A Government of Canada Initiative



User Story

# Innovation, Science and Economic Development Canada

## Analyzing trends in data experts labour market

### Business Issue

As Innovation, Science and Economic Development Canada (ISED), we would like to analyse trends in the private sector for hiring data scientists (e.g. content of online job postings over time) and what they advertise as starting salary, signing bonuses etc. compared with the Government of Canada’s practices, combined with some analysis of what the Department will be facing with respect to shifts in the coming years (e.g. changes in tenure, retirements, etc.) and what skills the workforce should have.

### Background Material

ISED works with Canadians in all areas of the economy and in all parts of the country to improve conditions for investment, enhance Canada's innovation performance, increase Canada's share of global trade and build a fair, efficient and competitive marketplace.

### Key Points to Remember

ISED is currently designing its data strategy – a forward-looking strategic plan that will shift the department’s culture and enhance its capacity to leverage existing data assets and to create new ones. A key pillar of this strategy is talent—the Department needs to determine how to ensure its workforce is sufficient and equipped to address the coming shifts.

Upskilling existing staff, recruitment and retention are key components of the data strategy and predictive analytics will be key in identifying what the Department needs to undertake to address these core components. All this must be done in an environment in which there is increased competition for data science resources with the private sector and government must now re-adapt its recruitment practices to reflect new realities with respect to technology as well as incentives, changes in job tenure (AKA how long people stay in their jobs) and demographics.

### Complementary Information

1. Demographic information on population of ISED: mobility for the last 5 years; an aggregate data including historical and projected retirements for Computer Systems (CS) and Social statistics and economics (EC) groups.



1. Employee Exit Survey for ISED’s CS and EC groups (From January 12th, 2017 to October 16th, 2018)



1. 2017 Public Service Employee Survey (PSES) summary reports for ISED’s CS and EC groups



### Relevant Keywords

Workforce, data science, analytics, policy making.