

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

COMMITTEE ON CIVIL SERVICE AND LABOR

1

CITY COUNCIL
CITY OF NEW YORK

----- X

TRANSCRIPT OF THE MINUTES

Of the

COMMITTEE ON CIVIL SERVICE AND LABOR

----- X

November 13, 2019
Start: 10:52 a.m.
Recess: 12:45 p.m.

HELD AT: Committee Room - City Hall

B E F O R E: I. Daneek Miller,
Chairperson

COUNCIL MEMBERS:

Adrienne E. Adams
Daniel Dromm
Farah N. Louis
Francisco P. Moya
Helen K. Rosenthal
Eric A. Ulrich

COMMITTEE ON CIVIL SERVICE AND LABOR

2

A P P E A R A N C E S

Gregg Bishop

Commissioner of the New York City Department of
Small Business Services

Miquela Craytor

Executive Director for the Industrial and
Manufacturing Industry Partnership

Eli Dvorkin

Editorial and Policy Director of the Center for
an Urban Future

Stephen Nunez

Project Lead for the Guaranteed Income Initiative
at the Jain Family Institute

Zachary Parolin

Researcher at the Center on Poverty and Social
Policy at Columbia University

Jesse Laymon

Director of Policy and Advocacy at the New York
City Employment and Training Coalition

Zachary Hecht

Policy Director for Tech:NYC

Josh Kellerman

Director of Public Policy at the Retail Wholesale
and Department Store Union

CHAIRPERSON MILLER: Good morning. [GAVEL] Once again, I'm Council Member I. Daneek Miller; Chair of the Committee on Civil Service and Labor. I'd like to thank all of those who have come to this hearing today and all of those who are prepared to testify.

In addition, I'd like to welcome my colleagues Council Member Dromm, Council Member Adams, Council Member Louis for being with us today.

Today, we will be holding a hearing to Examine Automation Within New York City's Labor Force. Automation is the creation of the application of technology to better monitor and control how we produce and deliver product and services. Technology and automation have been a part of the labor force for as long as both have existed. It is not a new concept; however, we are at a point and time in which technology is increasingly rapidly and extremely complex with artificial intelligence and machines have an amazing abilities learning and adapting on the go.

Every industry from factories to hospitals to construction sites will be impacted over the next waiver of technology and advancements in automation.

Emerging technologies will impact the way in which jobs and industries are performed as well as how human workers work.

Although these advancements may displace a number of workers, there is also a possibility that new fields in jobs will emerge as a result of this technology.

This is the impetus of this hearing, to understand in New York City Labor Force how it will be impacted by technology and automation for better or worse.

Today's Committee will examine into the city's private companies are preparing for automation in a way that will ensure that the human labor is complimented by automation rather than taken away.

Notably, an in-depth analysis by the Center of Urban Future found that New York City is far less susceptible to automation than the nation as a whole. Or those susceptible, more than 456,000 jobs in New York City will be largely automated using technology that exists today. At least 80 percent of the associated tasks and jobs could be performed by machines. Fields such as bookkeeping, accounting,

auditing clerks, will become highly automated. While some such as caregiving will not.

As the strongest affects on automations are on low and middle class or low wage workers, we want to ensure that those workers in these fields are not replaced by machines. At the end of the day we want to strike a balance between technology, innovation and human work, their interaction and the presence of our workforce is pivotal.

I'd like to thank the Department of Small Business Services and DCAS for excepting the Committee's invitation to participate in today's hearing. However, I am disappointed that their colleagues at the Mayor's Office of Workforce Development and Department of Consumer and Worker Protection opted not to join us here today.

Whether we study this issue now or ten years into the future, automation will continue to become a reality in this city. The growing use of automation in the workforce has been spared not only by technology advances but also the desire to minimize cost and achieve greater efficiencies and simply, by simplifying the process.

We have a responsibility to keep our finger on the post of our city's workforce in order to understand what factors are being played with automation and its concerns. As well as, how do we go forward in educating training and preparing our workforce for necessary transitions.

But the administration has limited presence at this hearing suggests that the city has taken the passive instead of prudent approach to this dynamic.

Today, the Committee will examine the positive and negative impacts of automation on employment and the workforce throughout our city while examining ways in which to lessen the associated negative impacts associated with automation. The Committee wants to hear from the city as to what it is doing to address the future needs, if any and if not, why are they not looking forward to addressing the future needs of our workforce.

I also look forward to hearing from the Research Institute Labor Economist and private companies testifying today on how they are addressing automation within their perspective and respective industries.

I'd like to thank my staff, Brandon Clark, Ali Rasoulinejab, Joe Goldbloom, as well as Nuzhat from the Committee Staff, Kevin Kendu[SP?] and Elizabeth.

Once again, I thank my colleagues for being here and we look forward to hearing from testimony from all of those who will testify here today.

With that being said, would the Council swear in the first panel?

COUNCIL CLERK: Please raise your right hand. Do you affirm to tell the truth, the whole truth and nothing but the truth in your testimony before this Committee and to respond honestly to Council Member question?

GREGG BISHOP: I do. Good, alright.

CHAIRPERSON MILLER: You are all set.

GREGG BISHOP: Alright, well, good morning Chair Miller and Members of the Committee on Civil Service and Labor. My name is Gregg Bishop, and I am the Commissioner of the New York City Department of Small Business Services. At Small Business Services, we aim to unlock economic potential and create economic security for all New Yorkers by connecting them to quality jobs, building stronger businesses, and fostering thriving neighborhoods across the five

boroughs. I am joined by my colleague, Barbara Dannenberg, the Deputy Commissioner of Human Capital from the Department of Citywide Administrative Services.

Automation technologies are already impacting business operations and the value of workforce skill sets. SBS's resources for small businesses and jobseekers are informed by industry demand and changing market conditions, including the current and future impact of automation. Annually, SBS provides free, high quality services to around 20,000 small businesses and more than 25,000 jobseekers.

SBS's workforce strategy aims to connect New Yorkers to quality jobs with real advancement opportunities. Through our network of 18 Workforce One Centers, SBS connects jobseekers with employment opportunities, industry-informed trainings, and a variety of candidate development services, such as resume development, interview preparation, and job search workshops. To inform this work and ensure that we are preparing New Yorkers to enter growing sectors of the economy, the administration launched our Industry Partnerships in sectors including food

service, healthcare, technology, industrial manufacturing and construction.

These Industry Partnerships brings businesses, community groups, training providers, academic institutions, and government together to recruit, train, and connect unemployed and underemployed adults to quality jobs. Through their collaborative model, the Industry Partnerships allow SBS to work closely with industry to understand and respond directly to their workforce needs. As automation is incorporated in business operation and impacts workforce opportunities, these Industry Partnerships allow SBS to hear directly from employers regarding industry trends and adjust training modules we offer based on this information. In sectors that are already being impacted by automation, SBS offers trainings to help New Yorkers develop the skills needed to seize emerging new opportunities.

The onset of automation is not projected to impede the continued growth of jobs in certain sectors of the economy, such as healthcare and technology. SBS is working with these industries to create pathways to opportunities that are accessible to New Yorkers with a wide range of experience levels

to foster a diverse and equitable accessible future workforce.

SBS's healthcare Industry Partnership, the New York Alliance for Careers in Healthcare, or NYACH, works with industry partners to identify pressing workforce needs and supports training initiatives that provide viable career opportunities for low-income and under employed New Yorkers. NYACH is responding to relevant changing market forces by preparing jobseekers and the current workforce with the core competencies needed to excel in person-centered roles that are not expected to be displaced by automation. For example, NYACH supported the development of the Certified Recovery Peer Advocate Training program at Queensborough Community College. This program has trained over 110 students with lived experience with substance abuse and recovery to support others with similar diagnosis.

Care giving and human connection are fundamental to the performance of these peer specialists occupations, jobs which are expected to continue to grow in the future. NYACH is also ensuring that the future of healthcare workforce is prepared with the new technology skills and knowledge that will be

needed to succeed in a more automated and technology
reliant healthcare system.

New York City's growing tech ecosystem is made up
of more than 320,000 jobs across five boroughs and
SBS is working to ensure all New Yorkers can
participate in this important sector of the economy.
The City's tech Industry Partnership, Tech Talent
Pipeline or TTP, was launched in May 2014 to support
the inclusive growth of the City's tech sector. TTP
works with the industry, public, educational, and
community partners to align New York City's
infrastructure with the ever-evolving needs of the
tech ecosystem so that New Yorkers today, and in the
future, can succeed in the growing tech economy.

Opportunities provided by TTP include support for
CUNY students to increase their access to jobs at
leading tech companies and pre-training programs in
web development to help those with no experience
forge a path to employment in a tech sector.

Automation will continue to change the operations
and workforce needs of growing sectors such as food
service, construction, and industrial. Through our
industry partnerships in these sectors, SBS is
working closely with businesses and industry experts

to meet current needs and strengthen pathways of communication between government, industry, and academia to prepare for future workforce demands.

Many industrial processes are already being automated through technological advancements. These advancements increase efficiency and safety in the industrial and manufacturing sectors and SBS is working closely with industry to ensure that these changes come with new career opportunities for New Yorkers. Through our industrial IP, the Manufacturing and Industrial Innovation Council, or MaiiC, SBS is training New Yorkers to perform jobs producing, operating, maintaining and repairing these new automated technologies.

Last year SBS launched ApprenticeshipNYC, an employer partnership program model that will provide New Yorkers with career opportunities in sectors including tech, healthcare, life sciences, and industrial and manufacturing. There cohorts of ApprenticeshipNYC's first iteration have provided participants with the skills training necessary required to become computer numerically controlled machinists or CNC machinists.

CNC machinists operate advanced manufacturing technologies to produce parts for industrial companies ranging from furniture manufacturers to aerospace engineering firms. ApprenticeNYC provides participating New Yorkers with technical hands-on instruction, on the job training and employment with participating employer partners.

Furthermore, apprentices are paid during both the classroom learning and on the job training components of the program. ApprenticeNYC will soon be launching additional occupational apprenticeships in the transportation industry to connect New Yorkers with the new skills required to succeed as this industry advances.

As in the industrial sector, the landscape of brick and mortar businesses is continually evolving. SBS aims to help business owners adapt to changing market conditions. SBS recently expanded and updated our business education courses offered through our network of seven Business Solutions Centers. Many of these courses help small business owners learn how to utilize automation technology, such as accounting software, customer relations management or CRM

systems and email marketing to enable their businesses to operate more efficiently.

We are also providing business owners with opportunities to implement those automation solutions through our Love Your Local, Business Preparedness and Resiliency Program and Customize Training Grant programs. Through two rounds of the Love Your Local grant program, almost forty small businesses were awarded funding and consultations with business consultants to help them adapt to changing market conditions. This initiative will enable SBS to test and analyze creative business interventions, including automation technologies, with the aim of expanding effective solutions to other longstanding businesses across the five boroughs.

All of SBS's services help business owners start, operate, and grow more effectively; we look forward to continuing to help small business owners learn about and utilize these new technologies, so that they continue to thrive in our city.

Like many dramatic shifts in our economy, automation is projected to have the strongest impact on low and middle-income jobs. Using the knowledge gained through our industry Partnerships, SBS is

committed to working with employers, local organizations, and training providers to create workforce and training opportunities with a variety of entry points to ensure that New Yorkers with different levels of experience can advance in our economy. We look forward to continuing to work with Council to empower New Yorkers to be resilient to future economic trends, including automation.

Thank you and I would be happy to take your questions.

CHAIRPERSON MILLER: Thank you Commissioner. So, your testimony; you covered a lot of ground, I'm glad to see and that you kind of brought up some of the things that we had anticipated that we'd be hearing from Workforce Development but without them being here, I don't know how far we can actually dive into that.

But a lot of your testimony was specific to your area of expertise which is small businesses and how do we support small business with additional technologies and resources that are available. Is this an attempt to -- a system to not just maintain but to grow and to give to their workforce. Obviously, the larger concern is the workforce and

whether or not these small businesses are through these new practices and technology automation are reducing the number of the workforce or are they operating cohesively and more efficiently? Could you kind of express and give an example of what that would look like?

GREGG BISHOP: Yeah so, a couple things and I wanted to just remind the Council that even though our name is Small Business Services, our largest division at SBS is actually workforce. Which is why the Office of Workforce Development, we work closely with the Office of Workforce Development to focus on Adult Workforce and we also work closely through our Industry Partnerships not only with the Department of Education but also with the Department of Youth and Community Development and also with CUNY.

We are all partners in ensuring that our workforce is prepared for the changing skill sets that our industry requires. The Industry Partnership Initiative, even though it lives at SBS, all the information that's gathered by the Industry Partnerships is shared throughout our workforce system. And the Office of Workforce Development ensures that that happens. So, I just wanted to give

some color there, so you understand how Workforce is situated here in New York City.

You know, one of the things that we have heard from our small businesses, actually automation to your point, to the later point, actually will make them more efficient. Most of the small businesses in New York City have you know, five or less employees and as you know, from even walking with you in different corridors, you know, the principal who's running the business is also the accountant. Is also the janitor, is also - they're doing multiple jobs.

So, if we can actually connect them to technology, they can actually run their businesses more efficient and the goal there is actually to help them grow their business, so then they can add more employees.

What we are doing on the Workforce side, is ensuring that there is a connection between the industry and especially those industries that are being transformed by automation. There is a connection between the skill sets that they will need in the future.

So, when I mention the Industry Partnership and Industrial and Manufacturing, the Industrial sector

is changing because of technology. The Workforce is, we say it's silver tsunami, so the Workforce is aging out. And we want to make sure that the new Workforce understands that sector has the ability to create not only meaningful jobs but well-paying jobs.

So, some of the things that we understand is that the new generation, they're not looking at industrial and manufacturing as a career opportunity. So, how can we change the message around that. We're looking at how do we connect opportunities in low to moderate income areas. Opportunities from the industrial manufacture sector to individuals in low to moderate income areas.

So, there is a number of programs that I talked about that we're doing to ensure that we're taking and leveraging automation and turning it into an opportunity for a lot of our low to moderate income communities.

CHAIRPERSON MILLER: So, I know we've had this conversation over the past few years. Council Member Adams and I have had this conversation because we represent the area out by the JFK airport and Council Member Dromm by the LaGuardia. These areas that are known for their warehousing and logistical operations

1 out there and often times, communities have not been
2 able to take full advantage of those employment
3 opportunities. Often times I was told that as far as
4 logistics were concerned that local residents did not
5 necessarily have the skill set that were necessary.
6 That they were decent paying jobs, more than decent
7 paying jobs, but they were having difficulty bringing
8 people in because of transportation proximities but
9 yet they didn't have the skills from the local
10 residents to be able to do it.

12 So, one of the things I know that we have
13 discussed over the years is some specific training
14 for the communities that could take advantage of that
15 but now, are we seeing with the advent of new
16 technology. We know that there are a number of the
17 larger logistic warehousing folks that are using
18 robotics and things of that nature there. Have we
19 seen an impact? Did we kind of miss the mark on that
20 or is there still opportunity for us to get in and
21 really take advantage of those opportunities?

22 GREGG BISHOP: You know, we have not missed the
23 mark. I think what we have seen is a shift in terms
24 of the skill sets that individuals need. And to your
25 point, part of creating the Industrial Manufacturing

Council, that was to bring a lot of these companies to the table to understand their workforce projections. You know, not only a year from now, but three years from now and then working closely with those companies to create either apprenticeship programs or figure out what we need to do in our education system.

So, a good example and we use this as sort of the template. A good example is the tech sector. So, we brought together a lot of the major tech companies and also a lot of the — a couple presidents from our public universities and our private universities at the table.

And we questioned why those companies were not recruiting, why they weren't hiring individuals from those universities. Because as you know, New York City has a diverse workforce. Our CUNY system has a diversity of students and if our tech companies are looking to grow diversity, that is a natural fit.

But what we heard was there was a disconnect between the curriculum that the students had to go through at the CUNY schools and the experience that those students ultimately got in terms of internships etc. There was a disconnect based on the new changes

in how tech companies are designing. You know, they were looking for students that knew how to work in groups. They were looking for students who understood agile development etc., and our CUNY students did not have that.

So, that's why we launched CUNY 2X to help double the amount of computer science graduates coming out from schools, but then we are able to connect individuals from the industry directly to the schools.

So, we're looking to do the same with the Industrial Manufacturing sector. We're looking to deepen our tentacles in our local communities. So, we've expanded the amount of industrial and manufacturing specific workforce centers. And we have actually expanded the amount of partners that we work with to ensure that when we hear about an opportunity, we find individuals with the skill sets that's necessary.

So, the conversation is still, and the work is still ongoing. You know, the Council meets on a semiannual basis and we are using the data that we're getting from the industry to pivot either our outreach strategy or our training strategy.

2 CHAIRPERSON MILLER: So, yeah, I'm glad you kind
3 of pivoted and kind of brought it back home to talk
4 about those specific industries that were not
5 necessarily where we were recruiting from our local
6 universities but the lowest skill workers that were
7 currently in there that did not have the skill to
8 take advantage.

9 And we've been joined by Council Member Moya, who
10 is also represents the LaGuardia airport area. So,
11 we have the two airports here covered and pretty much
12 the logistics industry and we really would like to
13 see how we could take advantage of that. Whether or
14 not it is something that has passed us by or
15 something that there's real — remains an opportunity
16 for us for some training and technology that would
17 provide greater access for employment for our local
18 residents there.

19 GREGG BISHOP: So, I brought Miquela Craytor; who
20 is the Executive Director for the Industrial and
21 Manufacturing Industry Partnership. And she can talk
22 specifically about the logistics and some of the
23 things that we're seeing.

24 MIQUELA CRAYTOR: Sure, good morning. Some of
25 the things we're seeing as you are probably pointing

1 out and the purpose of this conversation is how
2 technology is being imbedded in different industries.
3 And so, a lot of companies are using other forms of
4 logistic software and often times what they call
5 Cabot's to manage the different inventory systems.
6 So, we are seeing more and more companies trying to
7 think how to improve efficiency when it comes to
8 logistics firms.
9

10 CHAIRPERSON MILLER: Yes, you do need to be sworn
11 in.

12 MIQUELA CRAYTOR: Oh, sorry about that.

13 COUNCIL CLERK: Please raise your right hand. Do
14 you affirm to tell the truth, the whole truth and
15 nothing but the truth in your testimony before this
16 committee and to respond honestly to Council Member
17 questions.

18 MIQUELA CRAYTOR: I do.

19 CHAIRPERSON MILLER: You may continue.

20 MIQUELA CRAYTOR: So, it's interesting, we see a
21 lot of these newer companies coming up with the
22 technology. The larger challenge is the existing
23 companies, more legacy firms that are probably within
24 your neighborhood. They are having clients or
25

customers wanting them to use more technology, but they're not necessarily best set up for it.

So, some of the larger work we've been doing with our manufacturers that we now look to do with our logistic firms is figuring out how to bridge that divide. But in the meantime, take advantage of understanding whether the skills and work skills that the new employment opportunities as we adopt new technologies. What does that mean for the workforce and then structuring simultaneously the training programs that would help sort of bring those new employment opportunities for new individuals.

What we notice again is there's a large aging out in population, so in the opportunity when those individuals leave is to have a new guard of different young individuals or just any individual who already knows that technology, so the learning curve, it's not as large and they've already sort of embedded with that skill set.

What we also know as a whole with industrial companies is while they are still entry level jobs, the bar has risen as technology is just more and more embedded into the norms of companies across the industrial sector.

1 So, while in the past, if you worked in your
2 parents car or in the garage or you went to a
3 vocational school, there are less opportunities like
4 that today which is why apprenticeships and what
5 we've been doing at SBS is so important because we
6 have to bridge that gap. At the same time, companies
7 are small, so they don't always have the resources
8 and the structure in place to train with very
9 specific ways for the technology and that's where
10 again, apprenticeship and creating a public/private
11 partnership is mission critical.

12 CHAIRPERSON MILLER: So, our residents should be
13 able to walk into a workforce development center
14 somewhere in Queens and be able to access these
15 resources, have an opportunity for these
16 apprenticeships currently?

17 MIQUELA CRAYTOR: Yeah, so definitely currently
18 they could, we just had about eight different
19 information sessions for our CNC apprenticeship
20 program. We screened over 400 people for 19
21 positions. Most of those individuals have minimal
22 experience working in a manufacturing environment.

23 So, the apprenticeship program is structured so
24 that they get up front training, hands on training
25

and then a year and a half worth of on the job training.

We work with employers to codify what it is they will be teaching the person as they get the skills to be what is an entry level CNC machinist. We'll be doing the same thing for the transportation industry for what is called diesel technicians, individuals who fix diesel engines.

But what's important and sort of the larger thing is like, we have to do that and pace it with where the industry is going. As policies made thinking about clean technology and affecting the transportation industry, we don't want to train people for jobs that are not going to be around. So, we have to be very active in our curriculum modified on a regular basis, so that that skill sets that these apprentices are gaining help open the broader spectrum of opportunity.

CHAIRPERSON MILLER: I'm going to pass it on to my colleagues here but again, I just want to make sure that we're taking -- because I know that this was, this was a conversation that industry folks came to us with, even before the technological changes. Just the fact that they could not attract and retain

a workforce. Airports are often difficult to get to and if your not a local resident, it's very hard to track talent from the outside and whether or not that skill set happened.

Have we identified very specifically not just broadly an industry, but an industry plays that are willing to be partners in this and what roles very specifically are we playing in assisting them and not just providing the workforce but the resources.

I know in the past there was some — we had conversations about creating workforce development around logistics within this case, the York College and some other folks that could provide the training, but obviously whether it's Queens Borough or anybody else. I think there was a really missed opportunity for us and we're talking broadly about technology and various industries. I want to make sure that we're taking advantage of this and if so, or if not, what could we specifically the members do to continue to assist in making that happen.

GREGG BISHOP: So, a couple things and I think your are hitting on some great points. Number one, with our outreach, we want to make sure that we get into all the communities. So, thank you in advance

1 for helping us. Whenever we have any of the
2 training, we do send out information to all the
3 Council Members. But we also send it through a
4 network of area partners. So, as individual partners
5 that are embedded in the community, they know that
6 this training is about to – we're about to do the
7 recruiting and we've actually had some really great
8 response.
9

10 I think what we are seeing in general and I'll as
11 Miquela to go into more details, is that there is a
12 misunderstanding of what the sector is.

13 And one of the things that we hear and we're
14 hearing the same thing from the companies that we're
15 talking to; the difficulty of recruiting is based on
16 the fact that individuals still think in specifically
17 industrial manufacturing is still sort of like the
18 old type of industrial manufacturing. It's
19 dangerous, I mean, but you know, it's not like you
20 are going to lose a limb. Well, you could probably
21 still lose a limb, but it's not the sort of the old
22 school industrial manufacturing. Industrial
23 manufacturing has changed to more modern
24 manufacturing and one of the things that we heard was
25 an ask from the industry to help them rebrand.

Really, to help them communicate what it is that's different and how it's different and now it's mainly you know, heavy on math and science in terms of individuals just programing and babysitting machines who are now doing most of the work that was done by hand.

So, how you can help us, is you know, if there are companies that are coming to you saying that they cannot find — and we get this all the time. There's you know, tech companies that come to us and say they are looking for a particular skill. If there are companies coming to saying they cannot find individuals with a particular skill set, refer them to us. Because we will get a better understanding of the skills that they need and, in some cases, our apprenticeship program just to give you an example, came about because we had companies in the air space industry that literally was turning down contracts from Boeing, from the Military because they didn't have a workforce.

And these companies were literally two or three blocks from public housing, and we have public housing young people who just did not have jobs and were idle. So, there was a desire to make that

connection and figure out how we can actually bring someone from public housing, get them to have the skills that the company would need and that's how we came up with our apprenticeship program for CNC machinists.

So, we heard from the industry, so if you tell us who they are, we are more than happy to work with them.

CHAIRPERSON MILLER: Council Member Adams.

COUNCIL MEMBER ADAMS: Thank you Chair Miller. Good morning and thank you panel for being here today. We've touched on a lot so far. I'm not really going to expand on a whole lot more, because a lot of my questions have already been answered, so thank you.

GREGG BISHOP: Thank you.

COUNCIL MEMBER ADAMS: You touched on industries that are vulnerable. I think transportation was probably mentioned a couple of times, so my question is, can you name some others that would be the most vulnerable to automation and artificial intelligence and why that would be?

GREGG BISHOP: So, I think we, you know, in my testimony I talked about you know a couple of the

1 industries that could be vulnerable. I mean, we
2 talked a lot about industrial manufacturing. We do
3 see you know our food and beverage industry, but I
4 don't necessarily think it's going to be AI. I think
5 it's going to be just more trying to reduce labor
6 costs.
7

8 So, for example and these are mainly like fast
9 casual restaurants where you'll see if you've been
10 well, hopefully you are not eating at any of these
11 fast food places but if you've been there, you've
12 seen the kiosks now popping up instead of cashiers.
13 And you know, our focus there is really if you have
14 individuals, you know, the machines need to be
15 programed. You know, certainly we do not want to get
16 into error where the machines are programming each
17 other, because that is going to be bad for all of us
18 but that is where technology comes in where the need
19 for those restaurants will change.

20 Instead of someone with cashier skills, there
21 going to need someone with IT skills. So, that's why
22 it's important for us to focus on the workforce of
23 tomorrow. So, initiatives like computer science for
24 all, where we are talking about technology at a very
25 young age and we're trying to direct and make sure

that the entire workforce that's coming of next generation has some type of literacy in understanding technology is a good strategy because those are some of the areas that we think the skill sets will change but the demand for employment will be consistent.

COUNCIL MEMBER ADAMS: Thank you, I completely agree and appreciated your testimony specifically as it related to the partnerships. I think that it's really important that we continue to partner business and education specifically, college prep, STEM, all of that. We need to talk more, and we need to integrate more programs like this into the education system so that our youth are prepared and it's really good to know that you know, something like this can be you know programmed now by a ten-year-old.

GREGG BISHOP: Absolutely.

COUNCIL MEMBER ADAMS: So, you know, I think we're on the right track. I just think that we need to continue to do more of what we're doing in the right way, so thank you very much.

GREGG BISHOP: Thank you and I just want to say that it's not you know; we want to partner with not only academic institutions but also the Department of Education. Because we know that not everyone

continues on to college, but we want to make sure that if college is not the next step for our high school students, that they have a skill that's in demand. You know, that is personal for me because I, you know, as a college dropout and I taught myself how to code. I wish all these resources was available when I was a 17-year-old.

But our goal is really, how do you touch that 17-year-old that may not even know about our services and how do we do that in an equitable manner to make sure that they have the opportunity to take advantage of these resources.

That's why Partnerships is important and thank you very much for helping us with that.

COUNCIL MEMBER ADAMS: Thank you so much. We're going to see if we can pull you in more to some of our programming when it comes to churches and other places in the community to pull you into.

GREGG BISHOP: Absolutely, those are our best resources by the way.

COUNCIL MEMBER ADAMS: Yeah, yeah, yeah.

GREGG BISHOP: Our churches, our mosques, our synagogues, because that's where you have the grandmother or the aunt or the grandfather or the

uncle that's going to know that young person that needs to hear about this program. So, definitely.

COUNCIL MEMBER ADAMS: Thank you so much.

CHAIRPERSON MILLER: Thank you Council Member Adams. Appropriate that along the lines that we were attempting to identify what the potential workforce really is. One of the questions that we – certainly it is super important that we educate our next generation workforce in an appropriate way, 22nd Century jobs and that we're not doing things that we were doing fifty years ago in terms of manufacturing, in terms of industry. Recognizing what industries really are.

But there is a group of folk that of low skilled workers that were traditional low wage workers, that addressed the Council and the Admen and whether it was \$15 an hour and pay sick and the things that really improved their quality of life. But when we talked to small businesses, they say that it was not necessarily the burden that they were prepared to take on.

And so, what we see in those is exactly what you said, we see in fast food industry. We see kiosks and in car washes, we see animation and other

1 industries that we can kind of go on an on. Then
2 they become a target audience as well and what are we
3 prepared to do in terms of giving them the skills
4 that they move on. Because there are certain
5 industries that are going to transition or not going
6 to survive as they are currently constituted, and
7 that workforce is no longer necessary.

9 What is the overall greater plan to not just to
10 educate those but to reeducate to be able to
11 transition those who are moving out of one industry
12 or into the next?

13 GREGG BISHOP: So, I think you know, you are
14 absolutely correct, and we need to focus on ensuring
15 that we connect that workforce to our training
16 programs. Most of our training programs that I
17 covered in all those sectors have the assumption that
18 you are not in that sector. So, you need to actually
19 learn a little bit more.

20 So, for example, you know, industrial
21 manufacturing, there is like a math and science
22 component but other than that, we assume you've never
23 you know, programmed a CNC machine.

24 In many of our tech programs, there is some sort
25 of accountability to make sure that you understand

2 what the job entails but in everything else, it
3 starts from the ground up in terms of teaching you
4 that skill.

5 So, for us, it's more of can we find those
6 workers who have the low skill and connect them to
7 our training.

8 We've made a huge investment in terms of dollars
9 to expand the amount of training programs that we
10 have. It's part of the Mayor's Create Pathways
11 Report, which was at the bane of this administration.
12 There was a commitment to increase the number of
13 training.

14 So, our strategy has always been and continued to
15 be that training is the tool that we will use to
16 allow individuals in low skill jobs to get the skills
17 that they need and level up in terms of the wages
18 earned. And we've seen wages increase, obviously, we
19 could do a lot more and we continue to figure out as
20 Miquela mentioned, as the industry is changing, we
21 want to make sure that we are not training people in
22 sectors or in skills that automation will ultimately
23 replace.

24 CHAIRPERSON MILLER: And as you said, have we
25 kind of identified folks within the industry, these

1 industries that maybe being displaced, specifically
2 the ones that we just talked about or some of the
3 ones that are upcoming and if so, what does that look
4 like currently? How are we working with these folks
5 to upgrade their skills?
6

7 GREGG BISHOP: In specifically like how does the
8 training work?

9 CHAIRPERSON MILLER: So, there are obviously a
10 number of things that could happen in terms of
11 universal benefits that would ensure that workers
12 that are displaced receive a pleather of benefits and
13 resources outside of just training. Have we
14 identified them and if so, what is kind of some those
15 supportive service look like?

16 GREGG BISHOP: So, I think, if I understand the
17 question correctly. So, outside of training, some of
18 the things that we do see is sort of like the bridge
19 programs. Literally, how do you, if someone, and
20 that's why we design our training programs with the
21 apprenticeship model, because it's not just you come,
22 you get trained and then you find a job. Our
23 apprenticeship program is the employers that are
24 participating upon acceptance, they're actually an
25 employee of that particular firm. And part of that

1 reason is because we want to make sure that as
2 individuals are being trained, they have an income
3 because that's very important for the low skill and
4 probably low-income individuals who may have issues
5 with for example, just transportation, getting to and
6 from the training. They may have issues with
7 childcare and again, the time to commit to actually
8 do the training.
9

10 So, bridge programs are essential and you know,
11 we have as part of our model have built in surgically
12 in some of these programs, we have for example,
13 social workers who are working with the individuals
14 to make sure that if there are any other outside
15 challenges that will prevent them from being
16 successful, that they have the support that they
17 need.

18 Hopefully, that's the question that you were
19 asking.

20 CHAIRPERSON MILLER: Yeah, that is precisely what
21 we were asking.

22 GREGG BISHOP: Okay.

23 CHAIRPERSON MILLER: You know that sometimes
24 things aren't that black and white, and they look
25 just a little more complicated and that these folks

are sometimes they find themselves in the low wage industries for a particular reason that they did not have the supportive services that were necessary for their upward mobility.

GREGG BISHOP: Right, and obviously we could do a lot more in that particular area and I know there are advocates who have pushed for increased funding in that area and that is something that I understand because it's important for individuals.

You know, what we have found is that as long as you provide the resources to teach, they will learn. It's really the other things life, that prevents them from being successful.

So, we need to do everything possible to address when life issues happen.

CHAIRPERSON MILLER: Okay, DCAS, do you believe that automation and other technologies are having a significant impact on the city's municipal work force and what have we seen?

MIGUELA CRAYTOR: Sure, good morning Chair Miller and Council Members, Committee Members, sorry. Sure, we have seen that of course automation and technology will have an impact on the workforce however, we believe that this impact is purely positive and it is

not detrimental to the workforce to have automated processes and to bring in technology, so that we can deliver services more efficiently, deliver more of our services so that we can better provide the different services that we provide to the city and the people of the city.

CHAIRPERSON MILLER: You know, obviously my background is in transportation, obviously also as well as the municipal workforce, but I know that we've seen certain technologies that allow for a better flow of traffic, more buses and trains along signaling and other technologies. Are there other industries that we've seen administratively or otherwise that allow for us to provide a more efficient service and are we training this and the next generation? In particular, our Civil Service to be a part of this technology as well and not necessarily wake up one day and not be prepared in our kind of insourcing or outsourcing or because of the need to do things more efficiently?

MIGUELA CRAYTOR: Right, so the city's workforce is very large, but I believe that our workforce is very nimble, and our workforce is able to adapt to

technological advances as they come along and as they roll out.

So, of course, in order to enable that happening, we have to make sure that we pair any sort of technology influx, we pair that through our partnership with our training partners. Make sure that employees are given the latest courses in order to learn how to use that technology and also to partner with labor. So, that labor can also pull their resources in order to train their members.

CHAIRPERSON MILLER: Are you seeing within our civil service workforce, any additional opportunities of virtue of new technologies that is coming to being now that additional training? Is there any conversation, negotiations going on with bargaining units that say that hey, if we can provide this next level skill set, that there is additional compensation conversely, you're kind of out of a job if it doesn't happen.

So, it's been my experience that we've kind of had some of those conversations that I know when the Deputy Commissioner and I was in our seats, we work well in doing that. Identifying jobs in the future

and making sure that the current workforce had an opportunity to be trained for those position.

Are we being proactive in that way and if so, could you identify some of the ways that we are being proactive?

MIGUELA CRAYTOR: Sure, so it's actually one of the missions of DCAS to provide the workforce of tomorrow to city agencies. So, what you are saying definitely goes along hand and hand with our mission and our objectives for providing this workforce. We've seen through our citywide learning and development our training center. We've seen an uptick in the sorts of courses that folks are taking in order to enhance their skills.

So, we're seeing more data analytics, we're seeing people taking Excel, we're seeing people are also taking our IT certification courses through our vendors. But conversely, we're also seeing that people are building up their soft skills.

So, they're building up their customer service skills, they are taking project management. They are learning about supervisory skills. So, you know, hand and hand, the workforce yes, is we definitely see a trend towards learning these new technological

advanced skills but also, with a focus on that human service, which is such a wonderful thing that the workforce of the city does provide to the people of the city. You know, our focus is customer service when we are delivering these services. So, we definitely see that those two things are happening hand and hand.

CHAIRPERSON MILLER: Well, we're not seeing — because clearly there are industries that are going to be 100 automated. Alright, I don't know whether within the municipal workforce that we've seen that or identified that, and I don't believe that because most of the time, the municipal services that get delivered are kind of human customer services and that's not necessarily replaceable. Although, when we get the crunch, budget crunch, they're like why do we need somebody greeting or selling tokens or doing these things or that when we can kind of kiosk it or do it in a different way when we know overall, that it has a much greater value than that.

But at the same time, there are often many new positions that have been created over the years. Alright, and if I look at the city's workforce and some of the positions that are antiquated that we

kind of go back and forth about whether or not they should be kind of banded into something else, whether they should be dismantled.

But at the same time, within the same agencies often, there are new positions that are created. Are we looking at those positions that may be considered antiquated and looking at the workforce and saying hey, if you upgrade your skills, there's a position for you and we just kind of do attrition and we're like ah, we're going to ride this out, be less efficient and find somewhere, the workforce that we need somewhere else.

Is that the most efficient way to do it or are we working collaboratively with labor, with organized labor to say, hey, that you know, we could be better here.

There's a reason why 65 million folks come to New York to visit. There's a reason why multinational corporations want to set up business here. It is because of the critical services that our municipal workforce and others provide. How do we maintain that but also grow it that we're being more efficient at the same time and protecting the integrity of those jobs.

I think that requires real conversation that often you know, we want to pound our fist that we don't do that. But at the same time, there's a stark reality that we must face in terms of IT technology and automation.

Are we having that conversation? What are we doing to have the conversation? Are there specific areas that we're looking toward?

MIQUELA CRAYTOR: Yeah, so on a regular basis DCAS works with our city agency partners and with our labor partners to discuss just that. To discuss what's happening with the workforce. To discuss specific job titles, where we're introducing technology or where we think we can do things more efficiently and how we can evolve that job with the workforce that's currently doing that job and take them along with us.

So, that is something that we do on a regular basis. You know, I'm very happy to say that we have robust partnerships with Labor and with our city agencies and that helps to speak to what offerings we provide at our training center, but also what offerings our labor partners provide on their end.

So, I will speak to that yes, we are seeing that technology is sort of shifting some of the work and how we are moving towards more customer service and more in person providing you know, quicker responses, that sort of thing.

But we are not seeing that work, maybe some tasks are becoming antiquated but we're not seeing jobs or in workforce areas where people are being replaced or are seen as antiquated. And the reason why I know this is because we're not seeing that we are deleting city titles. We have well over 2,000 titles that perform work for the city and we're not seeing that the workforce is shrinking or that we are doing away with some of these titles. It's just simply not happening, but what we are seeing, is that as the job evolves and as some tasks sort of move away towards automation, we do see that the jobs become different and that the employees use their current skill set in order to bolster these new skills, so they are able to be nimble and to move forward.

CHAIRPERSON MILLER: So, you know, I agree with most of what you said but I know that there is another reality and that reality is that often you know, I've seen titles trick down to five people,

three people and that would not be consistent with what you are saying. Instead of really bolstering from within and training from within and make sure that there's nothing wrong with you know, a title is merely a name if you want to get rid of it and call it something else, as long as the same people, the same bargaining unit continues to do the work and are compensated accordingly, then that's not a problem.

But you know, I don't think that because a title continues to exist, it does not remain relevant or does not mean that the city roles have not been diminished because it could have been 250 people in the title that is now six, but it still exists. And I know we're kind of going back and forth whether or not that makes sense or not.

So, you know, that is a different reality as well as what we've seen is a lot of outsourcing of things of technology in particular that has been done historically by bargaining units such as 375 and others. And I know that there was some insourcing agreements. How tangible and how successful have they been and what do you have for the future in terms of being able to expand those?

MIGUELA CRAYTOR: So, that's actually leading into a perfect example of our Labor, city agency and DCAS partnerships. So, you're correct, the city was utilizing some of these contracts in order to work on certain technology projects.

And then in a parallel track, what we've done together is, really looked at the workforce, see who do we need? Who do we need on a regular basis and what skill set do they need to bring to the table or how can we train up our current employees, so that they can fulfill these roles. And what we've done is we've sort of altered the way that the title structure looks for the IT titles, meaning we've gone to the State Civil Service Commission, we've said hey, we need some more titles that have specified skills and each agency needs x-number of them and we've been very successful in that regard.

So, we are seeing that the city is sort of shifting and maneuvering around these different technological skills, but on the other hand you know, we continuously host citywide hiring pools for technology-based titles. We actually have one coming up I believe in January for a computer manager. A Title Computer Systems Manager.

1 So, we do see that agencies are through Civil
2 Service still continually hiring these employees and
3 these are employees that currently work for them and
4 they're promoting them up through the ranks or they
5 are you know, reaching out and hiring new talent.
6 So, we're seeing both.

7 CHAIRPERSON MILLER: And how do we currently
8 train the workforce for emerging technology. We
9 talked about transportation and so forth and are we
10 actually training forward our workforce or are we
11 just taking longer warranties on equipment? And so
12 that our current workforce has the ability to
13 maintain the equipment that they had been
14 historically maintaining but now they are a little
15 more technologically advanced. And so, how does that
16 happen?

17 As well as have we -- we talked about logistics,
18 warehousing and so forth on the private sector side.
19 Obviously, you know, from a DCAS perspective, we have
20 tons of this that happens throughout the city. Is
21 there any technological advances automation that is
22 happening and industrywide for the city? And DCAS's
23 warehouses and agencies warehouses, are we utilizing
24 some of the technology and automation that we're
25

seeing on the private sector side? If so, are we training the current workforce to make sure that they have an opportunity for some upward mobility there as well?

MIGUELA CRAYTOR: So, and I'm not really one to speak about what they are doing in the warehouses specifically but I am aware of new technological systems that we have developed in house with our technology employees, in order to either better track supplies, keep tabs on who is requesting, look at trends over several years, so that we know what we need, what we don't need. How many employees we need during emergencies. How many employees we need during bad weather.

So, we are utilizing that sort of technology in order to assist those employees that are still continually doing that work. Again, there's that people factor, that hasn't changed. And as you're aware, the size of the city's workforce has remained stable over the past at least five years. If anything, we've seen a slight uptick in the number of employees that we are hiring and I think that speaks to the agencies and the city's commitment overall to our employees and to retention and you know, how

important that knowledge base is to providing services for the city.

CHAIRPERSON MILLER: Okay, thank you so much for your testimony. Thank you, Commissioner. I look forward to working with you on some of these issues in the very near future.

Obviously, I think that we have identified some sore spots that we can work together on as well that this is you know, I'm still a little disturbed that some of your colleagues weren't here because some of this stuff with technology enforcement of some of the labor regulations that we have recently put into play changes a little, things happen and we want to make sure that we have our finger on the post of all that stuff as well. That we're working collaboratively to ensure that some of the things that we worked on over the past five, six years to improve the quality of life of our workforce continues to happen and that it is not circumvented by technology.

And we've already seen some of the unintended consequences of trying to do the right thing and the industries are backing up and saying, hey, I can't afford it. I'm going to go with the kiosk, I'm going to go with the automation and so, we have to continue

to talk about that, so that we stay ahead of the curve in doing so.

In particular with the municipal workforce is well, I'm excited about opportunity. I'm excited about the opportunity for workers to work smarter and not harder. Right, and this technology will do so, it should be able to keep them safe. Keep them healthy and be able to access and take advantage of all of the negotiations that have taken place over the years, so that people walk away, and they walk away healthy.

Some of these jobs that we're talking about, some of the people that are working in storerooms and providing equipment and tools and the rest of that stuff is still very labor intensive. If there is a way to help those folks out, we want to make sure that we're doing that. Alright, but at the same time, that we're training them up. That they stay there and that they get to take advantage. And after they have worked all the years and really put in the grunt work and now that they get an opportunity to work smarter you know; they're going to be transitioned out.

So, I'd love to be able to continue this conversation. I look forward to next weeks conference. I am very excited about that and we can continue some of these conversations. I want to thank you both for joining us today.

GREGG BISHOP: Thanks for having us.

MIGUELA CRAYTOR: Thank you.

CHAIRPERSON MILLER: The next panel, Stephen Nunez, Zachary Parolin and Eli Dvorkin.

Okay, I'm excited to hear from you all. So, when you get a chance, please start either way. Just identify yourself, push the red button and we look forward to hearing from you.

ELI DVORKIN: Thank you so much Chair Miller. My name is Eli Dvorkin; I am the Editorial and Policy Director of the Center for an Urban Future. Thank you to the Committee for the opportunity to testify today.

CUF is a nonprofit, nonpartisan think tank focused on expanding economic opportunity, reducing inequality, and building stronger pathways to the middle class. And there is perhaps no issue more central to that mission in the years ahead or in need

of greater attention than the impact of a more automated economy on New York City's workforce.

Over the past two years, my colleagues and I at the Center have produced the first research to analyze the potential effects of automation here in New York City.

The good news is that the city is less vulnerable than much of the country. While about half of all job tasks nationwide could be automated, a research finds the same is true for just 39 percent of job tasks performed in New York.

This resiliency is due to a large number of jobs that require one of three human centric qualities: a high level of interpersonal skills, a high level of creativity, and/or a high level of judgment. This includes the city's 147,000 home health aides whose jobs are just 11 percent automatable; the 59,000 designers in marketers in the city's fast-growing advertising industry, whose jobs are just 13 percent automatable; and the 69,000 accountants and auditors whose jobs are just 12 percent automatable.

But more than 456,000 jobs in the five boroughs are highly vulnerable to automation, and the pace of change will be particularly swift and destabilizing

for many of the city's lower- and middle-income workers, including tens of thousands of bookkeepers, stock clerks, fast food workers and cashiers.

More than half of all of New York's most automatable occupations pay less than \$40,000 per year and most of those jobs are currently accessible to workers without a postsecondary degree. Left unchecked, these trends could further widen New York's opportunity divide.

But New York City can get ahead of these powerful economic forces by launching the nation's first Automation Preparation Plan.

This plan will require an unprecedented new commitment to helping those most at risk in an automating economy. New Yorkers already in the workforce. The City Council can start by helping to expand the city's upskilling infrastructure.

This begins with new investments in city-funded training options for incumbent workers. Although New York benefits from an array of good workforce training programs focused on preparing New Yorkers for jobs, there are few resources and relatively few options designed to help current workers navigate a changing occupation and industry.

It should also include a major new investment to scale up the city's most effective tech training programs. New York is home to several organizations that have proven highly effective at moving New Yorkers with limited experience into tech-sector roles. But these in-depth, career-oriented programs generally serve from a few dozen to at most a few hundred people per year. To better prepare for an automated economy, these programs will need new resources to grow.

The city and the Council should also launch new efforts to make college credentials accessible and more affordable for working New Yorkers. This should include support CUNY's efforts to help more of the 830,000 New Yorkers with some college but no degree to return and graduate. Including by expanding support for the non-tuition costs, like housing and transportation and childcare that prevent too many New Yorkers from graduating in the first place.

The city could also follow California's lead and create an all online community college, in partnership with CUNY. California's newest community college, Calbright is designed from inception to help working adults buttress their skills by earning

short-term credential and badges aligned with specific industry needs.

The second big step should be to create lifelong learning accounts for New York City. Affording to earn a new credential or learn a new skill when you need it most, like right after losing employment is a major barrier to upskilling. Establishing city-sponsored lifetime training accounts could help make those transitions easier by encouraging workers to save for future training.

Modeled on several successful pilot programs that have operated across the country since 2001, these portable accounts could be employer matched, like retirement plans; allow workers to save pre-tax dollars; and travel with workers, including workers in the gig economy from job to job. For low income workers who lose a job due to automation, these accounts could also be seeded with public dollars in the form of a flexible skills-building grant.

We commend the City Council for taking seriously this growing challenge, and we urge New York City to lead the nation in preparing working people for a more automated economy. Thank you.

STEPHEN NUNEZ: Hi, good morning. My name is Stephen Nunez and I am the Project Lead for the Guaranteed Income Initiative at the Jain Family Institute.

We're an applied research organization here in the city. Thank you for having me.

So, JFI's largest research initiative is in guaranteed income policies. This is a class of programs that provide unconditional cash assistance to combat poverty, and to promote individual wellbeing. This includes universal basic income, but it's not limited to that.

JFI is undertaking research on one of the largest guaranteed income policies in the world at the moment in Marica Brazil and we also have a robust background in guaranteed income research and pilots across the county including in Stockton California, Chicago Illinois and Newark New Jersey.

So, there is a view that's prevalent among proponents of universal basic income that technological change in the form of automation and artificial intelligence represents a distinct threat to the wellbeing of working- and middle-class

households and that we are close to undergoing something like and automation apocalypse.

Now, JFI does not subscribe to this dire forecast and it doesn't seem from your hearing testimony that anybody else here does either, which is good.

It's really not supported well by the data. We instead view automation and artificial intelligence as the latest incarnation of ever-present technological change. And like technological change from the past, there is reason to believe that artificial intelligence and automation are going to be disruptive to some sectors of the economy and to particular jobs and job categories.

But it's important to note that we don't attach special significance to these effects because there are in fact many sources of disruption, wage stagnation and job displacement in the U.S. economy today. And this includes the effects of trade, globalization, deregulation, the weakening of labor laws around the country and the conditioning of the social safety net on work.

And indeed, many of these forces are in our minds more impactful than technological change when it comes to job losses, wages and poverty.

Now, some of these economic transformation are outside of our control, but many are the direct result of choices that law makers have made at the federal, state, and local level over this last several decades.

So, while it's important and prudent to understand the effects of automation and what the effects have been in the past and will be in the future, it's crucial that this attention to automation doesn't distract from other potentially more consequential causes of precarity and poverty, nor from the actions that law makers can take to address that precarity and poverty in the present.

New York City differs from many other municipalities in that it already has a very strong minimum wage law and that it in fact has an EITC component to add to federal and state EITC. We'd love to see that improved.

As the administration testified earlier, there is a lot of promise to be seen in apprenticeship programs in sectoral employment programs that couple job training with local labor market analysis and job placement through partnership with employers and

programs like Gear Up, which provide stipends and training to young workers.

But at the same time, there is reason to believe that these sorts of programs cannot be scaled greatly without beginning to displace other workers and this is why JFI supports very strongly efforts to increase cash assistance through the safety net at the federal, state and local level. Thank you.

Good morning Chair Miller. Thank you for the invitation to share research findings today related to automation and the Labor market change.

ZACHARY PAROLIN: My name is Zach Parolin; I am a Researcher at the Center on Poverty and Social Policy at Columbia University and over the last couple years I have published on topics related to automation, labor market change, and in particular, the role of organized labor in shaping the social consequences of technological change.

So, I would just like to emphasize a couple broad takeaways from recent research on this subject. And I want to start with some of the employment effects of technological change. As others have said this morning already, despite headline grabbing reports that suggest that large shares of jobs are at risk of

being automated in the future, there is not much reliable research that suggests that we are on the verge of any sort of mass technological unemployment.

Technological innovation tends to create as many jobs as it destroys. The challenge though, is that the jobs that are destroyed, that are created, sorry. Tend to require different skills than the jobs that are lost. Specifically, the well-paying jobs create as a result of technological change are more likely to require a college degree or equivalent training.

So, even if we are not on the verge of high or rising levels of automation induced unemployment, the consequences of this labor market change are as you know very real for the affected workers. The salesclerks and the machine operators who are laid off when their jobs are made redundant face real pain and real challenges. And this is where the services and the support that the city provide are particularly important.

Specifically, the evidence points to four core components in ensuring a smoother transition from the labor market of today to the one that awaits in the years ahead.

The first is, greater worker power. The research for myself and others have demonstrated that unionized workers in these routine occupations is occupations at more risk of automation, tend to experience more favorable earnings growth, a lower likelihood of working poverty and longer employment tenures relative to non-unionized workers in similar occupations. Worker power does not have to come through union membership. That's one avenue, but the labor market regulations that the city implements and enforces can likewise ensure that workers maintain some power and some voice in the face of technological change.

Second, is income support programs. Adequate income support for displaced workers is fundamental towards ensuring their wellbeing and ensuring a smoother transition to their next employment opportunity and cash assistance in particular.

Third, job training, access to education, and workforce development programs such as we talked about already, are of course important components in preparing workers for a change in labor markets. But I would like to emphasize that retraining alone is not an adequate solution to labor market change. It

must go hand and hand with these income support programs to ensure the basic livelihood of displaced workers while they prepare for their next jobs.

And finally, regulations to ensure that lower pay, service sector jobs are still decent jobs. Many of the workers who are displaced from these routine occupations, who might otherwise pursue a routine job, will end up in these service sector occupations instead. Service sector jobs tend to pay less than these industrial jobs that are being displaced. So, the challenge in mitigating the effects of technological change then is to ensure that service sector work is still decent work. The city's recent minimum wage increase is one important step in that direction as are policies that focus on scheduling regulation and employment standards for workers in precarious, platform-based jobs.

So, to summarize, automation and technological change have a real effect on the labor market, but the effect is not mass unemployment. Instead, it's primarily the changing composition of jobs in the labor market and the skills necessary to obtain those jobs.

1 So, it's my opinion, that if the city is to
2 adequately serve it's residents in the context of a
3 change in the labor market, it should focus on those
4 four components I mentioned. Enhancing worker power,
5 providing adequate income support for jobless adults,
6 ensuring access to education and job training and
7 ensuring that lower pay service sector jobs are still
8 decent jobs. Thank you.

10 CHAIRPERSON MILLER: Thank you gentleman, I do
11 have a couple of very brief questions and Mr.
12 Parolin, while you are there and you talked about
13 worker power and it's something that I've experienced
14 myself as a past, present and business agent
15 representing workers and kind of knowing that you are
16 responsible for being able to not necessarily predict
17 but to foresee these changing trends in technology
18 and other trends that may happen and to be able to
19 negotiate on behalf of the workforce that they will
20 continue to live with those services and that they
21 will be trained with the skills that are necessary as
22 well and that obviously has everything to do with
23 collective bargaining and having that voice. While
24 we would love to see it happen throughout the city,

whether it's public, private, union, or nonunion, often times it's not going to happen and often times.

Also, outside of the purview of this body here to make it happen but we would love to lead by example in saying that this is how we treat workers here but often I believe it is incumbent on those representing those workers. That they have the vision and foresight to work with the other side of the table to make sure that the jobs are being preserved. But that the services are being provided by that workforce that they are developing the skills.

And often times they come virtue of clip, the bargaining and whether or not terms and conditions of work are being altered and that they are in control of that, so that is super important in doing so.

Conversely, often times in the industries that we're seeing that are being impacted are not those that are represented and it was mentioned I think by all three that this is something that has to be addressed holistically and that one of the things that was mentioned was the support programs and the income support and the other kind of wrap around services that go along with that.

Are there any specific examples that we can speak to nationally or internationally that we may find ourselves taking advantage of here in the near future of New York?

ZACHARY PAROLIN: Yes sir, honestly, I think the largest challenge is that there is not enough good examples. So, if you think the worker who is displaced from his or her occupation today, if they qualify for unemployment insurance, great. That's one important step, but many do not and what's left for the workers who become jobless who do not qualify for UI or if their unemployment insurance runs out.

In most places it's food stamp benefits, benefits from the SNAP program and depending on the size of your family or if you have kids or not, those food stamps might not go very far. In fact, if you don't have kids at all and you are an able-bodied adult, it's usually three months out of three years that you are eligible to receive these benefits.

Of course, food stamps don't buy diapers. They don't buy the metro card. It's pretty restricted to food. TANF Temporary Assistance for Needy Families is the other program that's currently on the books. Particularly targeted that low income families with

children, but we've seen New York and throughout the country over the last decade or two that cash benefits from TANF have dwindled dramatically.

So, unfortunately, there just aren't many strong income support programs in place at the moment, especially for workers who for one reason or another do not qualify for unemployment insurance.

CHAIRPERSON MILLER: And Mr. Nunez, in your mind, what would a program such as that look like?

STEPHEN NUNEZ: Well, if we're taking baby steps, there's a lot of work right now in terms of building support that's provided through the EITC making it stronger. Making sure that households that do not have dependent children also receive a fair amount of aid.

There is also research going on about whether or not EITC could be turned into a program that is disbursed more regularly, perhaps on a monthly basis rather than at the end of the year in a lump sum. So that people can use it regularly. But in the end, that's still cash that's gaited behind employment, which means that folks who cannot work, folks who are working but are in the sort of the grey economy are not receiving it and it also means that when a

recession comes around, when that sort of aid is most necessary for people, it's not available because they cannot get a job.

So, we'd love to see something more like a negative income tax where work is not necessary before you start to receive some aid. A good example of a program that sort of exploring that space is U.S. Congresswoman Rashida Tlaib has the Boost Act, which is a way of transforming the EITC into a program that gets aid into people's hands.

Although it is not ideal because it doesn't provide for families without children. There are a lot of people also working on a Universal Child Allowance, under the idea that gaiting aid for children behind work is not only unconscionable but actually counterproductive because we know ever well the effects of poverty on children. And we know that allowing children to grow up in poverty leads to larger problems down the line in terms of education, in terms of poverty, in terms of the Criminal Justice System.

So, many people also see that as an investment to get aid into the hands of those families.

CHAIRPERSON MILLER: And then finally, Eli for you, what industries have you seen to be the most or least vulnerable in terms of automation?

ELI DVORKIN: Thank you Chair, yes. We've seen a few industries at the very top end. In particular when we look at both what's most vulnerable but also where most New Yorkers work.

So, in terms of the specific occupations that are most vulnerable it's still those frontline production occupations. Sewing machine operators, you know, meat cutters, these are the jobs that were vulnerable to automation 20 years ago, they still are today but there is still a relatively small numbers of jobs overall. And frankly, our economy sheds so many of those jobs already. I mean we had over a million manufacturing jobs in New York 70-years ago and today we're down to 70,000.

So, its an order of magnitude smaller than it once was. I think where I'm kind of most concerned are the jobs that are particularly large sources of employment today but are particularly vulnerable to automation.

So, there I would point to bookkeeping clerks, which is a large occupation class in New York City.

1 This is not accountants; this is people that are
2 supporting those types of roles and Excel is a
3 version of automating that work and not to mention
4 all of the other products that have come around since
5 that make it almost aviated the human input here and
6 that's you know 70,000 jobs in New York City today.

7 Food prep and services is the other one that I'd
8 be most concerned about because we see it already.
9 You know, the Wendy's and the McDonalds with the
10 automation right there as the point of sale. But the
11 incentives are there structurally in a big way to
12 make that shift and you know, as much as much people
13 are - we're still going to have waiters in fine
14 dining restaurants because people want that
15 experience but when the priority is quick and cheap,
16 you're going to see the incentives there and frankly
17 only more so with the \$15 minimum wage which you
18 know, absolutely helps lift New Yorkers out of
19 poverty but does have real consequences when it comes
20 to the incentives that are driving bigger changes in
21 the economy.

22 You know the area that I would point to would
23 certainly be different in this time around for maybe
24 the last time and that's the other larger group of
25

the sort of back office operations. I mean if there is one thing that really stood out to me was that automation has really moved off of the factory floor and into the office building. And there's a lot of workers that are vulnerable but I would agree with my colleagues here, not that I think that those jobs are going to disappear in a puff of smoke, but that the level of technical fluency and digital skills and other competencies required to maintain, to be competitive in those jobs is increasing already dramatically and it's not to say that those jobs are going to disappear but the folks that are able to access them, those pathways are going to get steeper and longer and folks without a post-secondary credential, who have not graduated high school are going to find that both the first run of employment and certainly these opportunities for economic mobility are getting further out of reach.

And so, to me, I just wanted to sort of reemphasize I think the core point here from my perspective, absolutely, what my colleagues here have mentioned, strategies that really focus on lifting folks out of poverty, there is not doubt that the research supports the power of direct cash transfers

to do so. But I think what I'm interested in here is to say that, I think that the unique challenge that automation poses is really around incumbent workers.

We have lots of issue in New York — we still have you know, 17 percent of New Yorkers in poverty today. We still have major issues when it comes to just barriers to employment in the first place particularly for folks that are formerly incarcerated or you know, lower levels of formal education attainment or limited English proficiency.

Absolutely, but what really concerns me about this automation question, I think what this should prompt is really examining, what do we have in place today that builds the skills of our incumbent workforce? And then supports them in gaining those skills and that's where I think this income support piece is so critical and so, just to quickly touch on the last question. You know, thinking about what do we have in New York City. I mean on the federal level; we're talking about big structural changes that would make a huge difference for New York. But what can the City Council do.

I mean I would point to programs like CUNY ASAP, which has been tremendously effective at boosting

community college graduation rates. And the Council and the Mayor together have expanded ASAP to I think 25,000 students in total. But there is no reason why based on the data that we have that every community college shouldn't be an ASAP college.

You know, we then are piloting a version of that for senior colleges I believe at John Jay, but the evidence will support that this is absolutely dramatically boosting college graduation rates.

At the same time, if you are an incumbent worker today and you may think that going back to college, everybody could tell you, this is the best way to get a good job, but you've got two kids, you've already got a job. You've got all of these demands on your time, maybe you've just lost that job. You're taking care of an older family member, for all of these reasons and more, going back to college full time is never going to be an accessible option and yet when you to something like a CUNY continuing education program, there is no tap for that. There is no tuition assistance for that, let alone support for childcare or transportation or any of these other needs.

1 So, I would say that at the core of this is
2 building out our skills, acquisition infrastructure
3 but then coupling that with supports for some of
4 these nontuition financial barriers to make that kind
5 of learning across a lifetime accessible for more New
6 Yorkers.
7

8 CHAIRPERSON MILLER: Thank you. Thank you to the
9 panel, thank you very much. We're going to call our
10 next panel and just on that note, I recall and I
11 forgot to ask the Admin when they were up there and
12 it was EDC talked about their technology bootcamp and
13 training and then they failed to mentioned that it
14 was a \$2,000 deposit associated with that, which
15 makes it pretty much impossible for the majority of
16 the people that would interested in that program,
17 right. So, we're talking about access here. Thank
18 you.

19 PANEL: Thank you very much.

20 CHAIRPERSON MILLER: The final panel, Jesse Laymon
21 and Josh Kellermann and Zachary Hecht.

22 Okay, we can start at either end. Please state
23 your name, push the red button and just give me one
24 second, I want to make sure I have the testimony in
25 my hand before we get started.

JESSE LAYMON: Good morning or afternoon at this point. Thank you, Council Member, for this hearing and again, for this Committee which consistently addresses important issues. It's not the first time that we've come before you.

My name is Jesse Laymon; I'm the Director of Policy and Advocacy at the New York City Employment and Training Coalition. We're the umbrella organization that represents all the groups in New York that provide job training, job placement services and career advancement as well as sort of helping fill educational gaps that job seekers have.

And what we wanted to talk about today and I think it's been addressed well by some of the testimony you've heard before, as well as including from our friends now at the Center for an Urban Future.

Is the degree to which technology and automation will inevitably cause disruption in the workplace but that disruption will not be felt equally by all workers. It will fall the hardest on lower income workers and I want to draw attention in particular to workers with lower levels of educational attainment.

As Eli from Center for an Urban Future was drawing out, there should be less concern about the notion of jobs disappearing in a puff of smoke and more concern about the notion that workers will be expected to have a higher level of technical fluency and ability to deal with a changing work place and that will put greater pressure on their underlying skill levels and educational levels.

And that's a real concern, a real problem for us at the Employment Training Coalition because we are already seeing that the clients that are coming to our providers seeking help finding new jobs and new careers are more and more facing barriers due to their lower levels of educational attainment.

New York's economy is strong, many people have jobs, the unemployment is at an historic low level and that means that the people who remain unemployed are primarily people that either don't have a high school degree or lacking a math or a language skill. Perhaps they don't speak English but they actually have good education otherwise and more and more we're seeing advanced training programs including in high technology jobs are unable to fill the slots that they have to train people unless they have a

partnering bridge program that can prepare clients in the math or literacy skills that they need to be able to even start and succeed in those programs.

And so, there is a great need for bridge programs. I was happy to hear you bring this up in exchange with Commissioner Bishop and thank you for that. But I do want to call out that the administration has known for some time that there is a need to increase the investment bridge programs. Their overall workforce development blueprint for the city is called Career Pathways. That's a report that's almost five years old now and that report called for spending \$60 million a year on bridge programs to address this particular need.

We are almost at the five-year mark of that plan when they said their promises would be implemented and they are only funding one third as much as they promised, just over \$20 million of bridge programs citywide across several agencies.

That is an unacceptable shortfall and that is from our perspective the single biggest budgetary problem in workforce development from a city perspective. The underfunding of bridge programs in particular.

New York is lucky in that we have a great variety of advanced training programs in fields from construction to technology to healthcare, but if those programs can't find enough clients that have the tenth grade or the high school equivalency levels of math or reading to even begin the programs and succeed, then their stellar results at placing people into jobs won't be helping this vast number of New Yorkers who are shut out of the booming economy.

So, we need to make good on the promise to invest in bridge programs and we need to remember that all of the challenges that we see in the workplace including automation, affect people in unequal ways and they are going to fall the hardest on people who have lower levels of educational attainment and who are working in lower wage jobs.

And so, we need to make sure that our investments from the public side are counter acting that and are focused mostly on the people who need them the most. Thank you.

ZACHARY HECHT: Good afternoon, thank you for calling this hearing. It's been quite enlightening. My name is Zachary Hecht and I am the Policy Director for Tech:NYC.

We're a nonprofit coalition with the mission of supporting the technology industry in New York through increased engagement between our more than 750 member companies, New York government, and the community at large. Tech:NYC works to foster a dynamic, diverse, and creative ecosystem, ensuring that New York is the best place to start and grow a technology company, and that New Yorkers benefit from the resulting innovation.

A number of our member companies have been making advancements in the fields of artificial intelligence and robotics. As you've heard, these advancement will undoubtedly help increase efficiency and accuracy in a range of settings, leading to improved outcomes and reduced costs across industries, from healthcare to finance to retail and for a range of stakeholders, including customers.

However, the purpose of today's hearing is not to discuss the many benefits of automation, but to discuss how automation will affect our city's workforce. And this is an extremely important conversation and while studies demonstrate that New York City's workforce is less vulnerable to automation than the rest of the country, there will

still be a very real impact for a number of New York workers.

As you've heard, recent studies do demonstrate that only a small proportion of jobs in New York City are likely to actually be fully eliminated, while many are likely to be augmented, altered, or partially automated. And in all of these cases, we must recognize that along with technological change comes new opportunities for workers and this will undoubtedly be the case with automation.

In order to ensure workers whose roles have changed or been eliminated, are able to take advantage of these new opportunities, it is vital to ensure technology training and education are accessible to more and more workers of all backgrounds. It will also be important to ensure that our city's students are receiving an education that prepares them for the modern workforce and positions them to take advantage of many of these new technologies.

Now, in considering how to best move forward, we do need to recognize that New York City is already undertaking steps to make sure our students and

workforce can thrive in the 21st Century. We heard a lot of that in other testimony today.

Public officials and private enterprises in New York have come together to create a city that's training its residents to succeed. From the hugely important initiatives like CS4Al, CUNY Cornell Tech WITNY program, to EDC's efforts to support the development of workforce training programs for 21st Century jobs. New York State has also recently passed legislation that creates a commission to study the impacts of artificial intelligence and robotics and includes how these things impact the workforce.

All of these efforts make it clear that New York City and State are committed to understanding the future of work and ensuring that our workforce is prepared to stay competitive.

Yet, we can and should do more to equip New Yorkers with skills and position them for success. This includes expanding already existing programs, programmatically and geographically, as well as exploring new policies to encourage upskilling and continuing education.

You've heard a lot of very good suggestions today. We echo some of the sentiment that you just

heard on bridge programs. We also echo the testimony by CUF to establish lifelong learning training accounts and we could fund that through workers business and government and that would help workers pay for training and ongoing education.

And our state and city also should examine how to better leverage worker training tax credits and new forms of educational funding like income share agreements and I think that's something the city is looking at right now.

And new technologies can often be daunting, and they do pose real challenges, yet we shouldn't let these challenges impede responsible innovation and advancement. In order to make sure that all New Yorkers are benefiting from innovation and technological advances, it is incumbent upon government business and the public to work together to demystify and understand technology, to plan for the future and to put forward real solutions. And we look forward to being a part of these conversations. Thank you.

JOSH KELLERMAN: Good afternoon, my name is Josh Kellerman; I'm the Director of Public Policy at the Retail Wholesale and Department Store Union.

Apologies, I don't have written testimony, although I submitted electronically following this meeting.

I'm going to speak about this, the two main things. One is how technology in the future of work is likely to impact the industries that my Union is active in. And then also speak to some of the solutions that we see going forward which will mirror many that have been referenced today.

So, first, the Retail Workers Union or WDSU represents workers in several sectors that are highly subject to automation. Apparel retail, food retail, these include department stores, groceries, cafeterias as well as distribution centers. And so, everything from self-checkout, which is already implemented across many stores, but you know, essentially what this is doing is just making customers do the work. And then, we're losing employment in the process.

And so, obviously this is a more efficient stance for companies, but it's born essentially solely by workers and consumers. The automation of food preparation is happening across the industry. There's robotic stock checkers now within stores. I

1 don't know if you've been in a stop and shop recently
2 but there's this sort of calendrical grey machine
3 that kind of wanders around and right now, it's just
4 identifying hazardous things within the store and it
5 stops at that and says, hazard, hazard on isle three.
6 That's the first step to moving towards actual
7 automatic stock checking.
8

9 And then, online retail of course, is a
10 significant form of automation. And what we're
11 seeing in brick and mortar stores is they are turning
12 into what we call click and mortar stores. So, the
13 front end is still a traditional brick and mortar,
14 but the backend is now a distribution center and
15 workers for example at our Bloomingdales store who
16 some of whom are commissioned workers, were being
17 actively pulled off of commission sales to stock
18 online orders.

19 And so, we're working to deal with some these
20 issues through our contracts but stores that aren't
21 union obviously, it's just sort of a top down
22 approach to how that works.

23 Robotics in warehouses, we're seeing actually in
24 some ways more dangerous conditions in warehouses.
25 As robots take over significant portions of the job,

it means that workers are subject to faster and faster work routines to sort of catch up with the robots. And there is essentially no way to lift and twist a box for twelve hours a day without being injured.

And the last thing I'll mention that hasn't been mentioned today around automation and it's impact on workers is privacy in the workplace. It's sort of the other side of automation that is about the future of work, where workers are more and more under surveillance while they are on the job.

And so, for example, what Amazon has done currently in its warehouses, is workers have handheld computers essentially that direct them to the next fulfillment order. But it also tracks every single movement that the worker makes and times everything that the worker does. There are countdown clocks and as workers meet certain thresholds for how quickly they are able to do a job the algorithm will sort of ratchet it down to a faster timeline and to this point, where there is a sort of constant level of fear and tension within the workplace and a workers ability to meet these untenable demands over a ten or twelve hour workday.

And of course, these metrics and this surveillance will only become more and more prevalent, so Amazon has put in a patent for a wristwatch that actually notices the specific movements of the hand and will vibrate to move the hand to different directions to locate items.

And so, there's only another step to then having a piece on that that will identify your heartrate and then that heartrate information could then be used potentially for employment decisions.

We now know that workers have been fired by robots at Amazon. If you don't actually meet your certain time threshold three times within a certain period of time, then you receive an automatic termination letter.

So, these are all ways that technology — it's not just about you know, making the workplace more efficient but also about monitoring and surveillance of workers and I think that there are several things that New York City can do to address some of the privacy issues in the workplace. And I'd be happy to have ongoing discussions with the City and the Council Member about that.

As a union that represents our workforce, we aren't opposed to automation. We're not luddites, we recognize the need to automate some of these tasks. But the fundamental problem here is the power and balance and how technology in the workplace is not only deployed but also how it's developed.

So, going all the way back to the university level, where you have universities that are working in conjunction with businesses to develop new technologies, workers considerations are not at the table at the development stage, which that means by the time we're dealing with it at the rollout, we're already well behind the eight ball and the technology is not designed with workers in mind.

And so, in collaboration with the National AFLCIO we're working to develop relationships at universities to actually begin to think -- to be at the table on those issues but then also, we're beginning to see new language in contracts that says that the roll out of technology will be phased in and it will only come with a negotiation with the union and its workers to ensure. So, there will be phase ins, pilots and then, the determination will be made jointly about how the roll out will happen.

So, these are really important responses but obviously are small scale given the small amount of workers ultimately nationally that are unionized.

And so, I would think that if New York City wanted to do anything to address the impact of technology on workers, it would do its most to increase the power and the role of workers and worker organizations in the decision-making process around technology.

So, this could include expanding labor piece requirements so that businesses that are receiving subsidies, businesses that are you know, on public land for example, are required to be neutral to unionization. And businesses that receive tax breaks are actually subject to some of these requirements as well because really, it's about increasing the balance of power in the workplace.

Lastly, I'll mention that we need a robotics just transition plan. You know, there are many ways to frame this. I think it's similar to some of the ideas that were mentioned before, and it couples several pieces. One is a strong, social safety net, so that workers aren't in fear of losing their job.

And then can actually participate in the decision making rather than just opposing it.

So, fear is just a huge issue that the stronger social safety net would help to address. And then a retraining fund; you know, unions currently are the second largest trainer in the country behind the military. Yet, we see very little collaboration between employers, unions and the government on actually developing these retraining programs.

Historically, my understanding is that much training was done by employers. Employers had a self-interest in a well-trained workforce. That has significantly dropped off over the years, and what we need to do is sort of reup the commitment of employers to work jointly with unions and the government to develop these training programs.

I think it was mentioned before, the jobs for New Yorkers Task Force which was formed several years ago. Really the problem with that is the employers ultimately didn't commit to a collaboration on this issue.

And so, we had great ideas but no commitment going forward. So, this is the challenge and thank you for your time.

CHAIRPERSON MILLER: Thank you so very much and I'm glad that for some reason Josh, we did save -- I wouldn't say we saved the best for last because everybody was that. But I think there was certainly a dynamic that was missing. That there were a lot of folks talking about the workforce in different ways and kind of speaking about worker power but to bring in -- I would submit time and time again that what has sometimes become the order of this body, is not responsibilities in the charge of this body and that is to regulate what organized labor does and that the best way to ensure worker protections is ensuring the right to organize and the right to collect the bargaining.

And that, was just really defined in your testimony there. A lot of the things that reminiscent of some of the things that we were able to do and even in times of -- often times in maintenance, whether it was a train, or a bus being repaired or something like that. That there are time jobs that are negotiated, right.

Those are industry standards that have to happen and that within negotiations that you are going to send members out and they're going to do jobs at X-

amount of times and not robots or whatever it is.

And even if there were robots involved, the amount of time that it was going to take that employer, that represented member to do the job was negotiated. It was done in a way that not just was fair and ethical, but it maintained a level of safety and humanity in the work as well and I am afraid that we're losing that.

I went into PJ's about two weeks ago and there was a line walking out the door and all ten of the self-checkouts were down and there were five registers open and there was absolute chaos and so, clearly there are industries that are really being impacted that is not that smooth of a transition.

But at the same time, in order for people to recognize that this change is happening in advance that is as I mentioned before, is the charge of leadership. And to be able to sit down and negotiate but there are more and more spaces, far more spaces than not where workers aren't represented and what do we do in those cases there?

So, this is a ton of really, really, good information here that we've seen and Zach, just for a moment, from an organizational standpoint and the

groups that you represent, could you very briefly speak to partnerships outside of government CBO's and Community Based organizations, non-for-profits that you may work with that allows you to reach the target audience a little more efficiently, effectively than government may do?

ZACHARY HECHT: Speaking to outside of what we do with government?

CHAIRPERSON MILLER: Outside of government, who do you work with?

ZACHARY HECHT: So, we've partnered with the Center for Urban Future on some things. We have partnered with the CS for All nonprofit organization. We help work with Girls Who Code, Coalition for Queens which is now called Pursuit. We have an ongoing partnership with and a lot of this happens at the at hawk basis but we're trying to make it more comprehensive and we're doing some work into that now.

CHAIRPERSON MILLER: Yeah, because even what we do here, you know, sometimes I'm somewhere and the mother will say, well, you know, the kids got nothing to do or this is happening or that. And I'm saying, well, you know, I know whether do discretionary,

1 initiative or just general funding here, we've put
2 all this money into workforce development or youth
3 and employment and yata yata.

4 But ultimately are we reaching our target
5 audience and that often doesn't happen through
6 government, but it happens more organically locally
7 and so, I'm concerned about relationships and
8 partnerships on a more local level.

9 ZACHARY HECHT: Yeah, and I think something that
10 we've seen is there's a lot out there. You heard
11 about a lot of different kind of programs at today's
12 hearing. A lot of them are through the government, a
13 lot of them are through nonprofits and it's hard for
14 an individual New Yorker to find what they should do.

15 If I need retraining or I want some kind of
16 skill, I can go online and I can try and find it, but
17 we need to also help people get funneled into the
18 right programs and that's bridge programs, but that's
19 also just better coordination amongst all the
20 different players. And there is some movement on
21 that now and trying to get a better comprehensive
22 overview of what an individual New Yorker might have
23 access to and for a low amount of funds and all that.

JOSH KELLERMANN: [INAUDIBLE 2:44:26] agree both with you and with Zach, I think that one of the things to note about the model of bridge programs and why their called bridge programs is because they are meant to be that partnership. A link from you know, a community in need of services to higher education or advanced training, right.

And often bridge programs are actually run by local CBO's that don't have the ability necessarily to do advanced technical training or you know, high skill training but they can give people the foundational skills and then have a partnership with an advanced training entity that they automatically feed people into.

And so, the bridge program not only addresses those foundational skills for the clients, it also acts as the outreach arm and recruitment arm to get people into the more advanced training programs that they might not find out about at all if they hadn't initially gone for the bridge program.

CHAIRPERSON MILLER: Thank you to the panel, this has been very, very insightful. I look forward to working with all of you in the future.

2 Genuinely working with everyone, so feel free.

3 The Committee is always available to bounce ideas off
4 of, whether it is policy that supports what you do,
5 funding or whatever else. You know, this is
6 certainly something that we're not taking lightly,
7 and we want to be prepared and still be able to stay
8 ahead of the curve.

9 So, thank you for your testimony and with that, I
10 want to thank everybody that came out and testified.
11 Everybody that joined us in the audience, everybody
12 who joined us online. Obviously, this is a very
13 important topic of conversation that we need to
14 continue to have. We look forward to continuing to
15 have that, but for now, this hearing is adjourned.

16 [GAVEL]

17

18

19

20

21

22

23

24

25

C E R T I F I C A T E

World Wide Dictation certifies that the foregoing transcript is a true and accurate record of the proceedings. We further certify that there is no relation to any of the parties to this action by blood or marriage, and that there is interest in the outcome of this matter.



Date April 1, 2018