Economic Impact of the Transportation Sector in Manitoba - $3.34 Billion in 2006

With a location that promotes trade in the east-west and north-south corridors, ocean access, and a developing air hub, Manitoba is home to a number of transportation and logistic service providers. The contribution and impact to the Manitoban economy is substantial.

In addition to the direct economic contribution of $1.83 billion made by the Transportation and Warehousing sector, the indirect and induced economic impacts of $0.66 billion and $0.85 billion respectively are considerable. Overall, the economic impact of transportation in Manitoba was worth $3.34 billion in 2006.

On a modal basis, the trucking segment was the largest contributor to the Manitoban economy ($1.47 billion). This amounts to nearly half of the total GDP generated by transportation. Over the previous five years, the annual GDP contribution made by the trucking segment has grown considerably compared to other industries.
In addition to indirect and induced GDP contributions created by the transportation industry, a large level of employment was generated. In 2006, for every “direct” job, nearly 1 indirect or induced job was created. This resulted in over 51,000 positions employing Manitobans.

When looking at employment from 2002 to 2006 by transportation mode, the importance of trucking becomes very evident. The trucking industry increased by nearly 8,000 positions over 5 years while employment in all other modes decreased. In particular, the air industry decreased by more than 2,000 positions from 2002 to 2006.

The indirect and induced effects mentioned earlier are a measure of the leverage derived from the direct effect. The higher the amount of leverage the greater the economic activity spawned from the original source. The total economic impact of the sector can be measured when the direct and leverage effects are combined.

Based on GDP, the bus industry has the highest leverage ratio at 1.58. This means that for $1 GDP generated by the bus industry, an additional $1.58 is generated throughout the economy. Trucking and rail had the lowest leverage effects in terms of contribution to GDP; however their total GDP’s were the two highest for all transportation modes in Manitoba.
With respect to leverage in creating jobs throughout the economy, aviation led the way as each aviation direct job generated an additional 1.42 jobs throughout the economy. The trucking and bus industries followed at 1.00 and 0.89 respectively.

The aviation industry also provided the greatest leverage ratio for labour income by mode as $0.97 of additional labour income was generated throughout the economy for every dollar of direct labour income in aviation. Couriers, rail, and trucking shared similar levels of labour income leverage, while the bus industry provided considerably lower leverage.

The loss of more than 2,000 jobs in aviation over the past five years has been more than offset by the increased employment in the trucking industry. The impact and importance that the transportation industry has on the Manitoban economy should not be discounted, nor forgotten.

The Manitoba Transportation Report is an annual publication produced by UMTI for Manitoba Infrastructure and Transportation. Previous additions are available to the public on the UMTI website, [www.umti.ca](http://www.umti.ca).
"Planes, Trains and Hurricanes" was the theme of the 4th Annual Supply Chain Connections Conference, and given the recent tragedies that have occurred in China and Myanmar, no other issue could be more relevant. The format of the conference separated speakers into four quadrants, each representing a unique area of logistics management. These areas are shown in the following table:

<table>
<thead>
<tr>
<th>Sector</th>
<th>Environment</th>
<th>Uninterrupted</th>
<th>Interrupted</th>
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<tbody>
<tr>
<td>For-profit</td>
<td>Q1</td>
<td>Q2</td>
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<tr>
<td>Not-for-profit</td>
<td>Q3</td>
<td>Q4</td>
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For each area, both academic and industry points-of-view were illustrated for the audience.

Quadrant 1 – For Profit, Uninterrupted (Business Logistics)

To illustrate the academic perspective of quadrant one, Dr. Ron McLachlin, Associate Professor, Department of Supply Chain Management at the Asper School of Business, gave his views on three supply chain issues in this area. The first issue discussed was supply chain integration. Research indicates that integrated supply chains lead to improved performance, and that this is true among all quadrants. The issue of vertical integration and outsourcing concerns what supply chain activities should be performed in-house and which should be outsourced? Again, according to Dr. McLachlin, research suggests that there is no one best way. Instead, depending on certain factors like resources and coordination requirements, these decisions should be conditional to the unique circumstances of your firm. Lastly was the issue of postponement which is the process of making decisions only when the final requirements are identified. According to the research, postponement can offer benefits in both lean systems and agile systems in the same supply chain.

Mr. David White, the Executive Vice President of Supply Management for New Flyer Industries, represented the industry view on quadrant one. New Flyer produces 45 buses per week. The have an extensive product offering (50,000 different purchased part numbers in 2007) and utilize 400 active suppliers. To say the least, their supply environment can be extremely complex. Mr. White stressed the importance of supplier selection as well as the continuous improvement of processes, such as the Enterprise Resource Planning (ERP) system and order management methods, in order to meet daily requirements. In the case of New Flyer, stability requires upwards of 99% parts availability and that critical items not expire.

Quadrant 2 – For Profit, Interrupted

The second quadrant concerns firms in an interrupted environment. Paul Larson began the session by talking about Supply Chain Risk and Evaluation Management (SCREAM) and describing its two different approaches, proactive and reactive. The reactive approach means you will deal with the threat as it occurs while the proactive approach involves some risk management, either detailed procedures or general guidelines. Some of the possible interruptions that could disrupt the supply chain include pandemics, earthquakes, or terrorist attacks, among others. The likelihood and impact these could have on a global scale were discussed. Dr. Larson then moved the presentation toward the growing interest in greener supply chains. Some of the factors attributing to heightened green awareness include the desire to cut energy costs or to enhance productivity. Innovative freight practices, such as trip scheduling or idling reduction, can also be considered in order to increase efficiency and become more environmentally friendly. Dr. Larson finished the presentation with a research term called “comprehensive sustainability”. It was stated that while firms usually only consider economic impacts, environmental and social impacts should also be measured.

Ian Seunarine, Logistics Manager of the Duha Group, talked about his experience in the color sampling industry during the final part of the morning session. The Duha Group produces color samples for the paint and automotive industries. It is a global company with 950 customers in over 100 countries. Mr. Seunarine explained how demand was up in the paint chip industry, but that competition, industry consolidation, and the cost of raw materials were also increasing. In order to mitigate supply chain risk, it was suggested that a secure supply chain was essential. Like Dr. Paul Larson, this presentation also stated the importance of going green and sustainability. According to Mr. Seunarine, sustainability can be a risk if it is ignored in the supply chain field.

Lunch

The luncheon presentation was made by Catherine Viglas, President of the Canadian Institute of Traffic and Transportation (CITT). CITT is a leading professional development organization in the field of supply chain and logistics. According to Ms.
Viglas, in 2008, all of the top 15 award-winning companies that move goods domestically or internationally had a CITT undergraduate or CITT certified professional running aspects of their supply chain. CITT professionals work in every aspect of supply chain management, including military, the provincial government, and third-party logistics.

Quadrant 3 – Not-for-profit, Uninterrupted

The afternoon session began with presentations regarding supply chains in the quadrant 3 scenario. To begin, Dr. Paul Earl, Assistant Professor, Department of Supply Chain Management at the Asper School of Business illustrated the academic view of this environment. The presentation utilized the Canadian grain industry, specifically the Canadian Wheat Board (CWB), as an example of a “non-commercial” entity. The CWB is essentially “commercial”, but operates in a not-for-profit manner by putting social goals ahead of economic ones. Dr. Earl illustrated research that suggests the grain industry well as great inefficiencies in infrastructure and claims, it was stated that neither is wrong in values. Dr. Earl concluded by saying that ineffectiveness in this quadrant, but that challenge is to find an effective equilibrium quadrant 3 was presented by Rick at the Canadian Wheat Board. The CWB Canada. Their product is marketed to over around $950 million is spent on supply chain grain industry is the distance of the growing the growing region in Canada is a far distance to the derailment of rail cars and avalanches. The CWB takes both a proactive and reactive approach when dealing with these issues. Mr. Steinke listed demand and performance management as examples of proactive strategies used by the CWB. On the other hand, sometimes the approach has to be reactive due to the unpredictability of certain events.

Quadrant 4 – Not-for-profit, Interrupted

In the final session of the day, Ms. Gyongyi Kovacs, Assistant Professor at the Hanken School of Economics and Business Administration, talked about humanitarian logistics. The major portion of disaster relief efforts involves logistics operations. When human lives are at stake, the importance of an effective and resilient supply chain cannot be understated. The main concern of humanitarian logistics is to help vulnerable people. Challenges can vary greatly depending on the factors of the situation, including the type of disaster and many other regional factors. Demand is irregular, suppliers vary (often choices are limited), there can be unusual constraints, and knowledge of the situation is low because of the quick response nature of disaster management. Because of the importance of humanitarian logistics, and the many unique challenges it brings, research opportunities are countless. Ms. Kovacs talked about the HUMLOG Group which is an international network in humanitarian logistics research. The Hanken School is part of this group whose aim is “to research the area of humanitarian logistics in disaster preparedness, response and recovery with the intention of influencing future activities in a way that will provide measurable benefit to persons requiring assistance”. More information can be found at www.humloggroup.org.

The final speaker of the day was Mr. Donald Shropshire, National Director of Disaster Management for the Canadian Red Cross. Shropshire gave the audience an illustration of what it is like to work in humanitarian logistics. The Canadian Red Cross acts as a medium for people that need assistance and people that want to provide assistance. The organization performs 5000 responses per year. An interesting fact noted from the presentation was that since the 1970’s there has been an increase in natural disasters, but the number of deaths as a result of these disasters are actually lower. Mr. Shropshire gave some examples of Canadian Red Cross emergency responses situations, such as the 2003 SARS outbreak in Toronto, the 2003 B.C. forest fires and Hurricane Katrina in 2005. The final conclusions of the presentation stated that not all disasters are preventable, but by working with industry and government, there can be success in mitigating the impacts of future disasters.
This year marks the 13th annual Fields on Wheels conference. It comes at a time when farmers say they are seeing light at the end of the tunnel and this has been chosen as the conference theme.

Ten years ago, when the Estey Review was presented, there was a 65 cent dollar and $20 barrel of oil, a dysfunctional transportation and handling system, and subsidized competition that depressed grain prices. Much has changed; global demand and grain prices are at record highs and the transport and handling system is transformed. That light at the end of the tunnel may be the aura of a new golden era for Prairie grain exporters.

Long overdue relief is mixed with long run concerns. Real progress is needed to address new dynamics, opportunities and challenges that impact farmers, railways, grain companies, regulators and road providers. Are we equal to the challenge? Come to the 13th Annual Field on Wheel where collectively we can shine some light through the tunnel.

November 19, 2008
Hotel Fort Garry
Winnipeg, Manitoba

Mark your calendar now for the 13th Annual Fields on Wheels Conference. While this year’s agenda is still being finalized, the 13th Annual Fields on Wheels promises to be bigger and better than ever. To reserve a guestroom, call the Hotel Fort Garry at 1-800-665-8088 and quote Group Code 1045YT to receive the conference rate of $124 per night.

The Regular registration fee for the conference is $350 Cdn. per person, but if you register prior to September 30, you will pay the Early Bird Rate of $295 Cdn per person.

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REGISTRATION FORM

NAME ___________________ TITLE ___________________
ORGANIZATION _________________________________________________________________
ADDRESS ______________________________________________________________________
POSTAL CODE ___________________ CITY, _________ PROV _______________________
TELEPHONE ___________________ FAX ___________________
E-MAIL ADDRESS _______________________________________________________________

___ Early Bird Rate! $295 Canadian if you register and pay prior to September 30, 2008!
___REGISTRATION FEE - $350.00 Canadian Funds per person
(Price includes GST R119260669)

DEADLINE FOR REGISTRATION is November 18, 2008.

Please note: Seating is limited. Registration is transferable but non-refundable

Fax your registration form to: 204-474-7530
Mail payment to: TRANSPORT INSTITUTE
631–181 Freedman Crescent
Winnipeg, MB R3T 5V4

Payment must be received in advance.

☐ Cheque ☐ Money Order

☐ VISA/ M/C # ___________________________ Exp. Date ____ / ____

☐ Cardholder Name: __________________________

Please make cheque or money order payable to THE UNIVERSITY OF MANITOBA.

Note: The personal information being collected on this form is strictly for use by the Transport Institute and shall not be shared or sold to any other person or organization without the express written consent of the individual.
THE UNIVERSITY OF MANITOBA
TRANSPORT INSTITUTE
CERTIFICATE IN LOGISTICS PROGRAM
FALL/WINTER 2008

Course Registration Form

Name ___________________________________________________________
Address:_________________________________________________________________ Postal Code__________
Phone (Business)___________________ (Home)______________________________
Fax: __________________________ E-mail: ________________________________

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<tr>
<th>COURSE NAME</th>
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<tr>
<td>Logistics Fundamentals</td>
<td>924.051</td>
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<td>Instructor: Matthew Morris</td>
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<td>Tuesdays, Starting September 9,</td>
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<td>RISK ASSESSMENT &amp; SAFETY</td>
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<tr>
<td>LEGAL ISSUES IN TRANSPORTATION</td>
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<td>Thorvaldson LLP</td>
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<td>Starting January 2009</td>
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<td>TRANSPORTATION POLICY &amp; REGULATION</td>
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Deadline for Fall course registration is September 4, 2008

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Submit with completed forms by mail to:
Transport Institute, University of Manitoba, 616 - 181 Freedman Cres., Winnipeg, MB R3T 5V4.

Faxed forms are considered pre-registered only until payment is received:
Fax: (204) 474-7530

________________________________________________________________________

Student’s Signature

Date _______________________

Office Use Only -
Admitted □ Received - Course Fee $595. □

Date _______________________

Director Transport Institute (or designate)
August 17-20, 2008
ACPA Annual General Meeting & Conference - Ports: The Canadian Advantage
Saint John, New Brunswick
website: www.acpa-ports.net

September 16-17, 2008
AIAC Annual General Meeting & Conference
Ottawa, Ontario
website: www.aiac.ca

September 21-24, 2008
TAC Annual Conference & Exhibition
Toronto, Ontario
website: www.tac-atc.ca

September 30 - October 1, 2008
Third Annual Canada Maritime Conference
Vancouver, BC Canada
website: www.joc.com

September 30 - October 1, 2008
Future of Canada’s Infrastructure Conference
Toronto, Ontario
website: www.strategyinstitute.com

October 5-7, 2008
Airport Management Conference of Ontario - 2008 Convention, Trade Show & Annual General Meeting
Sudbury, Ontario Canada
website: www.amco.on.ca

October 6-7, 2008
2008 Annual Meeting of the Great Lakes Commission
Quebec City, Quebec Canada
website: www.glc.org

October 8, 2008
Manitoba Outlook on Transportation
Hotel Fort Garry
Contact the Transport Institute for further details at 204.474.9097 or transport_institute@umanitoba.ca

October 24, 2008
Future Development of NAFTA Surface Freight Transportation Infrastructure & Operations II
Calgary, Alberta Canada
website: www.ctrf.ca

November 5-7, 2008
Reposition 2008
The Fairmont Hotel, Winnipeg, MB
website: www.citt.ca

November 8-12, 2008
CUTA 2008 Fall Conference & Trans-Expo
Windsor, Ontario Canada
website: www.cutaactu.ca

November 10-12, 2008
ATAC 2008 Annual General Meeting & Tradeshow
Calgary, Alberta Canada
website: www.atac.ca

November 19, 2008
13th Annual Fields on Wheels
The Hotel Fort Garry, Winnipeg, MB
Contact Kathy Chmelnytzki at transport_institute@umanitoba.ca for details or visit our website: www.umti.ca

December 3 & 4, 2008
Insight Vs. Risk: Freight Demand Forecasts
Renaissance Vancouver Hotel Harbourside
Vancouver, BC
website: www.westac.com

December 15-17, 2008
International Conference on Integrated Transport for Sustainable Urban Development
Beijing, China
email: Martine Micozzi at mmicozzi@nas.edu

If you have a transportation related conference or event that you would like to post here, please email the information to Kathy Chmelnytzki at transport_institute@umanitoba.ca
The Transport Institute is in the process of welcoming some new people to the team, while saying goodbye to a few others.

Allister Hickson, former Professional Associate at the Transport Institute has moved on to an Assistant Professor position in the Supply Chain Management department in the Asper School of Business. Allister spearheaded many major projects during his time at the Institute, most recently he was the lead on successful projects such as the Manitoba Nutrition Supply in Event of a Pandemic report, a study of snowmobiling in Manitoba, and the Supply Chain Intermediaries study. While Allister is concentrating on teaching, he will continue to be an associate of the Institute and be involved in future projects.

Another member recently departing the Transport Institute team is Brian Wirth. Brian was a graduate of the internship program at the Institute and has gained employment with Manitoba Agriculture, Food and Rural Initiatives with the province of Manitoba. While at MAFRI, Brian will continue his work on the Manitoba Nutrition Supply in Event of a Pandemic report which he played a large part in during his tenure at the Institute.

Stephen Wright, also a former graduate of the internship program will be heading back to school next month to begin his M.Sc. in Supply Chain Management. Stephen, who has been at the Transport Institute for over a year and a half, is eagerly anticipating starting his studies in September while still maintaining a part time role at the Institute. He plans to focus his thesis on military and defense logistics.

Several new faces will be joining the Transport Institute in the coming month. Two new interns have been brought aboard who will add their knowledge and capability to the TI team.

One of the newcomers who has just begun her internship at the beginning of August is Meng Li (Angel). Angel is originally from Beijing, China and moved to Canada to attend the University of Winnipeg, where she earned a Bachelor of Arts degree double majoring in Economics and Stage Management. Angel has previous experience working in the accounting field, but is now eager to put her economics knowledge to use in her new position.

The second new intern joining UMTI is Allister Cucksey. Allister has a B.A. in Rural and Community Studies from Brandon University and has plans to complete his Masters in Rural Studies. Allister is looking forward to applying his knowledge of rural issues in his position with the Transport Institute.

Featuring issues pertinent to supply chain and logistics, Reposition 2008 - the National Symposium for Supply Chain and Logistics Professionals - will help keep you aligned with the latest industry developments.

Learning sessions and workshops already scheduled for Reposition 2008 include: Economic Shifts - How they influence supply chain; How Leaders Speak - Learn the keys great leaders use to engage their audience; Pandemic Preparedness - Is your supply chain ready (Paul Larson – Director of the Transport Institute); and Logistics in the Arctic - The last frontier.

Known within the industry as the premier learning and networking event of its kind, Reposition 2008 will bring together over 200 influential members of the logistics community from across Canada.

Renowned guest speakers, panel discussions, interactive workshops, exhibitor booths and networking opportunities all make Reposition 2008 a must for anyone interested in professional development.

Reposition 2008 will be held Nov. 5-7, 2008 in Winnipeg.

Contact Anthony Campigotto at CITT (416) 363-5696 for more details or visit www.citt.ca

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R3B 0Y3
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Doug Duncan, CA (Retired), Research Coordinator

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Jairo Viafara, AICP
David Wolters, B.Comm (Hon)
Clare Peiuk, MA (Economics)
Stephen Wright, B.Comm (Hon)

Research Interns

Meng Li, BA (Economics)
Allister Cucksey, BA(Rural & Community Studies)

Department of Supply Chain Management

Paul Larson, Ph.D   Department Head
Siobhan VanDeKeere, Department Secretary
Suresh Bhatt, Ph.D
Paul Earl, Ph.D
Cyril Foropon, Ph.D
Allister Hickson, Ph.D
Ron McLachlin, Ph.D
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Matthew Morris, Ph.D

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