

Capstone Project: Immigrant Income

ABSTRACT

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Analysis of Income of immigrants to Ontario

Using predictive analytics on the income of immigrants to Ontario by sex, landing age, immigrant admission category & family status to determine trend and pattern. The analysis is to determine if there is a correlation between the Admission category, Family Status, sex and age with income. To be able to predict what category of yields highest income. The data set is published by Statistics Canada. The data is packaged in a CSV file. The data can be converted to a cube with 8 dimensions. The quantitative data is under Value and is classified by categorical data found under Statistics. Python is used to explore the data in and for Outlier detection and then time-series analysis is performed to see the rate of income growth year over year. Ideally, this data can be used to train a model to predict the best category to immigrate to Ontario and the potential income based on the user profile.

Data Set: <https://open.canada.ca/data/en/dataset/5188f496-c3d2-4de3-81ce-7dab73c865de>

Example of Dataset:

REF_DATE	GEO	DGUID	Sex	Landing age group	Immigrant admission category	Period of immigration	Family status	Income type	Statistics	UOM	UOM_ID	SCALAR_F	SCALAR_I	VECTOR	COORDIN	VALUE
2010	Ontario	2016A000235	Sex not stated	55 to 64 years	Family class - parent or grandpa	Total, period of immigration	Total, family status	Social welfare benefits	Total with income	Persons	249	units	0	v117556882	1.4.7.22.1.1.5	5
2010	Ontario	2016A000235	Sex not stated	55 to 64 years	Total, immigrant admission cate	Total, period of immigration	Total, family status	Social welfare benefits	Total with income	Persons	249	units	0	v94804562	1.4.7.1.1.1.5.4	5
2010	Ontario	2016A000235	Sex not stated	45 to 54 years	Family class - parent or grandpa	Total, period of immigration	Total, family status	Social welfare benefits	Total with income	Persons	249	units	0	v117555682	1.4.6.22.1.1.5	5
2010	Ontario	2016A000235	Sex not stated	45 to 54 years	Total, immigrant admission cate	Total, period of immigration	Total, family status	Social welfare benefits	Total with income	Persons	249	units	0	v94791962	1.4.6.1.1.1.5.4	5
2010	Ontario	2016A000235	Sex not stated	35 to 44 years	Skilled workers, principal applica	Total, period of immigration	Total, family status	All Income	Total with income	Persons	249	units	0	v94780566	1.4.5.3.1.1.6.4	5
2010	Ontario	2016A000235	Sex not stated	35 to 44 years	Skilled workers, principal applica	Total, period of immigration	Total, family status	All Income	Total count	Persons	249	units	0	v94780563	1.4.5.3.1.1.6.1	5
2010	Ontario	2016A000235	Sex not stated	35 to 44 years	Skilled workers, principal applica	Total, period of immigration	Total, family status	Social welfare benefits	Total count	Persons	249	units	0	v94780559	1.4.5.3.1.1.5.1	5
2010	Ontario	2016A000235	Sex not stated	35 to 44 years	Skilled workers, principal applica	Total, period of immigration	Total, family status	Employment insurance be	Total count	Persons	249	units	0	v94780555	1.4.5.3.1.1.4.1	5
2010	Ontario	2016A000235	Sex not stated	35 to 44 years	Skilled workers, principal applica	Total, period of immigration	Total, family status	Investment income	Total count	Persons	249	units	0	v94780551	1.4.5.3.1.1.3.1	5
2010	Ontario	2016A000235	Sex not stated	35 to 44 years	Skilled workers, principal applica	Total, period of immigration	Total, family status	Self-employment income	Total count	Persons	249	units	0	v94780547	1.4.5.3.1.1.2.1	5
2010	Ontario	2016A000235	Sex not stated	35 to 44 years	Skilled workers, principal applica	Total, period of immigration	Total, family status	Wages, salaries and comm	Total with income	Persons	249	units	0	v94780546	1.4.5.3.1.1.1.4	5
2010	Ontario	2016A000235	Sex not stated	35 to 44 years	Skilled workers, principal applica	Total, period of immigration	Total, family status	Wages, salaries and comm	Total count	Persons	249	units	0	v94780543	1.4.5.3.1.1.1.1	5
2010	Ontario	2016A000235	Sex not stated	35 to 44 years	Total, immigrant admission cate	Total, period of immigration	Total, family status	Investment income	Total with income	Persons	249	units	0	v94779354	1.4.5.1.1.1.3.4	5
2010	Ontario	2016A000235	Sex not stated	35 to 44 years	Total, immigrant admission cate	Total, period of immigration	Total, family status	Self-employment income	Total with income	Persons	249	units	0	v94779350	1.4.5.1.1.1.2.4	5
2010	Ontario	2016A000235	Sex not stated	25 to 34 years	Privately sponsored refugees	Total, period of immigration	Total, family status	Self-employment income	Total with income	Persons	249	units	0	v94774550	1.4.4.14.1.1.2	5
2010	Ontario	2016A000235	Sex not stated	25 to 34 years	Skilled workers, spouses and de	Total, period of immigration	Total, family status	All Income	Total count	Persons	249	units	0	v94768563	1.4.4.4.1.1.6.1	5
2010	Ontario	2016A000235	Sex not stated	25 to 34 years	Skilled workers, spouses and de	Total, period of immigration	Total, family status	Social welfare benefits	Total count	Persons	249	units	0	v94768559	1.4.4.4.1.1.5.1	5
2010	Ontario	2016A000235	Sex not stated	25 to 34 years	Skilled workers, spouses and de	Total, period of immigration	Total, family status	Employment insurance be	Total count	Persons	249	units	0	v94768555	1.4.4.4.1.1.4.1	5
2010	Ontario	2016A000235	Sex not stated	25 to 34 years	Skilled workers, spouses and de	Total, period of immigration	Total, family status	Investment income	Total count	Persons	249	units	0	v94768551	1.4.4.4.1.1.3.1	5
2010	Ontario	2016A000235	Sex not stated	25 to 34 years	Skilled workers, spouses and de	Total, period of immigration	Total, family status	Self-employment income	Total count	Persons	249	units	0	v94768547	1.4.4.4.1.1.2.1	5
2010	Ontario	2016A000235	Sex not stated	25 to 34 years	Skilled workers, spouses and de	Total, period of immigration	Total, family status	Wages, salaries and comm	Total count	Persons	249	units	0	v94768543	1.4.4.4.1.1.1.1	5