

From Low-Mobility to Rapid-Growth Jobs

The Journey to Clean Economy Careers



Technological innovations are threatening jobs in many sectors—but with the right amount of training, transition paths exist from high-risk, low-mobility (HRLM) into rapid-growth jobs in the clean economy.

These rapid-growth jobs align more closely with the future direction of the Canadian economy. Preparing workers to follow those paths—and encouraging them to take them—will be key near-term challenges for educational institutions, career counsellors, and funding agencies alike.

Transition Paths Exist

Most Don't Require Extended Retraining

Though the clean economy is only one of several rapidly growing sectors in Canada, we chose to focus on it because of its low risk in the government-backed, global effort to move the world toward a low-carbon economy. We first mapped out a total number of theoretically possible career transitions between old economy roles and those in the clean economy. Of that set, we estimated the number of both *feasible* and *desirable* transition opportunities, or pathways, by identifying occupations in each that had (a) a high similarity of required skills, (b) a minimal amount of required progression in skill levels, and (c) a potential wage reduction of no more than 10 per cent.

What we found was unexpectedly positive: that with only one year of retraining, almost 58 per cent of possible transition paths are both feasible and desirable (i.e., meeting all three of the criteria above)—more than doubling the options made available with only six months of retraining. Opening the next 42 per cent of paths, however, is more difficult. Even assuming three years of training, the proportion of feasible and desirable paths comes in at 79.5 per cent. While these more difficult transition opportunities shouldn't be ignored, it seems clear that the highest return on investment resides in the paths made possible by six months to one year of training.

“A single year of training can create at least one transition path for 90 out of the 92 occupations in our study.”

“Although the vast majority of workers were perfectly willing to consider taking a job in the clean economy, the transition process itself seems to hold significant concerns for many.”

Naturally, there are caveats. First, potential transition paths are not distributed evenly across the country. Likewise, the cost of transition (comprising both the direct cost of training and the opportunity cost of forgone wages during the training period) varies significantly from province to province. Under a one-year training scenario, for example, estimated costs are as low as \$45,800 (in Quebec) and as high as \$68,400 (in Alberta). While education programs are typically delivered provincially, federal programs addressing job transitions and retraining should not assume the feasibility of one-size-fits-all approaches.

Workers Will Need Support and Guidance to Make the Jump

A further challenge lurks, for while it is one thing to identify the existence of a range of feasible and desirable transition paths, it is another to get large numbers of workers to believe in—and act on—that desirability. To flesh this out, we conducted a survey of 546 workers from across Canada and across industries, supplemented with 27 in-depth expert interviews.





The factors that were most likely to hold workers back from pursuing such transitions included worries about compensation, the strength of their sense of identity in their current role, and the amount of job security that an unfamiliar role might offer them. The transition process itself also seems to hold significant concerns for many workers. Respondents noted their uncertainty around the accessibility of retraining (including whether a new employer would offer training after hiring, or demand it before hiring), their worries about the time investment required to re-skill (and lost wages during that time), as well as the lack of information and guidance about the labour market itself and the opportunities that might be a good fit for them.

Implications and Opportunities to Consider

Our study found that clean economy transition paths for almost all occupations in the HRLM category not only exist, but they may well be made feasible with as little as one year of training effort. Taking advantage of this opportunity, of course, will require careful thinking (and significant investment). To spark this thinking, we offer some questions to take away.



For Educators

- If the biggest return on investment lies in the shortest training times, what kinds of programs can be developed to take advantage of this while offering workers the least disruption and risk?
- How might the model of private sector online training in the technology sector be replicated to create baseline training programs deliverable on a least-cost approach to the widest audience?
- Conversely, which skills require hands-on training with job-specific tools and scenarios, and to what extent can these be delivered through partnerships with potential employers?
- For transition paths requiring extended training, what program models might mitigate the opportunity costs faced by workers and increase their propensity to enrol?
- What kind of financial and organizational support might improve the ability of and propensity for workers to embark on transition journeys from HRLM to rapid-growth careers?

For Career Counsellors

- Workers have a lot of concerns, so what information and tools could they be armed with to make the journey easier to embark upon—and to navigate?
- How might you portray the potentially complicated mapping between “where you are now” and “where you might be later” (which of course depends on training investment as well as location), while being realistic about the costs, risks, and potential benefits of a particular transition?
- What programs are available to fund retraining directly, and/or fund the opportunity costs of such retraining?
- Are there online tools that exist or could be built to incorporate all the available information and to make choices, steps, and costs clearer?

To read the full report and explore our methodology and detailed findings, visit [Green Occupation Pathways: From Vulnerable Jobs to Rapid-Growth Careers](#).

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