Building Pathways to Navigate Mid-Career Transitions

A REVISED PLAYBOOK

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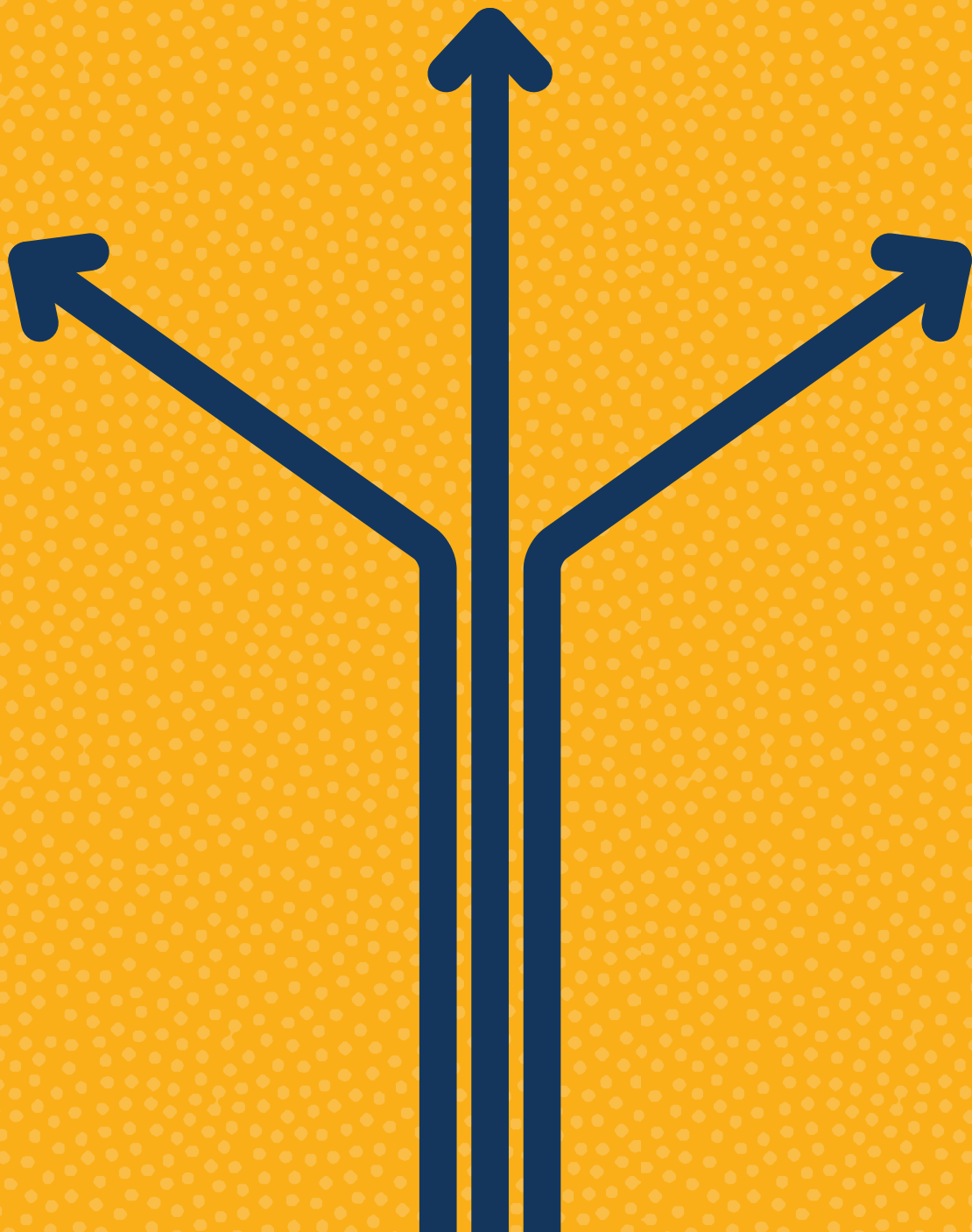
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Partners + Funders

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Staff & Collaborators on the Brookfield Institute's *Job Pathways* Approach

Thank you to the following BII+E team members and collaborators who have contributed to different iterations of this approach:

Annalise Huynh, Policy Analyst
Creig Lamb, Senior Policy Analyst
Diana Rivera, Senior Economist
Kimberly Bowman, Senior Projects Manager
Lianne George, Director of Strategic Communications
Linda Nguyen, Collaborator
Josephine Tsui, Collaborator
Joshua Zachariah, Economist
Meghan Hellsten, Senior Projects Officer, BII+E alumna
Nisa Malli, Work Stream Manager
Sarah Doyle, Director, Policy + Research, BII+E alumna
Sihwa Kim, Policy + Research Intern, BII+E alumna
Viet Vu, Senior Economist
Yasmin Rajabi, Project Manager, BII+E alumna

With special thanks to graphic designer Lindsay Smail, copyeditor Suzanne Bowness and illustrator Dorothy Leung.

For more information, visit brookfieldinstitute.ca

20 Dundas St. W, Suite 921, Toronto, ON M5G 2C2

f   /BrookfieldIIE

t   @BrookfieldIIE

in The Brookfield Institute for Innovation + Entrepreneurship

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An introduction to this playbook

OUR WORKING LIVES span decades and as the nature of work and demand for skills and expertise in our economies rapidly shifts, workers can expect to encounter multiple transition points including changes on the job and between jobs. Policymakers, workforce developers, employers and unions all have a role to play in supporting workers as they understand and experience change and navigate transitions. Finding the *right* transition—identifying and navigating a pathway to new work that takes advantage of existing skills—is a huge opportunity and challenge that millions of Canadians will face, now and in the future.

This playbook is a starting point for such supporters. It offers you the outline for how to use data—including available labour market information *and* appropriate primary and secondary qualitative data—to identify, explore and test employment options for mid-career workers.

We call this process *Job Pathways* because it involves starting at one point (an "origin" occupation), identifying potential end points ("destination" occupations) and tracing out a "path" between those two points, which might also include intermediate steps such as training or other work experience. The Brookfield Institute's *Job Pathways* projects incorporate a "human-centered design" approach to seeking pathways that can *work for people* (employers *and* workers) in the real world. Using this approach can illuminate new possibilities and eliminate inappropriate ones, in a manner that using only labour-market information does not.

This second edition of the *Playbook* builds on the method first outlined and tested in 2019's *Lost and Found: Pathways from disruption to employment*.

This revised edition builds on experience applying the model in Ontario's food retail sector, as outlined in our 2021 report *Pathways in Food Retail*. This playbook integrates new lessons and details the evolution of our approach.

Who is this for?

- Policymakers

- Workforce developers and service providers

- Employers

- Anyone interested in using labour market information to meet the challenge of supporting peoples' work transitions into sustainable, resilient employment

What's changed?

- Our 2019 edition involved occupations in the Greater Toronto and Hamilton Area (GTHA) showing clear signs of decline. Our 2021 edition explored transitions for workers in occupations that are *not* in obvious decline but that feature a workforce with high levels of annual turnover, and large numbers expecting to undertake future job transitions.

- Both 2019 and 2021 editions involve use of publicly-available labour market data. The type of data used and the cutoff values were different. In addition, in 2021 the team exercised informed judgment to filter out occupations affected by conditions not represented in historical labour market data (for example, filtering out jobs in recreation likely to experience ongoing pandemic-related effects).

- The 2021 approach applies the perspectives and advice of workers in origin occupations (through use of formal project advisors) to inform instrument design, project-related communications, and as points of reference for the research team.

- This version also represents an ambition to incorporate critical intersectional analysis, to explore opportunities and barriers for people with different profiles and characteristics—including gender, age, race, caregiver status, and disability status.

- In this edition, we have broadening the list of factors to consider and apply when seeking to "match" origin occupation workers to potentially suitable destination occupations.

- We have also provided a suite of tested approaches and instruments that teams could adapt and apply in their own context, as they explore job pathways.

To access and download examples and instruments referenced in this *Playbook,* visit: brookfieldinstitute.ca/job-pathways-playbook-2021-edition

Link to the Brookfield Institute's Tested Tools

Cultural probes materials

Quantitative model

Online worker survey

Interview topic guides:

Origin occupation employers

Destination occupation workers

Destination occupation employers

Destination occupation training providers

Destination occupation professional networks and associations

You can access all tools here:

https://brookfieldinstitute.ca/job-pathways-playbook-2021-edition/

The Job Pathways model

Census data can reflect changes in employement over time. You may choose define geography by Census Metropolitain Area or Census Agglomeration and examine at the most granular NOC categories: the four-digit level.

Choose a geography

↓

Choose an origin occupation

- Why this occupation?
- Is this occupation facing decline?

↓

Run skills adjacency to generate list of destination occupations

Potential data source:
- Occupational Informational Network (O*NET)

↓

Examples of filters drawing on existing labour market information:
- Pay rates
- Number of local job postings
- Local job outlook

Choose and apply filters to create shortlist of destination occupations

Potential data sources:
- Census data—including employment income levels
- Employment and Social Development Canada's (ESDC) Employment Outlooks
- Canadian Occupational Projection System
- Forecast of Canadian Occupational Growth

↓

Narrow shortlist using qualitative data

Methods to gather this data can include:
- Semi-structured interviews
- Focus groups
- Cultural probes
- Surveys

Look to understand:
- nature of the original occupation
- alignment or fit between original and shortlisted occupations
- other opportunities identified
- realitstic local education and recruitment pathways between jobs

Engaging knowledgable actors including:

(Workers) (Employers) (Training providers) (Professional networks)
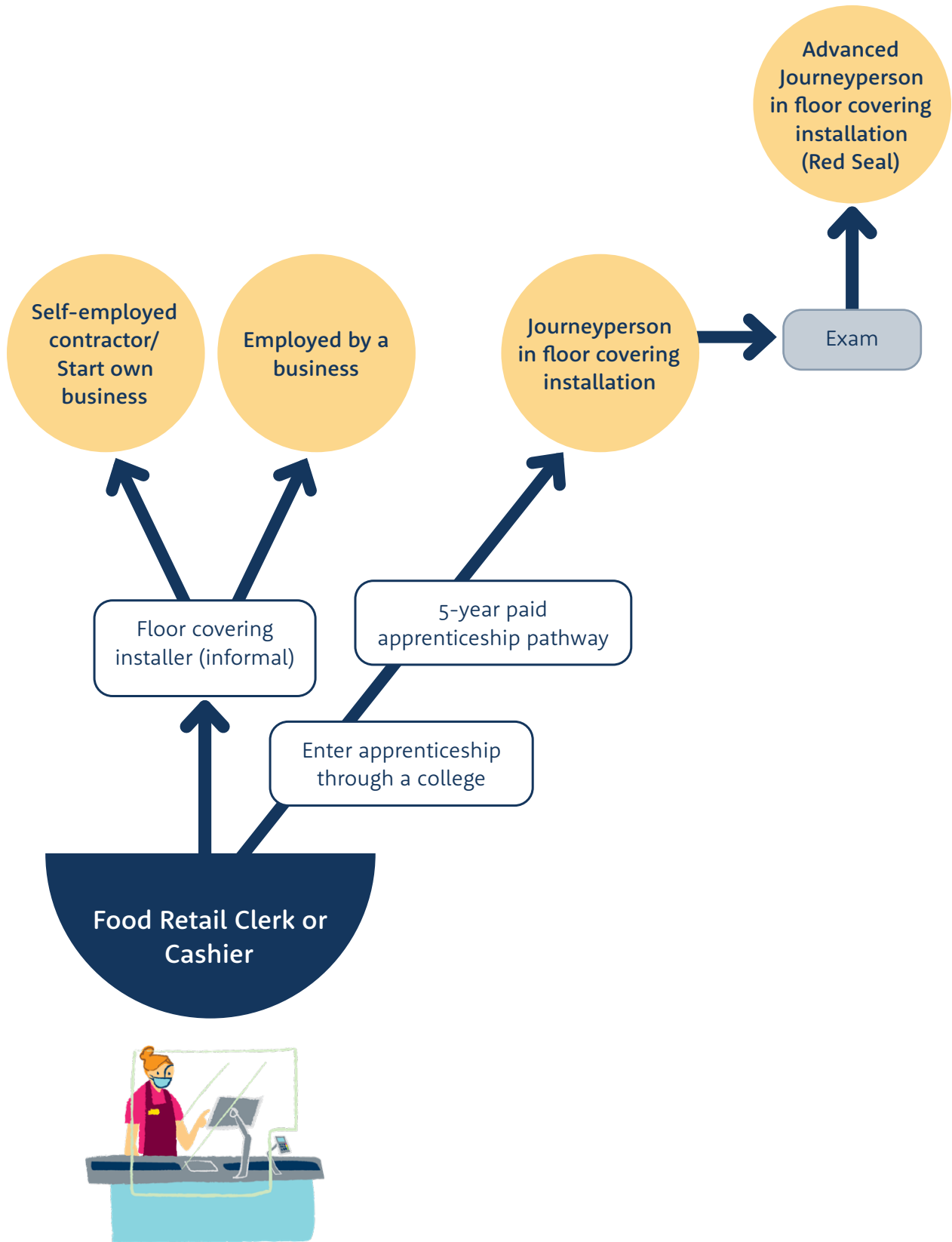
Check findings with knowledgable actors. Are they realistic? Of interest?

↓

Final list of destination occupations

- Do potential destination jobs seem realistic?
- Are there occupations we missed?
- Other factors we should consider?

Diagram: Sample pathway

Advanced Journeyperson in floor covering installation (Red Seal)

Self-employed contractor/ Start own business

Employed by a business

Journeyperson in floor covering installation

Exam

Floor covering installer (informal)

5-year paid apprenticeship pathway

Enter apprenticeship through a college

Food Retail Clerk or Cashier

Applying the model

THE BROOKFIELD INSTITUTE'S *Job Pathways* approach involves starting at one point (an "origin" occupation), identifying potential end points ("destination" occupations) and tracing out a "path" between those two points. Using this approach can illuminate new possibilities and eliminate inappropriate ones, in a manner that using only labour-market information does not.

Here we walk you through the Job Pathways approach:

What does an ideal job pathway look like?

How you approach the task will depend on your goals, available resources, and what pathways might work best for your target workers.

For example: in applying the model in Ontario, our team set out to identify pathways that would help workers move to other jobs without requiring lengthy and costly degree programs and licences. For our process, this meant using filters to remove options that required postsecondary training beyond that required by the origin occupation. Then, we used qualitative fieldwork to better understand hiring practices, employer preferences, and "hidden" credentialing barriers—and in some cases, identifying existing programs that supported expediting worker journeys for that particular occupation.

1 Choose a geography

The Brookfield Institute's *Job Pathways* model is ultimately place-based, responding to the needs of a particular labour market and its actors. This is important, as the approach involves mixing complementary methods (including use of qualitative and quantitative data) the team must be attentive to the boundaries of the project. For geographies that have dissimilar labour markets, teams may want to select multiple sub-sites in which to analyze data and test assumptions.

For example, in *Job Pathways in Food Retail*, the team sought to identify pathways for workers across Ontario. The team selected the Greater Toronto and Hamilton Area (GTHA), the City of Thunder Bay, and the Town of Ingersoll as sites with dissimilar labour markets, reviewing labour market information (LMI) and census data from each and conducting (virtual) qualitative fieldwork within these boundaries. Community partner organizations—not originally considered when the project was conceived at "Ontario" level— were invaluable in helping the team develop an understanding of local contexts.

→ When choosing locations / geographies, aim for clear intent in your sampling approach (are you looking for similar or dissimilar labour markets? Places with particular demographics or conditions? But also consider what public LMI and census data is available, as well as the level of granularity.

2 Choose an origin occupation

The Brookfield Institute's *Job Pathways* approach uses Canada's national system for describing occupations: National Occupational Classification or NOC codes. Using occupations as a unit enabled the team to access and leverage LMI— including existing skills databases such as O*NET. This unit *can* be confusing to laypersons—who may instead think in terms of "jobs" and "job titles"—many of which can be found in the same NOC code. As a result, teams should consider

how they describe both origin and destination occupations when interacting with research participants and in communicating findings clearly.

An **origin** occupation is selected based on the project's needs and goals. There may be numerous reasons that a researcher might want to generate potential pathways from (or towards) an occupation. We consider "origin occupations" simply as jobs that are the "starting point" in a given pathway that a worker might move away from. Disruption may be affecting specific sectors, specific occupations across sectors, or certain people in a given geography.

→ For example, in *Lost and Found*, the Brookfield Institute team identified origin occupations by seeking out occupations that were showing signs of declining employment. The team used Statistics Canada's 2006 and 2016 Censuses of the Population to measure employment changes over time and identify occupations showing signs of decline in the Greater Toronto and Hamilton Area (GTHA).

→ In *Job Pathways in Food Retail*, the team selected origin occupations in consultation with our partner United Food and Commercial Workers (UFCW Canada), given the potential for automation-focused disruption in food retail jobs.

Also important is to consider the nature of the origin occupation and its workforce, including both occupational factors (such as work environment, work hours and scheduling practices, perceived job status) and current workforce factors (such as demographic profiles, life circumstances, or work-related preferences that could impact transitions).

→ For example, qualitative fieldwork with food retail workers and employers identified that many cashiers and shelf-stockers had worked both jobs. As a result, the team felt it was safe to assume that many workers had skills profiles that included both cashier

→ and clerk origin occupations. Fieldwork also revealed heterogeneity in workforce composition and a particular set of scheduling practices and part-time work patterns. Understanding the nature of food retail jobs and the workforce meant the team was able to make more informed judgements at different stages of the project. In 2019, origin occupations were largely full time in nature and in 2021, origin occupations were largely part-time. However, fieldwork indicated that there were workers in part-time roles who desired full-time opportunities.

3 Run skills adjacency to generate a list of possible destination jobs

The adjacency model is the first step in identifying potential occupational pathways, once the origin occupations are selected. It is designed to take available data on the requirements of a worker in a particular occupation, and measure how close they are to those of another occupation. It is a tool that can be applied to any origin occupation with available skill data, and aims to identify the occupations that are most closely related to it, based on the variables that are chosen.

The Brookfield Institute's *Job Pathways* approach was similar in both phases, drawing lessons from earlier work with the innovation ecosystem MaRS (who developed the planext tool). the Brookfield Institute uses publicly available data from the Occupational Information Network (O*NET), an American database of standardized and occupation-specific descriptors.[1] Using our existing crosswalk, we then linked this data to Canadian occupations.[2] For *Job Pathways in Food Retail,* the following O*NET attributes were included: abilities, skills, knowledge, work activities, and work context.

For all occupations, we represent each of the attributes as a vector, and then normalize it in order to make their scales comparable. The model measures the cosine similarity between the scores

of the origin occupation and the potential destination occupation for each attribute, takes an average, and then produces a similarity value.[3] So that:

$$
\begin{aligned}
\text{Job Similarity Function (Job A, Job B) =} \\
(1/5) \times \text{Cosine Similarity [Skills A, Skills B] +} \\
(1/5) \times \text{Cosine Similarity [Knowledge A, Knowledge B] +} \\
(1/5) \times \text{Cosine Similarity [Abilities A, Abilities B] +} \\
(1/5) \times \text{Cosine Similarity [Work Activities A, Work Activities B] +} \\
(1/5) \times \text{Cosine Similarity [Work Context A, Work Context B]}[4]
\end{aligned}
$$

This process creates a longlist of occupations, each with a similarity score with respect to the origin occupation of interest.[5]

Not a Quant? Summarizing the above:
Essentially, the adjacency model allows a team to identify a set of factors that they think should be similar—for example, the skills or knowledge requirements similarity between two occupations. A formula (written as code) computes how similar hundreds of occupations are —generating a shortlist of occupations that can serve as a *data-driven starting point*.

→ The code used for the Brookfield Institute's past *Job Pathways* projects is publicly available here https://github.com/BrookfieldIIE/JobPathways-ON-FoodRetail.

→ The Brookfield Institute team is happy to provide limited technical input in helping teams to apply the quantitative model and filters for their project on a cost-recovery basis. Please email brookfield.institute@ryerson.ca if you'd like to discuss your needs.

4 | **Choose and apply filters to create a shortlist of destination occupations**

Following the adjacency model, the Brookfield Institute *Job Pathways* approach applies quantitative filters to the longlist in order to scan for feasible and suitable destination occupations. These filters can be selected and customized to requirements, based on your goals, context, and available data. Some filters might include:

- **Share of Employment:** Does the potential occupation employ a minimum number of people already? (For example, 5000 in a given labour market).

- **Fit:** How similar are the occupations, based on adjacency model scores?

- **Employment growth:** Does employment in this occupation appear to be constant or growing? (Based on how many people were employed in the last two censuses, or based on Canadian Online Job Posting Dashboard (LMiC) job posting data).

- **Prospects:** What do third-party forecasts say about the future demand for this occupation? This could involve data pulled from one or more of:

    - Employment and Social Development Canada 3-year employment outlooks

    - Canadian Occupational Projection System (COPS) 10-year outlook

    - Forecast of Canadian Occupational Growth (FCOG) 10-year outlook

- **Wage:** Should shortlisted occupations pay the same, or more, than origin occupations? (or in cases of severe disruption, perhaps a minimum percentage of previous occupation wage?).

- **Credentials:** Should the potential occupation(s) require specific levels of education or training, as measured by Statistics Canada's skill-level categories?

- **Local occupational concentration:** Is this occupation particularly concentrated in this region? (Measured by: whether the four-digit NOC code represented a higher proportion of total employment in the local community compared to Canada overall).

- **Other:** Depending on need and data availability, teams applying this approach could choose to insert other quantitative filters as appropriate.

- **Pandemic impact:** We only considered occupations for which postings were not disproportionately affected by the pandemic. Given the year-over year change in job postings in the third quarter of 2020, we filtered out occupations that had experienced a steeper

Example from *Job Pathways in Food Retail* project:
Similar to the first phase of the *Job Pathways* project, we aimed to encompass fit, opportunity, credentials, and future prospects, while also adding considerations of pandemic resilience.

- **Fit:** We only considered occupations that ranked in the top quartile (above seventy-fifth percentile) in similarity scores relative to the origin occupations.

- **Opportunity:** We only considered occupations that had historically grown or stayed constant, according to the 2006 and 2016 Census employment estimates.[6]

- **Prospects:** We only considered occupations that were not categorized as having "limited" employment prospects in the region, according to the Employment and Social Development Canada's (ESDC) 3-year employment outlooks.[7]

- **Credentials:** We excluded occupations that required university-level education or credentials (Level A) according to Statistics Canada's skill-level categories. In this case, origin occupations were ranked at level D "—signalling they did not require university-level education or credentials".[8] Applying this filter— which meant not shortlisting jobs that required university training—aimed to find potential pathways that were shorter or more feasible for workers without university qualifications.

drop than the Ontario average, according to the Labour Market Information Council's Canadian Online Job Posting Dashboard.

5 Narrow shortlist using qualitative data

Qualitative data can provide insights that help researchers, designers, and policymakers better understand the people and occupations in question, inform judgements and uncover new insights about potential destination occupations, and the pathways used to get there. This approach is *particularly* important when:

- The research team does not include people with deep knowledge of the origin occupation or its workforce.

- Pathways are intended to "work" for people who represent a range of different demographics and life circumstances, who may encounter different barriers or require different supports.

- Information about jobs available and "pathways in" to jobs is not easily available and accessible to all—for example, many opportunities are not advertised, job postings are incomplete, or pathways require navigating multiple credentials or steps.

Human-centred qualitative inquiry asks questions like:

- Who are the people in origin occupations? What do they want out of life and out of work? What assets, skills, and capabilities do they already have? What might this mean for how they're able, or unable, to navigate job transitions?

  - In the 2021 model, this data was accessed via cultural probes, individual and group interviews, and an online survey.

- What do employers (who employ destination occupation workers) want or value? How are they currently and how would they be willing to identify and bring on new talent? Do they see the potential transition as a viable one?

  - In the 2021 model, this data was accessed via email and telephone interviews with employers, alongside and in addition to data from training providers and professional networks and associations.

- What kind of supports, interventions or resources do people—both employers and workers—need in order to build, maintain, and navigate new pathways and labour-market linkages?

  - In the 2021 model, this research team identified supports via qualitative inquiry (including interviews with workers, employers, and training providers) alongside internet-based research. This involved, for example, reviewing information and application processes and speaking to training providers, to understand how user-friendly and accessible they were to job seekers undertaking their own searches.

In *Job Pathways in Food Retail,* the team used the following methods:

The team used...	Specifically...	In order to...
Study of the origin occupation's industry (grocery/ food retail) and its evolving employment practices	Review of industry publications Interviews with human resources leaders	Unearth common practices in recruitment and management today Understand employer perspective on longer-term skills demand that might illuminate potential pathways
Inquiry into origin occupation workers' perspectives on work *alongside* inquiry into their personal and work histories and longer-term goals	Cultural / design probes method[9] 1:1 and focus group interviews	Develop empathy and better understand the particular needs and realities (work and otherwise) of people working in origin occupations Understand and identify specific factors that matter to this set of workers, as they considered job transitions
Fixed questions about work-related preferences and transition options	A self-administered web-based survey[10] of origin occupation workers	Understand priorities and trade-offs across a larger population of workers, to aid in "matching" Explore differences in preferences and needs, based on demographic and other differences
Study of the different destination occupations, taking into consideration those occupations and the demand for workers in three geographies of interest (GTHA, Thunder Ba, Ingersoll)	Desk-based review of online material (including job postings, training provider and professional association websites) Interviews with employers, training providers, professional networks, associations, and destination occupation workers	Identify occupations that are in-demand and that have accessible and appropriate pathways that could work for some origin occupation workers Identify possible barriers, opportunities, challenges, and supports needed to support mid-career transitions.

6 Select final list of destination occupation(s) and identify pathway(s) into that occupation, including specific opportunities and potential barriers

The final step in the Brookfield Institute's *Job Pathways* approach involves selecting the occupation or occupation(s) that appear to be the best "fit" for origin occupation workers. Judgements made at this stage again depend heavily on context and requirements. For example:

- How long or complex of a pathway might workers be expected to navigate?

  → For example, will you identify only opportunities requiring zero or limited retraining requirements (e.g., days or weeks)?

- Will certain characteristics be given extra weight, relative to others? For example, if one potential destination occupation pays significantly more than others that seem better aligned—should this one be prioritized?

- Are there destination opportunities identified for workers within the origin sector, or within the origin employer that might be prioritized because they are more familiar or easier to navigate?

- Does the origin occupation—or list of origin occupations—introduce barriers to entry or success for some workers? For example, if only one origin occupation is selected and it is known for being dominated by one gender, or introduces new schedule requirements not suited to people with care responsibilities, the team could identify other destination occupations that would suit a wider range of workers.

The final step is also an opportunity to validate findings with people or representatives of people working in origin occupations, to understand if destination options appear desirable and transition pathways feasible.

Frequently Asked Questions

Q: What problem does this approach contribute to solving?
A: The landscape of skills demand in Canada is being reshaped by many factors—including digitization, automation, and offshoring. In a context of significant disruption and uncertainty—including consequences from COVID-19 affecting millions of Canadians, new approaches are needed to support transitions of skilled workers from one occupation to another. Data-driven pathways employing, for example, only skills adjacency models, fail to account for human- and place-based factors that can significantly affect the likelihood of successful transitions. This model demonstrates how to leverage the power of data while also ensuring solutions are mindful of human factors and can also (in some circumstances) help overcome issues associated with older and out-of-date data.

Q: Who is this playbook—or this approach—intended for?
A: This playbook is intended for anyone looking to explore realistic pathways between occupations—supporting workers and employers to bridge divides and address skills shortages in Canada's labour market. We believe there are lessons here for policymakers, workforce developers and service providers, trainers, employers, and anyone interested in using labour market information.

Q: What is the cost required to use the *Job Pathways* approach?
A: The cost of using this approach is largely person-time, including gathering and analyzing quantitative data, undertaking qualitative desk and field research, and analyzing and making judgements as the team progresses through the model's steps.

If data is readily available and the team is familiar with the origin occupation and its workers, in our experience the most time-consuming phase is the research on destination occupations, as it requires doing outreach and conducting interviews with new contacts and sectors. We found this required at least a month of part-time work in order to make contact, schedule interviews, and respond to new lines of inquiry as they emerged.

Q: How strictly must my team adhere to this model or approach?
A: We encourage you to adapt and modify this approach to suit your particular circumstances and needs. We have intentionally designed a flexible model that can bend to suit different occupations and sectors across Canada. We encourage teams who apply the model to share their work and their lessons with us by emailing brookfield.institute@ryerson.ca

Q: My team would like to apply this approach but we have limited quantitative capabilities—and we find the code a little daunting.
A: The Brookfield Institute would be happy to support partners to apply this approach, including through providing limited technical input in helping teams to apply the quantitative model and filters for their project on a cost-recovery basis. Please email brookfield.institute@ryerson.ca to contact our Partnerships team and we can discuss your needs.

Appendix:
Factors that might influence decision-making

The following is a list of factors we observed during fieldwork that we believed could affect job transitions for food retail workers in Ontario.

Personal and demographic characteristics

Our team considered the following characteristics at different points in analysis:

Characteristic	How was this measured?
Age (in years)*	*Question: What is your age?* <24 years old 25- 34 years old 45-54 years old 55-64 years old 65-74 years old >75 years old
Gender*	*Question: What is your gender identity?* Woman Man Non-binary or third gender Prefer not to say Prefer to self-describe
Disability status	*Question: Do you identify as having a visible or invisible disability?*
Race	*Question: Do you identify as:* White South Asian (e.g. East Indian, Pakistani, Sri Lanka, etc.) Chinese Black Filipino Latin American Southeast Asian (e.g. Vietnamese, Cambodian, Laotian, Thai, etc.) West Asian (e.g. Iranian, Afghan, etc.) Japanese Other

Indigenous identity	*Question: Do you identify as:* First Nations Inuit Metis Other Indigenous identity Non-Indigenous	
Education level	*Question: Please check all the degrees, diplomas, or certifications that you have:* None High school College or university Graduate school Other	
Place of birth	*Question: Were you born outside of Canada?* Yes No	
Caregiver status	*Question: Are you a primary or key caregiver to a family member (children, parent, etc.) or a friend?* Yes No Prefer not to answer	

*This characteristic was included in the 2019 model.

Workers and their assets

2019 Model	2021 Approach	How was this measured?
	Years of work experience in origin occupation	*Incorporated into participant recruitment questionnaire and survey.* *Question: How many years of experience do you have working in these occupations?:* One year or less Between 1- 3 years Between 3-5 years Between 5-10 years More than 10 years
Financial resources	Financial resources	*Intentionally something that was not directly asked outright; emerged from qualitative interactions.* *Understanding household level dynamics (for example, if a partner's income was considered sufficient to support a household during a period of transition) was something our team heard during 1:1 and focus group interviews.*

Health, well-being, access to support	Health (physical and mental)	Aside from disability status (which sometimes might reflect health conditions or ill health), the project did not directly seek to measure health.
	Personal supports / personal network	The project incorporated a mapping exercise of participants' potential support people in the "cultural probes" activity kit.
Access to professional networks	Networks (personal or professional) for information and contacts	Not directly measured, although the topic emerged in interviews.
Proximity and access to transportation	Commute	*This was incorporated into a cultural probes activity ("how do you get to work?")* *Survey question:* *I'd be willing to take a job that involved:* A short walk or bike ride Taking public transit Driving my own car Less than 15 minutes of travel between work and home Between 30 minutes and 1 hour of travel between work and home Over an hour of travel between work and home
	Role of work in their life	*Survey question:* *"What statement best describes your grocery job. Choose the one that best describes your situation from the drop-down lists."* *I see my grocery job as:* A job that aligns with my long-term career goals. A short or medium-term job while I find something in another field. A job but not a "career" - it helps pay the bills. A job that fits in alongside other things I've got going on - like other work, caregiving or retirement. A job I'm doing while studying. *Survey question:* *The money I earn from my grocery job is:* A source of income I don't really need My main source of household income One of a couple (or more) sources of income I earn, because it's needed
	Individual psychological factors (e.g. risk-taking, flexibility)	Characteristics associated with a person's worldview or personality were not incorporated into the project.

Job characteristics (origin and destination)

Characteristic	How was this measured?
Credentials required*	*Not measured in 2021 project.*
Physical demands	*Survey question: I would consider taking on a job that involved:* Standing for long periods in one place Bending, kneeling, crouching, or crawling regularly Sitting at a desk most of the time Using a computer or looking at a screen much of the time
Work environment	*Survey question: I could imagine myself working in a job that takes place:* Indoors Outdoors In my own home In a factor or food processing plant In a warehouse or distribution centre In a school or daycare In a hospital or long-term care setting In an office In a retail store or other customer-facing place Other
Contact with people	*Survey question: I would consider taking a job that involves lots of contact with:* Members of the public, such as customer service Seniors Babies and young children Coworkers No one—working alone
Type of work	*Survey question: I think I'm well-suited to a job that involves:* Mostly mental work (thinking, reading, analyzing) Mostly people-focused work (listening, speaking, interacting, providing care) Mostly body-focused work (packing, operating machinery, cleaning)

Work schedule	*A weekly calendar / diary activity was incorporated into the cultural probes activity, asking people to share their time use (including work and other activities) in a given week.*
	Survey question: I'd be interested in exploring a job where:
	The hours and times I work can vary day-to-day or week-to-week
	I have a set work schedule that I can plan around
	I am able to schedule my work around other commitments, like my family or school
	There are opportunities to work overtime
Hours	*Survey question. Ideally, I'd like:*
	A job(s) that give me 8 – 24 hours a week
	A job that gives me 24 – 37 hours a week
	A job that gives me 37 – 40 hours a week
	A flexible job(s) that I can work as little or as much as I'd like, if the hours are available.
	A combination of jobs that helps me meet my goals best.
Job security Recognition at work Opportunities for advancement	Choose the option that best suits you:
	I'd be interested in a job with the best possible job security, even if it means fewer opportunities for career or pay advancement
	My next job needs to be one that allows me to grow and advance my career in different ways
	I'm interested in an environment where I know, if I show loyalty and stay for a long time, I'll see gradual improvements in things like scheduling and pay
	I'm only interested in jobs that fully acknowledge the expertise and experience I bring to the table
	None of the above
Pay / Wage	Asked indirectly in 1:1 interviews as a follow-up or raised by participants themselves (sometimes volunteering rates for new hires and band information from collective agreements)
	Survey question: Based on my circumstances, I realistically want or need my work to pay me, before tax:
	Any amount - my pay isn't really my motivation for working
	A minimum of $500/week
	$501 - 800 / week**
	$1000-1400 / week
	More than $1400/week
	I'm not really sure
	I'd prefer not to say

Cultural fit Work life separation Starting over Work variety	*Survey question titled "Special considerations"—drew directly on statements heard in qualitative work:* *Which of the following statements do you agree with?* I would prefer a job where my coworkers are very similar to me I need a job where work stays at work—where you don't take the job or worries home with you I've worked hard to get where I am, and I don't want to start over at the bottom I want a job that can keep me busy with a variety of different tasks
Managerial oversight	*Quality of management and degree of managerial oversight (or surveillance) was mentioned in interviews and is referenced in "Factors affecting confidence", below.*
Health and safety at work including pandemic-related factors (e.g., risk of exposure)	*These issues came up in interviews (sometimes around physical demands of a job including heavy lifting) but people's risk tolerances at work were not proactively measured.*

***this should have read $500-1000/week

Questions relating to job transitions

Characteristic	How was this measured?
Additional credentials required	*Not measured - filters removed destination occupations that required post-secondary training.*
Future expectations	*Survey question: If you're currently working in grocery, what do you expect to be doing three years from today?* Be in my current job or similar grocery job with the same responsibilities Have a job in grocery with more or higher responsibilities Be in another job, in another sector or field Not be working or be retired I'm not working in grocery at the momen
Time to transition Additional training required Complexity of transition process	*Survey question: Imagine that, sometime next year, you learn about a new job opportunity that sounds like a great match for you. What would you be willing to do in order to land that new job?* Complete an application or submit my resume Work with an employment service organization or job coach in my community to get help with my resume, job hunt and application(s) Take online or in-person courses or certifications that I can complete in less than two months, part-time or full time Complete a more intensive online or in-person program or certification that takes between two months and six months and is full-time Complete a formal training program, such as a college diploma, that might take one or two years of full-time study I'm not interested in a new job right now

Factors affecting confidence in moving ahead. Includes: Hiring process Knowledge of manager Past experience in that job Direct contacts Training provided	*Survey question: from the following list, which of these things would help you feel most confident about moving into a new job?* Knowing exactly what skills and qualifications the job requires The application process is clear to me The application process is fast (for example, less than one month) Knowing that I already have the main skills required There is on-the-job training provided I know I'll feel welcome and safe at my job and with my coworkers I have friends, family, or other contacts who can tell me what to expect in the job I have friends, family, or other contacts in the industry who can help me get the job I've done a similar job before My expertise and experience will be valued and reflected in my pay, seniority or title Someone I trust has vouched for the manager or employer
Duration between jobs / since last job	*Not measured.*

Endnotes

1   About O*NET, O*NET Resource Center,, accessed October 21, 2019, https://www.onetcenter.org/overview.html.

2   Viet Vu, "Connecting the Dots: Linking Canadian Occupations to skills data," *Brookfield Institute for Innovation + Entrepreneurship* (blog), August 6, 2019, https://brookfieldinstitute.ca/commentary/connecting-the-dots-linking-canadian-occupations-to-skills-data.

3   Annalise Huynh, Creig Lamb, and Viet Vu, *Lost and Found: Pathways from disruption to employment* (Brookfield Institute for Innovation + Entrepreneurship, 2019), https://brookfieldinstitute.ca/lost-and-found-pathways-from-disruption-to-employment/

4   Annalise Huynh, Creig Lamb, and Viet Vu, *Lost and Found: Pathways from disruption to employment* (Brookfield Institute for Innovation + Entrepreneurship, 2019), https://brookfieldinstitute.ca/lost-and-found-pathways-from-disruption-to-employment/

5   Note: In the case of multiple American Standard Occupational Classification (SOC) codes corresponding to a single Canadian National Occupational Classification (NOC) code, we take the average of the similarity scores.

6   Statistics Canada, 2006 Census of Population, Statistics Canada Catalogue no. 97-564-XCB2006005; Statistics Canada, 2016 Census of Population, Statistics Canada Catalogue no. 98-400-X2016356.

7   Employment and Social Development Canada, "Job Prospects in Ontario—Job Bank," Job Bank, accessed April 22, 2021, https://www.jobbank.gc.ca/outlookreport/location/on.

8   Refugees and Citizenship Canada Immigration, "Find Your NOC," Find your NOC, April 15, 2021, https://www.canada.ca/en/immigration-refugees-citizenship/services/immigrate-canada/express-entry/eligibility/find-national-occupation-code.html#noc.

9   Cultural probes—or design probes—is a method for eliciting information on research participants' lives and experiences. Our team developed and mailed activity kits to seven research participants in Ontario, then interacted with participants using the chat platform WhatsApp to see photos of completed activities and ask follow-up questions. See: https://www.servicedesignlab.net/design-probes

10   The team developed an online survey and collected responses online using the opin.io survey platform. Grocery workers clicked on a link which took them to the survey, which they completed on their own device— phone, tablet or computer.