to --

UNIDENTIFIED SPEAKER: I think one thing I'm hopeful with the community sessions is they're going to be robust. But I think what's
illustrated here, at this time, is there is not a whole lot education for community members to absorb what the systems are; how they are used; how frequently they are. And so I'm wondering what the role is of the task force is in educating folks for this community sessions. Because I feel like it's hard to have a robust conversation about the impact and the scope without actually being informed and having transparency and accountability of what people are actually going to make recommendations about.

MR. THAMKITTIKASEM: I think that -- I will say, I mean, part of it also for the task force to educate themselves in these questions. And so for -- and I think that is an important step, because we are trying to develop recommendations to understand. And I think we've been trying to put more and more out on, say, the website. And, kind of, that's part of the reason we have the public speaker -- I'm sorry -- expert speakers, as well, To help us identify some of the major issues and put it out there for consideration. I think we're
open to, kind of, more ideas, as well, quite honestly. I don' think we were -- we are definitely trying to do as much as we can to elicit that feedback. And in this initial frame, that's why we've kept open the opportunity for these community sessions that are beyond these two public forums. The two public forums were our initial foray into trying to have this discussion and using the frame of expert speakers to, kind of, speak to it with a little more, kind of, force and, kind of, emphasis and experience. To then elicit, kind of, more commentary on that. And if that doesn't work, obviously, I think we'll think a little harder about how to do it, but we're very open to other people suggesting ways to do that, whether it's, kind of, more on the website, more conversation beforehand, whatever that is, I think that you should reach out to any of us to suggest that, and we'll be happy to take that.

MS. SAUNDERS: Yeah. And so just one quick commercial for the next session, which is going to be the -- the next large-scale public
ADS TASK FORCE – PUBLIC ENGAGEMENT FORUM

forum will be here on May 30th, same time, same place. And then, as I said, we are developing plans for the community sessions. And as soon as those are firmed up, we will let folks know. And we encourage folks to join again to share your, kind of, concrete recommendations and suggestions for what the task force should be considering as it moves forward, kind of, in the same way that our panelists did earlier today.

And with that, I would like to thank everyone for coming out tonight. As we said, it is a, you know, mid-week night. We appreciate the time that folks have taken to sit down with us and your comments and your questions, and thank you.

MR. THAMKITTIKASEM: Thanks, everyone. We really appreciate it. Thank you.

(Time noted: 8:32 p.m.)
CERTIFICATE

I, Douglas F. Colavito, a Certified Court Reporter and Notary Public of the State of New York, do hereby certify that the transcript of the foregoing proceedings, taken at the time and place aforesaid, is a true and correct transcription of my shorthand notes.


DOUGLAS F. COLAVITO
accountability (11)
28:11;38:2;50:5;78:14
accounted (1)
37:5
accurate (1)
65:18
achieve (2)
17:17;31:7
achieved (1)
42:19
achievement (1)
21:7
acknowledge (1)
3:10
acknowledges (1)
27:12
acquisition (1)
52:8
across (15)
15:7;16:4;59:23;
63:2;75:10,18;79:15;
80:25;86:11;92:7;
95:20;108:7;110:9;
111:13;112:3
Act (3)
76:13,14;77:15
action (4)
20:9;46:6;63:19;
99:9
actions (1)
42:7
activists (1)
40:6
activities (1)
57:16
actual (3)
63:21;118:5,14
actually (27)
12:12;13:8;15:20;
29:8,10;11:30;11;
56:20,25;57:19;
59:25;63:24;65:19;
68:12;69:11;70:17;
71:23;76:9;92:13;
93:18,22;98:6;
101:10;113:17;
122:1;23:10,12
ad (2)
53:6;73:16
add (4)
70:10;91:2;105:3;
122:8
adding (1)
29:15
addition (3)
49:7;50:6;82:6
additional (2)
19:11;66:8
address (11)
6:5;7:20;10:4;
23:20;24:2;50:22;
56:15;57:4,6;79:7;
98:14
addressed (3)
23:24;26:11;72:4
addresses (2)
38:4;72:10
addressing (2)
37:15;51:4
adequate (1)
31:19
adequately (1)
44:6
adjudication (1)
66:4
adjusted (1)
66:4
Administration (5)
27:12,16;41:18;
76:18;82:4
Administrative (1)
90:12
administrators (1)
90:12
allow (1)
10:22
allow (1)
14:16
ado (1)
14:2
adopt (4)
41:16;48:14;96:18;
22
adopted (2)
83:23;103:3
adopting (5)
16:17;18:19;19;
41:19;82:18
adoption (1)
17:2
ADS's (39)
27:12;16:4;2;5,9;
25:42;20:43;8,22;
44:4;5,20;23;45:22;
50:24;51;24,6,11,20;
52:10,16;21;53:4,13;
23:54;2;10,11,11;
87:21;94:13;95:14;
98:24;111:10;13,20;
22,112:5
adult's (1)
77:3
advance (3)
9;16;11:6;11:3
advances (1)
42:22
advantage (1)
89:9
advising (1)
33:25
advisor (1)
82:4
agency's (2)
117:19
agency-automated (3)
19:15;27:17;11
agency-by-agency (1)
117:19
agency's (2)
43:8;90:15
aggregate (1)
57:14
aggressive (3)
44:12;47:8;105:8
ago (5)
14:18;20:25;39:19;
41:21;74:5
agree (2)
60:9;120:2
agreement (1)
89:20
AI (4)
4:25;15:15;16:18;
AUTOMATED DECISION SYSTEMS TASK FORCE

April 30, 2019

Min-U-Script® DALCO Reporting, Inc.
800.325.8779

(135) fairer - friend
April 30, 2019

AUTOMATED DECISION SYSTEMS TASK FORCE

frisking (1) 40:12
front (1) 11:23
frontline (1) 80:2
fully (7) 14:16;17:10:20:20;52:11;71:10:101:17;103:3
function (2) 64:14;66:9
functions (2) 26:15;38:13
Fund (6) 14:14;39:10;11;40:2;41:14;46:23
fundamentally (1) 38:22
funded (1) 96:2
funding (2) 18:4;85:16
further (4) 2:13;14:2;46:5;51:23
Furthermore (1) 37:14
furthest (1) 12:15
future (8) 6:2;9:24;10:3;29:8;36:24;37:19;54:11;122:17
Furthermore (1) 14:6,17

gathering (1) 17:12
gave (1) 41:18
general (5) 4:15;18;7:11;58:17,18
generalizations (1) 47:20
generally (1) 99:12
generate (1) 42:6
geolocated (1) 35:6
Georgetown (1) 82:15
Girl (4) 10:25;74:7,10;110:24
girl (1) 83:10
given (5) 30:4;41:6;42:21;58:24
giving (4) 3:15;9:14;100:12;116:2
Global (3) 82:6;7;84:20
goal (2) 35:23;95:16
goals (2) 11:22;38:23
govern (2) 66:16;116:6
governance (2) 89:18,22
governed (1) 110:15
116:8;18:19
Governor (3) 15:18;20:26:23
GovLab (2) 109:24:24
grain (1) 68:16
grateful (2) 18:20;113:14
groans (1) 68:4
ground (1) 28:2
group (5) 3:16;22:22;41:23;49:2;74:16
groups (6) 9:17;26:8;46:10;49:13;79:15,17
grow (3) 17:2;11,11
growing (2) 17:36;31:13
Grows (1) 17:9
Growth (1) 18:14
guests (1) 10:12
guidance (2) 6:12;117:7
guide (1) 87:13
guidelines (1) 119:23
Guys (1) 110:3

H

hack-a-thons (1) 92:12
HAFETZ (3) 4:2,3;110:23
hales (1) 35:9
half (3) 28:7;46:11;114:12
halfway (1) 95:16
hand (2) 91:22;104:12
handful (1) 12:21
hands (6) 31:4;42:23;104:14;18:20;109:8
happen (2) 66:15;99:16
happening (7) 57:21;81:12;83:14;89:25;94:10,10;
114:14
happens (5) 15:9;16;21;27:16;57:13;62:7
happy (6) 11:3;19;10:57:9;
97:2;114:24;124:21
harassment (1) 57:17
hard (2) 61:4;123:8
harder (1) 124:16
harm (6) 23:23;23:59:21;60:5;63;21;82:20
harmed (1) 37:17
harms (3) 51:4;23:53:17
Harris (17) 10:24;65:10;12:13;
74:4;81:7;92:9;
96:15;98:7;99:13;
100:20;101:20;
104:8;107:2;109:15;
116:9
hate (1) 93:15
head (4) 57:8;69:19;74:5;
81:13
health (6) 19:2;78:5;8;95:20;
104:15;106:6
healthcare (5) 75:13;78:8;91:7;
10:96:11
healthier (1) 75:5
healthy (1) 17:420

hear (10) 3:7;8:10;19:21;
9:19;11:5;7:16:33:2;
74:11;113:17
heard (11) 13:22;19:17:26:20;
32:25;40:16;43:14;
74:4;82:25;114:9;
117:20;121:13
hearing (3) 11:20;19:19;
122:10
heavy (1) 33:15
held (3) 84:15;95:4;104:11
hell (1) 109:6
Hello (1) 81:7
help (22) 2:18;6:4;8:14;15:7;
12:26:3;23:7:2;
35:12;61:5;67:20;
76:6;82:13;20:90:9;
20:96:16;100:11;
105:25;109:19;
113:8;123:23
helped (1) 33:21
helpful (4) 55:7;67:9;97:17;
111:2
helping (2) 3:20;77:20
helps (3) 6:23;42:10;74:19
Hi (7) 4:2;11:23;5:2;6;
57:24;114:3
high (3) 65:18;85:4;102:8
highlight (3) 75:17;98:22;99:2
Hill (1) 82:3
hired (1) 44:15
hiring (1) 58:19
historic (1) 67:19
historically (2) 111:16;118:15
history (3) 11:12;42:24;50:17
hit (1) 60:5

frisking - hit (136) DALCO Reporting, Inc.
800.325.8779

Min-U-Script®
<table>
<thead>
<tr>
<th>April 30, 2019</th>
<th>AUTOMATED DECISION SYSTEMS TASK FORCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>throw (1)</td>
<td>83:2</td>
</tr>
<tr>
<td>Thurgood (1)</td>
<td>39:19</td>
</tr>
<tr>
<td>tiering (1)</td>
<td>121:15</td>
</tr>
<tr>
<td>tiers (2)</td>
<td>22:23;102:6</td>
</tr>
<tr>
<td>times (5)</td>
<td>18:18;66:3;9;88:19;120:14</td>
</tr>
<tr>
<td>timing (2)</td>
<td>34:10;119:18</td>
</tr>
<tr>
<td>title (1)</td>
<td>14:17</td>
</tr>
<tr>
<td>titles (1)</td>
<td>14:3</td>
</tr>
<tr>
<td>tonight's (1)</td>
<td>19:10</td>
</tr>
<tr>
<td>togethers (3)</td>
<td>12:2;72:11</td>
</tr>
<tr>
<td>tolls (1)</td>
<td>36:2</td>
</tr>
<tr>
<td>tomorrow (1)</td>
<td>10:2</td>
</tr>
<tr>
<td>tone (2)</td>
<td>16:21;113:10</td>
</tr>
<tr>
<td>tonight's (1)</td>
<td>8:24</td>
</tr>
<tr>
<td>tons (1)</td>
<td>96:18</td>
</tr>
<tr>
<td>took (1)</td>
<td>101:6</td>
</tr>
<tr>
<td>tool (1)</td>
<td>111:6</td>
</tr>
<tr>
<td>toolkits (1)</td>
<td>30:9</td>
</tr>
<tr>
<td>top (3)</td>
<td>57:8;69:19;70:21</td>
</tr>
<tr>
<td>topic (4)</td>
<td>33:14;81:5;92:20,21</td>
</tr>
<tr>
<td>touched (1)</td>
<td>84:6</td>
</tr>
<tr>
<td>touches (1)</td>
<td>84:5</td>
</tr>
<tr>
<td>touchpoints (1)</td>
<td>91:18</td>
</tr>
<tr>
<td>tough (1)</td>
<td>19:16</td>
</tr>
<tr>
<td>toward (1)</td>
<td>41:15</td>
</tr>
<tr>
<td>towards (1)</td>
<td>99:24</td>
</tr>
<tr>
<td>traffic (1)</td>
<td>38:15</td>
</tr>
<tr>
<td>traffic-light (1)</td>
<td>36:21</td>
</tr>
<tr>
<td>train (3)</td>
<td>33:23;108:6,17</td>
</tr>
<tr>
<td>trained (5)</td>
<td>37:4;45:19;58:5,7;110:13</td>
</tr>
<tr>
<td>training (5)</td>
<td>30:22;31:2;45:9,9,11</td>
</tr>
<tr>
<td>transfer (2)</td>
<td>58:19,23</td>
</tr>
<tr>
<td>transferred (2)</td>
<td>60:19;76:24</td>
</tr>
<tr>
<td>transferring (2)</td>
<td>31:24,25</td>
</tr>
<tr>
<td>transform (1)</td>
<td>45:5</td>
</tr>
<tr>
<td>transformative (1)</td>
<td>16:5</td>
</tr>
<tr>
<td>transient (1)</td>
<td>106:12</td>
</tr>
<tr>
<td>transit (2)</td>
<td>35:8;57:17</td>
</tr>
<tr>
<td>translate (1)</td>
<td>72:15</td>
</tr>
<tr>
<td>two (20)</td>
<td>35:8,10,12,14,16,20</td>
</tr>
<tr>
<td>two-page (1)</td>
<td>76:21</td>
</tr>
<tr>
<td>two-thirds (1)</td>
<td>53:8</td>
</tr>
<tr>
<td>type (5)</td>
<td>90:8;95:16;101:15;103:9;118:7</td>
</tr>
<tr>
<td>types (3)</td>
<td>72:13;107:20;119:13</td>
</tr>
<tr>
<td>ultimately (4)</td>
<td>6:2;12;2:32:10;119:10</td>
</tr>
<tr>
<td>umbrella (1)</td>
<td>15:4</td>
</tr>
<tr>
<td>unacceptable (1)</td>
<td>54:5</td>
</tr>
<tr>
<td>unbiased (1)</td>
<td>56:22</td>
</tr>
<tr>
<td>unchecked (1)</td>
<td>53:25</td>
</tr>
<tr>
<td>uncomfortable (1)</td>
<td>113:20</td>
</tr>
<tr>
<td>unconstitutional (5)</td>
<td>42:25;45:17;48:18;49:9;51:10</td>
</tr>
<tr>
<td>under (9)</td>
<td>41:18;44:2;51:18;53:8;62:16;71:4;77:14;89:18;91:2</td>
</tr>
<tr>
<td>underpin (1)</td>
<td>90:23</td>
</tr>
<tr>
<td>underneath (1)</td>
<td>41:11</td>
</tr>
<tr>
<td>underpin (1)</td>
<td>89:11</td>
</tr>
<tr>
<td>underscore (1)</td>
<td>51:24</td>
</tr>
<tr>
<td>undue (1)</td>
<td>65:23</td>
</tr>
<tr>
<td>unearthed (1)</td>
<td>29:7</td>
</tr>
<tr>
<td>UNIDENTIFIED (3)</td>
<td>118:13;120:22;122:23</td>
</tr>
<tr>
<td>usability (1)</td>
<td>104:10</td>
</tr>
</tbody>
</table>

**throw - use (148)**

DALCO Reporting, Inc.
800.325.8779

Min-U-Script®
<table>
<thead>
<tr>
<th>Page</th>
<th>Reference Text</th>
</tr>
</thead>
<tbody>
<tr>
<td>49's (1)</td>
<td>43:5</td>
</tr>
<tr>
<td>5 (1)</td>
<td>48:14</td>
</tr>
<tr>
<td>50 (1)</td>
<td>29:7</td>
</tr>
<tr>
<td>60,000 (1)</td>
<td>77:21</td>
</tr>
<tr>
<td>80 (2)</td>
<td>39:19;112:7</td>
</tr>
<tr>
<td>800,000 (1)</td>
<td>75:7</td>
</tr>
<tr>
<td>83 (1)</td>
<td>46:8</td>
</tr>
<tr>
<td>86 (1)</td>
<td>46:4</td>
</tr>
</tbody>
</table>

---

Zielinskie - 86 (150)  
DALCO Reporting, Inc.  
800.325.8779