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An analysis of the impact of the Manitoba Institute of Trades and Technology on the province of Manitoba



September 2020



A note from the consultants

This assessment of the economic impact of MITT in the province of Manitoba uses the Sudmant method. It was first used by Walter Sudmant to prepare the Economic Impact of The University of British Columbia in 2009. It uses information that is readily available (or can be reliably gathered) to calculate the economic impact of post-secondary institutions. In the UBC report, Sudmant showed that his method was consistent with more complex input-output (I-O) analyses. Both his model and I-O models include the impacts of the institution's direct spending as well as the dynamic impacts of indirect and induced spending that results from those direct expenditures.

In arriving at economic impact values, the consulting team has taken a conservative approach due to the relatively short history of the Manitoba Institute of Trades and Technology (compared to other provincial post-secondary institutions). In developing its assessments, the team benchmarked against numbers and ratios used by other Manitoba institutions. It should also be noted that some of the available data is two to three years old. Where possible, data has been adjusted to approximate current values.

To enhance the flow in reading the document and to focus on the value of MITT, methodology, annotations, and notes are alphabetized in the body of the text and found in Appendix 1; direct quotes are noted numerically in the text and found in Appendix 2; and sources used or consulted are found in Appendix 3.





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Executive summary

MITT ... what, who, why, when, where?

MITT contributes ... what?

The Manitoba Institute of Trades and Technology (MITT) contributes significantly to Manitoba. Its existence added \$141 million of economic activity to the provincial economy in 2018/19.

With provincial government funding at \$10.6 million in 2018/19, provincial taxpayers received an excellent return on investment. Every dollar of funding provided by the provincial government generated \$13.30 of economic activity. Full details on page 3.

MITT educates ... who?

MITT has a diverse student body. MITT is unique in the province because it reaches students from secondary through college as well as adult learners.

"... its programming evolution and its funding sources are largely responsible for the type of institution it is today: a hybrid institution that aims to support secondary and post-secondary students in their completion of skilled trades and technical training."¹ Full details on page 5.

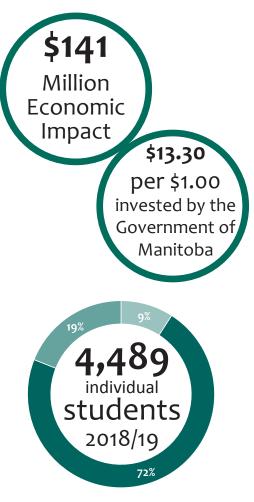
⁶⁶I tell everyone about MITT. I loved my experience at school there. I loved my instructors, and all that I learned, and how everyone was so supportive.⁹⁹— from MITT alumni survey, 2019

MITT is different ... why?

A hallmark of MITT's approach is its deep collaboration with industry partners. Together, they identify skills gaps—both technical and soft; develop curriculum to close those gaps; and create work practicum opportunities that help students build connections with prospective employers while they learn. MITT focusses on integrated work skills, lifelong learning, and supporting prospective and current students and alumni in their career development and success.

The word that best describes MITT's approach is nimble.

Full details on pages 7.



Secondary Post-secondary Adult Learning

⁶⁶MITT is nimble so it has the ability to fairly quickly organize, develop and deliver programming. Industry needs skilled workers in all kinds of different sectors, and MITT has been instrumental in delivering that.

Ron Hambley, president, Winnipeg
 Construction Association



MITT makes history ... when?

Now! MITT has developed or collaborated on a number of programs that are firsts for the province.

One such example is MITT's Pharmacy Technician Program (PT) that will expand from a one year certificate to a two year diploma in 2020. This program is the first in Manitoba to graduate students who will meet the new accrediting standards of The Canadian Council for Accreditation of Pharmacy Programs.

MITT is a relatively new institution, yet it has a depth of history. The college is a result of provincial legislation enacted in 2014 that saw the Winnipeg Technical College transition to the Manitoba Institute of Trades and Technology.

Prior to MITT, Winnipeg Technical College had a 35 year history of providing secondary and post-secondary students with sought-after, marketable education for employment. Full details on page 9.

MITT is in the community ... where?

With many of MITT's programs offered in the community, it has the advantage of being where the students are. In some cases, this makes it easier for students to access further education.

MITT has six campuses around the city plus an additional nine adult learning centres in Winnipeg, Headingley, and Portage La Prairie. An administrative centre is located in south Winnipeg. Full details on page 11.

MITT punches above its weight.

⁶I'm impressed by the progress MITT has made in just six short years and how good a job it has done seeking out creative collaborations between educators and employers. I've spent my career in post-secondary as well as in aerospace, and I've consistently seen both sectors derive significant benefits from working together. These relationships shape the economic landscape here in Manitoba and drive opportunity for future generations who enter the workforce ready to contribute and lead. MITT brings significant value to Manitoba, the labour market, and individual businesses."

> — Ken Webb, Chair, MITT Governing Board

^CHaving served on the MITT governing board since its inception, I have had a front row seat to the outstanding work being done between MITT and business and industry. Opportunities for growth and innovation are everywhere in an economy as diverse as Manitoba's. To leverage these opportunities, employers need people with the right mix of technical and essential skills. MITT directly serves the needs of industry and, by extension, the needs of Manitoba's labour market.²⁹

> John Schubert, Past Chair, MITT Governing Board

MITT contributes ... what?

The Manitoba Institute of Trades and Technology (MITT) contributes significantly to Manitoba. Its existence added \$141 million of economic activity to the provincial economy in 2018/19.

With provincial government funding at \$10.6 million in 2018/19, provincial taxpayers received an excellent return on investment. Every dollar of funding provided by the provincial government generated \$13.30 of economic activity.

Table 1: \$ return per \$ invested by the Manitoba government

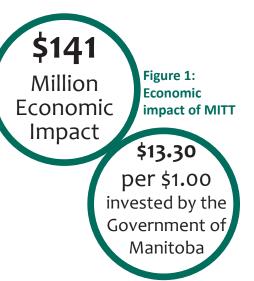
Total economic impact of MITT 2018/19	\$141 million
Provincial government grant to MITT 2018/19	\$10.6 million ²
For every dollar of funding that the Manitoba government provided in 2018/19, the economic impact generated in Manitoba was	\$13.30

Table 2: Total economic contribution of MITT to the provincial economy^A

Impact Category	Direct \$M	% spent in Man.	Direct in Man. \$M	Indirect & dynamic \$M	Total economic impact \$M
Institutional spending					
Operational spending ^B	31.9	92	29.4	14.7	44.1
Capital expenditures ^c	1.3	75	1.0	0.5	1.4
Student spending ^D	32.2	95	30.6	15.3	46.0
Visitor spending ^E	3.1	100	3.1	1.6	4.7
Alumni premium [⊧]	29.8	100	29.8	14.9	44.7
Total economic impact	98.3	96	93.9	47.0	140.9

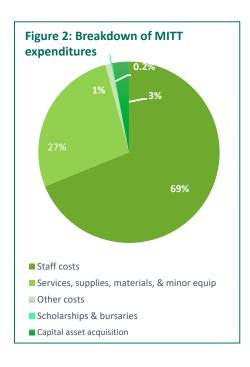
MITT spent \$33.2 million directly for operations and capital acquisitions in 2018/19. Figure 2 shows how institutional spending is distributed. Of that, it is estimated that \$30.4 million was spent in Manitoba. Note: Items that do not generate economic impact, such as amortization, are not included.

When direct, indirect and dynamic expenditures are combined, the total economic impact from the operations and capital acquisitions of MITT was \$45.5 million in 2018/19.



Manitoba employers depend on postsecondary institutions to be true partners with them and understand their needs and adapt quickly. Our focus in providing 21st century skills is to meet industry needs while at the same time focusing on an exceptional student experience.

Ray Karasevich,
 President and CEO, MITT



MITT made this financial contribution despite relatively low base funding from government. Currently all provincial funding for MITT core programs flows from the K-12 provincial budget, yet over 90 percent of MITT's core program enrolment is post-secondary. This anomaly is historical because MITT's roots are in the public school system.

In the 2017 Government of Manitoba College Review, it was observed, "MITT's institutional evolution required concerted efforts to ensure its ongoing financial sustainability, a reflection of its annual base funding allocation covering a smaller percentage of total expenditures. In many ways, MITT has developed a strong culture of entrepreneurship and innovation as a result of the need to become increasingly driven to generate additional revenue."³

A comparison of the 2018/2019 fiscal year financial statements for MITT, Assiniboine Community College (ACC), and Red River College (RRC) supports this observation.⁴ Figure 3 shows: A – each institution's provincial grant as a percent of total revenue and B – each institution's provincial grant as a percent of expenditures.

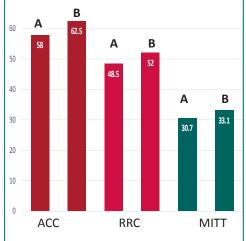
The 2017 Manitoba College Review also noted that MITT had the lowest cost per full-time seat in 2015/16. Figure 4 shows the comparison for that year and adds MITT's expenditure per full-time seat for 2018/19⁵. Worthy of note is that MITT's cost per seat is virtually the same as it was in 2015/16.

"MITT's business model is one that requires constant innovation and revenue-generating strategies in the absence of a significant base funding to support its post-secondary programs."⁶

Despite the financial challenges, "MITT has also recorded the highest graduation rates...of any of the five public colleges in Manitoba."⁷

"These results are notable, placing MITT among the national leaders in graduation rates. The results speak to the proactive, student-centred environment MITT professionals have aimed to create for the benefit of students and to maximize the value for public investments."⁸





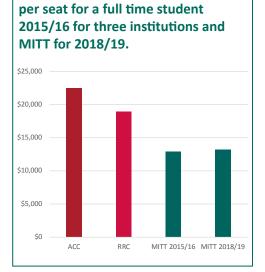


Figure 4: Institutional expenditure

⁶⁶With the Province of Manitoba setting a goal to create 40,000 jobs in the province over the next four years, MITT will be critical in partnering with industry stakeholders to train that future workforce which will result in a more prosperous Manitoba.⁹⁹

> Chuck Davidson, President & CEO, Manitoba Chambers of Commerce

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September 2020

MITT educates ... who?

MITT is unique as an educational institution in Manitoba. No other educator reaches students from secondary through college and adult learners. (Figure 5)

"...its programming evolution and its funding sources are largely responsible for the type of institution it is today: a hybrid institution that aims to support secondary and post-secondary students in their completion of skilled trades and technical training."⁹

Currently, MITT has oversight of the largest network of Adult Learning Centres within a post-secondary institution. These Adult Learning Centres provide literacy training and Grade 12 equivalency. Students within these centres often access funding through Employment Insurance (EI) or Employment and Income Assistance (EIA) while they are students with a goal to moving on to post-secondary studies and/or employment.

Through the Portage la Prairie Adult Learning and Literacy Centre, programs are available to incarcerated residents of the Women's Correctional Centre in Headingley.

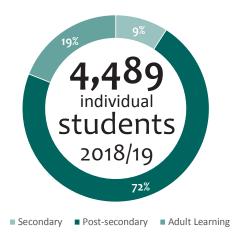
MITT has grown its international student body from 270 in its first year to 1,064 (FTE) in 2018/19. To facilitate international students' entrance into its college level courses, MITT has developed English for Academic Purposes (EAP).

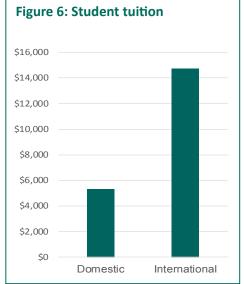
International students are a significant contributor to the economic sustainability of MITT due to its current funding structure. While domestic students' tuition fees in 2018/19 averaged \$4,960, those of international students averaged \$14,750^G. (Figure 6) International students pay the full cost of their coursework with *no* subsidy from the provincial government. International students also support Manitoba's economy by bringing new money into the province in terms of spending on living expenses and by visits from family and friends.

"Increasing domestic, post-secondary enrolment is a priority for MITT, and the recruitment team continues to focus its efforts on achieving this goal by building deeper relationships with prospective students and helping them throughout their journeys toward enrolment."¹⁰ In particular, MITT has identified that rural manufacturers are in need of skilled employees as technology changes and current employees retire. Rural students may be more likely to fill that need.

MITT continues with school division partnerships that were the foundation of its predecessor organizations. These allow students in some disciplines to expedite their entrance into college. It also allows school divisions to offer expanded learning and leading edge technology

Figure 5: MITT students by area of study





⁶ They focus not only on curriculum but employability, making sure their graduates are actually skilled enough to get gainful employment right after graduation rather than other places where people are left to flounder.

- Alum from MITT alumni survey, 2019

that they could not otherwise afford. The existence of MITT creates efficiencies in capital expenditures for both school boards and the provincial government, avoiding the need for infrastructure duplication.

"Both organizations work hard to continue to provide a range of options to students as well as ensure student success. This is of the utmost importance to Pembina Trails, the schools, and MITT staff. There's an effort to be responsive and agile and provide quick response to what we're seeing in terms of trends in students' interest as well as industry trends.

"As a K-12 system, we've had doors opened to us by virtue of relationships that MITT has with other organizations, for example Tech Manitoba. Because of these relationships, we now have members of the tech industry who are actively mentoring our students," said Ted Fransen, Superintendent, Pembina Trails School Division.

MITT also partners with a number of Indigenous educational institutions. These benefit secondary, post-secondary and adult Indigenous learners with specialized programming including the Mature Grade 12 diploma and trades and technical certificates.

YouthBuild offers Indigenous learners the opportunity to complete their Grade 12 and Carpentry Level 1 programs in the community. Students learn academics as well explore Indigenous cultural understandings. Students in this program work extensively in the community on projects such as building the RAW Almond restaurant on the ice, wood planters and benches with the Downtown Biz, and, recently, rebuilding a home in the community that burned down. The students repurposed wood from that home and made the family a dining room table from materials from their original home.

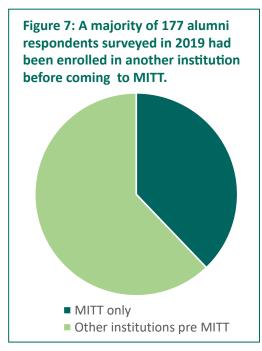
MITT assists La Division scolaire franco-manitobaine in providing trades and technical training to francophone learners.

As part of its commitment to being student-focused, MITT continues to grow its support—with help from its partners in government and industry—for women looking to pursue trades and technical career

fields. The tenth year of a partnership with Skills Manitoba for programming in this area was marked in 2019. MITT has a student group—Women in Trades and Technology—that helps recruit and support female students.

In a 2019 alumni survey conducted by MITT, a significant number said they had attended another college or university before MITT. The respondents were almost entirely domestic.¹¹ This would seem to indicate that MITT is filling an unmet need. (Figure 7.) Figure 8 shows degree of happiness with alumni experience at MITT.¹² ^{(C}MITT offers customized corporate training to ensure that companies have the ability to upskill the employees they have already invested in. We are working with industry to ensure the employees they have and the ones they are welcoming have the skills they need to grow their business and compete globally.⁹

 Bev Stuart, Associate Vice President, Business Development and Strategic Initiatives, MITT



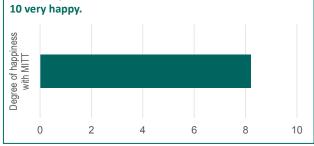


Figure 8: Degree of satisfaction of alumni with MITT experience (rated by 137 alumni) 1 very unhappy; 10 very happy.



MITT is different ... why?

A hallmark of MITT's approach is its deep collaboration with industry partners. Together, they identify skills gaps—both technical and soft; develop curriculum to close those gaps; and create work practicum opportunities that help students build connections with prospective employers while they learn. MITT focusses on integrated work skills, lifelong learning, and supporting prospective and current students and alumni in their career development and success.

The word that best describes MITT's approach is nimble.

Ron Koslowsky, vice-president, Canadian Manufacturers and Exporters commented, "From an economic development perspective, we depend on institutions like MITT. MITT is able to develop skills that are very specific and do so in a short time frame. The ability for the education system to be nimble and just in time is so important because when manufacturers need people, they can't wait for two years."

MITT has flexible programs that have been developed in partnership with business to meet the needs of the marketplace. It is a unique hybrid institution that aims to support secondary and post-secondary students in their completion of skilled trades and technical training.

It has partnered with a number of agencies to develop courses that complement or supplement their programs, giving them access to equipment, technology, and teaching expertise they would not otherwise have.

In the 2018/19 academic year, for example, MITT created these learning opportunities through partnerships with:

- Neeginan College to develop a Building Operator Technologist program and help deliver its Early Childhood Educator II program;
- Ka Ni Kanichihk for programs for business administrative assistant and executive assistant training;
- ICTAM (now Tech Manitoba) for delivery of free digital literacy programming in Winnipeg and surrounding communities;
- CAD Tech Level 1 training for workers at the City of Winnipeg's fabrication plant;
- Yellowquill College, a Pathways to Employment project; and
- Manitoba-based construction firm, Penn-Co Ltd., for a Northern Manitoba Indigenous Skill Training project.¹³

Throughout 2018/2019, MITT's Centre for Learning and Innovation (CLI) worked on development of an applied research strategic plan and

MITT is about

- flexibility
- partnerships
- innovation
- collaboration
- student focus
- industry needs

⁶⁶It definitely has a place in the economy of Manitoba. MITT is a major employer and major training institution that brings people together. It strengthens the business community in terms of labour and enhances its ability to expand.⁹

Ron Hambley, president,
 Winnipeg Construction Association

MITT is different because courses are specific and intensive, and the instructors are very hands-on and they make sure you are set up for success. MITT prepares you as a professional in the work force. The career services provide many opportunities and volunteering with MITT opens many valuable connections.

- Alum from MITT alumni survey, 2019

⁶MITT is definitely innovative. They're constantly changing their business model in a positive way.⁹⁹

 Shannon Fontaine, CEO, Manitoba Tourism Education Council (MTEC) a Curriculum Based Applied Research (CBAR) pilot. The goals of the activity included gauging the efficacy of CBAR to enrich the student experience at MITT while providing opportunities for faculty to connect more deeply with their fields and develop strong linkages with the employer community. Initial CBAR pilot projects will be undertaken and evaluated from 2019 through 2021.

The Manitoba College Review noted that MITT had demonstrated its ability to:

- offer a suite of programs that attract the interest of both domestic and international students;
- ensure a continuous evolution of its programs to meet the fastpaced changes in industry;
- recruit a steady stream of domestic students and increasing numbers of international students;
- deliver a student-centred experience that is resulting in the highest graduation rates among the public colleges in Manitoba;
- foster unique partnerships with school districts as well as public and private partners; and
- be seen favourably by industry partners, as MITT examines with them their concerns and evolving workplace needs and adjusts its program content to reflect those emerging needs.¹⁴

MITT educators take the approach that career development does not start at the post-secondary level. As part of MITT's educational strategy, it builds relationships with parents and elementary/secondary educators to broaden views about career options. This is done through working with career counsellors; attending parent/teacher evenings; and hosting tours of the college's facilities.

Recognizing the importance of readily usable skills, MITT has embarked on micro-credentialing. This allows students to receive micro certificates after completing short-term, competency-based courses. These allow students to enter the workforce quickly with a demonstrated competency. Given that life-long learning is a basis for MITT's approach, students would be able to return for additional micro-credentials that could be "stacked" to eventually become a full academic certificate.

Currently, MITT is working with Red River College (RRC) and Assiniboine Community College (ACC) to develop criteria that would allow the micro-certificates to be transferable or complementary to coursework at each of the three institutions. ⁶ The speed at which they can grab a hold of an issue, identify a program, and put it in place is dramatically superior to other institutions in the public setting.⁹

Ron Koslowsky, Vice-president,
 Canadian Manufacturers and Exporters

⁶⁶They are developing a well-skilled workforce. Academics are important, but the real-life part of the training is really important. Students have to be ready to work and understand how to work as soon as they hit the workforce. Manitoba has a skill shortage, and MITT is helping to fill it. **??**

> Shannon Fontaine, CEO, Manitoba Tourism Education Council (MTEC)

⁶⁶MITT has been really smart about being one of the first movers around micro-credentialing.²²

— Kathy Knight, CEO (2005 to April 2020), Tech Manitoba

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MITT makes history ... when?

Now! MITT has developed or collaborated on a number of programs that are firsts for the province.

Launching in 2020, MITT's Pharmacy Technician Program (PT) will expand to a two year diploma. This program is the first in Manitoba to graduate students who will meet the new accrediting standards of The Canadian Council for Accreditation of Pharmacy Programs.

In December 2019, Check Point Software Technologies Ltd., a global cyber security expert, announced MITT as its first Check Point Secure Academy in Canada. This was one more step in its partnership with MITT—and one that will enhance student and industry access to MITT's cyber and network security curricula, as well as its labs and testing facilities. Prior to this, the company had provided more than \$1 million in direct or VIK support (software, hardware, and services) to MITT.

At the same time, The Government of Manitoba pledged its multi-year support for MITT's plan to create a Cyber Security Technical Centre of Excellence by 2022.¹⁵

In late 2019, Pembina Trails Early College (PTEC) was launched. PTEC is a collaboration among MITT, Pembina Trails School Division and Tech Manitoba. The four year program sees high school students interested in IT (e.g. coding, software development, cyber security) get a head start on their careers. The program begins in Grade 9 at Pembina Trails. By Grade 11, studies continue at MITT in one of two streams: a twoyear diploma in Cyber Defense and Cloud Administration or a one-year Software Developer certificate.

A first for Canada will be the MITT Centre for Career Development, Experiential and Lifelong Learning currently under development. It's purpose is to promote the career development continuum from prospective student to alumni under one umbrella, connecting the full career development cycle.

Other institutions are aligning continuing education departments with career and work integrated learning, but they have not realized the need to include the full cycle of career exploration in their recruitment conversations. MITT's Centre for Career Development, Experiential and Lifelong Learning will provide learners and community with a "one stop shop" for first career, next career, or skills development to enhance, complement, or advance career possibilities.

With funding from the Province of Manitoba, MITT operates a series of adult learning centres (ALCs) throughout Winnipeg, St. Norbert and

⁶⁶ Collaboration with industry has helped us turn labour market assumptions into a rich and ongoing dialogue that directly informs our program activity. Complete integration of essential and employability skills in all our programs and our newly announced Cyber Security Technical Centre of Excellence are some examples of MITT innovation born directly of industry need.⁹⁹

 Bev Stuart, Associate Vice President, Business Development and Strategic Initiatives, MITT

⁶⁶ PTEC is a result of an overture from MITT who approached us with a dream of having a high school and postsecondary integrated program — they demonstrated to us their innovative side.⁹⁹

Ted Fransen, Superintendent,
 Pembina Trails School Division



Portage La Prairie. The centres are key to providing education to people who did not complete their grade 12 while in high school and are now looking to upgrade for employment or further education.

As the administrative program lead, MITT provides supports to the centres including HR, finance, external relations, and, of course, program management and service delivery. In the near future, a new series of MITT adult learning centres will be formed allowing the individual centres to focus on education rather than governance responsibilities.

A partnership that MITT has with La Division scolaire francomanitobaine (DFSM) is the only Francophone trades training centre offering trades exploration for secondary students outside of Quebec and New Brunswick. It has been featured in Macleans Magazine for innovative Francophone training.

MITT is a relatively new institution, yet it has a depth of history. In 1983, the St. Vital, Assiniboine South, and Fort Garry School divisions entered into an agreement that created The South Winnipeg Technical Vocational Centre, later The South Winnipeg Technical Centre (SWTC). This divisional collaboration was a Canadian first and included other unique features.

In April 1999, SWTC was renamed the Winnipeg Technical College (WTC).

MITT is a result of provincial legislation enacted in 2014 that saw WTC transition to the Manitoba Institute of Trades and Technology. It was given the mandate to:

- provide high school and post-secondary education/training activities in the fields of technology, vocational training and adult education;
- assist individuals in finding and keeping employment; and
- respond to Manitoba's labour market needs.

We're continually building and strengthening the relationship (between MITT and Neeginan).
We go to MITT if we have potential new programs and vice versa. I think they're really committed to working with the Indigenous population, and they've realized that the best way for them to do that is to work with us because we're an Indigenous organization. It's a growing partnership."

 Bill Bumstead, Program Partnership and Development, Neeginan College of Applied Technology

MITT is in the community... where?

With many of MITT's programs offered in the community, it has the advantage of being where the students are. In some cases, this makes it easier for students to access further education.

MITT has six campuses around the city plus an additional nine adult learning centres in Winnipeg, Headingley and Portage La Prairie. An administrative centre is located in south Winnipeg. (Figure 9)

Henlow campus offers secondary and post secondary training in the areas of ICT, skilled trades, and human services. MITT High is operated out of Henlow. As well, Henlow sees hundreds of Pembina Trails students in a variety of programs. Henlow also houses MITT's main student services centre, providing services such as student advisors, student counselling, social work, accessibility services, career services, and advising.

Pembina campus offers post-secondary programs in the areas of health care and human services. It also offers numerous post-graduate evening programs primarily to international students.

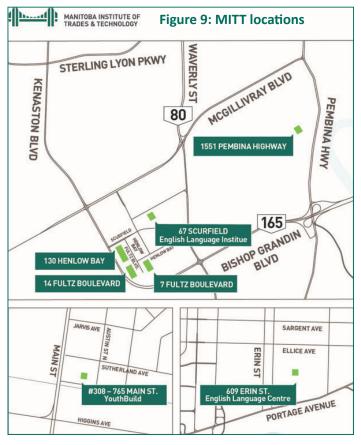
7 Fultz campus offers secondary and post-secondary skilled trades programs including programs taught in French at the secondary and post secondary level. This is the hub for our partnership with La Division scholaire franco-manitobaine. This campus also sees numerous Pembina Trails students on a daily basis.

Scurfield campus is the home to the English Language Institute that offers tuition-based language skills to students wanting to pursue further post-secondary studies in Canada or are looking to enter the work force.

Erin Street campus is the location for MITT's ESL language training for new Canadians who qualify for federally funded language training. There are also programs such as Mom and Baby and REDI (employment program) offered here.

14 Fultz is the location of all executive and administration staff. No academic programs are offered here.

YouthBuild offers Indigenous learners the opportunity to complete their Grade 12 and Carpentry Level 1 programs in the community.





Conclusions

- 1. MITT's forte is developing courses and programs that meet the skills needs of business and industry. This has occurred through a strong relationship with employers built by delivering what is needed when it is needed.
- 2. The college contributes significantly to the provincial economy returning solid value for the government funds invested in it.
- 3. MITT's return of \$13.30 per dollar invested by the Government of Manitoba is significantly better than comparable post-secondary institutions. This is due to MITT's efficiencies and its track record of attracting private sector support for its programs.
- 3. MITT is obviously meeting the expectations of students given the high graduation rate and that a significant number have come to the college after attending other institutions.
- 4. Part of MITT's success is due to the ground-truthing it does. It only considers a new course of study on the suggestion of industry. MITT then goes one step further by undertaking an environmental scan to ensure that there is a business case for such courses.
- 5. MITT has achieved significant milestones with base funding from the provincial government that is significantly less than similar institutions. If it is to continue to graduate students with the skills needed in a fast-changing economy, it must have sufficient funding so that it can afford leading edge infrastructure and equipment.
- 6. Because it is funded through the K to 12 system, MITT's funding mechanism is a two-edged sword. On the one hand, the reporting structure allows it the latitude to be nimble and responsive a big plus in the eyes of employers. On the other, despite it being recognized as a full post-secondary partner within Manitoba's education system, it does not receive the level of funding commensurate with a post-secondary institution. Consequently, its ability to carry its mandate to the next level is significantly hampered. Given that MITT is a unique institution, it stands to reason that a funding and oversight mechanism should be developed that is specific to MITT.

MITT punches above its weight.

Appendix 1: Methodology, assumptions & notes

Methodology: Sudmant Method

The Sudmant method has become one of the standards for analyzing the economic impact of universities in Canada. It was first used in relation to a university economic impact analysis for the University of British Columbia in 2009.

"The economic impact of a university is unlike any other organization in that in addition to the standard (or "static") impact of an organization on a regional economy, the university also has a "dynamic impact" in that the knowledge creation and knowledge transmission roles of universities fundamentally alter and increase the productive capacity of the region and nation."¹⁶

This report calculates the economic impact of MITT using the Sudmant Method. The multiplier used in this study is 1.5 as developed by Walter Sudmant. About the multiplier, he said, "This study uses a relatively conservative multiplier.... In other similar studies done in the 1990s, multipliers range from 1.57 (University of Washington) to 2.34 (University of Wisconsin). The importance of the multiplier is not in the exact value, which varies with economic conditions and the nature of the local economy, but in illustrating the value of stable public spending in maintaining the level of economic activity, as well as in the quantification of the extent to which different sectors of the economy are interconnected through trade."¹⁷

The Sudmant Method incorporates the effects of direct, induced, and dynamic impacts in five categories to assess economic impact.

The consultants have adjusted these to suit MITT.

- 1. Institutional spending includes operations and capital expenditures. Operational expenses comprise staff costs; materials, supplies, services, minor equipment; and student scholarships/bursaries. Capital expenditures include upgrading of teaching facilities, infrastructure, and research equipment.
- 2. Student spending includes all full-time equivalent (FTE) domestic and international students. This method rationalizes that if MITT were not located in Manitoba, both domestic and international students would study elsewhere. Some of the reasons for this assumption are that MITT offers unique programs, and other provincial colleges are currently at capacity in some programs.
- 3. Visitor spending includes visitors coming to MITT including preenrollment trips to assess the school and family/friends' visits during student studies.
- 4. Alumni education premium is a measure of the impact of an institution's alumni in the workforce. The measure is arrived at by including all graduates currently working in a region (ages 25-65) multiplied by the expected mid-career salary. The same number of graduates with no post-secondary eduction is multiplied by their expected mid-career salary.

The difference in their earnings is the alumni premium. The estimated premium for MITT is very conservative because the impact is based on only six years' graduating classes. This is due to MITT's short academic history.

Most economic assessments would have included all alumni over a 40 year period (the average career span- age 25 to 65).

5. **Research impact** estimates the impact of the institute's research and research products and innovation in the local economy, for example human capital developed by the institute, research by faculty and graduate students, and consulting services offered by the faculty. This category was not included in the analysis for MITT as MITT has begun minimal research.

Assumptions and notes

^aTable 2 shows the results of Acornhill's calculations of economic impact for MITT in the province of Manitoba.

The direct expenditures are estimated for each expenditure category. This is the amount spent by the institution annually (operating and capital), by students and visitors. Lastly the higher earning impact of alumni is valued as the alumni premium.

Only a portion of the direct expenditures is assumed to be spent in Manitoba. These percentage estimates were developed by Acornhill in consultation with MITT management.

The amount of each expenditure category spent in Manitoba is assumed to generate 50 percent as much indirect and dynamic impacts through the respending of the income that is created by those who receive the initial direct expenditure.

The direct expenditures in Manitoba plus the indirect/dynamic impacts when added together equal the estimated total impact for each category (i.e. the direct impact in Manitoba times the 1.5 multiplier = total economic impact).

^BBased on MITT's 2018/19 audited financial statements, June 30, 2019.

^cA five-year average of MITT's capital acquisition costs from its audited financial statements for 2014-15 though 2018-19; due to rounding Indirect and Dynamic may appear higher.

^DEstimates of **student spending** were developed by Acornhill Partners using MITT's international students' brochure information on living costs¹⁸ and from a Maclean's magazine article *The cost of a Canadian post-secondary* education in six charts.¹⁹.

Spending categories included textbooks and materials; room and board or rent; food, meals and liquor; and transportation (daily transportation and trips home). Tuition costs were excluded because they are accounted for in MITT's operations.

Three categories of students were developed: domestic living at home; domestic not living at home; and international not living at home. Estimated



2018/19 FTE students (2,489) were divided between the three categories: at home, 574; domestic not at home, 319; and international, 1,596. Domestic living at home was assumed to be those from Winnipeg based on the proportion of Manitoba's population that was in the Winnipeg Capital Region at the time of the 2016 census (821,537/1,278,365 = 64.3%).

Table 3: MITT student spending						
	Do	mestic	International	Direct (\$M)		
	Living at home Not living at home					
Total FTE students	574 319		1,596			
Living costs/student/year	\$2,730 \$12,869		\$16,650			
Living costs/year (\$M)	\$1.6 \$4.1		\$26.6	\$32.2		
Weighted averages	\$	6,353	\$16,650			

^EEstimates of **visitor spending** were developed by Acornhill Partners using a conservative approach based on the University of Manitoba economic impact assessment²⁰ and the Maclean's article *The cost of a Canadian post-secondary education in six charts.*

The same three categories of students were used in this estimate as for student spending. For those living at home, 1.5 visitors per year were assumed; for domestic students not living at home, 4.5 visitors per year were assumed; and for international students, 2 visitors per year were assumed. The weighted average number of visitors per student was estimated to be 2.2. This is much more conservative than the weighted average of 8 used in the Sudmant Method. Universities have more extra-curricular activities (sports, cultural) that draw visitors than does MITT.

For students living at home, their visitors were assumed to spend \$98.60 per visit not requiring an overnight stay. (These visits may be students inviting friends, siblings or parents to see the MITT facilities.) The other visitors were assumed to visit for two overnight stays per visit at \$329 per day or \$658 per visit.²¹

It must be recognized that these are averages only and that not all students will receive visitors while others may receive more visitors who may stay longer.

Table 4: MITT visitor spending						
	Do	mestic	International	Totals		
	Living at home	Not living at home				
Total FTE students	574	319	1,596	3,036		
Visitors/student/year	1.5	4.5	2.0	2.2		
Total visits	861	1,436	3,192	5,498		
Visitor spending/visit	\$98.60	\$658.00	\$658.00			
Visitor spending/year (\$M)	\$0.1	\$0.9	\$2.1	\$3.1		

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^FThe alumni economic impact (premium) is based on six years of graduating classes from diploma/certificate programs, at one point in time (their mid-career point). This is a conservative estimate because MITT is a young institution with limited data. This estimate is based on 85 percent of graduates finding employment in Manitoba.

The calculation of the salary differential between MITT alumni and people with no post-secondary education is based on the estimated after-tax salary differential assumptions from the EMSI's *Analysis of the Return on Investment and Economic Impact of Education: Demonstrating the Value of Canada's Colleges and Institutes Canadian Colleges & Institutes Economic Impact of Education* study²² (Figure 10), adjusted for inflation.

Figure 10: After-tax salary differentials by education level, 2015.

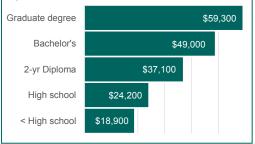


Table 5: Annual earnings 2014-2019	Annual <i>after-tax</i> <i>earnings</i> for a high school grad at mid-career	Annual <i>after- tax earnings</i> for a college grad at mid-career	Differential
Adjusted to 2014 (2014 CPI = 1.8%) ²³	\$23,764	\$36,432	\$12,668
2015 wage differential- diploma vs high school	\$24,200	\$37,100	\$12,900
Adjusted to 2016 (2015 CPI = 1.2%)	\$24,490	\$37,545	\$13 <i>,</i> 055
Adjusted to 2017 (2016 CPI = 1.3%)	\$24,809	\$38,033	\$13,225
Adjusted to 2018 (2017 CPI = 1.6%)	\$25,206	\$38,642	\$13,346
Adjusted to 2019 (2018 CPI = 2.5%)	\$25,836	\$39,608	\$13,722

These salary differentials were applied to the expected percentage of graduates who were estimated to remain in Manitoba during their working careers.

Table 6: Economic impact of alumni higher earnings	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	6-yr total
Dipl. & certificate grads (MITT enrolment FTEs)	679	876	1,073	1,347	1,459	1,509	6,943
Est. percent who remain in Man. for their career	85%	85%	85%	85%	85%	85%	85%
Est. # of dip & certificate grads remaining in Man.	577	745	912	1,145	1,240	1,283	5,902
Annual after-tax mid-career earnings differential per alum	\$12,668	\$12,900	\$13,055	\$13,225	\$13 <i>,</i> 436	\$13,772	
Total an. after-tax mid-career earnings differential (\$M)	\$7.31	\$9.61	\$11.91	\$15.14	\$16.66	\$17.66	\$78.29
Net present value of future earnings minus education and opportunity costs					\$29.75		

The estimated percent of graduates who remain in Manitoba is a conservative estimate derived from an MITT survey (internal) of international students in 2015/2016; a 2019 Assiniboine Community College report; and 2016/2017 Red River College report showing employment in the province at 84, 88, and 99 percent respectively.²⁴

In order to accurately reflect the earnings differential, it must be reduced to reflect the present value of future earnings, as well as the cost of the education and the foregone salary. Walter Sudmant estimated that reduction to be 62 percent.²⁵

^eThe average tuition fees were arrived at by totalling the per program domestic and international fees and dividing by the number of domestic and international students, respectively.



Appendix 2: Endnotes

¹Usher, Alex and Yves Y. Pelletier. 2017. *Government of Manitoba: Manitoba College Review* — *System-Wide Report* (Toronto: Higher Education Strategy Associates). p 69.

²Manitoba Institute of Trades and Technology. 2018/19 financial statements.

³Op. cit. Usher p 67

⁴Manitoba Institute of Trades and Technology 2018/19 financial statements; Red River Community College https://www.rrc.ca/legal/finance/; Assiniboine Community College: https://assiniboine.net/sites/default/files/ documents/2019-11/financial_statemenets.pdf. Assumption made for RCC that the grant portion is provincial only.

⁵Op. cit. Usher. p 12 for 2015/16 data. MITT per full-time seat cost for 2018/19 was calculated using relevant MITT data and the same methodology as Usher *et al.*

⁶Ibid. p 86

⁷lbid. p 67

⁸Ibid. p 79

⁹Ibid. p 69

¹⁰Manitoba Institute of Trades and Technology. 2018/2019. Year in Review. p 5

¹¹Manitoba Institute of Trades and Technology. May 2019. *Alumni Survey. Questions 4: Prior to attending MITT, did you have any previous postsecondary education?* 177 responded; three skipped.

¹²Manitoba Institute of Trades and Technology. May 2019. Alumni Survey. *Question 11: On a scale from 1 to 10, how happy were you with your experience at MITT?* 137 responded; 43 skipped.

¹³Op. cit. 2018/2019 Year in Review. p 15

¹⁴Op. cit. Usher. p 90

¹⁵Manitoba Institute of Trades and Technology. *Industry, and government announce ICT training initiative*. December 17, 2019. http://mitt.ca/286/ blogs/manitoba-institute-of-trades-and-technology-named-check-pointsecure-academy-provincial-government

¹⁶Sudmant, Walter. September 2009. *The Economic Impact of the University of British Columbia*, Planning and Institutional Research, UBC. p 3

¹⁷Ibid. p 10

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<sup>18</sup>Manitoba Institute of Trades and Technology. 2019/20. International Viewbook.
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¹⁹Brown, Mark. April 1, 2018. *The cost of a Canadian university education in six charts.* Maclean's. https://www.macleans.ca/education/the-cost-of-a-canadian-university-education-in-six-charts/

²⁰PricewaterhouseCoopers LLP (pwc). May 2019. *The University of Manitoba: Economic impact analysis.* pp 51-52

²¹Ibid. p 52

²²EMSI. October 2016. Analysis of the Return on Investment and Economic Impact of Education. Demonstrating the Value of Canada's Colleges and Institutes. p 12

²³Manitoba Bureau of Statistics Annual Supplement 2018

²⁴Assiniboine Community College, 2019 Graduate Satisfaction & Employment Survey. https://educationnewscanada.com/article/education/level/colleges/2/795855/ annual-graduate-satisfaction-employment-survey-demonstrates-opportunitiesfor-grads.html and Red River Community College, 2016/17 Graduate Satisfaction & Employment Report. https://cpb-ca-c1.wpmucdn.com/www.rrc. ca/dist/3/23/files/2018/02/20162017GSESrpt_FINALREPORT.pdf

²⁵Op. cit. Sudmant. p 34



Appendix 3: Resources

- Assiniboine Community College: https://assiniboine.net/sites/default/files/ documents/2019-11/financial_statemenets.pdf.
- Brandon University. July 2017. *Economic Impact Report 2014-2015*. Institutional Data & Analysis Unit
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Interviews

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Hambley, Ron, President, Winnipeg Construction Association

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