

# Viewpoints

HOW VALUE-ADDED METRICS HELPED A LEADING UNIVERSITY BENCHMARK,  
RANK, AND EVALUATE THEIR PERFORMANCE

A case study using *University Science Indicators*



# INTRODUCTION

To better demonstrate the success of their world-class research programs, administrators at the University of Toronto needed access to a new set of evaluative metrics — metrics that would affirm the university’s wide-ranging influence and tremendous research productivity. With *University Science Indicators*, Thomson Reuters empowered the University of Toronto with the ability to quantify its research achievements and prove its rank among leading research-intensive universities — in Canada and beyond.

## BACKGROUND: A PREMIER RESEARCH UNIVERSITY

The University of Toronto is Canada’s leading research-intensive university and is one of the world’s most influential, widely recognized research powerhouses, particularly in the areas of health sciences, life sciences and social sciences. Since 1980, University of Toronto researchers have been awarded countless honors for their work, including 260 Canada research chairs, 10 Nobel Prizes and 21 Killam Prizes.

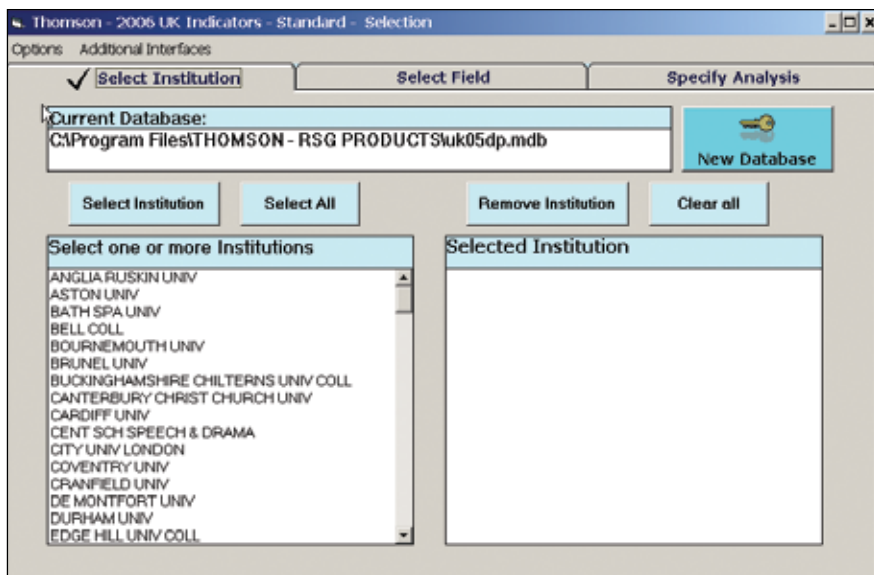
### Business issue: Measuring performance and demonstrating achievement

Demonstrating success is a key component of the university administration’s efforts to attract and retain resources, recruit quality faculty and students, and maintain partnerships with the government and other research facilities. But even for an esteemed research organization such as the University of Toronto, demonstrating its achievements can be challenging. Before 2002, the university had two primary means of evaluating its research performance: the input measure of research funding and the output measure of honors awarded to faculty. Citation analysis, a widely used method of evaluating influence in the research community, had not been used, and quantifying research

influence and performance was not a regular part of their annual evaluations.

In 2002, under new leadership, the university was determined to find a way to quantify the influence and impact of its research.

“We saw a study done by another Canadian university that used *University Science Indicators* data to measure its research performance,” said José Sigouin, University of Toronto Manager for Research Information Analysis, office of the Vice President of Research. “We know we are one of the best research institutions in North America. But we realized we needed a way to quantitatively demonstrate our position. That’s when we turned to Thomson Reuters and *University Science Indicators*.”



An easy-to-use interface for in-depth analysis. Analyze performance by institution, field, output, impact, field baselines, and share.

# "...WE REALIZED WE NEEDED A WAY TO QUANTITATIVELY DEMONSTRATE OUR POSITION."

## The Thomson Reuters Solution

*University Science Indicators* is an easy-to-use database of research performance measures for universities and research institutions. Based on the unique and authoritative publication and citation statistics compiled by Thomson Reuters, *University Science Indicators* contains the number of Thomson Reuters-indexed papers from each university, along with citation counts and other citation impact metrics available nowhere else.

The University of Toronto uses *University Science Indicators* data to demonstrate the quality and influence of its research to the Canadian government, other leading research universities, and prospective faculty and students.

"Every year we do a study to see how the University of Toronto ranks among others in North America — including Canadian and U.S. universities. We take the various fields of study, and we assign them to broad disciplinary groups — health sciences, life sciences, engineering and computer science, and other physical sciences. We see how we rank in these categories in both citations and in publications."

Sigouin and her University of Toronto colleagues can not only track their performance against that of previous years, but they can also see a picture of North American research as a whole.

Based on *University Science Indicators* data, the university highlights its findings in its annual reports and reports to governors and within its web site and marketing materials. This, Sigouin notes, underscores the strength of the university's research programs, and helps the departments to attract more top talent.

## Conclusion

Unaddressed before 2002, publication and citation analysis data have since become important metrics for demonstrating the strength of the University of Toronto's faculty and research programs, thanks to *University Science Indicators*, its Thomson Reuters solution.

Trend graph: Institutional impact. See how institutional impact - average cites per paper - can vary over time.



Trend graph: Institutional output. Trends in publication output provide useful insights into an institution's research activity.

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