

# Scenario Planning: Processes, Tools and Examples

## User Manual

Developed for organizations facing uncertain times



## **SCENARIO PLANNING MOCK TOOL**

April 2020

### **AUTHORS:**

**Kevin Quigley** is the scholarly director of the MacEachen Institute for Public Policy and Governance and a professor in the School of Public Administration at Dalhousie University. He is the co-author of the book *Too Critical to Fail: How Canada Manages Threats to Critical Infrastructure*, which was shortlisted for the Donner Prize in 2018.

**Warren McDougald** is the communications officer at the MacEachen Institute for Public Policy and Governance at Dalhousie University.

### **PROJECT TITLE:**

#### **Scenario Planning Overview**

1. Scenario Planning – Canada – Management
2. Futures Planning – Policy Development

Questions or comments? Please contact [mipp@dal.ca](mailto:mipp@dal.ca).

## 1. The purpose of this document:

- Describe the scenario planning process
- Explain tools to assist readers with scenario planning in their organizations Provide an example of a scenario planning exercise
- This document is deliberately brief; we have tried to make it accessible while maintaining key components. This document can be used in conjunction with this [online introductory video](#) and our [full report](#) on Scenario Planning.

## 2. Audience and Additional Sources

This document has been developed for the public, private and not-for-profit sector. The process and the tools can be useful for those with interest and responsibility in developing strategic policy responses in light of the uncertainty brought about by the current COVID-19 outbreak.

## 3. What is Scenario Planning?

Scenario planning accomplishes these four objectives<sup>1</sup>:

1. Identifies ‘driving factors’ for the organization
2. Identifies potential risks and uncertainties for the organization
3. Imagines potential future scenarios for the organization
4. Creates policies and plans to address these futures

## 4. Why Scenario Planning?

Often the future is largely predictable; in such cases, a ‘clear-enough’ future can rely on forecasting and trend mapping using existing data.

Scenario planning processes and tools are often applied during periods of significant uncertainty and change (e.g., the Oil Crisis in the 1970s, post 9/11). In these cases, data on past performance is not as reliable; the range of estimates is significant and uncertain. In some cases, you may not have access to the data you need. The spread of COVID-19 is one of these periods.

In light of uncertainties presented by COVID-19, scenario planning can challenge us to think differently, invite us to examine alternative outcomes and how to respond to them.

In this time of uncertainty, scenario planning is a tool that can help organizations to distinguish between what they can control and what they cannot control, and what policies they can develop in light of this dynamic. In this sense, the hypothetical scenarios are not necessarily about COVID-19 but about the vulnerabilities that COVID-19 has exposed in your organization.

## 5. How to Structure Scenario Planning

Van der Heijden (1996) asks “the most important question to address by the scenario planner: why do we want to do this in the first place?” He adds, the organization could be looking to change the mental map of senior executives, overcome groupthink, foster “out of the box” thinking.”

---

<sup>1</sup> This document summarizes the approach by the Intuitive Logics School of scenario planning (Derbyshire and Wright 2017). We have made modifications to the approach in light of the current circumstances.

In the case of the COVID-19 outbreak, many people are challenged to understand the changing and uncertain social-economic context, and how their organization can continue to fulfill their missions in light of this context.

To start, the organization might wish to be guided by the organization's mission statement, or the goals and objectives that the organization expects to satisfy. Later in the exercise, participants may wish to revisit the mission statement or the specific objectives, but at the start it is helpful to have some over-arching guiding concepts that can bring some cohesion to the sessions.

Once the reason for holding the session has been established, the next step is to select a group of individuals to participate in the discussion. Ramirez et al. (2008) outline some common practices in the chart below:

#### **Characteristics of Participants**

- Participants should reflect a wide array of different views within the agency (heterogeneous rather than homogenous)
- The individuals selected to participate do not necessarily need to reflect the composition of the agency, but all stakeholders' interests need to be considered in some way
- The people come as individuals and do not represent the interests of the association
- There are no hierarchies: all participants are at the same level

*Table 1: Adapted from Ramirez et al., 2008, "Business planning for turbulent times: New methods for applying scenarios"*

## 6. Six Steps to Scenario Planning

### **Step 1: Setting the Scenario Agenda**

The first step in developing scenarios is setting the context and timeline. It is common for this process to follow a SWOT (strengths, weaknesses, opportunities, threats) and/or PESTLE (political, economic, social, technological, legal, environmental) analysis (Van der Heijden, 2005; Derbyshire and Wright, 2016). In addition to conducting a SWOT and PESTLE analysis, participants might also consider the following questions.

- What are the current circumstances for the organization?
- What are the causal factors that have led to the current situation?
  - This question does not pertain exclusively to COVID-19. Here we consider status quo operations, followed by the causes that have led to your current situation.
- What caused a step change (major factors that changed the landscape)?
  - In this question, participants can describe the impact that COVID-19 has had on their organizations as well as on their key stakeholders.
- Why is your organization designed the way it is?
- Whose plan created or restricted the current situation?
  - To understand the future outcomes, it is important to identify the key actors, influencers and decision-makers who have created the current scenarios.
- What were the motivations behind these actors that created or restricted change?
  - To reiterate the reason for this step in the scenario planning process: we need to understand the present context before we try to anticipate the future.

### **Step 2: Determining the Driving Forces**

The foundation established in step one provides a narrative from which to determine the driving forces of the organization. A driving force is an environmental factor that drives a possible outcome of a critical uncertainty.

Some high-level driving forces for organizations could in light of COVID-19 could include:

- |                              |                                   |
|------------------------------|-----------------------------------|
| • Customers                  | • (Un)Employment rate             |
| • Travel                     | • Access to labour                |
| • Natural resources          | • Immigration                     |
| • Trade                      | • Housing                         |
| • Borders                    | • Cost of Energy                  |
| • Social distancing measures | • Access to the US market         |
| • Budget                     | • Value of the Canadian/US dollar |
| • Cashflow                   | • Government support programs     |
| • Debt                       |                                   |

Sometimes it can be helpful to think about ‘supply’ drivers for your organization or sector (e.g., labour) and ‘demand’ drivers for your organization or sector (e.g., customers).

There are also opportunities to examine the impact of specific COVID-19 measures. Some might find it useful to consider “social distancing practices,” for example.

A more comprehensive list of drivers would directly result from the completion of step one in a group session.

**Step 3: Impact / Uncertainty Matrix**

Plot the driving forces on an Impact/Uncertainty Matrix (figure left.)

Identify which driving forces have the most impact and which driving forces are the most difficult to predict or most uncertain. Forces need to be ranked and plotted in the impact/uncertainty matrix and the two highest-ranking clusters are identified.

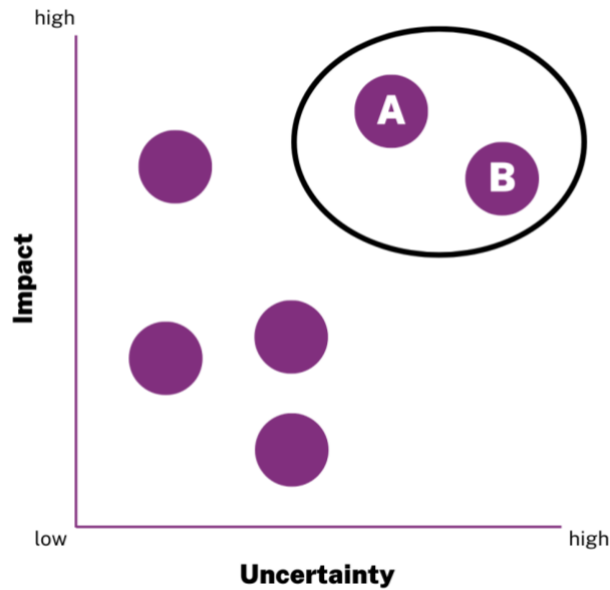


Figure 1: The Impact/Uncertainty Matrix

**Step 4: Framing the Scenarios**

After the selection of two forces we plot them as the axes on a 2 x 2 scenario matrix.

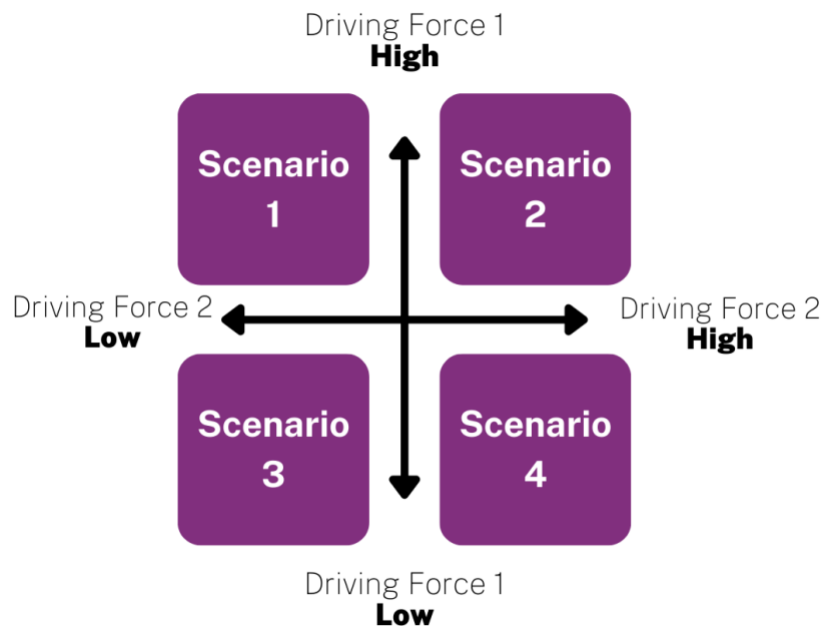


Figure 2: Example scenarios framed in a 2 x 2 matrix

### ***Step 5: Developing the Scenarios***

The next step in the scenario development process is to work with members in the organization to describe the circumstances in each scenario. Starting with the end state of each scenario, work backwards and determine what it would take to make that scenario occur. What are the key events and structures necessary to lead to each scenario outcome? Determine who allows or motivates each scenario to occur and why it would unfold that way. Each scenario should consist of a narrative and an understanding of how that future would unfold.

This exercise is process-oriented and the purpose is to understand the relevant factors that contribute to different potential futures for the organization. The participants in this exercise are meant to bring this knowledge into their future work and policy-making decisions. A scenario is not a prediction of the future but rather an attempt at understanding all the causal factors that impact the organization and how to address them.

### ***Step 6: Policy Development***

The final stage is to develop policies in light of these scenarios. The policies would help to evaluate programs and determine if these programs would help the organization achieve its mission, irrespective of which of the four scenarios actually occurred. In other words, the programs are not developed or approved because they are successful in one specific scenario; rather, these programs should be successful if any one of the four scenarios occurs. These policies would help the organization to become more adaptive and resilient.

You might wish to group the policy initiatives by three categories: information-gathering initiatives (e.g., intelligence gathering, research and data collection); standard setting (e.g., new rules, regulations, directives); and behaviour change strategies (e.g., incentives, penalties, culture change, training).

## 7. Example

Scenario planning is used in a number of ways, and across a number of sectors. We offer this an example from our own experience, the post graduate degree, university sector. This is offered as a high level example for the purposes of illustration; it should not be considered an exhaustive account of all options in this case. While the example is realistic, some of the data have been created for the example.

### **Example: School of Public Administration at a Maritime university.**

The university offers an in-class Master of Public Administration program for people largely in their mid-twenties, looking to start careers in the public service, and an online Master of Public Administration (Management) program for mid-career professionals, many of whom work in the public service.

The School and the programs have existed for decades; the programs have good reputations in the public sector and community generally. About half of the students come from the region; many come from Ontario and a handful come from elsewhere.

Enrolments have varied over the years; at its peak, about a decade ago, the MPA program received about 50 students each year (it's a two-year program). The numbers have been trending downward, largely due to increased competition particularly in Ontario and overall demographic trends in the region. As part of the MPA program, students can take a paid internship for credit; it's an extremely popular aspect of the program: students can earn money, academic credit, and network and learn about public service as a result of the internship.

The professional program has largely steady enrolments; it has about 120 students on the books, most of whom take courses on a part-time basis according to their schedule. The flexibility of the program— online, and students can complete the program on a parttime basis over seven years—is a popular feature of the program.

Most parts of the country have a School of Public Administration; the programs produce the next generation of public servants for Ottawa and locally. There is only one School of Public Administration in the region; the MPA and the MPA (Professional) are the only two professional graduate public administration programs in the region.

There are seven faculty; all are research active.

The School exists within the faculty of management, which also houses the business school, environmental studies and information management.

**Mission:** The School of Public Administration develops public sector professionals with the integrity, knowledge, and competencies necessary to promote innovative public policy, values-based leadership, and good governance – in an effort to enhance the public interest. The School's research, teaching, and community outreach are marked by creative program design, effective delivery, and collaborative relationships.

#### **Goals of the session:**

- a. Understand the impact of COVID-19 on our ability to meet in the short-term our commitments in our mission statement, particularly as they relate to our teaching programs (MPA and MPA M.)
- b. Develop policy options that can help us meet our commitments in our mission statement, particularly as they relate to our teaching programs (MPA and MPA M.)

#### **Who would attend the session?**

This example has been developed by the authors; in practice, planners would invite faculty, students and alumni from the school; potential students, faculty from other professional schools and past and potential public sector employers from all orders of government are examples of people who could be called upon for the session.



### Step 1: Setting the Session Agenda

**Timelines:** Next academic year (September 2020 – April 2021)

**Strengths:** stable organization, important service, sole provider for the region; good reputation; highly skilled workforce; stable and expansive technology; not dependent on international enrolment (low risk exposure);

**Weaknesses:** program changes can be slow; hiring capacity is limited; significant Ontario enrolments (at risk);

**Critical uncertainties:** Government as future employer, budget, enrolment;

**Consequential failures:** Internships, government recruitment programs cease, significant drop in Ontario enrolments;

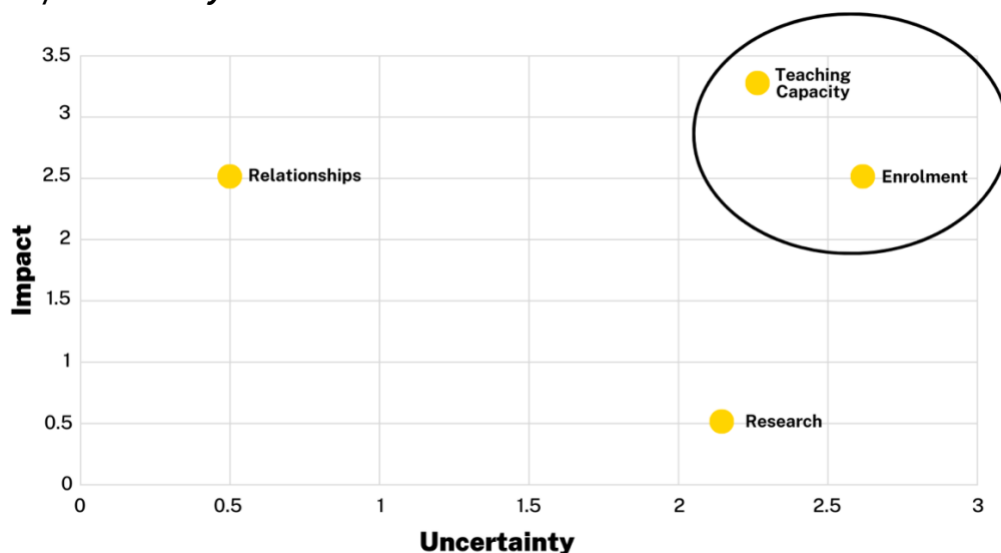
**Opportunities:** Positive attitude towards public service as a function in our society and potential employer, access to network of policy-makers addressing significant policy challenges, highly developed technology and educated workforce, past success in creating a structured pathway to careers in public service.

### Step 2: Determining the Driving Forces

Possible Drivers for the 1-year time frame (grouped):

- **Enrolments** (factors: social distancing, economic recovery, border restrictions, attitudes towards government as employer, anticipation of a recovery, economic outlook)
- **Teaching Capacity** (factors: government budgets, technology, social distancing, access to qualified staff, ability to offer internships)
- **Research** (factors: grant funding, qualified and committed faculty, availability of student researchers)
- **Relationship with community/alumni/public service** (alumni donations, reputation, community interest/support, provincial and federal funding, reputation)

### Step 3: Impact / Uncertainty Matrix

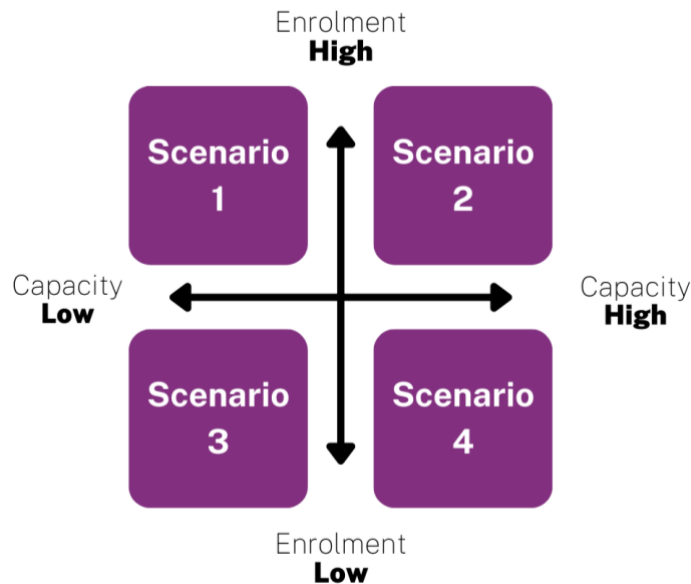


Selected Driver groups (High risk and uncertainty):

- **Driving Force 1:** Enrolment
- **Driving Force 2:** Capacity to run classes / teach

In light of the timeframe—next academic year—these two drivers seem to be the highest impact / highest uncertainty. The other drivers (community and research) are important and would have a more significant impact in the medium term; for short term considerations, however, enrolment and capacity are the most significant concerns.

**Step 4: Framing the Scenarios**



**Step 5: Developing the Scenarios**

Scenario One: “Crowded House” (Enrolment High / Capacity Low)

**Enrolment High:** High unemployment leads to people leaving the workforce; killing time, waiting for market to improve; retooling to increase chances of employment; government seen to be a promising employer in the future; government benefits and stability as employer seen as even more desirable than before given current circumstances; government not hiring at present, so there is no point in applying at present – best to increase training for the moment;

- **Underlying causes:** unemployment; optimism of government as employer

**Capacity to Accommodate Low:** social distancing restrictions remain, maybe even increase; second wave of Covid-19 in the fall; staff absence; university cuts departmental budgets: limited budgets to pay for RAs; TAs; sessional instructors; people uncomfortable with close social interaction;

- **Underlying causes:** social distancing; insufficient capacity online

Scenario Two: “Rising to the Occasion” (Enrolment High / Capacity High)

**Enrolment High:** High unemployment leads to people leaving the workforce; killing time, waiting for market to improve; retooling to increase chances of employment; government seen to be a promising employer in the future; government benefits and stability seen as even more desirable than before given current

circumstances; government not hiring at present, so there is no point in applying at present – best to increase training for the moment;

- **Underlying causes:** unemployment; optimism of government as employer

**Capacity to Accommodate High:** lift social distancing restrictions; people comfortable with return to normal; technology available and functioning;

- **Underlying causes:** online capacity good; de-escalation of health concerns

### Scenario Three: “Let’s get small” (Enrolment Low / Capacity Low)

**Enrolment Low:** Unemployment high; unable to pay tuition; government impose additional hiring restrictions; public servants don’t retire because they have to make up for market losses; people don’t see government as desirable employer; midcareer people can’t access funding for tuition; fed up spending all their time online; don’t want to spend time online doing courses; limited TA / RA budgets to supplement income;

- **Underlying causes:** limited access to money; pessimism about government as employer

**Capacity to Accommodate Low:** social distancing restrictions remain, maybe even increase; second wave of Covid-19 in the fall; staff absence; budget cuts: limited budgets to pay for RAs; TAs; sessional instructors; people uncomfortable with close social interaction;

- **Underlying causes:** social distancing; insufficient capacity online

### Scenario Four: “Echo Chambers” (Enrolment Low / Capacity High)

**Enrolment Low:** Unemployment high; unable to pay tuition; government impose additional hiring restrictions; public servants don’t retire because they have to make up for market losses; people don’t see government as desirable employer; midcareer people can’t access funding for tuition; fed up spending all their time online; don’t want to spend time online doing courses; limited TA / RA budgets to supplement income;

- **Underlying causes:** limited access to money; pessimism about government as employer

**Capacity to Accommodate High:** lift social distancing restrictions; people comfortable with return to normal; technology available and functioning;

- **Underlying causes:** Underlying causes: online capacity good; de-escalation of health concerns

## **Step 6: Policy Development**

Develop policies that could work in light of the four scenarios developed above.

For the purposes of this exercise, we have divided the initiatives into three categories: information gathering, standard setting, and behaviour modification. These three components are crucial to controlling a system.

Some examples of policies and / or strategic initiatives could include:

### **Information-gathering initiatives:**

- Survey / focus groups with students to understand their views, anxieties, aspirations, ideas; etc., and how they can be addressed by the school
- Survey public sector employers with regard to careers and internships
- Monitor enrolments, compare to past years

- Monitor trends in other MPA programs in other jurisdictions
- Monitor enrolments in other programs in our own jurisdiction
- Consider historical examples (e.g., enrolment during financial crisis)

**Standard setting initiatives:**

- Emphasize flexible standards in uncertain times; avoid committing to permanent, long-term changes at present.
- Tuition deferral, or other mechanisms to allay concerns about short term access to cash
- Allow suspensions of study
- Easy movement from fulltime to part time study, and vice versa
- Limit elective courses, ensure quality of and access to compulsory courses
- Offer courses in topical areas, show relevance: pandemic response; housing policy; green policies versus oil and gas;
- Offer research intensive courses, e.g., directed readings, in order to increase flexibility for students and support research mission of the organization
- Emphasize internship

**Behaviour initiatives:**

- Marketing: Emphasize the benefit of government careers (stability; benefits; make a difference); enlist high profile speakers to promote benefits of the program
- Incentives for academics to spend research money sooner, employ students
- Strengthen online capacity; strengthen connections with on campus and online courses
- Take a medium-term view; maintain positive public profile during the tough times; offer free public lectures on aspects of the challenge; local and national speakers; online
- Outreach to potential employers for internships