

The background of the slide is a photograph of an industrial manufacturing environment. In the foreground, a silver car chassis is being worked on by several orange robotic arms. The scene is filled with industrial equipment, pipes, and structural elements. A network of white lines and circles is overlaid on the left side of the image, suggesting a digital or technological theme.

Skills Strategies for Innovation and Good Jobs

A PLAYBOOK

Why a Different Approach to Skills Training is Needed?

Many firms across advanced economies have opportunities to innovate and grow, but often struggle to find the workers with the right skills and knowledge they need. Many workers who could fill those gaps lack the right skills, and face barriers to the training that would help them participate in the economy – barriers that are especially acute for some demographic groups.¹

Traditional skills training programs often fail to address this dual challenge – with many suffering from low completion and low employment rates.² Many of these programs are not rooted in – or responsive to – the evolving skills needs and demands of local employers. They also often fail to consider and address the complex needs and challenges individuals face when completing training programs, which are particularly acute for laid off mid-career workers or people from vulnerable communities.³

Many jurisdictions have created workforce “intermediaries” as an alternative to skills training programs to address the dual challenge. There have been numerous studies highlighting their effectiveness at helping vulnerable populations secure gainful employment, while also fostering a pool of skilled workers needed to drive local economic growth and innovation.⁴

Intermediaries are locally embedded organizations with dedicated staff who work with firms, educational institutions, labour organizations, social service organizations and people to understand concrete skills needs of local employers and ensure trainees have substantial support to complete training.⁵

They facilitate innovative skills training programs to support regional innovation and growth, and ensure local workers can participate in and benefit from regional prosperity.⁶

Seven Key Design Features for Successful Skills Development

We examined 3(+) cases to understand how workforce intermediaries operate, what works, what doesn't, and what are some best practices that could be applied in Canada:

- 1) **Project QUEST**. San Antonio, Texas.
- 2) **Manufacturing Renaissance (MR)**.
Chicago, Illinois.
- 3) **MATES (Maritime Alliance for Fostering the European Blue Economy through a Maritime Technology Skilling Strategy)**. EU.
- 4) **BioWorks**. North Carolina

The following are **seven key lessons** from the following cases to help improve the design of any workforce training initiative.



1) Focus on Local Populations and Sectors

Overly broad initiatives that use cookie-cutter, one-size fits all approaches to skills training tend to fail. Successful initiatives must be firmly rooted in local characteristics and conditions.

This includes:

Identifying and understanding the target population for training.

Each program we studied had a different target population for training, each with their own strengths, needs, and challenges that programming needed to be tailored to.

- **Project QUEST:** Focussed on mid-career, lower-income, un- or underemployed workers – typically women, Latino, and/or single parents.
- **MR:** Focussed on youth from low-income, predominantly Black neighbourhoods.
- **BioWorks:** Focussed on workers displaced from legacy industries and who lack PSE credentials to land new work or qualify for other training opportunities.
- **MATES:** Largely agnostic on trainee populations – focusing more on the skills needed and not the conditions facing the people who might be trained to fill them.

Identifying and understanding the local Sectors relevant for training.

Programs must also be designed in accordance with the specific needs of local sectors, which often vary depending on whether they are growth or declining sectors.

- **Growth sectors:** Project QUEST helps advanced manufacturing, healthcare, and IT industries find the skills they needed to innovate and grow; BioWorks focused exclusively on the growing biotech sector in North Carolina.
- **Vulnerable Sectors:** Manufacturing Connect was designed to help Chicago's struggling manufacturing sector find the skills they needed to support continued operations.

2) Economic Analysis Serves Program Design

Successful workforce intermediaries are constantly collecting, analyzing, and responding to local economic data.

Workforce intermediaries are most effective when they:

ask the right questions:

- Where exactly are local sectors are heading?
- What specific skills do they need to get there?
- Who is available and who needs help securing skills and employment locally?

rely on local data and qualitative insights:

- robust regional economic analysis using up-to-date, granular labour market data to understand and
- identify broader trends;
- on-the-ground insights from local employers and workers on evolving needs to acquire actionable insights that can shape the specifics of program design.

MR was born from decades-long efforts to protect and maintain Chicago's manufacturing sector and the jobs it creates. Founded in 1982 Manufacturing Renaissance analyzed and reported on the decline of manufacturing jobs and developed strategies to help retain manufacturing firms in the city. Neighbourhood and firm-level data were collected, and supplemented with insights from local manufacturers, to help uncover the reasons why plants were closing in the region.

In its 1989 report, MR reported that 40 percent of manufacturing companies in the region risked closure and an insufficient supply of skilled workers. The analysis also revealed that Black and LatinX youth in Chicago would benefit greatly from expanded educational opportunities and career pathways, including in the manufacturing industry.

Notably, while conducting the analysis, MR developed strong relationships with many plant managers. The analysis, and relationships formed, could later provide the foundation for their eventual workforce development program.

3) Narrow Regional and Sector Focus for Manageable Scale

Having a sufficiently narrow, manageable focus is essential for any successful intermediary. Focusing on 1-2 sectors in a relatively small regional or local economic geography allows for deep expertise and relationship building – both of which are critical in:

- identifying and responding to skills demands;
- offering meaningful and effective training tied to employer input and participation;
- collaborating with social service providers; and
- developing concrete pathways to employment with local firms for trainees.

Wide vs narrow scope: a tale of two workforce development organizations

MR focuses on developing talent for specific, traditional manufacturing industries in Chicago. With its local, sector-specific focus, MC/MR is able to develop relationships and granular insights they needed to:

- co-design programming with local employers and educators;
- encourage participation and foster supportive relationships with trainees; and
- help employers adjust HR practices to accommodate incoming trainees.

Meanwhile, MATES, which focused on developing a skills strategy for both the shipbuilding and offshore renewable energy industries across the EU suffered from its overly broad scope. Unlike other intermediaries, MATES was unable to acquire the necessary regional insights and develop the local relationships with employers and educators to allow them to build targeted local training initiatives that work for firms and prospective employees.

4) Strong Relationships Among Regional Actors

A foundational role of workforce intermediaries is to serve as connectors, bringing together and building partnerships among employers, training providers, social service agencies and other critical local infrastructure.

Relationships with employers:

Ongoing engagement with employers generates a clear picture of local skills needs. Employer partners also often assist with the design and implementation of the skills training itself – ensuring that participants acquire skills and knowledge that employers need, including the kinds of technology and equipment that should be used in the classroom.

Intermediaries also work with employers to overcome barriers in the hiring and onboarding process, including:

- reducing restrictive, ineffective credential requirements;
- enhancing HR practices; as well as
- addressing discrimination and improving workplace culture.

MR built a network of over 140 small- and medium-sized local employer firms who are closely involved in program governance, curriculum design, work placements, and skills certification processes.

There are 30 core firms that serve as an advisory committee who meet quarterly to discuss curriculum, opportunities, challenges, and to ensure the continued relevance of the program.

Industry partners advise on curriculum design and development, including the kinds of equipment that should be included and used in the classrooms. Partner employers helped design the MR machine shop. Rather than bringing in state-of-the-art equipment, input from employers led MC/MR to incorporate and use the kinds of machinery actually used in local manufacturing workplaces.

Industry partners play an important role in certification. Some credentials require competency-based tests to demonstrate proper use of various machinery. Employers are often called upon to assess the various parts and components the students create to ensure they meet proper specifications.

MR employers also provide students with a range of real-world experiences including work-integrated learning, internships, workshops, and tours.

Relationships with training/educational institutions:

Intermediaries often partner with local educational and training institutions to provide the skills training itself. Some simply refer to and support students in completing existing programs, while advising on the content of those programs. Other intermediaries run programs in conjunction with local educational institutions.

Project QUEST once played a much more hands-on role in curriculum design with local educational institutions. For example, QUEST analysts found strong local demand for diesel mechanics that employers could meet only by recruiting outside of the region. Project QUEST brought a local college and employers together to redesign an emerging local curriculum to meet employers' needs.

Over time, as Project QUEST has built an ecosystem around itself and requires a less hands-on approach. While Project QUEST staff often broker relationships between educators and employers regarding evolving skills demands, these conversations often occur more naturally, sometimes without Project QUEST staff even needing to intervene.

Relationships with social service agencies:

To help people overcome barriers to completing training intermediaries often develop relationships with local social service agencies to provide financial support, mental health support, academic assistance etc.

Most intermediaries don't have the resources to provide all the supports an individual needs; require external partnerships. Some embed social workers, or individuals with social work skills, in the program team.



5) Training Should be Flexible... But Success Has Core Elements

Successful programs are responsive and nimble – continually assessing the effectiveness of their programming for both employers and trainees and adapt their approach accordingly. However, in general intermediaries typically include the following core elements:

1. **Robust in-take** to identify good candidates and what they need to succeed. The intake process often involves a series of applications, questionnaires and interviews and is used to target suitable candidates and assess a candidate's readiness for training; identifying barriers to completing the program – tailoring supports to individual needs.
2. **Skills training.** Often involves a combination of industry-specific technical skills, as well as a transferrable human skills, such as leadership, communication, and teamwork, that are increasingly important in the labour market.

Programs often balance working with employers to ensure that candidates are trained in the specific technologies and skills that they need, while also ensuring candidates end up with more broadly applicable skills and credentials to ensure they have a breadth of opportunities in their future career.

MR curriculum offers applied coursework designed to help participants acquire industry-recognized credentials through the National Institute for Metalworking Skills (NIMS). Lessons include training on applied mathematics, measurement tools, reading and understanding blueprints, and shop and machine safety. Manufacturing Connect participants have the opportunity to earn up to five NIMS credentials – which are widely recognized not only by Chicago-based employers, but manufacturing employers nationwide improving career opportunities beyond local employers.

3. Work-integrated learning.

Work placements are essential components in many successful skills training programs help students understand and apply the key concepts, explore potential career pathways, build professional networks, and get a foot in the door with local employers.

4. Job-placement assistance:

Unless training programs lead to successful job placement for participants, it will lack value for workers and employers alike. Intermediaries often provide job search and placement assistance, such as resume building, interview preparation and training.

They also often provide referrals to employers looking for workers, directly placing students in local companies with whom they have relationships with. Learners often have access to placement specialists who work with participants months before graduation to discuss placement requirements and develop individual placement plans.



6) Robust Wrap-around, Whole-of-life Support for Trainees

Training programs are effective only if participants finish – and many face substantial barriers to doing so. Successful programs provide:

- **Financial assistance**, directly or by connecting participants to other agencies that help with tuition and training expenses; transportation; utilities; medical and child-care expenses; housing costs; food.
- **Psychological and counselling services** to ensure participants are supported throughout their journey.
- **Academic assistance**, including help with foundational math, literacy and digital skills; high school completion; college and university prep; and skills certification.

Project QUEST provides financial resources to participants to cover training tuition and fees and support to cover all academic expenses for the first year, and half in subsequent years. They also cover other expenses, such as books, equipment and uniforms, licensing exams, transportation, utilities, medical and childcare.

Where its own resources are insufficient, Project QUEST refers participants to outside agencies to help with other basic needs such as housing costs, bills and food

Recognizing the stress that often comes with intensive training programs they also provide a range of counseling services. This includes: weekly group meetings with Quest coaches and individual meetings with a counsellor who devises custom support strategies for each participant.

7) A Well-Resourced Intermediary Organization

Successful models entail much higher costs than stakeholders are used to seeing.

Unfortunately, intermediaries often face significant challenges securing long-term, sustainable funding. Many are funded through myriad public and private sector grants and funding streams, which are often temporary and require resources to secure and meet reporting requirements.

The average per participant cost of **Project QUEST** programs is **~\$10,500 USD** (over 22 month period). With a return of more than **\$30,000 over 10 years**, \$10,500 is a reasonable investment, but the initial outlay is hard to secure.

Project QUEST receives \$2 to \$2.5M USD annually in foundational funding from the City of San Antonio, and secures the additional \$5M it needs through piecemeal public and private sector grants and donations. When a federal labor department grant expired in 2019, Project QUEST was forced to serve 20 percent fewer participants than it did in 2017.



Endnotes

1 Munro, D. & Lamb, C. (2022) *Skills Development for Innovation and Growth: Insights from Global Initiatives*. Future Skills Centre.

2 Huynh, A, Lamb, C. & Vu, V. (2019) *Lost and Found: Pathways from disruption to employment*. The Dais.

3 Ibid.

4 Munro, D. & Lamb, C. (2022) *Skills Development for Innovation and Growth: Insights from Global Initiatives*. Future Skills Centre.

5 Ibid.

6 Ibid.



