

Art Chang, Candidate for NYC Mayor March for Science NYC Questionnaire Responses

SCIENCE

What should the role of science and scientists be in government, policy, and decision-making? How does science fit into your agenda for NYC?

I will seek to make decisions based on scientific evidence and data and will measure the success of those decisions based on evidence and data. I have proven that efficiency and efficacy lead to measurable progressive outcomes. Successful scientists in my administration will not live in ivory towers, but will know how to collaborate with communities and frontline workers.

Specifically, science will inform my policy to combat climate change - one of the biggest threats to our children's and grandchildren's futures. By 2100, the seas will rise by 10 feet even with the essential reductions in carbon emissions. In the past year, we've seen historic wildfires, winter storms, and a record number of hurricanes! In the next 5 years, we will almost certainly face another Hurricane Sandy type event. We need to prepare for this right now.

The National Oceanic and Atmospheric Administration confirms there is a rise in devastating climate disasters. Since the 1980s, the amount of billion-dollar disasters that strike the United States has trended upwards with consistent record-breaking hurricanes, floods, wildfires, and snow storms. 2020 takes the record for the most billion-dollar disasters in the past 41 years, with the costs of damages reaching \$95 billion, more than double the average of \$45.7 billion. NYS and NYC passed the most ambitious climate change bills in the U.S., but the economic crisis has halted progress while warming continues. Communities affected by sea rise are primarily lower income; upland communities will need to accept higher density and perhaps more economic diversification. This also means re-imagining wastewater treatment (the existing facilities for which will be flooded in the coming decades), decommissioning carbon-emitting electrical power plants, and relocating airports and other strategic transportation infrastructure. The next mayor has the immense challenge of organizing the multi-party, multi-issue conversations that can lead to a consensus for action.

I will plan to eliminate carbon emissions by 2050 and to plan for a 10' sea rise by 2100, along with the increasing storm surges and weather violence. You can read my full Climate policy at www.chang.nyc/climate-change.

Optional

1. How can we improve messaging in order to promote public health actions and combat misinformation?



All messaging must start with facts with a broader context, ideally with visual aids. It must be distributed in the channels that people live in and allow for two-way conversation.

HEALTHCARE

What have you learned from the coronavirus pandemic? What policy changes should be made to both prevent and respond to future pandemics in a more effective way?

Technology is essential to being able to better respond to any crisis in our future, especially another public health crisis. As a tech Mayor, I'm the only candidate qualified to handle this, and I believe that this is what was lacking from the current administration's response. Here's how I would respond to the next public health crisis more effectively:

First, we need to utilize the City's data on its residents to know precisely where the vulnerable communities are located -- the elderly, disabled, poor, those with pre-existing conditions, healthcare workers, etc -- and bring vaccines, tests, and supplies to them. I would organize a management system to notify those populations, and organize a delivery system directly to their homes, neighborhoods, and workplaces of vaccines & supplies, including utilizing technology for line/queue management. Where direct home delivery is not feasible or necessary, can use existing infrastructure such as school buildings and public-financed stadiums to be resource distribution centers.

The public health response was broken from the outset first by the Mayor's decision to defund pandemic preparedness two years before the pandemic, then to move pandemic response away from the Department of Health, which had a trained staff, to Health & Hospitals where it was a new responsibility.

From an economic perspective, the response to this crisis was fumbled and confusing. Small businesses wanted to follow the rules, but the rules were changing daily with little helpful communication. First, 2020 showed how when the Mayor and Governor are not working in tandem, The eviction moratorium should have immediately been extended to small businesses, while also freezing an increase on taxes and other fees on small businesses, and extending street dining permits till the end of 2022. Reducing commercial rent and decreasing or deferring payroll taxes for small business owners will increase their profit margins in the short term while allowing them to survive the decreased revenue losses coming from the economic impacts of COVID-19.

This is also an opportunity to rethink NYC's streetscape and embrace new forms of dining for small businesses. For example, European cities have supported small local businesses by creating pedestrian squares that are safe from vehicle traffic and access to the disabled. Such streetscapes in NYC would reduce pollution and create community spaces with long-term economic impact and sustainable growth.



Next, we need to look to the likelihood of the next pandemic. That will require, first and foremost, implementing preventative care solutions and strengthening our public health systems in low-resourced communities. Since the 1970, the World Health Organization¹ changed the definition of public health from a focus on reactionary to preventative and predictive; yet, our policies and institutions do not reflect this change. It is not the dominant way of thinking in NYC even though the overall healthcare industry has consistently researched and quantified the benefits of preventative health. We must close this disparity by growing community medical centers and working closely with public health nonprofits, along with structural changes to insurance coverage, so all New Yorkers have affordable access to quality care.

Optional

1. What will you do to ensure that vaccination efforts reach everyone in NYC? What kind of benchmarks can we use to fully open schools again, in regard to vaccinations? How can ideas about equitable vaccine distribution be applied more broadly to an equitable health care system?

See above answer.

CLIMATE & ENVIRONMENT

What are your policy priorities to address the ongoing climate crisis? How will you ensure climate resiliency projects are distributed equitably among coastal communities, especially in low-income neighborhoods?

Optional

1. How will you enforce the Climate Mobilization Act and does this act do enough for climate action in NYC? How can we build upon this legislative achievement going forward and ensure that all communities of NYC see the benefit of emission reductions?

The first thing I will do is to ensure that the real estate forces do not seek to postpone or otherwise weaken the provisions of Local Law 97. City Hall must take the lead by demonstrating that government can implement the requirements and show the financial calculations for payback. After all, reducing energy usage means lower bills for owners. I will re-examine the cap-and-trade components of the bill to ensure that environmentally sensitive communities do not end up holding the bag on carbon emissions for the benefit of wealthier communities.

¹ https://www.who.int/about/what-we-do/who-brochure



ECONOMY

What is the role of scientific research and technology in the NYC economy, and what is your plan to strengthen the NYC scientific enterprise to benefit our economy? How can you ensure that the economic benefits of investing in science and technology reach all New Yorkers?

NYC should be a global leader in research and technology, leveraging the wealth of universities and entrepreneurs concentrated within the City. In 1998, I helped launch the NYC tech startup industry. In 2000, I helped craft the Partnership for New York City's first plan to expand the biotech sector. I have started 2 tech incubators, created an onramp from CUNY to the tech industry and many tech startups. My plan includes incubators, creating post-graduate fellowships in the City government to smooth the transition to the tech industry, and doubling down on investments in the public schools.

EDUCATION

What should our education system, from K-12 to higher ed, be doing to prepare students to be adaptable critical thinkers, especially considering the challenges of climate change, misinformation, and work at the human-technology frontier?

Education has not substantially changed in 100 years, except to become increasingly regimented along a factory production model. This needs to change.

With COVID, every student has a different learning challenge, in addition to the 30% of students with a learning disability and the over 30,000 homeless students. It's probable that the majority of students are currently struggling with learning.

I believe that the core goals of our educational system should be to prepare students: for lifelong careers, to participate in our democracy & civic society, and to be able to take care of themselves and their families.

This includes teaching technological literacy, civics, and research skills that they can continue to use throughout their lives to learn about new topics. And learning shouldn't end with graduating high school or college: the City should leverage CUNY and community-based organizations to make sure that learning is a lifelong endeavor.

My Education plan includes:

- -Introduce career readiness, including financial literacy starting at 9th grade.
- -Create a program for working high school students, to enable students to both work and finish high school.
- -Enable any student who would ordinarily take Advanced Placement courses the option to take college courses online or in-person at a NYC-based college and receive dual high school and college credit.



- -Bridge the gap between school and work with a deep collaboration between the private sector and government that leads to jobs and careers, starting in high school, and continuing to a far deeper collaboration in CUNY to include industry training and certification for high school graduates.
- -Urban Youth Corps: Expand the Summer Youth Employment Program (SYEP) into an Urban Youth Corps to include year-round internship and work opportunities in government and the private sector, from high school through CUNY.
- -Make CUNY free to all who need it.

And overall, my platform for Education in NYC centers around meeting students where they are, not forcing students to conform to a rigid system of education that was created centuries ago. This is just the tip of the iceberg - you can read my full education plan at www.chang.nyc/education.

Optional

1. How, if at all, has the COVID-19 pandemic affected your positions on education policies? What should be the City's role in ensuring public schools are equitably funded and serve the needs of our children?

As the Chair of the School Leadership Team at Brooklyn Tech, I had a front row seat on the dysfunction within City Hall's failed education policies. The botched reopening plan only served to reinforce the inequities throughout the school systems.

2. Considering that the NYC public school system is one of the most segregated in the country - how do you plan to address segregation across NYC public schools as mayor?

That our schools are so segregated stems from our segregated communities. I believe that busing is not the answer; instead, we have to desegregate resources, investing equitably, which means more resources to respond to greater need. My plan for school equity means a holistic approach to funding resources to entire communities, where poor school performance is an outcome of communities in need.

3. There is a large achievement gap in STEM education, which extends to a lack of diversity in the STEM workforce. The school closures in NYC due to covid, while necessary, might increase this achievement gap. What will you do as mayor to close the STEM achievement gap to provide equitable opportunity to STEM education and careers for all New Yorkers?

Universal broadband and broadband-connected devices. Algorithmic thinking through spreadsheets. Science through understanding the world around them.

FOOD & AGRICULTURE



What are your plans to address food insecurity and ensure equitable access to healthy, nutritious food?

As Mayor, I will restructure our food distribution system to better serve our at-need residents by:

- -Expanding food distribution endpoints (schools, childcare centers, restaurants and other commercial food services, consumer grocery stores, food pantries, and soup kitchens)
- -Wielding the City's purchasing and public policy power to extract and redistribute edible food from the system before it becomes waste ("unused food")
- -Leveraging pre-existing communities of knowledge, including all non-profit, mutual aid, and other community-based organizations involved in food relief, as well as the traditional commercial for-profit operators
- -Mapping every distribution endpoint, food-insecure household, and flow of food from the sources to identify gaps as well as promoting efficiency to support direct engagement by all participants (especially community-based organizations and food recipients on the ground)
- -Investing in and supporting construction of commercial kitchens available for use by community-based organizations and micro-entrepreneurs seeking to start their own food businesses
- -Incentivizing and supporting alternative organizations and ownership structures (cooperatives, ESOPs), especially given COVID-driven closures of grocery stores that serve lower-income communities across New York City
- -Forming new intermediate processing points, such as dedicated kitchens for converting low edible food to edible food (e.g. chicken parts and bones to soup)

You can read my full Food Insecurity policy at www.chang.nyc/food-insecurity.

Optional

1. How can we maximize land use in the city to increase green spaces and community access to gardens or farms?

We support keeping land use projects community-led, prioritizing spaces that benefit the community and not only big developers; with input from non-profit organizations and community farms and gardens. Our administration promises to ensure access to green spaces for all and ensure that the process for developing access to green spaces is transparent and community based, in conjunction with local schools and community farms & gardens. I love the idea of providing resources for gardens on school rooftops. We also need to actively support existing community farms with resources and help from City Hall and Borough President's capital funding budget.

2. What policies can the city government implement to support the transition of vacant lots into community centered urban farming projects? How can your administration bring more transparency to this process and connect community groups to the resources they need to begin sustainable urban farming?



IMMIGRATION

As climate change worsens, the number of climate refugees will increase within the US as well as globally. What role should NYC play in mitigating this problem? Should we expand sanctuary city policies to include climate refugees?

We support NYC being a sanctuary city for all, and support all residents being able to vote in local elections. NYC doesn't control international immigration, but we will lobby for policies that support all refugees settling safely in our city. We also need to note that we expect there will be a large influx of internal US climate refugees, especially as droughts increase in the western half of the country, who will seek the water-rich and temperate climates on the East Coast and northeast.

Optional

1. How can the city foster international collaboration in scientific research, and support immigrant scientists, to enhance how science and technology strengthen the diversity, culture, and economic strength of NYC?

I will foster a closer relationship with the United Nations and other NGOs working on problems of global concern.

CRIMINAL JUSTICE REFORM

What evidence-based policies will you implement to include medical, mental health, and social services and interventions into criminal justice reform in lieu of standard policing practices?

Armed police officers often are called on to handle situations that they're not trained or equipped for, and this armed intervention often escalates into violence. To combat this, we will create rapid response teams that have training in crisis de-escalation, mental health issues and social work that operate 24-7-365, like the police, to offer unarmed expert intervention in non-violent situations.

We will remove all armed officers from schools, but keep un-armed School Safety Officers, whose exclusive duty is to ensure physical safety for students and teachers, and ensure unauthorized individuals do not enter our schools. Additionally, we would at minimum double the number of guidance counselors in our schools, and mental health crises would fall exclusively under the purview of guidance counselors and mental health professionals — not the School Safety Officers.

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1. The NYC Department of Forensic Biology runs the largest DNA crime laboratory in the world. How will your administration ensure that the science and technology used by this department provides the most accurate information to investigators and limits injustice?

We must prohibit potentially abusive uses of technology by city agencies, particularly by law enforcement, such as:

Facial recognition and other biometric surveillance technology

NYPD Criminal Group Database and use of fake social media accounts

Purchases of geolocation data

Warrants for geogence and keyword searches

Drones and robots

Data-sharing with ICE, including through intermediaries

Predictive policing technologies like PredPol

Prepared by the New York City Science Debate Coalition

- March for Science NYC
- 500 Women Scientists NYC
- Science Education and Policy Association at Weill Cornell Medicine, The Rockefeller University, and Memorial Sloan Kettering Cancer Center

Please return answers to info@marchforscience.nyc by June 1, 2021.