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## 2018 Provincial Election Responses

**N.B.:** Of the below candidates, the ones who had contact information registered with Elections Ontario were contacted. Of those who were contacted, the NDP party, Liberal party, PC party, Green party, and New People’s Choice party corresponded back. Of those that corresponded back with the Chemical Institute of Canada, the PC party did not respond with answers to the questions. The Green party responded with directions to refer to the party platform for specific issues.

Ontario Political Party	Final Update
NDP	Interviewed Jessica Bell- transcript is complete
Liberal	Interviewed Jo-Ann Davis –transcript is complete
PC	Contacted and corresponded with Gillian Smith and have since received no response
Green	Contacted and corresponded with Tim Grant and was forwarded to their platform to sift through it to find the answers to the questions
New People’s Choice	Contacted and corresponded with Daryl
Party for People with Special Needs	Contacted Hilton Milan and received no response
Go Vegan	Paulo Figueiras is not reachable online- Elections Ontario does not have his contact information
Independent	Doug MacLeod is not reachable online- Elections Ontario does not have his contact information
Libertarian	Contacted Ryan Swim and received no response



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1. What do you see as the value of scientific evidence-based decision making at the provincial level and how will you ensure that scientific evidence serves as a non-partisan check on provincial authority?

**Liberal:** Evidence-based decision making is crucial to developing informed and effective public policy. I would work closely with civil servants, Ontario's Chief Scientist and the broader science sector to ensure that policy development was based off of the most up-to-date and accurate evidence supplied by the most reliable scientific sources.

**NDP:** Evidence and data should be a key part of any decision making process. The process of making policy should be transparent and there should be proper consultation so that when the policy is developed there should be appropriate feedback before it is enacted into law.

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2. How would you go about strengthening the role of scientific evidence in provincial decision-making in Ontario and then ensure that subsequent government decisions are based on the best available evidence?

**Liberal:** I would engage Ontario's first Chief Scientist and the broader science and technology sector to discuss how we might strengthen the role that science plays in decision-making in Ontario. By leveraging their expertise, we can ensure that we are explicitly building a culture of science into our decision-making structures in government that extends beyond a single person or mandate.

**NDP:** Proper public consultation, asking staff to develop independent research and receiving feedback is how any democracy should work. The NDP's new Pharmacare program that involved the St Mike's researchers and doctors is an example of well thought out evidence-based decision making.

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3. The Professional Institute of the Public Service of Canada, that represents the majority of federal scientists, recently signed a new collective agreement with the Liberal federal government that allows federal scientists to speak freely about their work (media included), that the results of their research are shared in a timely manner with the public, and that federal science is protected from industrial, commercial, or political interests. Would your government sign a similar agreement with Ontario-based institutions and research scientists? What benefits and detriments do you see associated with such an agreement?<sup>1</sup>

**Liberal:** Government scientists play an important role in advancing evidence-based decision making and informing public policy discussions. I believe that government scientists should be free to speak about their research and that the results of their work be shared with the public in a timely and appropriate manner – particularly when their research explicitly serves matters of immediate public interest such as health or environmental concerns.

**NDP:** Government researchers should have the right to communicate their tax funded research with the public since their research is for the good of society. There should also be the proper funding available so that the right research is done properly and collected. I cannot see why we would not sign something similar with provincial researchers.

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4. Do you believe that current levels of provincial support for public science, like the Ontario Graduate Scholarship, are sufficient to meet the provincial government's responsibilities to both present Ontario residents and future Ontario residents?<sup>2,6</sup> If not, what will you do to increase public science capacity at the provincial level?

**Liberal:** Supporting scientific research is crucial not only to future economic growth, but also in tackling our biggest and most complex challenges. That is why we have already invested heavily in post-secondary education and training, research and innovation. By working together with the business, technology, post-secondary and science sectors, we can identify areas for continued improvement and opportunities for further investment and growth.

**NDP:** Thinking about this question brings up universities, especially how we support students. OGS is not enough and it does not go for long enough especially considering how so many PhDs take longer than the funding allows. These are people who have dedicated years of their lives for the benefit of society so why put them in tough situations? We have a commitment to increase funding to all universities to stop the funding freeze. If there is more support for universities there is more support for students. For example, 27,000 novel co-op work experiences at the end of the undergraduate degree is something the NDP advocates for in addition to increasing faculty positions at universities.

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5. Science graduates at all levels are facing great difficulty in finding employment in Canada. Few find work in their own field of study. Do you believe that the investment by Ontario's business sector in scientific research and development is sufficient?<sup>3</sup> What would you do to increase it?

**Liberal:** The experiences of science graduates entering the workforce are shared by many graduates. Employers are looking for experience, which is harder and harder to come by. This is why our government invested \$190 million over three years beginning in 2017 to provide more experiential learning opportunities for youth and students like internships, co-ops and project-based learning. By working in partnership with the private, public and not-for-profit sectors, we can continue to develop innovative and effective programs aimed at helping new graduates find meaningful and stable employment opportunities.

**NDP:** There are two things that governments can do to increase the job market for science. First is to invest properly in government so that there is proper support for departments that are doing research such as health. Secondly is funding programs that allow the graduate to gather experience in their field such as the implementation of 27,000 novel co-op jobs so that people who are leaving university have a job for the first year in the sector that they want.

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6. What do you see as the connection between investing in Ontario-based research and long-term innovation?<sup>4,5</sup>

**Liberal:** Ontario is rightfully seen as a hotspot innovation, from our high post-secondary attainment rate to our low corporate taxes to our strong public services, businesses and talent are attracted here because we offer the perfect environment where livability, creativity and entrepreneurship can flourish. But in order to maintain and grow our reputation as an innovative province, we must continue to invest in our education system, in workforce development, in transit and infrastructure. By investing now, we will reap benefits in the future, and ensure all Ontarians get to share equally in the prosperity these investments will create.

**NDP:** Ontario governments need to play a big role in identifying and supporting research—such as what Ontario has done with the discovery of insulin and the creation of the first pacemaker. This kind of innovation needs to continue to happen in Ontario and it does require government investment in research to make it happen. It is also government's role to think about what are the kinds of questions that we need to solve and what is the best way to solve problems. We need to think about how we create a healthy society, and what causes disease, which more often than not is poverty. So, governments need to tackle the question of how do we deal with poverty. In essence, it is partly investment in research but also government has a role in asking the right questions even if it does not necessarily mean that it is funding this particular science project.

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7. The Chief Scientist position was recently instituted by Premier Kathleen Wynne in June 2016.<sup>7</sup> If your party were to form government, what role do you see the Chief Scientists having on your Ontario government?

**Liberal:** The Chief Scientist serves a crucial role in helping guide science, research and innovation policy in Ontario while championing evidence-based decision making as the foundation of good government. As we continue to face increasingly complex challenges like climate change, we would rely more frequently on the expertise of the Chief Scientist to help guide difficult policy discussions and advise government on strategic initiatives.

**NDP:** There is nothing in the election platform specifics on this particular question but the job description of the Chief Scientist makes a lot of sense to encourage innovation and development of science here- I cannot imagine getting rid of this role.

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8. What challenges do you see that women, people of colour, LGBTQ+, Indigenous peoples, and other marginalized groups face in the STEM (Science, Technology, Engineering, and Mathematics) fields? How would you go about strengthening the voice that marginalized groups have in current STEM fields?<sup>8,9,10,11,12</sup>

**Liberal:** Making our STEM fields more representative of our diverse communities is not only important from the perspective of fairness and equity, but it also ensures that all Ontarians get to share the benefits of our growing tech sectors. Doing that requires reaching out to those marginalized communities and working with them to overcome the barriers they are facing. I have successfully worked in partnership with many communities in my time as a Trustee at the TCDSB to help their youth find pathways to educational success, and that is exactly the approach I would take to diversify our STEM fields in Ontario.

**NDP:** There is no doubt that people from equity-seeking groups face discrimination on many levels in terms of the culture- the culture is still very white male; in terms of pay equity women and people of colour get paid less for similar work. There are a lot of things that governments can do alongside institutions and businesses. One thing government can do is better schooling, more funding for schooling so that anti-oppression education is included in the curriculum, particularly elementary and high school, because then that changes people's mindsets which then changes the way people approach this and in turn change the institutions that they go on to represent. It is also related to policies as well- the fair wage policy that should be extended not only to women, like it has, but to other equity-seeking groups as well. For institutions, like universities, that are funded by government they need to prove that they pay people equally if they are doing similar amounts of work. Some other policies include equitable hiring practices and anti-harassment legislation. These are policies that government should move forward on.

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9. Do you believe that the current levels of scientific education in Ontario public schools are adequate? If not, what plan would you have in place to ensure that the Ontario public become scientifically literate?<sup>13</sup>

**Liberal:** I am proud to say that Ontario has one of the best education systems in the world, and teaching science is a part of that. When we teach science effectively, we embed curiosity, creativity and complex problem solving skills not only in students, but in our society as a whole. As a Trustee at the TCDSB, I've been able to be introduced innovative approaches to teaching and learning that are being introduced at some of our schools, such as design thinking. Working with teachers, parents, students and the science sector, I would like to open up a dialogue on how we might strengthen our already robust education system, and in particular bring science education to the forefront of the discussion.

**NDP:** I want to take it a little bigger- the role of public schools is not limited to teaching scientific literacy but students need to leave the school being able to develop their own evidence-based decision making that is thoughtful and well- reasoned so that they can evaluate information- and that includes scientific information. There are two roles to this: firstly it is properly funding the schools so that we have low-class sizes so we get higher quality education. Secondly, we must hold our media, in particular our social media, to a higher standard so that they stop printing false information and spreading pseudoscience. For example, we now know that a lot of people get their information from Facebook that does not have a quality control department. In my view, mainstream media and social media need to be held to a higher standard and there needs to be better rules surrounding how false news and false advertisement is spread. If we have quality schooling, and more accurate media and social media people will be better able to assess things and make the appropriate choice. It seems to be less about science and more about overall evidence-based decision making.

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10. Parts of Australia have introduced “no jab, no play” legislation that prevents unvaccinated children from enrolling in pre-schools and daycares – what is your party’s stance on these kinds of mandatory-vaccination legislation?<sup>14,15</sup>

**Liberal:** Currently, the government currently relies on the advice and recommendations of Ontario’s Chief Medical Officer when determining rules and regulations around immunization for children in daycares and schools. To date, the Chief Medical Officer has not recommended mandatory vaccination legislation, but we would continue to seek their expertise and advise on the matter moving forward.

**NDP:** Ontario already has similar laws- and it would make sense to properly enforce them. When you enrol in schools you are required to hand over your vaccination records but there is not enough enforcement occurring. These rules are present and it makes sense to have them.

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11. The importance of coding as a second language for students who are currently in public education (primary, secondary and post-secondary) cannot be overstated. As we move into a world of augmented reality and artificial intelligence, those without a basic understanding of computer science will be left behind. What is your party's stance on providing educational institutions at all levels with the dedicated resources needed to support the creation of a computer literate society?

**Liberal:** Closing the digital divide is crucial to building a fair, prosperous and equitable Ontario. This is why our government hired the province's first ever Chief Digital Officer, who is helping lead the charge in revamping our public services for the digital age. Working with sector partners, we have also launched innovative projects tackling big challenges of the digital age, such as the digital literacy and coding pilot; and the labour market information and student pathways challenges. We would continue to build upon these initiatives and work with our educational institutions to ensure our students are prepared to succeed in the digital age.

**NDP:** Computer literacy and coding is important and it is important that certain people know how to code at a high level. There are certain things that the education system should prioritize and I do not think coding should be one of those core essential priorities. The reason for saying this is that there are more important skills that we could get from our education system such as thinking, independently writing, financial literacy, mathematics- the kind of skills that everyone would need. For our society to be the best it can be not everyone needs to know how to code. From the reading that I have done, there is a lot of increasing evidence that excessive computer usage from a young age can have potential negative effects on the mental health of humans particularly social media. For instance, it can affect the physical health from sitting down for a long time, it can affect the ability to socialize adequately, cooperate, get along, etc. We need to be very careful with encouraging computer use in the younger years- in elementary schools in particular.

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12. Do you believe in tuition-free higher education? If so, how can Ontario move in that direction?

**Liberal:** Access to high-quality post-secondary education is crucial to building a fair, prosperous and equitable society. This is why I am proud to be a candidate for a party that has transformed student financial assistance so that over 235,000 people can attend college and university with their tuition covered, and many more can benefit from generous grants and loans. It is important that we build upon our successes, and I look forward to working students, faculty, staff and administrators to continue making our colleges and universities more accessible and affordable for all Ontarians.

**NDP:** Education is a human right and all high school students should have the right to go to higher education to better society and better themselves. The NDP is moving towards much cheaper higher education that involves converting loans to grants for the provincial loans. In addition, wiping out provincial loan interests is a top priority. It does not make sense for students to enter the work force with a huge amount of debt hanging over their heads especially since the costs of living are so incredibly high. How can someone with so much debt save up for things that previous generations have had?

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## References

- 1) <http://ottawacitizen.com/opinion/columnists/taylor-and-gibbs-a-big-step-forward-for-canadas-federal-scientists>
- 2) <http://www.statcan.gc.ca/daily-quotidien/170623/dq170623c-eng.pdf>
- 3) <http://www.statcan.gc.ca/daily-quotidien/150923/dq150923b-eng.htm>
- 4) <https://www.ontario.ca/page/seizing-global-opportunities-ontarios-innovation-agenda>
- 5) <https://www.theglobeandmail.com/opinion/young-scientists-face-too-many-funding-obstacles/article37372543/>
- 6) <http://www.chem.utoronto.ca/edistillations/2017/11/john-polanyi-research-investment.html>
- 7) <https://www.ontario.ca/page/ontarios-chief-scientist>
- 8) <https://hillnotes.ca/2017/10/11/girls-and-women-in-science-technology-engineering-and-mathematics/>
- 9) <http://www.cbc.ca/news/business/fighting-gender-stereotypes-stem-1.4354302>
- 10) <http://www.statcan.gc.ca/pub/75-006-x/2013001/article/11874-eng.htm>
- 11) <https://guides.tricolib.brynmawr.edu/STEM>
- 12) <https://www.usnews.com/news/stem-solutions/articles/2014/02/06/minorities-women-still-underrepresented-in-stem-fields-study-finds>
- 13) <https://wordpress.oise.utoronto.ca/librarynews/2017/09/15/the-evolution-of-science-education-in-ontario-schools/>
- 14) <http://www.ncirs.edu.au/consumer-resources/no-jab-no-play-no-jab-no-pay-policies/>
- 15) <https://www.nytimes.com/2017/07/24/world/australia/vaccination-no-jab-play-pay.html>