

# The Interim Plus + + + + +

## Curriculum Learning Resource

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The *Interim Plus* is a curriculum learning resource specifically designed to assist teachers in integrating life issues, from a moral perspective, into their lesson planning. The periodical is published bi-monthly by *The Interim Publishing Company*, 157 Catharine St. North, Hamilton ON L8L 4S4 TEL 416-204-1687 [interimplus@theinterim.com](mailto:interimplus@theinterim.com)

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Whether a babe suckling at her mother's breast, an elderly senior being spoonfed by a care giver, a growing teenager rummaging a refrigerator for a snack, or an adult preparing a hearty meal for the family, our lives revolve around food. It is also an enormous source of pleasure, with all its colours, tastes, aromas and textures. It is impossible to get around it, to do without it, or not to think about it. The next meal is always foremost in our thoughts and in our growling stomachs. Food really does impact all parts of our daily life. And it isn't only about feeling full and satisfied, it's also about our psychological well being, the sense of belonging, the sense of sharing a meal and thereby feeling connected to family and friends.

Regardless of the culture, eating a meal is a sure fire way to bring people together, to make strangers feel at home, and even celebrate our shared humanity. It could be a business luncheon. It could be a staff breakfast. It could be a snack while watching a live sporting event or broadcast of same. Some sort of food is at the centre of the festivities. Let's face it, without it we cannot thrive, let alone survive. Prosperity, peace and freedom depend on it.

But now, a week does not go by that we do not read about the high price of food. People are concerned. Is the higher food cost due to inflation or is it the result of the unfortunate alignment of several factors like war, strains in the supply chain, sanctions placed on warring countries like Russia, or some natural calamity in a key region of the world ? There may be a world disaster in the making.

In this final issue of *The Interim Plus* we explore the relationship of food security and social well-being. We also take a peak at the Canadian federal budget tabled on April 7 and the first important releases of data from the 2021 Canada Census..



## Part A Defining the Problem

There are many components to the production, transportation, storage, sale and consumption of food. The question of security of supply is probably the most important. In order for people to survive and flourish in the challenging environment of the modern world – food must be available, people have to have access to it, be able to afford it and make the best economical and healthy use of the food. Failing to meet these basic requirements can lead to hunger, malnutrition, sickness and death. Food can't be taken for granted, even if many people waste food, do not consume it properly, and in some instances, eat too much of it or the wrong food and end up suffering from obesity.

The United Nations' Committee on World Food Security defined the phrase “food security” as meaning that “all people, at all times, have physical, social, and economic access to sufficient, safe, and nutritious food that meets their food preferences and dietary needs for an active and healthy life.” The availability of food irrespective of class, gender or geographic region is a universal precondition for food security, yet it has been a concern for the human race from time immemorial. Feeding people was always the principal concern of central governments in the great river civilizations of ancient Egypt, China and India. Societies were organized to produce and store surplus food so that people would not starve in times of famine.

We know that different kinds of staple foods are produced in great abundance in many parts of the world, including Ukraine and Russia, which nations are currently at war and the real and potential impact of the war is having grave results on food supplies and prices. Regardless of where people live they must ask “Does food exist near me?” In Canada, by and large, we can answer in the affirmative. But what about our access to food, “Can we get to food easily?” And what about the usefulness of the food that we access, “Will this food contribute to our health and well-being?” Finally, how dependable or stable is the supply, “Will food be available tomorrow, next week, next month?” If we cannot answer yes to all four queries we may be susceptible to food insecurity. That is a worrisome prospect for a lot of people around the world today. Not all are as fortunate as Canadians, but even here there are problems.

Despite abundance 1 in 5 people on our planet suffers from hunger or malnourishment. Due to poor eating habits, lack of time, or plain gluttony, much food is wasted before it gets to the table, at the table, and after it leaves the table. This web article illustrates the reasons for food waste and the costs associated with such waste: <https://foodprint.org/issues/the-problem-of-food-waste/>:

Is food too cheap or too expensive? This may sound like a silly question given the inflationary prices being experienced, however, one person’s visit to a Phoenix grocery store pointed out a real problem. Sounds like a paradox. Here is the explanation at <https://foodtalk.co.uk/blog/2020/09/cheap-food-is-just-too-expensive>.

And if we thought that poor health and food consumption had no connection, here is what one report from the UK found: *The dishonesty and lack of transparency in the sourcing of food is shocking, but it's the hidden costs of the most awful public health issues that make cheap food so expensive in the long run. It is fair to call the rise in obesity an 'epidemic'. Public Health England estimated that the NHS spends around £6 billion annually on overweight and obesity-related ill-health. As they put it: “Annual spending on the treatment of obesity and diabetes is greater than the amount spent on the police, the fire service and the judicial system combined.”*

Human justice and human well-being are also dependent on food. In their abstract paper Ana Ayala and Benjamin Mason Meier make the case for food access and security being treated in the context of a human right. (<https://publichealthreviews.biomedcentral.com/articles/10.1186/s40985-017-0056-5> Abstract *Public Health Reviews* volume 38, Article number: 10 (2017) They report that: *Food and nutrition insecurity continues to pose a serious global challenge, reflecting government shortcomings in meeting international obligations to ensure the availability, accessibility, and quality of food and to ensure the highest attainable standard of health of their peoples. With global drivers like climate change, urbanization, greater armed conflict, and the globalization of unhealthy diet, particularly in under-resourced countries, food insecurity is rapidly becoming an even greater challenge for those living in poverty. International human rights law can serve a critical role in guiding governments that are struggling to protect the health of their populations, particularly among the most susceptible groups, in responding to food and nutrition insecurity.*

Diverse questions flow from a consideration of the production, transportation, marketing and consumption of food across the globe. Governments ought to make food security one of the highest priorities for their nations. The answers to thorny food security questions can be controversial because governments have different value systems, different motivating pressures, and may be dependent on different structures of public accountability.

### Useful sources

[https://en.wikipedia.org/wiki/Food\\_security](https://en.wikipedia.org/wiki/Food_security)  
<https://www.worldvision.ca/stories/food/the-basics-of-food-security#:~:text=1.-,What%20is%20food%20security%3F,an%20active%20and%20healthy%20life.%E2%80%9D>  
<https://www.foodandwine.com/news/food-waste-united-nations-report>  
<https://www.clf.org/blog/why-we-waste-food/>  
<https://olioex.com/food-waste/the-problem-of-food-waste/>  
<https://foodtalk.co.uk/blog/2020/09/cheap-food-is-just-too-expensive>  
<https://publichealthreviews.biomedcentral.com/articles/10.1186/s40985-017-0056-5>  
[https://planacanada.ca/stories/what-are-the-sdgs?gclid=CjwKCAjwu\\_mSBhAYEiwA5BBmf4cUUiH-heGTKJwMw7Gg44DLMSHvXHnR-9e9vLYLu15gqrniOP1BoCl0oQAvD\\_BwE](https://planacanada.ca/stories/what-are-the-sdgs?gclid=CjwKCAjwu_mSBhAYEiwA5BBmf4cUUiH-heGTKJwMw7Gg44DLMSHvXHnR-9e9vLYLu15gqrniOP1BoCl0oQAvD_BwE)  
<https://theconservativetreehouse.com/blog/2022/04/30/food-supply-protectionism-is-rapidly-spreading-as-global-organizations-like-the-imf-warn-of-consequences/>

### **General Questions for Introduction of the Issue**

1. What do you think is the most important factor in the creation of a state of food insecurity?
2. How serious is the problem?

### **Classroom Assignments**

To maximize the available classroom time one option for teaching a unit consisting of 5 classroom lessons could be the following. Divide the class into study groups consisting of 3-6 students depending on the size of the class overall. Each group researches one important aspect of food insecurity, analyzes and explains its findings via an oral report or a written summary depending on the class time allotted:

*Covid pandemic*

*Wars and civil conflict*

*Climate change and natural disasters*

*Global Supply chains*

*Food wastage*

*Government incompetence and/or corruption*

The same study groups should also select or be assigned one of the possible solutions for reducing or eradicating food insecurity across the globe.

*Work of NGOs in the field of human rights*

*International trade policies and trade agreements*

*Use of digital data and biotechnology tools in agriculture*

*Educating people on healthy diets, food nutrition and food diversity*

*Setting specific/concrete aspirational goals*

*Setting and enforcing anti-waste and anti-pollution measures*

**There are many good resources for research in the negative and positive components in dealing with the problem of food security. The material presented in this learning resource is a modest start.**

## **Part B What Is Driving Up the Price of Food?**

Many factors influence the price of foodstuffs, including war, Covid and cynical opportunism. Here are two very short videos that present conflicting arguments. In the first ([https://rumble.com/v10yp2k-whos-causing-the-global-food-crisis-eu-knows-better.html?mref=6zof&mc=dgip3&utm\\_source=newsletter&utm\\_medium=email&utm\\_campaign=RT&ep=2](https://rumble.com/v10yp2k-whos-causing-the-global-food-crisis-eu-knows-better.html?mref=6zof&mc=dgip3&utm_source=newsletter&utm_medium=email&utm_campaign=RT&ep=2))

Russia is blamed for the price rise because they invaded Ukraine, while others accuse the European Union as the culprit because it placed sanctions on Russia. In the second video the speaker makes the claim that the surge in food prices is actually planned as part of the Great Reset to bring about the New World Order being pushed by a globalist organization, the World Economic Forum (WEF) based in Davos, Switzerland. (<https://rumble.com/vzw30m-a-global-food-crisis-captioned.html?mref=6zof&mrefc=2>)



According to experts at the WEF based in Davos Switzerland, there should be great concerns about the impact that the Russian invasion of Ukraine will have on global food security. According to UN estimates between 720 million and 811 million people in the world faced hunger in 2020. And since then the outbreak of COVID-19, climate change and conflict are seen as the main drivers of global food insecurity.

As the crisis in Ukraine deepens, experts including Gilbert Houngbo, former Prime Minister of Togo now President of the United Nations' International Fund for Agricultural Development (IFAD), are warning about the impact of the Russian invasion on global food security. ( see <https://www.dw.com/en/russias-invasion-of-ukraine-drives-global-food-insecurity/a-61124764> )

The IFAD is “very concerned” that an extended conflict in Ukraine could limit the world's supply of staple crops such as wheat, corn and sunflower oil, resulting in skyrocketing food prices and hunger. Houngbo adds that “This could jeopardize global food security and heighten geopolitical tensions.”

There are organizations like the WEF that are trying to address these huge problems. The name itself gives it away as a supra-national entity that has extensive resources along with policy plans. Their research papers can be accessed at their website. One should consider a few representative articles from the WEF website pertaining to the topic of food security.

Launched in 2018, the Forum's *Innovation with a Purpose Platform* is a large-scale partnership that facilitates the adoption of new technologies and other innovations to transform the way we produce, distribute and consume our food. Mar 14, 2022

#### **Food systems: These innovations could help end world hunger**

<https://www.weforum.org/agenda/2022/03/food-s...>

Mar 15, 2022 — **Global food** systems are in crisis, but a new roadmap from the UN and **World Economic Forum** could **help** countries accelerate inclusive food ...

#### **This is why food security matters now more than ever - The ...**

<https://www.weforum.org/agenda/2020/11/food-s...>

Nov 23, 2020 — The **global food security** challenge is straightforward: by 2050, the **world** must feed two billion more people, an increase of a quarter from ...

#### **6 ways we can take action on malnutrition, according to the UN**

<https://www.weforum.org/agenda/2021/07/un-foo...>

Jul 16, 2021 — **What is the World Economic Forum doing to help ensure global food security?**

#### **On the Agenda / Future of Food - The World Economic Forum**

<https://www.weforum.org/food-and-nutrition-security>

The stories shaping the **Global**, **Regional** and **Industry** agendas.

#### **3 urgent actions to redesign the future of food in 2021 - The ...**

<https://www.weforum.org/agenda/2021/01/how-to...>

Jan 25, 2021 — At the beginning of 2021, **food** has found its way back to the centre of the **global** agenda. The **World Food** Programme was awarded the Nobel Peace ...

#### **Food security and why it matters - The World Economic Forum**

<https://www.weforum.org/agenda/2016/01/food-s...>

The **global food security** challenge is straightforward: by 2050, the **world** must feed 9 billion people. The demand for food will be 60% ...

Jan 18, 2016 · Uploaded by World Economic Forum

#### **Food systems can lead the way to net zero, if we act now - The ...**

<https://www.weforum.org/agenda/2022/03/food-s...>



Mar 16, 2022 — **What is the World Economic Forum doing to help ensure global food security?**  
Mar 15, 2022 — **Global food systems are in crisis, but a new roadmap from the UN and World Economic Forum could help countries accelerate inclusive food ...**

### **Food shortages and conflict put millions of people at risk - The ...**

<https://www.weforum.org/agenda/2021/05/global-...>

May 25, 2021 — **What is the World Economic Forum doing to help ensure global food security? ...** In 2020, 20 million more people than in 2019 experienced acute ...

### **How can we remove injustice from our global food systems?**

<https://www.weforum.org/agenda/2022/02/global-...>

Feb 2, 2022 — **What is the World Economic Forum doing to help ensure global food security?**

World Economic Forum partner Yara International supports farmers in 150 countries to sustainably improve yields and fight hunger. President and CEO Svein Tore Holsether warns that with the key season approaching to move fertilizer stocks around the northern hemisphere, the impact of the Russian invasion of Ukraine coming on top of rising gas prices means global food security has already reached crisis levels.

<https://www.mining.com/web/here-is-how-fertilizers-drive-food-prices/>

He told the BBC: “Half the world's population gets food as a result of fertilizers ... and if that's removed from the field for some crops, [the yield] will drop by 50%....For me, it's not whether we are moving into a global food crisis – it's how large the crisis will be.”.....The UN agencies' report outlines the major drivers of the recent rise in hunger and food insecurity: Conflict, climate variability and extremes, economic slowdowns and downturns (exacerbated by the COVID-19 pandemic).....“In addition, *millions of people around the world suffer from food insecurity and different forms of malnutrition* because they cannot afford the cost of healthy diets,” says the report, noting that the impact of these



drivers is heightened by pre-existing levels of inequality – and they are often interconnected. Conflict, for example, “negatively affects almost every aspect of a food system, from production, harvesting, processing and transport to input supply, financing, marketing and consumption. “Direct impacts can include the destruction of agricultural and livelihood assets and can severely disrupt and restrict trade and movements of goods and services, with a negative effect on the availability and prices of food, including nutritious foods.”

The UN agencies' report, published before the invasion of Ukraine, recommends six ways to transform food systems to address these challenges and “ensure access to affordable healthy diets for all, sustainably and inclusively”

1. Integrating humanitarian, development and peacebuilding policies in conflict-affected areas
2. Scaling up climate resilience across food systems
3. Strengthening the resilience of the most vulnerable to economic adversity
4. Intervening along the food supply chains to lower the cost of nutritious foods
5. Tackling poverty and structural inequalities, ensuring interventions are pro-poor and inclusive
6. Strengthening food environments and changing consumer behaviour to promote dietary patterns with positive impacts on human health and the environment.

In an interesting discussion on the WEF's Davos Radio two reporters talked about a climate change conference in October, 2021 the **COP26: Feed the world without destroying the climate**. They stressed that there must be more diversity of food sources, otherwise food can go extinct as crops can become vulnerable to blights, They mentioned how the green revolution (e.g. creating new varieties of wheat and rice) may help, but these are not necessarily long term solutions. Synthetic fertilizer requires a lot of energy to produce it from chemicals. The fact that four large corporations control most of the food production allows for

less competition and less diversity. They went on to say that some parts of the world have too much food and the wrong kind of food (too much cereals? too much animal food?) They discussed how cancers and diabetes seem to be related more to western food consumption. People are changing their eating habits, but what are the consequences for human health in the long run? Really, it was an intelligent and informative short 29 minutes discussion ...on the need to learn more about food, and a book *Eating to Extinction*, a book on diverse eating. People need to eat more diverse food, more greens, more fruit, and less meat. Then a whole other discussion about the notion of the Green Restaurant, and what that concept could mean.

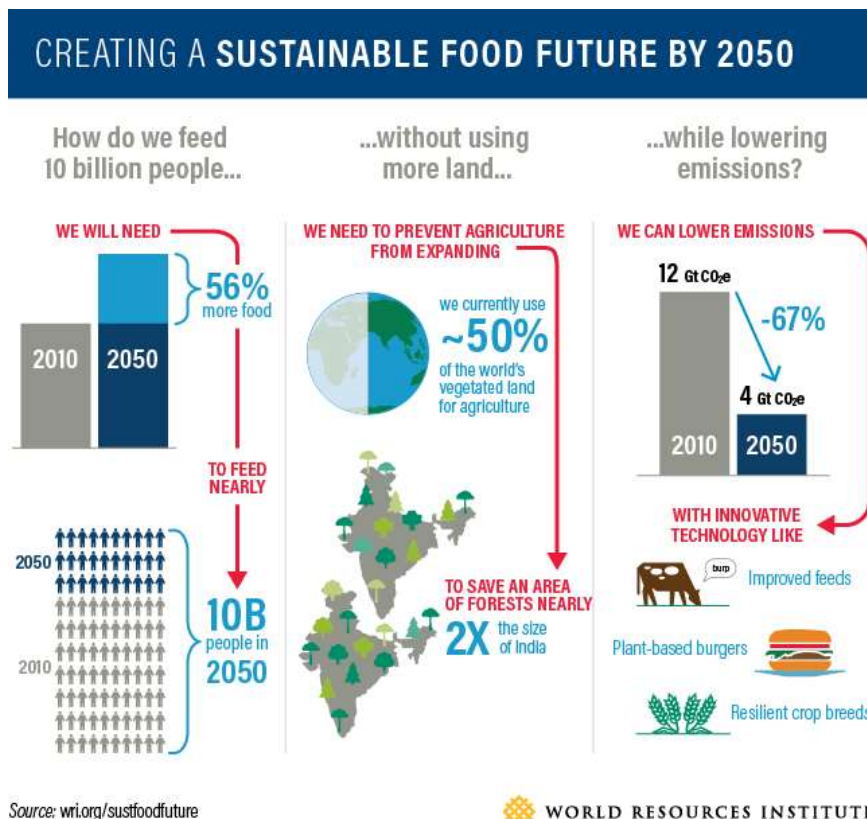
[https://open.spotify.com/episode/33RrIXN8cAkJBtOzIG963o?go=1&sp\\_cid=8301ddc5ada937a2fd0332ea83a25dba&t=13&utm\\_source=embed\\_player\\_p&utm\\_medium=desktop&nd=1](https://open.spotify.com/episode/33RrIXN8cAkJBtOzIG963o?go=1&sp_cid=8301ddc5ada937a2fd0332ea83a25dba&t=13&utm_source=embed_player_p&utm_medium=desktop&nd=1)

There are creative approaches to food production, including the digitization of certain components of agriculture. For example, **GoGo Chicken**, a poultry monitoring technology based on blockchain, was developed by a subsidiary of the Chinese online insurer ZhongAn to chronicle chickens' provenance to prove whether they are organic (or not). According to the company, each chicken wears a tracking device on its foot, which automatically uploads its real-time progress through the supply chain to the blockchain database. Sensors monitor temperature, humidity and other aspects of the chickens' environment, while algorithms evaluate the bird's health using video analysis.

An observer noted: *As agriculture digitizes, more new pockets of value will likely be unlocked from the oldest industry. We must continue to bring more digital tools, such as Artificial Intelligence, big data, blockchain and Internet of Things, to entrepreneurs working in farming, especially considering the irreversible trend of fewer and fewer people engaged in this work.*

Much of this cannot happen until rural areas are equipped with a high-speed broadband network, but there are still about 3 billion people worldwide – mostly in rural areas – without basic internet connectivity. Furthermore, even in areas that already have internet connectivity, farmers have been slow to deploy digital tools because their impact has not been sufficiently proven. That's why the strawberry competition in a Chinese region was so important. It illustrated how growers using digital data were able to outperform farmers deploying traditional approaches to the growing of strawberries.

<https://www.weforum.org/agenda/2021/01/china-digital-agriculture-global-food-security>



### Questions

1. Can we achieve global food security within the constraints outlined in the graph above ?
2. What are the main obstacles standing in the way of achieving this goal in the near future, say, by 2050?
3. What are some of the more successful approaches being taken that give hope regarding global food security?
4. What roles are the following organizations and institutions playing in trying to achieve this goal: churches; United Nations; World Economic Forum; food companies like Monsanto; World Vision?

## The Impact of Russia-Ukraine War

The war in Ukraine is endangering crucial wheat supplies in many of the least developed countries in the world. Among them, countries in Africa and the Middle East in particular are heavily dependent on wheat imports from Russia and Ukraine. According to the UN Comtrade database, Benin and Somalia obtained all of their wheat from Ukraine and/or Russia. The dependency of Egypt stood at 82 percent, according to the data.

While crop failures are to be expected in Ukraine in 2022, Russia has imposed an export ban on products such as wheat until the end of June 2022, leading observers to predict shortages and rising prices among their trade partners and on the world market. Egypt and Somalia are among the countries where wheat is traditionally used in some of the most common food staples. According to The Guardian, a food shortage had already been looming in the latter country because of a resurgence of conflict and drought, causing international organizations to warn of the risk of severe hunger even before the invasion.

Ukraine and Russia are also among the world's top exporters for other important food staples. Around two thirds of the global exports of crucial sunflower products like oil and feed come from Ukraine and Russia.

Ukraine plays a major role in the global food system. Together with Russia, the two countries account for a combined 12% of the food calories traded in the world, says IFAD. Almost half (40%) of Ukraine's wheat and corn exports go to the Middle East and Africa, which are already grappling with hunger issues, and where further food shortages or price increases could stoke social unrest. Egypt is the world's biggest buyer of wheat and imports, most of this from Ukraine and Russia. It uses the grain to make subsidized bread, on which many families rely, according to The Economist.



“The continuation of this conflict, already a tragedy for those directly involved, will be catastrophic for the entire world, and particularly those that are already struggling to feed their families,” says Hounbo. “IFAD is committed to continue its work to increase the food self-sufficiency and resilience of the world's poorest countries, but in the short term it will be difficult to mitigate the global impacts of this crisis. Stopping the conflict now is the only solution.” Global food prices rose by over 20% in February compared with a year earlier, taking them to record levels, according to the UN's Food and Agriculture Organization.

<https://www.statista.com/chart/27225/russian-and-ukrainian-share-of-global-crop-exports/>  
<https://seekingalpha.com/article/4485069-global-food-price-inflation-reaches-all-time-high-amid-record-supply-shortages>

### Another Overview

In this overview **from October 2013**, just nine years ago, the prospects for food security were poor. In the article, the author, Lester Brown, outlined the formidable challenges and fragility of the whole food security system. He painted a rather alarmist picture concerning food security. However, it is prudent to point out that actual stats regarding several of the points he makes do not support his contentions as one may note by comparing his claims to other statistics found elsewhere in this curriculum resource. Some contrarian cautions are offered in parentheses. <https://www.theglobalist.com/global-food-security-10-challenges/>



## Global Food Security: 10 Challenges

1. Rising population. There will be 219,000 people at the dinner table tonight who were not there last night, many of them with empty plates. (population growth, although still rising in absolute terms, has had its rate actually fall in many areas of the world, including China, Europe and the United States and Russia)
2. Rising incomes, changing diets. Today, with incomes rising fast in emerging economies, there are at least 3 billion people moving up the food chain toward Westernized diets. As incomes go up, people tend to eat more meat. China's meat consumption per person is still only half that of the United States. That leaves a huge potential for future demand growth.(demand does not necessarily result in more production. Affordability will curb demand)
3. Falling water tables. Aquifer depletion now threatens harvests in the big three grain producers — China, India and the United States—that together produce half of the world's grain. The question is not whether water shortages will affect future harvests in these countries, but rather when they will do so. (Canada, Ukraine and Russia are big grain producers, that is why the Russia-Ukraine War is having a negative impact on food security)
4. More foodless days. In Nigeria, 27% of families experience foodless days. In India, it is 24%; in Peru, 14%. The world is in transition from an era dominated by surpluses to one defined by scarcity. (the reality is that those nations mentioned actually have better prospects today than they had in 2013)
5. Slowing irrigation. Water supply is now the principal constraint on efforts to expand world food production. Since 2000, the growth in irrigation has come to a near standstill, expanding only 10% between 2000 and 2010. (Israel solved its problems with desalinization plants, making the Negev Desert green)
6. Increasing soil erosion. Nearly a third of the world's cropland is losing topsoil faster than new soil is forming. This reduces the land's inherent fertility.
7. Climate change. The generation of farmers now on the land is the first to face manmade climate change. With each passing year, the agricultural system is more and more out of sync with the climate system. (there is much evidence that through better application of digital technology production is increasing. Another example is the building of greenhouses to produce foods in areas normally off limits. Hydrponics is another breakthrough.)
8. Melting water reserves. At no time since agriculture began has the world faced such a predictably massive threat to food production as that posed by the melting mountain glaciers of Asia... In the Indus, Ganges, Yellow and Yangtze river basins, where irrigated agriculture depends heavily on rivers, the loss of glacial-fed, dry-season flow will shrink harvests and could create potentially unmanageable food shortages. (the glaciers melting appears to be more seasonal than imagined. The evidence is not conclusive)
9. Flattening yields. After several decades of raising grain yields, farmers in the more agriculturally advanced countries have recently hit a glass ceiling. That production ceiling is imposed by the limits of photosynthesis itself. (more food and more yield, but at an increasing cost)
10. Little time to prepare. To state the obvious, we are in a situation both difficult and dangerous. The gravity and urgency of the tightening food situation is such that we are not looking at a crisis in 2030 or 2050. We are looking at an abrupt disruption in the world food supply that could be just one poor harvest away. (when one considers the facts of food wastage, perhaps there will still be plenty of food to nourish the earth's population if properly conserved and distributed)



In this article by Rob Verkerk *How Tequila Waste Could Play Key Role in Regenerative Agriculture* we see the potential unheard of reuse of stuff considered waste in the past.

[https://childrenshealthdefense.org/defender/tequila-waste-regenerative-agriculture/?utm\\_source](https://childrenshealthdefense.org/defender/tequila-waste-regenerative-agriculture/?utm_source)



## Part C Elements of Food Security Explained: World Vision

*In excerpts from a World Vision article one gets a wholistic appreciation of the importance of food security to the basic well being of a society.*

Access to safe, nutritious and sufficient food is a basic need and should be treated as a human right, with priority given to the most vulnerable. Apart from basic nutrition, food security is linked to economic stability, long-term health, women's empowerment and the environment....Research reveals that food insecurity can result in



ongoing short and long-term health problems. The first 1000 days (from conception to age two) of a child's life are of critical importance for their healthy growth and development....For children, severe food insecurity has been linked to chronic health conditions like asthma and depression. A diet lacking in proper substance – enough calories, protein, vitamins and minerals – will impede a child's growth and development from before they're born up until adolescence.



A pregnant mother's malnutrition can lead to a higher risk of low birthweight, infant mortality, preterm delivery and slow cognitive development for her baby. The stress alone of living without secure access to food can have a negative effect on the health of pregnant mothers. This then impacts their

infants by affecting milk supply while breastfeeding....Because of its problematic effects on health, household food insecurity places a big burden on health care systems....Adults in food-insecure households have higher rates of developing chronic diseases – mental health issues, arthritis, asthma, diabetes – and are more likely to die early. In fact, food-insecure Canadian adults are likely to die up to nine years sooner than the rest of the population.

With education and support, farmers, forestry and fishery workers can provide nutritious food for themselves and their communities. This can be a way for local farmers to generate income while supporting people-centred rural development and safeguarding the environment....Organic agricultural practices that have access to proper resources and learn best practises are more likely to generate much higher crop yields. This allows farmers to not only secure enough for their own needs, but also to sell in local markets. In turn, this enhances the family's livelihood, strengthens community resilience and furthers the local economy.

New evidence in a 2018 report highlights that, aside from a country's conflict, climate irregularity is a key driving force behind the recent rise in global hunger. It's also one of the leading causes of severe food crises....Right now, our soils, freshwater, oceans, forests and biodiversity around the world is experiencing rapid damage. Climate change is putting even more pressure on the ecosystems and resources we depend on, increasing the risk of natural disasters like droughts, floods and even infestations. Many rural women and men can no longer make ends meet on their land, forcing them to migrate to cities in search of opportunity.



### **Food security empowers women, families and future generations.**

Women tend to start with fewer advantages than men, especially when it comes to nutrition, money and resources. This translates to a delayed start to good health and independence in early life and less food security as they build families and communities of their own. But when they are provided with resources and opportunities, women are more likely to direct most of what they

have toward helping others. For example, female-headed families are likely to eat more, or have a higher quality diet, than male-

headed households with a similar income... When a crisis hits (famine, war, drought, pandemic), women tend to have self-sacrificial coping strategies that benefit their families. A number of studies have shown that one of the most common mechanisms women adopt in a food shortage is to first reduce their food consumption, and then skip meals in order to ensure larger portions for the men and children.

An FAO study estimates that closing the gender gap when it comes to access to resources like land, credit, machinery or chemicals could close gaps in crop yields of 20% to 30% and increase domestic agricultural production by 2.5% to 4%. This means up to 100 million fewer people living with hunger.....If we give women the tools and support they need to take the lead on providing food for their households everyone benefits.



In difficult times like war, famine, droughts and pandemics, instinct urges us to hunt, gather and store food. It's estimated that the number of people suffering from food insecurity could go from 135 million to more than 265 million with the effects of COVID-19. One article claims the coronavirus has pushed the world's food insecurity to Biblical proportions. "Lockdowns and global economic recession have already decimated [people's] nest eggs," says Arif Husain, WFP's Senior Economist. "It only takes one more shock—like COVID-19—to push them over the edge."

What's even more frightening is the pandemic's aftershock effects and its threat to children. When parents are infected, children become neglected. As many as 30 million children are especially vulnerable to malaria, malnutrition, lack of protection against diseases. It's likely that more children will die from residual impacts brought on by COVID-19 than from the virus itself....

Food, it's about so much more than satisfying our hunger, it's also about nurturing long-term well-being. When we have food security, we can work toward preserving the environment, stabilizing our economy, empowering women and girls, mobilizing communities and feeding families. <https://www.ifpri.org/topic/food-security>

## Part D The Canadian Context

*Food security should not be a problem or concern for a nation like Canada, and yet the data says otherwise. An interesting paper from a department at the University of Toronto provides a lot of valuable information and gives us a sobering view. The excerpts below are taken from <https://proof.utoronto.ca/food-insecurity/>. There are many graphs and other statistics, however, lack of space limits us to a few key points.*

To repeat the mantra, food insecurity is the inadequate or insecure access to food due to financial constraints. It is a serious problem in Canada that negatively impacts physical, mental, and social health, and costs our healthcare system considerably. It is estimated that in 2017-18, one in eight households in Canada was food insecure, amounting to 4.4 million people, including more than 1.2 million children living in food-insecure households.<sup>1</sup>

Household food insecurity in Canada is measured by Statistics Canada using the Household Food Security Survey Module (HFSSM) on the Canadian Community Health Survey (CCHS). The HFSSM consists of 18 questions about the experiences of food insecurity, ranging from worrying about running out of food to going whole days without eating, due to financial constraint. Based on a household's experience, food insecurity for those 4.4 million Canadians can be categorized into 3 categories:

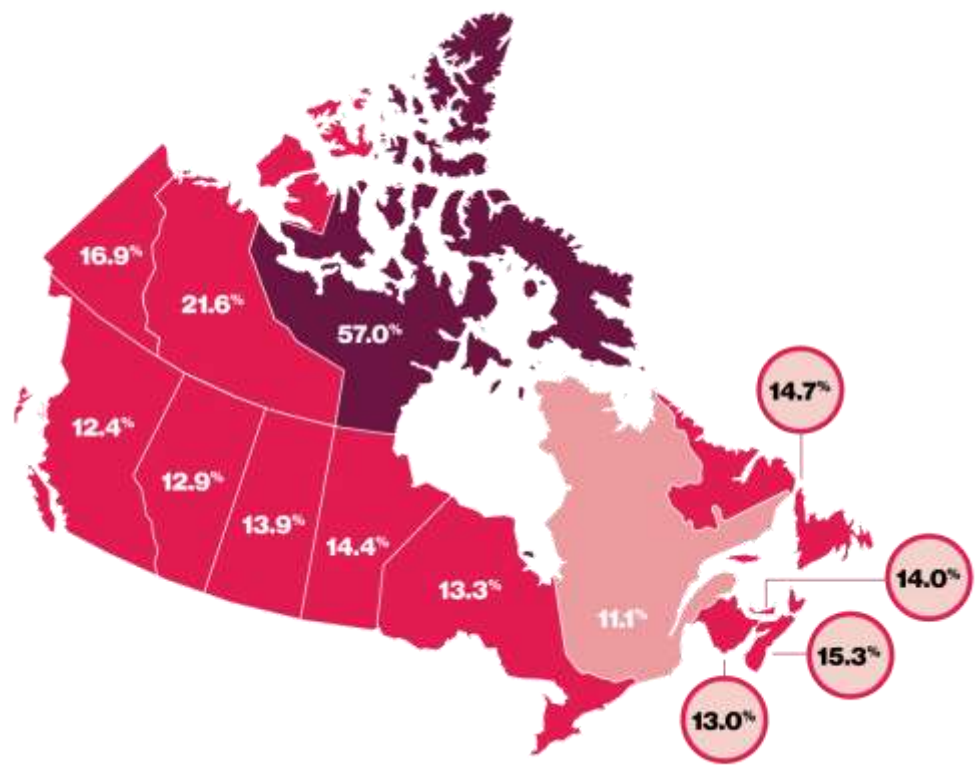
**Marginal food insecurity:** Worry about running out of food and/or limited food selection due to a lack of money for food.

**Moderate food insecurity:** Compromise in quality and/or quantity of food due to a lack of money for food.

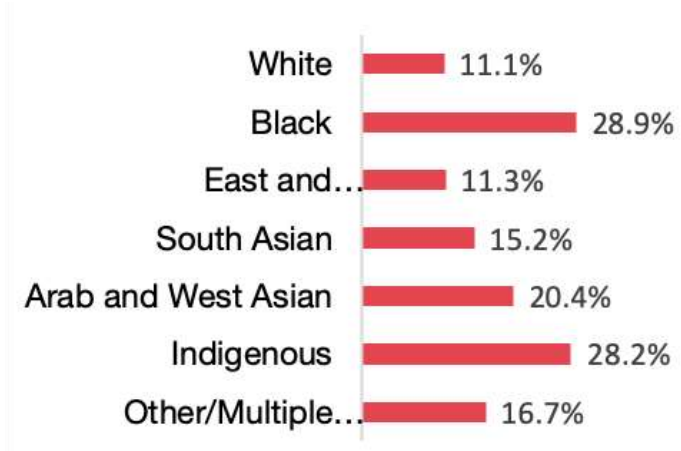
**Severe food insecurity:** Miss meals, reduce food intake, and at the most extreme go day(s) without food.

### Food Insecurity by Province and Territory

In 2017-18, Nunavut had the highest prevalence of food insecurity (57.0%) followed by the Northwest Territories (21.6%) and Yukon (16.9%). The lowest prevalence of household food insecurity was in Quebec, at 11.1%. 84% of people living in food-insecure households in 2017-18 were in one of four provinces: Ontario, Quebec, Alberta, or British Columbia.<sup>1</sup>



**Data Source:** Statistics Canada, Canadian Community Health Survey (CCHS), 2017-18



The prevalence of household food insecurity differs markedly by Indigenous status and racial/cultural group. The highest rates of food insecurity are found among households where the respondent identified as Indigenous or Black.<sup>1</sup>

Household food insecurity is **especially concerning in Nunavut** which has the highest prevalence of food insecurity of all the provinces and territories. 57.0% of households are food-insecure and almost half of these households were severely food insecure. 78.7% of the children in Nunavut live in food-insecure households.<sup>1</sup>

**1 in 4 households that rent their accommodations is food-insecure while 7.2% of owners are.**<sup>1</sup> Owning a home provides protection against food insecurity as home owners have a considerable asset that can be used to leverage funds when there is a

need, such as job loss, sudden illness, and other income shocks. However, not all homeowners are protected equally as the amount of housing debt and asset value matters.<sup>2</sup>

Most food-insecure households are in the workforce. 65% reported their main source of income as wages or salaries from employment.<sup>1</sup> **Simply having a job is not enough;** low-waged jobs and precarious work means people in the workforce often don't have enough income to be food-secure.<sup>3</sup>

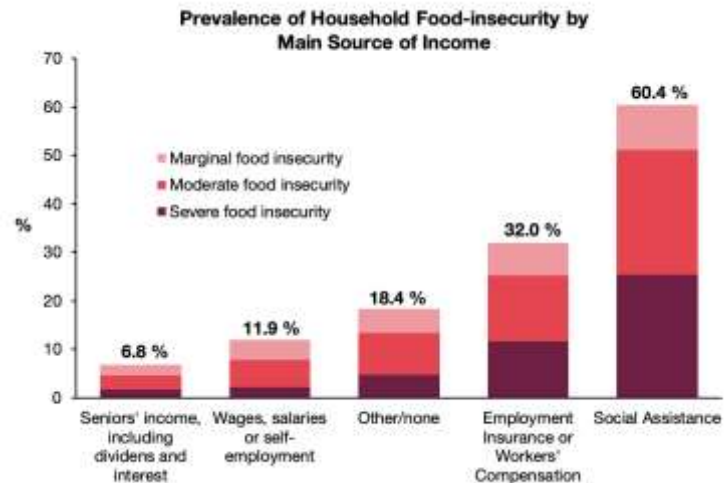


**Households with seniors' incomes as their primary source of income have a lower prevalence of food insecurity than any other group (6.8% in 2017-18).**<sup>1</sup> This in part reflects the protection afforded to seniors through Canada's pension programs.<sup>4</sup>

Employment Insurance and workers' compensation, social programs for those in the workforce, do not protect households from food insecurity. **32.0% of households reliant on these programs are food-insecure.**<sup>1</sup>

**Most (60.4%) households reliant on social assistance in Canada are food-insecure;** a quarter are severely food-insecure.<sup>1</sup> Local food costing tells the same story – social assistance rates are too low to enable recipients to meet their basic needs.<sup>5·6·7</sup>

**Data Source:** Statistics Canada, Canadian Community Health Survey (CCHS), 2017-18



**Food insecurity is associated with increased nutritional vulnerability in Canada.** Adults and adolescents in food-insecure households in Canada are more likely to experience nutrient inadequacies and have poorer diets, with lower intakes of milk products, fruits, and vegetables compared to people who are food secure.<sup>8</sup> However, the impact of food insecurity on health extends beyond diet and nutrition.

**Food insecurity leaves an indelible mark on children's wellbeing.** Experiencing food insecurity at an early age is associated with childhood mental health problems, such as hyperactivity and inattention.<sup>9</sup> Experiences of hunger in childhood increase the risk of developing asthma, depression, and suicidal ideation in adolescence and early adulthood.<sup>10·11·12</sup>

**Adults living in food-insecure households report poorer physical health and are more vulnerable to a wide range of chronic conditions,** such as diabetes, heart disease, hypertension, arthritis, and back problems.<sup>13·14·15·16</sup> They are also more likely to be diagnosed with multiple chronic conditions.<sup>17</sup> Additionally, adults with mobility impairments appear to be disproportionately affected by food insecurity.<sup>18</sup>

**There is a particularly strong relationship between food insecurity and poor mental health.**<sup>19·20</sup> The risk of experiencing depression, anxiety disorder, mood disorders, or suicidal thoughts increases with the severity of food insecurity.<sup>21</sup>

**Food insecurity also makes it difficult for individuals to manage existing chronic health problems, such as depression, diabetes and HIV, and it can lead to worsening conditions.**<sup>22·23·24·25</sup> Food insecure individuals may struggle to adhere to therapeutic diets or forego necessary medication because of the expense.<sup>26</sup>

**The health consequences of food insecurity are a large burden on our healthcare system.**<sup>22·27·28</sup> Healthcare costs are considerably greater for food insecure households, rising in a step-wise fashion with more severe food insecurity.<sup>27</sup>

Even after adjusting for other well-established social determinants of health, such as education and income levels, **the healthcare costs incurred by a severely food insecure adult in Ontario are more than double that of a food secure adult.**<sup>27</sup> These findings imply that addressing food insecurity could offset considerable public expenditures on health care in Canada and improve overall health.

**Premature mortality is among the most serious health consequences of food insecurity.** Adults experiencing food insecurity are more likely to die prematurely than their food-secure counterparts.<sup>29-30</sup> The average lifespan is nine years shorter for severely food-insecure adults than for food-secure ones.<sup>29</sup>

**Non-communicable diseases account for the great majority of premature deaths in Canada,** and this is true irrespective of one's food insecurity status.<sup>29</sup> Severe food insecurity is associated with higher risk of premature mortality of all causes except cancers; the association is especially strong for deaths from infectious-parasitic diseases, unintentional injuries and suicides.<sup>29</sup> **Given this pronounced relationship, it is important to consider food insecurity status as a relevant social determinant of premature mortality.**<sup>29</sup>

An analysis of national survey data from Statistics Canada found that adults in food-insecure households report having food preparation and cooking skills comparable to those in food-secure households.<sup>31</sup> In fact, most Canadians consider themselves skilled at food preparation, and very few Canadians (2%) report not knowing where to start when it comes to cooking, regardless of food insecurity status. This research also found that food preparation and cooking skills were not associated with food insecurity – adults that were more proficient in these skills were not any more likely to be food secure.<sup>31</sup>

Adults in food-insecure households are 4 times more likely to report using a budget when shopping for food, but do not differ in terms of other shopping behaviours, like using a written grocery list, planning meals before shopping, or using Canada's Food Guide.<sup>31</sup>

Although adults in food-insecure households are less likely to garden for food, there is also no indication that gardening for food protects households from food insecurity. Adults that gardened were as likely to be food-insecure as those that didn't.<sup>31</sup> This research suggests that interventions like programs aimed to improve food and budgeting skills or community gardens are unlikely to impact food insecurity rates in Canada.

Household food insecurity in Canada is tightly linked to income. As a household's income declines, the risk of food insecurity increases. However, it is not a perfect one-to-one relationship. Food insecurity reflects a household's broader material circumstances, taking into account income, assets like property, and other resources a household could draw upon.

Severe food insecurity is particularly sensitive to income. Households with very low incomes are at much higher risk of being severely food insecure. It is critical to address this high risk, given the greater negative health impact and healthcare costs associated with severe food insecurity. Modest changes to income can have a considerable impact on their risk of food insecurity.

In addition to income, housing tenure is an economic risk factor for food insecurity. Studies have repeatedly found that households owning their home have a decreased vulnerability to food insecurity compared to renters. As expected, however, the level of protection afforded by homeownership is lower for those with a mortgage than those without.<sup>2</sup> Recent research indicates that the protective effect of homeownership is also a function the value of the home (i.e., the size of the housing asset).<sup>2</sup> For owners with a mortgage on a home of low value (< \$120,000), the risk of food insecurity was found to be similar to that of market renters.<sup>2</sup> Mortgage-free owners with higher housing asset were the least vulnerable to food insecurity.<sup>2</sup>

Households with senior's pensions as the main source of income have much lower rates of food insecurity than households reliant on other sources of income, reflecting the protection afforded to seniors through Canada's pension programs (i.e. Old Age Security, Guaranteed Income Supplement, and Canada Pension Plan/Quebec Pension Plan). An examination of food insecurity among unattached, low income (<\$20,000 per year) adults found that their risk of being food insecure is reduced by half once they reach the age of 65 and become eligible for seniors' entitlements. Although the income provided through these pensions is still low, it is reliable and well above the amount these individuals would've received through social assistance.<sup>4</sup>

Federal and provincial child benefit programs have also been repeatedly shown to have a positive impact on food insecurity among families.<sup>32-33-34-35</sup> Our most recent evidence comes from an analysis of the Canada Child Benefit (CCB), a federal income supplement program to support households with children under 18.<sup>32</sup> The benefit amount for the CCB is determined by



the household income, as well as the age(s) and number of children. The CCB was implemented in 2016 to provide greater financial support than the Child Tax Benefit and Universal Child Care Benefit which it replaced. Researchers have found that the CCB reduced the likelihood of severe food insecurity among low-income households with children. However, the prevalence of overall food insecurity for this group remained unchanged.<sup>32</sup>

Social assistance programs vary among provinces and territories, but being on social assistance anywhere in Canada poses an extremely high risk of food insecurity.<sup>1</sup> No matter where we look in Canada, over half of households reliant on social assistance were food insecure in 2017-18, and in some jurisdictions this rate rises above 80%.<sup>1</sup> It is important to note that among those receiving social assistance, CCHS does not differentiate

between individuals who are welfare recipients and those who are covered under disability support programs. Since these programs have different benefit levels<sup>36</sup>, the risk for food insecurity likely varies by program, but this cannot be investigated with the current variable in the CCHS.

The poverty reduction strategy introduced by Newfoundland and Labrador in 2006 demonstrates how improving the benefits received through social assistance can have a substantial impact on food insecurity among recipients.<sup>37</sup> Between 2007 and 2012, the prevalence of food insecurity among social assistance recipients in Newfoundland and Labrador decreased by almost half. This strategy aimed to tackle the province's depth of poverty and included several interventions that impacted for social assistance recipients, improving their financial circumstances enough to bring many of them out of food insecurity.<sup>37</sup>

None of the policies described here were explicitly designed to address household food insecurity, but they had substantial impact on this problem because they improved incomes for very low-income households. These are the households that are most likely to be severely food insecure, the most toxic state of food insecurity for health and wellbeing. The results here show that when social assistance recipients receive additional income, they spend it in ways that improve their food security. Interventions that provide a modest increase to income can go a long way in addressing food insecurity in Canada.

Unfortunately, Newfoundland and Labrador elected not to measure household food insecurity on the CCHS in the two survey cycles after 2012. Many political and economic changes have occurred since 2012, and according to the most recent data, 14.7% of households in Newfoundland and Labrador were food insecure in 2017-18 and 65% of households reliant on social assistance were food insecure.<sup>1</sup> The once again high prevalence of food insecurity among social assistance recipients in this province warrants another analysis to understand what drove this increase. This situation demonstrates that food insecurity is sensitive to policy changes for the better or worse and stresses the importance of un-interrupted surveillance of food insecurity.



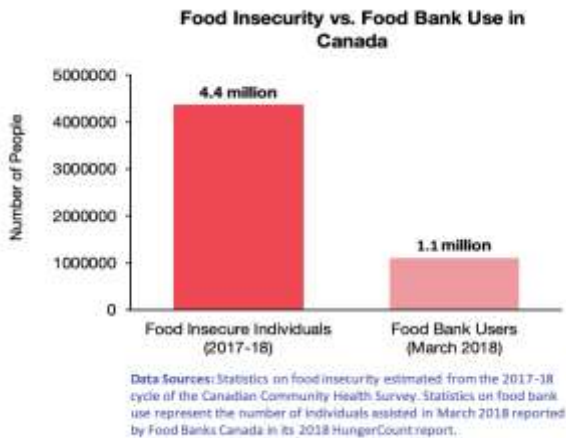
Through research examining transcripts of provincial and federal parliamentary discussions, also known as Hansard records, it is clear that Canada's elected officials recognize that food insecurity is rooted in inadequate income.<sup>38</sup> However, the legislation that they have passed related to the problem has narrowly focused on food charity.<sup>39</sup> For example, there are now food donor laws absolving donors of liability for the safety of donated food in every province and territory,<sup>40</sup> and several provinces have implemented tax credits for



local producers who donate unsold food to community agencies. Food banks also receive support federally, most recently through the Local Food Infrastructure fund introduced as part of the Food Policy for Canada.<sup>41</sup>

Yet, research has shown that most food insecure households do not use food banks. A comparison on the most recent national statistics indicates a four-fold difference between the number of people living in food-insecure households and the number receiving assistance from food banks. Further, there is no evidence that food charity is able to move households out of food

insecurity.<sup>42, 43</sup> It is very common for people who have received help from food banks to report needing still more. While civil society groups continue to do their best to help those struggling with food insecurity, there is wide consensus that the government needs to take action on food insecurity through income-based interventions. Organizations like [Food Banks Canada](#), [Feed Ontario](#), [Community Food Centres of Canada](#), [Food Secure Canada](#), [Dietitians of Canada](#), [Ontario Dietitians in Public Health](#), and many more are all calling for policies that address the root of food insecurity.



**What is remarkable about many Canadians is their generosity in caring for neighbours and those in need regardless of**



**location, background . They donate to food banks, but also in heartfelt response to a specific need. Here is one such example from an organization, Campaign Life Coalition, whose stated mandate is to lobby for legal protection of all human life and respect for human dignity, from conception to natural death. Jeff Gunnarson, its president, wrote about the special appeal to support women in need in Nunavut.**

## CLC NEWSLETTER

### Fundraiser for Nunavut moms a smashing success

The Tuesday after Black Friday is dubbed “Giving Tuesday” and is used to promote financial generosity following the mass-consumption surrounding the American Thanksgiving shopping deals. Charities often ask supporters to donate to them. But not CLC. On Giving Tuesday (Nov. 30), we asked you, our supporters, to financially support a joint effort CLC is undertaking with former Nunavut MLA Patterk Netser and his wife, Mona. Netser, you might recall, was cancelled last year when the staunch pro-lifer commented on Facebook that “All Lives Matter.” He was promptly stripped of his ministerial duties and kicked out of cabinet.

We asked Netser to partner with us in helping pregnant mothers in need in one of the most remote and often forgotten regions in Canada – Nunavut Territory. Netser truly believes in the sanctity of all human life and notes that his Indigenous culture is rooted in the belief that the lives of unborn children are as sacred as the lives of those born. The territorial and federal governments aggressively promote surgical and chemical abortions to women in the territory, diabolically feeding off the economic and social difficulties that life in the far north can often present. We are hoping that helping to provide women with the costs of feeding and clothing their children will aid the Indigenous population in turning its back on the abortion culture. ..We set a goal to raise \$10,000 in 10 days to help new and expectant mothers in Canada's far north. We were absolutely floored by your response. The campaign was flooded with more than \$60,000 in donations, more than six times what we were hoping for. Your support was truly astounding. Many thanks to all who donated to this campaign.

The Netsers’ incredible network of people put them in a unique position to reach these disadvantaged women. One of those people in the Netsers’ network was the President of Winnipeg-based Calm Air, who agreed to fly goods and supplies (diapers, food, and clothing) free of charge to Nunavut, where they will be distributed to new and expectant mothers. The first shipments were to arrive just in time for Christmas. Some of the funds will be spent locally to help stimulate the local economy. With the amount raised, we quickly realized that more could be done than just a one-time boost for mothers and their families. We are currently making plans for an on-going program to help expectant mothers in Nunavut. Stay tuned for

details. To say we are a little overwhelmed by the logistics of it all and by the generosity of our supporters is an understatement. Thank you for your support and thank you to Patterk and Mona Netser for answering the call to help those seduced by the abortion culture. Our campaign comes at a time when Prime Minister Trudeau is attacking pregnancy centres across the country with his election promise to strip them of their charitable tax status. Many vulnerable women who rely on these pregnancy centers for material aid and moral support will be harmed if Trudeau fulfills his promise. You, our dear supporters, in supporting this campaign to help Nunavut women are sending a clear message to Trudeau that if the government refuses to be there for women facing a crisis pregnancy, pro-life advocates will not abandon them.

<https://www.campaignlifecoalition.com/shared/media/monthlynewsletter/326/newsletter.pdf>

## Part E Food Waste in Canada

People concerned about food waste make insightful remarks and proffer suggestions to improve the situation. Here is one example of a journalist's thoughts in this particular field. Chelsea Brash is **Communications Coordinator and blogger for an organization called A Greener Future**. <https://www.agreenerfuture.ca/blog/wrh/food-packaging-waste>



*When we hear the term “food waste” we think of, well, food. But, what about the plastic our groceries come so neatly packaged in? Or the plastic straws, cutlery and containers that come with our takeout meals?*

*In Canada, 3.3 million tonnes of plastic end up in landfills each year, with plastic packaging making up half of that total. The lifespan of plastic packaging is often incredibly short, with most packaging being thrown out in six months or less. Scientists have predicted that if things don't change, Canada will generate an additional 450,000 tonnes of plastic packaging waste by 2030.*



*By our most conservative estimations, 33% of the litter we pick up at A Greener Future's cleanups (excluding cigarette butts) is food packaging. This includes things like water bottles, grocery bags, plastic straws, cutlery and wrappers, but doesn't include unidentifiable plastic and foam pieces, some of which certainly comes from food packaging.*

*The COVID-19 pandemic is only exacerbating the problem. With new restrictions preventing consumers from bringing reusable cups and containers to restaurants, coupled with frequent lockdowns preventing indoor dining, the use of single-use plastics including takeout containers has grown by 250 to 300 percent since the beginning of the pandemic.*

*Takeout containers come in many different forms, and some are harder on the environment than others. Two of the most common types, black plastic food trays and polystyrene (foam) containers, are both notoriously difficult to recycle.*

*In an effort to reduce their impact on the environment, some restaurants have shifted to using biodegradable plastic containers - but these alternatives are not as “eco-friendly” as they may sound. Biodegradable plastics require very specific moisture, heat and oxygen conditions to break down properly - conditions that our local composting facilities often cannot provide. These containers also frequently contaminate local recycling streams as they are difficult to distinguish from regular plastics. Because of these failings, biodegradable packaging is sent to landfill despite its deceiving name.*

*Unfortunately, with more waste comes more litter. Toronto experienced an increase in littering in its parks and beaches during the summer months of the 2020 pandemic as restaurant and bar closures drove people to socialize outside. Unsurprisingly, single-use PPE was found among the litter mid-pandemic, but the City also reported finding coffee cups, napkins and, you guessed it, food containers.*

*Plastic pollution is one of the environmental movement's greatest challenges, but we're at a pivotal moment in time where policy, business and product innovation are beginning to align with science. We're now better equipped to take on the plastics crisis than ever before.*

*In 2020 we saw the Ontario government announce plans to transition its Blue Box recycling program to an Extended Producer Responsibility model. What this means is that producers will take responsibility for recycling the waste they create, taking the burden off local municipalities and taxpayers. It is believed that this new model will encourage innovation in packaging design, to make packaging easier and more efficient to recycle, since the companies creating the packaging will also be responsible for recycling it.*

*Another reason for hope is Canada's proposed ban on single-use plastics, which is part of a larger effort to achieve the government's goal of achieving zero plastic waste by 2030.*

*The ban on single-use plastics will focus on six "problem items", including grocery bags, straws, stir sticks, six pack rings, and food packaging made from hard to recycle plastics.*

*Though there is still much work to be done, this is certainly a step in the right direction to curb the amount of food packaging ending up in landfills and our environment.*

*As unsustainable models of food packaging are phased out, opportunities for innovative sustainable food packaging are endless. Some companies are opting for compostable, or even edible, packaging, while others are making packaging that is easier to recycle. Further innovations have led some to adopt refillable packaging schemes to reduce waste.*

*A Toronto company called **Suppli** hopes to make single-use takeout containers a thing of the past by using a circular economy model to takeout packaging waste. Suppli has partnered with local restaurants in Toronto to offer reusable takeout containers. Consumers can create an account with Suppli, then order from a participating restaurant to receive their meal in a reusable container. When finished, containers can be rinsed out and brought to a local drop-off point where they'll be collected for cleaning and reuse. How cool is that? Now we can support our local restaurants without the waste!*

*Now that we've addressed how the industry is tackling the food packaging problem, let's talk about what we can do as consumers.*

*Support your local zero waste shops & refilleries*

*Opt for plastic free produce when you can*

*Write or Tweet to your local grocery stores*

*Support your local restaurants & ask them for more sustainable packaging*

*Join us at a litter cleanup*

**In another article, Chelsea Brash continued her appeal to be responsible about food and food waste, explaining the many ways in which this waste is harmful to all of society and to the environment, and in different ways that people are unaware or do not make the connections between one set of data and the impact these may have on other aspects of living, producing and consuming; for example, the relationship of waste to water usage, land use, and energy consumption.**

*We all know we shouldn't waste food. If you're like me, you probably feel a pang of guilt when you have to throw away food you've accidentally let spoil. It's true that household food waste is a serious issue; with Canadians wasting about 2.2 million tonnes of food at home. We can all do our part to reduce our individual food waste, but this issue far extends food that gets thrown away at home.*

*What's the big deal about food waste anyway? Well, it's more than just food that gets wasted - **it's also the water, fossil fuels and land used for producing and transporting our food.** Our food can travel thousands of miles before reaching our plates after being grown, processed, packaged, shipped, sold and, finally, bought by consumers like you and I.*

*We're so accustomed to seeing our food neatly packaged in our local grocery stores that it can be easy to forget about all of the other steps it goes through in the value chain before ever reaching our plates. Growing our food and getting it from "A" to "B" can be resource intensive.*



*What's worse is that some food never makes it to our plate at all. The FAO estimates that 14% of all food produced is lost before it ever reaches the consumer. On top of all of that lost food, we have to acknowledge all of the wasted resources that went into producing it in the first place.*



*Before we delve any deeper into this issue, let's iron out some of the verbiage we'll be using. Food loss and food waste are not synonymous.*

*The term "food loss" is used to describe food that has been lost on the farm it was grown, or throughout the supply chain before it reaches retail markets, like grocery stores. Broadly speaking, food loss occurs when food is spilled or spoiled, or if fruits and vegetables don't meet the aesthetic standards required to be sold in grocery stores.*

*On the other hand, "food waste" refers to food that "completes the food supply chain up to a final product, of good quality and fit for consumption, but still doesn't get consumed". Food waste typically occurs in retail and home settings, where food is discarded for a variety of reasons.*

*Up to 35 percent of food in high-income economies is thrown out by consumers*

*When food is wasted, all of the resources used in the value chain are also wasted.*

*Because we live on a "blue planet" it's easy to take our water resources for granted. There are 326 million trillion gallons of water on Earth, but only 1% of all freshwater is accessible for human use, the rest is "locked up" in glaciers and ice caps. We all know that water is a precious resource, but we don't often think about the corresponding water that is also thrown away by wasting food. Food that is lost or wasted along the value chain accounts for one quarter all freshwater consumption worldwide.*

***Here are some fast facts:***

*1 hamburger requires 3000 litres of water*  
*1 egg requires 236 litres of water*  
*1 cup of coffee requires 15 litres of water*  
*1 salad requires 95 litres of water*

*By doing our part to reduce food waste, we can also help to prevent wasted water. Understanding the water footprint of different foods can also help us transition to a more sustainable diet in general. According to the Water Footprint Network, it takes more than 15,000 litres of water to produce one kilogram of beef, but only ~300 litres to produce the same weight in vegetables.*

*It has been estimated that if food waste were a country, it would be the third highest emitter of greenhouse gasses in the world, behind the USA and China.*

*Getting food to our plates requires a lot of energy. Greenhouse gasses are produced at every stage of the food value chain. Starting at a farm, greenhouse gasses are emitted from machinery, fertilizers, manure, and even cows themselves!*

*Energy is then needed to process raw materials into final food products. Next comes the emissions from transporting food products across domestic and international borders. Finally, the food reaches grocery stores and markets, where energy is used for refrigeration and other retail processes.*

*Across all value chain levels, food waste in Canada produces a whopping 56.5 million metric tonnes of CO2 equivalent emissions every year.*

*Unfortunately, it doesn't stop there. If food is wasted and ends up in landfills, it will release methane into the atmosphere as it breaks down. Methane is a greenhouse gas with 25 times more global warming potential than carbon dioxide. In Canada, 20% of our national methane emissions come from landfills.*

*Many cities in Ontario are fortunate to have access to municipal composting facilities, which, if used properly can reduce the amount of food waste in landfills, thereby reducing methane emissions. However, despite having more than 90 municipal green bin programs in Ontario, over 60% of Ontario's food waste is still being sent to landfills.*

*According to research by Project Drawdown, if composting levels increased worldwide, we could reduce methane emissions from landfills by 2.1 billion tonnes by 2050.*

*Using industrialized agriculture to try to feed the world's more than 7.6 billion people requires land, and lots of it. More than half of the world's habitable land (free from ice or deserts) is used for agriculture. Creating agricultural land often requires deforestation or burning, which destroys biodiversity and releases greenhouse gas emissions into the atmosphere.*

*Some foods require more land use than others. Lamb and beef require the most land per kilogram of meat, whereas many fruits, vegetables and plant-based proteins require far less.*

*According to the FAO, 1.4 billion hectares of land are used to produce food that will later be wasted. Beyond this, we must also remember the processes that went into cultivating that land for agricultural use, which are also wasted if the food is not consumed.*

### **Questions on the Canadian Context and General Food insecurity**

1. Why does a rich modern nation like Canada have a problem of food insecurity?
2. Is it considered a serious problem in Canada?
3. How is the problem manifested?
4. Explain briefly how each of these factors account for food insecurity experienced by Canadians:  
a) geographic region b) household income c) age d) education level e) ethnicity.
5. Are any of these findings surprising? Why or why not?
6. Explain the negative relationship of health and food insecurity.
7. Can social assistance programs, like income-based interventions by government improve the situation? What other or additional actions could help resolve the problem?
8. Considering the amount of money spent annually on feeding and caring for pets (mostly dogs and cats, but not exclusively), how can there be a case of food insecurity for human beings in these same nations?
9. Is it unjust that corporations will waste or destroy surplus food rather than allow it to circulate freely? Should such wanton waste be criminalized? What economic factors work against the free distribution of surplus food?
10. Is there a need for international cooperation, for effective global governance to use the food and resources of the world in a manner to ensure that hunger is completely eradicated?
11. What must we do to ensure freedom from want for all the world's inhabitants?
12. Some people assert that sharing food is necessary to ending hunger. Do you agree? Why or why not?
13. Should the price of food be left to the vagaries of market forces or regulated to avoid food price inflation and food insecurity? Why or why not?
14. According to Chelsea Brash, what is the difference between food waste and food loss?
15. Bringing the problem closer to home, is there food waste within your family household and within the precincts of your school? What could be done to reduce this waste?
16. What facts regarding land, energy and water usage suggest a change in the diet of human beings?
17. How did Campaign Life Coalition try to help in the Nunavut situation? What was the problem that women faced?







Is wasting food like this morally wrong? <https://www.sharing.org/information-centre/articles/dialogue-sharing-food>

## Sustainable Development Goals

The United Nations has developed a list of 17 Sustainable Development Goals (SDG) to achieve by 2030. The second goal on the list deals with ending hunger, by achieving food security, improving nutrition and promoting sustainable agriculture.

1. End poverty in all its forms everywhere
2. **End hunger, achieve food security and improved nutrition and promote sustainable agriculture**
3. Ensure healthy lives and promote well-being for all at all ages
4. Ensure inclusive and quality education for all and promote lifelong learning
5. Achieve gender equality and empower all women and girls
6. Ensure access to water and sanitation for all
7. Ensure access to affordable, reliable, sustainable and modern energy for all
8. Promote inclusive and sustainable economic growth, employment and decent work for all
9. Build resilient infrastructure, promote sustainable industrialization and foster innovation
10. Reduce inequality within and among countries
11. Make cities inclusive, safe, resilient and sustainable
12. Ensure sustainable consumption and production patterns
13. Take urgent action to combat climate change and its impacts
14. Conserve and sustainably use the oceans, seas and marine resources
15. Sustainably manage forests, combat desertification, halt and reverse land degradation, halt biodiversity loss
16. Promote just, peaceful and inclusive societies
17. Revitalize the global partnership for sustainable development

On the whole, the 17 SDG goals are incredibly ambitious, mixing economic, environmental, health and social objectives. Not all nations agree with the goals, nor necessarily how to achieve them if they do agree that the goals generally are laudable. No one objects to ending poverty or ensuring food security, but not everyone agrees on how to do it. Everyone wants clean water and effective sanitation, but not all agree on how water is to be shared and at what price. Everyone wants a cleaner and safer environment, unpolluted rivers, lakes and oceans and green forests. But not everyone agrees on how to make the environment clean and green. The same applies to other goals like gender equality, affordable energy, education for all, etc. etc. but who is



going to pay for all these things? What will make sacrifices? Who will make decisions? Will nations give up national sovereignty? In the 2021 State of Food Security and Nutrition in the World report – a collaboration between five UN agencies – the authors recognize that achieving this goal of ending hunger has become more challenging.

### Questions

1. Is the goal to end hunger more challenging today than it was back in 2018?
2. Are nations less willing to share resources?
3. Are people less trusting of governments?
4. Are any of the goals listed above just a pipe dream in your opinion?
5. Which would you support and which would you be skeptical about?
6. Should issues like these be front and centre during election campaigns?

## Part F The Federal Budget, The 2021 Canadian Census

<https://budget.gc.ca/2022/home-accueil-en.html>

Budget 2022

### A Plan to Grow Our Economy and Make Life More Affordable

Why is any federal or provincial budget an important planning document or the key exercise in governing?

The Budget tabled on April 7, 2022 by the Liberal-New Democrat coalition government says in its opening statement that it is that government's "plan for targeted and responsible investments to create jobs and prosperity today, and build a stronger economic future for all Canadians". Quite an ambitious objective even if expressed in a pedestrian manner.

It may well be targeted as we shall see in our examination of its contents. Is it responsible? It remains to be seen. Will it create jobs and prosperity today? It certainly is possible. Will it build a stronger economic future for all Canadians? Not likely based on past performance of this government.



All budgets are a mish –mash of promises and hopes. It is the ultimate exercise of political power: to tax and to spend; to bribe the citizenry with its own money to retain control; to borrow and to lend; to consume and to invest; to waste and to save; to stimulate and to conserve; to reward friends and punish opponents; to extend freedom of action and to restrict activities of others; to promote pet projects and to starve and eliminate other programs. In short, a budget is a declaration of a government's priorities. They may use the power of the purse to advance and sustain their ideological commitments. The budget also sends subtle and not so-subtle signals about the value of money, the size of government, the role of government, and the responsibility of governments.

Governments and family households both strike budgets. Both are capable of acting responsibly or irresponsibly relative to spending on goods, services, and activities. The difference is that a government has virtually an inexhaustible source of funds/money (even though it does not in reality).

The creation or building of a budget is usually done by balancing needs/desires with available resources. Does one start with how much money is available and then choose the spending targets or does one first declare the policies and things to be done and then find the money? Governments seem to follow the second strategy for political purposes and that is understandable even if not truly justified. They can do so because they can fund the identified priorities by raising taxes or public borrowing. An individual or family can borrow, but they can't raise money through taxes.

Another factor to consider regarding budget building is the three different types of government spending: discretionary spending (where there is a choice of spending or not spending, e.g. financial support for the CBC, or the edgree of spending on an item, e.g. how many F-35 jets to purchahse for the Canadian air force); mandatory spending, e.g. paying pensions, salaries of government employees; interest on the national debt or money borrowed to be in a deficit position financially. There are a lot of uncertainties to contend with when building a budget. One interesting component is whether the government is in a majority position or needs support from other political parties to pass the budget.

But the process is further complicated by other considerations: If the budget calls for more spending than money available, (in this budget the full cost may well be in excess of \$58 billion above revenues) then how large a deficit is the government willing to accept? How long will it take to pay down that debt? Are there special expenses related to defence or indirect involvement in a war, such as the present time, where Canada has chosen to send money and weapons to assist Ukraine against Russia? Are there special obligations to spend on the acquisition of military equipment, like the F-35 jets as a consequence of Canada's membership in NATO?

Whose money is the government spending? Did the people vote for this budget? What are the Canadian people getting in the budget? Why are large financial commitments in the buydget referred to by the governemnt as "investments? And why does the media echo tha same deceptive language? Investment is a financial outlay intended to bring a return in profits. Some political observers as what is the profit in spending more than \$25 billion on defence procurements, or more than \$20 billion on carbon capture/reduction?

The budget is a large document. Here are some of the highlights with spending over the next 3-5 years:

- \$10.137 billion for several new programs to help Canadians enter the housing market and to make housing more affordable for them (e.g. Reaching Home [dealing with problem of homelessness], Rent to Own, Tax-free Home Savings Account, Rapid Housing Initiative, help renters, expand co-operative housing, Retrofit Acceleration Intiative, Greener Neighbourhood Pilot Program, Greener Construction in Housing and Buildings, Greener Affordable Housing, and curbing of foreign investment and specualtion in housing market)
- \$8 billion for health related items like health transfers to provinces, introduction of dental care and pharmacare in some form, forgiveness of study loans for nurses and doctors, investing in public health measures and research to strengthen Canada's ability to detect and respond to public health events and emergencies, maintaining national emergency strategic stockpile (e.g. vaccines, masks, personal protective equipment, etc.), extending Medical Expense Tax Credit to include In Vitro Fertilization programs and surrogacy costs. (*Budget 2022 proposes to allow medical expenses related to a surrogate mother or a sperm, ova, or embryo donor that are incurred in Canada for 2022 and subsequent taxation years to be claimed. This would include costs that have been reimbursed to a surrogate for in vitro fertilization expenses. Budget 2022 also proposes to allow fees paid to fertility clinics and donor banks in Canada in order to obtain donor sperm and ova to be eligible under the Medical Expense Tax Credit for 2022 and subsequent taxation years.*)
- \$1.3 billion for other indirect health items like mental health and brain health research, (LBGTQ action plan \$100 million, fighting racism, hate and discrimination including Islamophobia \$85 million, Holocaust Museum \$20 million, disabilities \$276 million, genderbased violence \$539 million, anti-Black prejudice)
- \$30 billion for early learning and child care system to help parents, increase work force, and make possible \$10 per day cost of daycare by giving grants to provinces.
- By giving a 30% investment credit to private corporations (support net-zero technology, battery storage systems, clean hydrogen) helps both the economy and fights climate change.
- \$3 billion to help build a clean economy by protecting the environment, fighting climate change, and building electric charging stations all over the country. It is designed to make zero-emission vehicles more affordable by providing subsidies.
- Canada Growth Fund is targeted to spur economic growth, that is more people to work, more economic activity, more jobs, better jobs, newer industries, more is produced, more money earned through higher wages, more revenues for government. End resuylt is to have a clean environbemnt and net-zero emissions by 2050. This is supposed to attract billions and billions of dollars in private investment to fuel the Canadian economy and fight climate change. This is what the budget statement says: *The Canada Growth Fund will be a new public investment vehicle that will operate at arms-length from the federal government. It will invest using a broad suite of financial instruments including all forms of debt, equity, guarantees, and specialized contracts. The fund will be initially capitalized at \$15 billion over the next five years. It will invest on a concessionary basis, with the goal that for every dollar invested by the fund, it will aim to attract at least three dollars of private capital.*
- \$11 billion additional funding to continue to support Indigenous children
- \$8 billion for Canadian armed forces. Most of this would be for procurement of new military equipment, but also dealing with homelessness of armed forces veterans

- \$3.8 billion for Critical Minerals Strategy to discover and develop minerals central to major global industries like clean technology, health care, aerospace, and computing. They are used in phones, computers, and in our cars. They are already essential to the global economy and will continue to be in even greater demand in the years to come. (infrastructure investments that would support the development of the critical minerals supply chains, with a focus on priority deposits; provide public access to integrated data sets to inform critical mineral exploration and development; and introduction of a new 30 per cent Critical Mineral Exploration Tax Credit for specified mineral exploration expenses incurred in Canada and renounced to flow-through share investors; support research, development, and the deployment of technologies and materials to support critical mineral value chains.
- \$96 million over 5 years to invest in intellectual property and research so Canadian graduates and small companies can have protection and assistance in getting their inventions to market.

These are many other proposed expenditures and programs, but these should give a clear indication of the shared values of the Liberal Party and its coalition partner, the New Democratic Party.

## Early Warning Signs

<https://www12.statcan.gc.ca/census-recensement/2021/ref/98-26-0001/2020001/001-eng.cfm>

Of course a national budget is supposed to reflect a government's concern and care for the people that it governs. A national census must be conducted every five years in years ending in 1 and 6. The census helps to shape government policies and planning of programs based on the changing composition of the population that inhabits the country. The census can provide valuable information about the needs of the population as the data shows many features like language, race, ethnicity, level of education, jobs, income level, migration, immigration, growth of population, fertility rate, birth rate, age distribution, etc. *Through the Census of Population, Statistics Canada provides information on changes in the Canadian population and its demographic characteristics—information that is used to inform debate, for research and analysis, and in public and private decision making.*

Perhaps in the fall a separate curriculum resource could be created dealing specifically with the 2021 Census. At this time we shall point out a couple of disturbing findings in this census data.

The Canadian population is changing due to baby boomers getting older and immigration boosting numbers in the younger generations. These changes will have significant consequences, particularly on the labour market, services to seniors, and the consumption of goods and services.

- For the first time since the end of the baby boom, baby boomers—who were born between 1946 and 1965 and were between the ages of 56 and 75 in 2021—make up less than a quarter of the Canadian population. They represent 24.9% of the Canadian population, compared with 41.7% in 1966, when they were under the age of 20. <sup>Note 1</sup>
- Millennials, who are those born between 1981 and 1996 and were between 25 and 40 years old in 2021, are the fastest-growing generation. Their numbers rose 8.6% between 2016 and 2021. This increase is due to immigration, despite the impact of the COVID-19 pandemic on recent immigration.
- Millennials are the generation that accounts for the largest share of the working-age population (33.2%), or those aged 15 to 64. <https://www12.statcan.gc.ca/census-recensement/2021/as-sa/98-200-X/2021003/98-200-X2021003-eng.cfm>

One statistic which stands out is the increase in the number of seniors (65 yrs old ) as a proportion of the total population (from 18.3% to 19%) and the decrease in the number of children below age 15 as a proportion of the total population (from 16.6% to 16.3%). Some demographers fear that this trend is a doomsday scenario for the country.

The *Census in Brief* article entitled “A portrait of Canada’s growing population aged 85 and older from the 2021 Census” examines the demographic and housing trends of the population aged 85 and older in more detail.

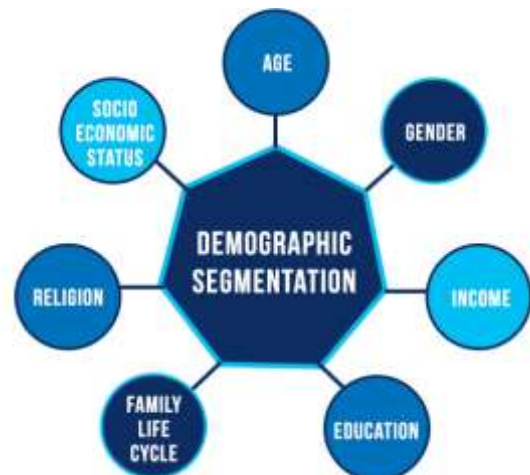
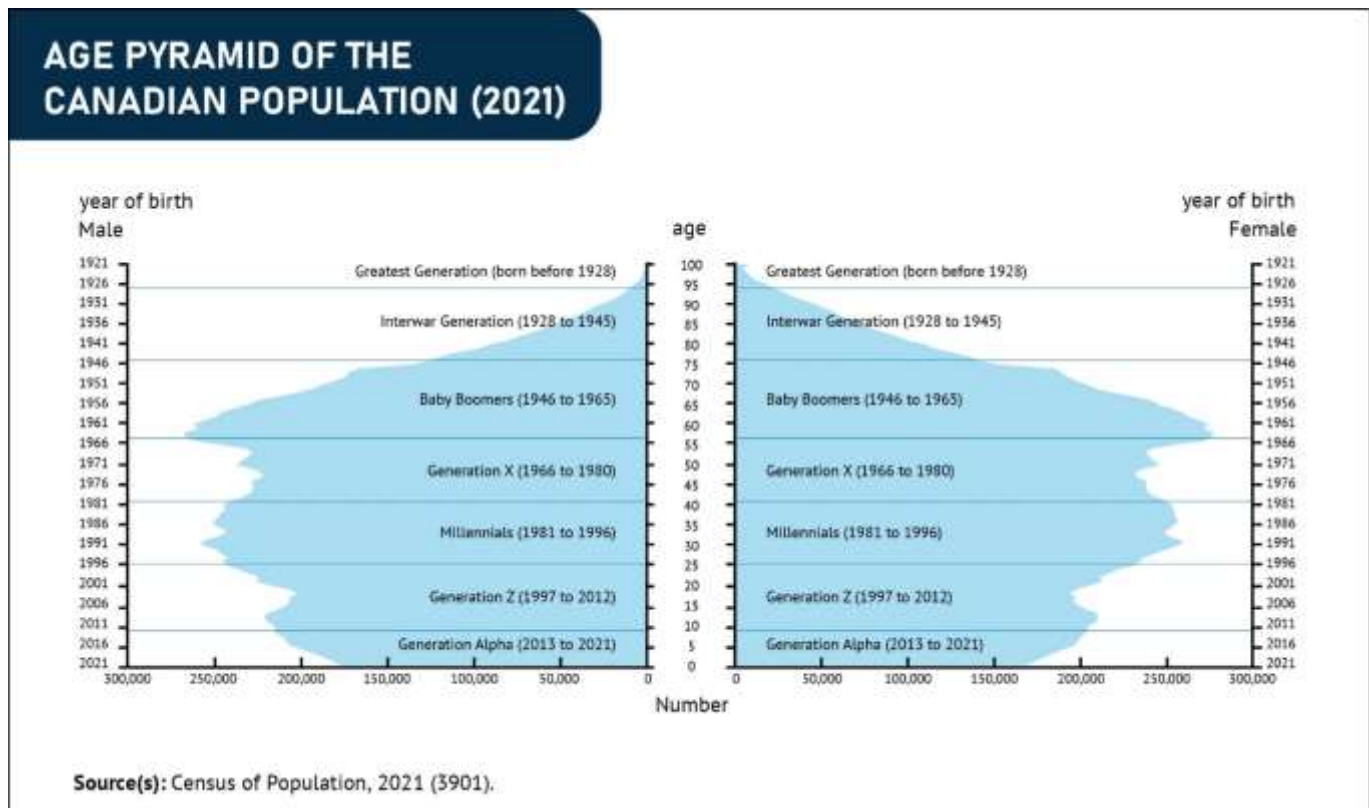




Figure 1 Baby boomers make up just under a quarter of the Canadian population



### Questions

1. Based on this budget proposal what are the two biggest priorities of the Liberal-NDP coalition government?
2. How would you assess the potential impact of this budget on:
  - a) Canadian unity and regional equity
  - b) Canadian business sector
  - c) Fairness of Canada's taxation system
  - d) Canada's future fiscal health
3. On what basis was the tabled budget criticized by the opposition parties?
4. What did the mass media generally respond to the budget proposals? What aspects did they emphasize?
5. Is there any polling taken place to gauge the response of ordinary Canadians? What do those polls say?
6. Ephraim Radner in the April, 2022 edition of *First Things* magazine introduced his essay *Mirrors of Perfection* in this way: *Our society is confused about children. We allow their destruction in the womb and their manufacture in the laboratory, a contradictory denial and affirmation of their inestimable value that tells us a great deal about our strange times. In our cold calculus, we allow that children are necessary to repopulate the world. Yet children are not essential only because they grow up to be adults. Children are mirrors of God's perfections. They are necessary if we are to know God, and are therefore integral to our salvation, body and soul.*
- Are there any controversial proposals in the budget from the moral point of view of people like Radner?
8. Does the proposed budget tabled on April 7, 2022 help resolve the problem of family formation, or combat inflation or reduce food insecurity for Canadians?
9. *The terrible skewed shape of Canada's demographic profile is a depressing picture of a nation in decline. There are more seniors above the age of 65 than there are young people under the age of 15.* Does the age pyramid above represent a dying nation? Why or why not? (Consider question 6 above again)