

# By the Numbers: The Grey Bruce population educational profile and economic implications

David I.M. Clark MA, BA(Honours), BES, MAd(Diploma)  
DMCmetrix.com

# An exploration of the educational profile of the population of Grey and Bruce Counties

David I.M. Clark. MA, BA(Honours), BES, MAd(Diploma) DMCmetrix.com

## Introduction

Accepted wisdom and studies, show a positive correlation (relationship) between people who have post-secondary education (i.e., trades, college, and university) and higher incomes than those who do not. For the sake of this brief discussion we'll accept that position to be true without bringing forth studies as evidence. I undertook statistical analysis at the county level to see how well the 2006 (Ontario) census data conformed to a positive correlation of higher education and higher incomes. A review of a matrix of median incomes, median incomes for those aged 15 years and above working full-time, those with trades education, and those with college and university (i.e., college, undergraduates, and graduate degrees). Although statistically significant, higher median income is positively correlated with some university (less than a BA) at 0.426 and a BA and higher at 0.558. These are moderate correlations. College is not statistically correlated (-0.12,  $p=0.485$ ). Trades is an anomaly, showing a strong *negative* correlation with higher median incomes (- 0.689). These correlations were done at the macro-level (county) and certainly will have missed significant detailed data at the micro-level (community), which would have produced more revealing results. Unfortunately the available data lacks the details that allow such deeper analysis.

This study uses geo-spatial and statistical analyses of census data from 2001, 2006, and 2011. Year-to-year direct comparison is difficult because the data, as available at the Statistics Canada Website, uses different cohorts in different years. For example, in 2001, highest education level of schooling achieved is reported in five-year categories starting at 20 years of age up to 64 years. In 2006 the age categories started at age 15 to 24, then five-year groups after that. And in 2011 the data available is presented for those aged 25 to 64 years in one category, with no subgroups. Additionally, the 2011 census was voluntary and non-response rates vary from 21% to 49%. Voluntary participation means there is potential response bias - we don't know who did not respond. Phrased another way, do the responses truly represent the population and can findings be generalised to the population?

This study has three main sections: analysis, discussion, implications for economic development and overall community financial wealth.

the provincial average, and lower university attainment. This holds for the three census years. Between 2001 and 2011, trades dropped about 10 percentage points, college increased about 5 percentage points, and university marginally (see Figure 3).

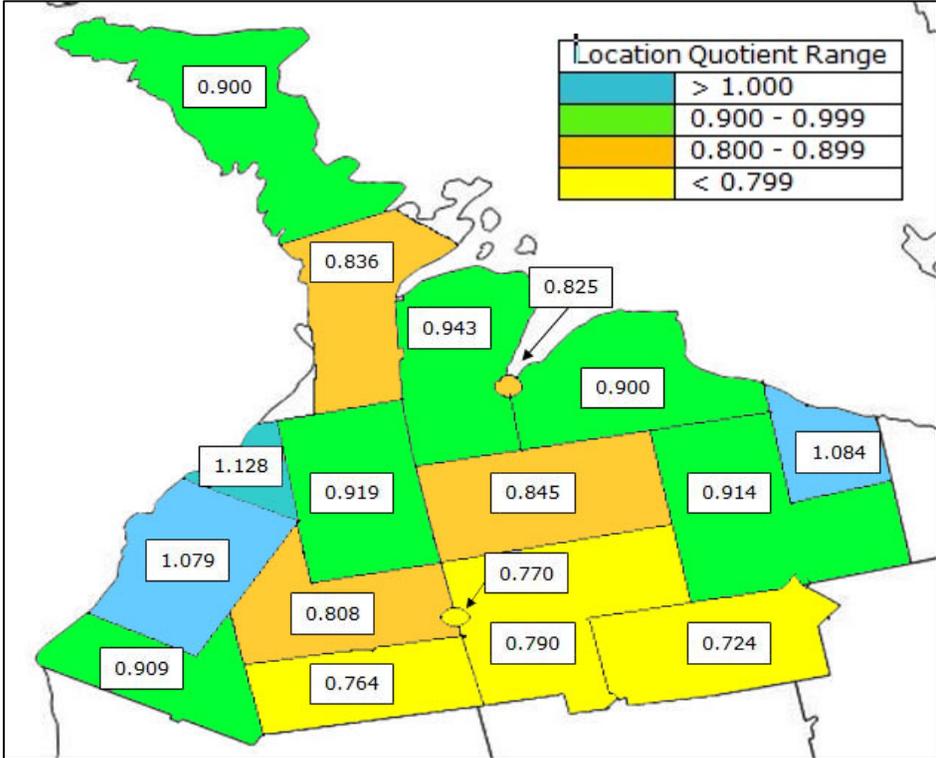


Figure 2: Location Quotients for post-secondary education, for population aged 25 to 64 years (2011)