

Honours Theses, Academic Year of 2012-13

2012-13

Year:

Luke Hansen

**Student
Name:**

Title: [The Welfare Effects due to Canadian Dairy Supply Management](#)
Prof. Scott Skjei

Supervisor:

Abstract:

Since the early 2000s, the price of dairy products in Canada has been increasing significantly. Moreover, relative to other major economies such as the United States, the European Union and the Oceania region, Canada's dairy products are consistently the most expensive.

This paper will analyze the welfare effects due to Canadian dairy supply management through measuring the Dead-Weight Loss (DWL) for the year 2010. Data such as blend prices, total production and quota values are obtained through the Canadian Dairy Commission and the Canadian Dairy Information Center. Other required data, such as the demand elasticities, are obtained through a technical report by Moschini and Moro (1993). Other data such as the supply elasticity and total discount rate is observed and/or assumed from past work.

Based on the calculated results, it is concluded that there was DWL ranging from \$307 million to \$555 million in the year 2010.

2012-13

Year:

Hannah Main

**Student
Name:**

Title: [The Cost-Benefit Analysis of Building Bicycle Lanes in Truro, Nova Scotia](#)

Dr. Brian VanBlarcom

Supervisor:

Abstract:

With rising gas prices, the threat of climate change, and the growing problem of obesity, bikeway networks have become increasingly popular over the past few years as an infrastructure to encourage bicycling. This thesis examines the feasibility of building bicycle lanes in the town of Truro. The costs of building a bicycle lane network in Truro are compared with the benefits. The benefits of building bicycle lanes are the benefits of switching from car travel to bicycle travel. The internal and external costs and benefits are quantified following Litman (2009). To compute these benefits, it is necessary to estimate how many people would be likely to switch from using a motor vehicle to using a bicycle if indeed a bicycle lane was in place, and how many additional kilometres would be traveled by bicycle if there was a bike lane. These estimates are found using Statistics Canada census data on number of commuters on each mode of transportation, data on average commuting distance, and previous research on the impact of bicycle infrastructure on bicycle commuting. Once these estimates have been completed, the benefits of bicycling are compared with the cost of construction of the bicycle lane network to find the estimated net benefits. Results show that when only commuters are taken into account, costs of building a bicycle lane network exceeds benefits.

2012-13

Year:

Megan Mahoney

**Student
Name:**

Title: [Ocean Acidification Effects on the Mollusk Industry in Atlantic Canada](#)

Supervisor: Prof. Scott Skkjei

Dr. Brian VanBlarcom

Abstract:

This thesis examines how will ocean acidification impact the mollusk industry of Atlantic Canada. Analysis of the industry over a fifteen-year period is averaged and then assessed using a net present value approach. Predicted impacts of ocean acidification are then combined with revenues in the mollusk industry, different environmental scenarios and discount rates are also considered. The information is then combined and equated with a net present value approach to estimate possible direct economic losses to the industry. Results show that economic loss expected for the mollusk industry in Atlantic Canada ranges between \$600 thousand and \$2.5 million 2010 constant Canadian dollars for the year 2060, at a 3.5% discount rate. For 2100, the expected economic loss for Atlantic Canada's mollusk industry ranges between \$350 thousand and \$1.5 million 2010 constant Canadian dollars. The results represent a potential 5-22% decrease in the Atlantic Canada mollusk industry, and imply that mitigation processes on carbon emissions should be introduced as soon as possible.

2012-13

Year:

Ethan Purdy

**Student
Name:**

[An Economic Impact Assessment of UNESCO World Heritage
Designation in Eastern Canada](#)

Title:

Supervisor: Dr. Burc Kayahan

Dr. Brian VanBlarcom

Abstract: As the tourism industry continues to grow and become increasingly competitive, destinations want to find ways of distinguishing themselves. One such option is a World Heritage designation. We investigate whether or not sites that have been added to the World Heritage List have realized positive economic benefits as a result of their World Heritage designation. This study focused on four sites in Eastern Canada: Old Town Lunenburg, Grand Pre National Historic Site, the Joggins Fossil Cliffs, and Miguasha National Park. Data from before and after the World Heritage designation was used to conduct regression analysis to quantify the impact of designation on visitation to the site. A net present benefit was calculated for each site using 16 years of benefits and 19 years of discounting. A positive net present value was found for all four of the sites, although The Joggins Fossil Cliffs and Miguasha National Park had smaller economic impacts than the others. We find that World Heritage does indeed have a positive effect; however, the overall impact for Natural sites as designated by UNESCO is less than Historical/Cultural sites.

2012-13

Year:

Ashley Zarzecki

**Student
Name:**

Title: [Household Energy Consumption in the United States](#)

Supervisor: Dr. Burc Kayahan

Abstract: Residential energy consumption is a major component of the American national energy profile. When addressing issues of greenhouse gas emissions, understanding what factors contribute to residential energy consumption becomes crucial. This thesis uses regression analysis to determine what these factors are and isolate for their relative impacts on the amount of energy consumed. The data comes from the 2009 Residential Energy Consumption Survey.

Geographic region, weather, dwelling characteristics, appliance characteristics, behavioral characteristics, and input prices are found to significantly contribute to household energy consumption. Dwelling characteristics, behavioral characteristics, and demographic characteristics have the greatest relative impacts on energy consumed. The effect of appliance efficiency on energy consumption is examined. Results indicate that the energy efficiency of appliances do not significantly impact the energy consumed by the household. This lays the groundwork for further research to test Jevon's Paradox using efficiency measures that go beyond appliance efficiency. Moreover, results indicate that in landlord-tenant utility agreements tenants consume more energy when they are not directly responsible for payment. This provides evidence of a principal-agent issue in landlord-tenant energy bill payment agreements.

