



Canada Revenue
Agency

Agence du revenu
du Canada

Innovation and Experimentation at the Canada Revenue Agency

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The Innovation Imperative

- **Innovation** – helps us discover new ways to tackle old issues and to meet our business objectives and the evolving expectations of Canadians
- Foster a **culture** of innovation, experimentation and intelligent risk taking (Corporate Business Plan 2018-19 – 2020-21)
 - Refine our use of **behavioural insights** and **experimental designs**
 - Continue **in ethnographic research** to gain additional insights into taxpayer behaviour
 - Explore the use of **new technologies** (such as artificial intelligence, cloud computing, blockchain, and robotics process automation)

Canada Revenue Agency

28.8

million individual
and **2.4**
million corporation
tax returns filed



12.4

million benefit
recipients



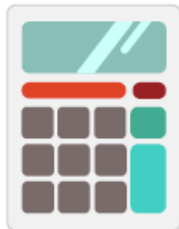
86%

of individual
tax returns
and **89%**

of corporation
returns
filed digitally



\$ 499.8 billion
in tax processed



\$ 31.8

billion in
benefits paid



\$ 4.205 billion
planned spending
for 2018–2019



Workforce of
approximately
40,000
employees

Opportunities to improve outcomes through innovation are great

Accelerated Business Solutions Lab



- **Accelerated Business Solutions Lab** – dedicated space to experiment with new approaches to improve service and compliance
- **Strong focus on using an experimental approach** to innovation to find out what works and what doesn't – fundamental to intelligent risk-taking and providing sound advice

Accelerated Business Solutions Lab



Advanced Analytics



Using advanced analytics to improve compliance and service

- Data mining, algorithms and models
- Predictive modeling and beyond
- Random control trials/experimental design
- Visualization

Taxpayer Behaviour



Leading nudge experiments and qualitative research

- Understanding the needs of our clients by conducting ethnographic research
- Nudge to increase take-up of benefits
- Nudge to increase online filing

Tax Gap



Leading research on tax gap estimation

- Tax Gap in Canada: A Conceptual Study
- GST/HST Gap
- Tax Assured and Tax Gap for the Federal Personal Income Tax System
- International Tax Gap

Experimentation at the Lab

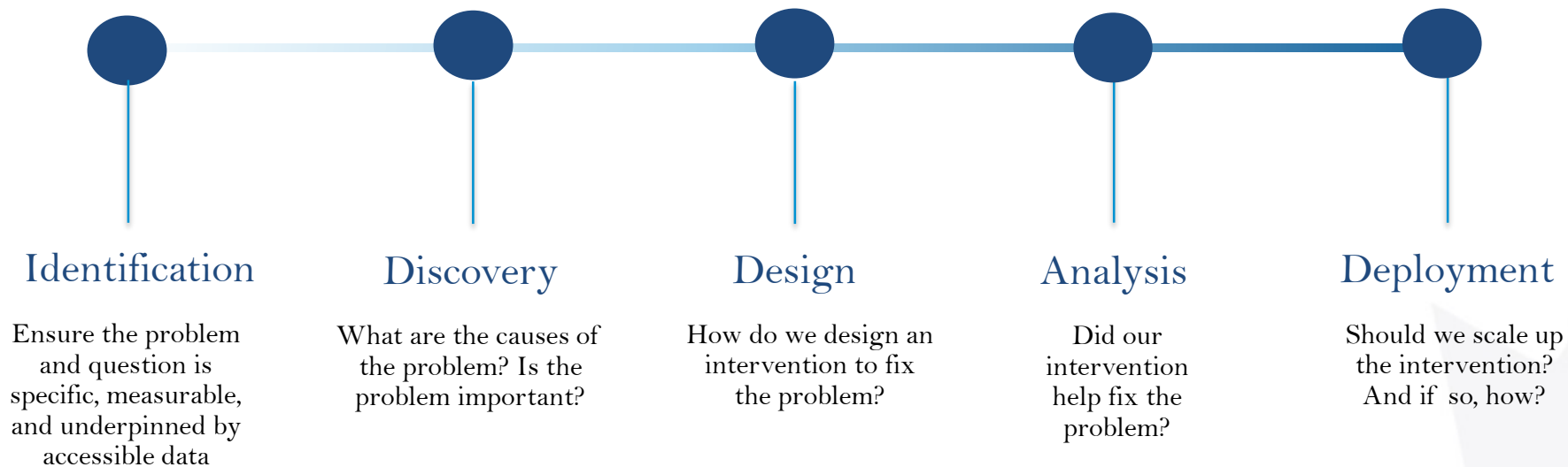
Strong focus on using an experimental approach to innovation to find out what works and what doesn't

- Experimentation – explore, test and compare the effects and impact of policies, interventions and approaches in order to inform evidence-based decision-making
- It helps us identify interventions that should be scaled up, and others that should be reconsidered

Lab's Experiments

- Increasing benefits uptake
- Increasing use of digital services
- Strengthening compliance
- Promoting honesty in tax reporting
- Using SMS to reduce appointment no-shows

Importance of a Framework



Lessons from the Lab at three-year mark

- The importance of a clearly defined mandate
- Leveraging program experience
- Measure, measure, measure... and RCTs are not the only tool
- Moving towards the user perspective and co-creation
- Diversity in perspectives yields dividends
- Innovation requires adaptability
- The work environment supports collaboration

Behavioural Insights Experiments

Environmental Messaging Nudge

Working Income Tax Benefit Nudge

Behavioural Insights

- Behavioural insights focuses on individuals' behaviours and choices in real-life situations
- BI recognizes that people aren't fully rational



~~Stable~~ preferences

~~Attention~~ attention span

~~Over~~ confident

~~Inter~~ dependency

~~Motivated~~

~~Present~~ blocking

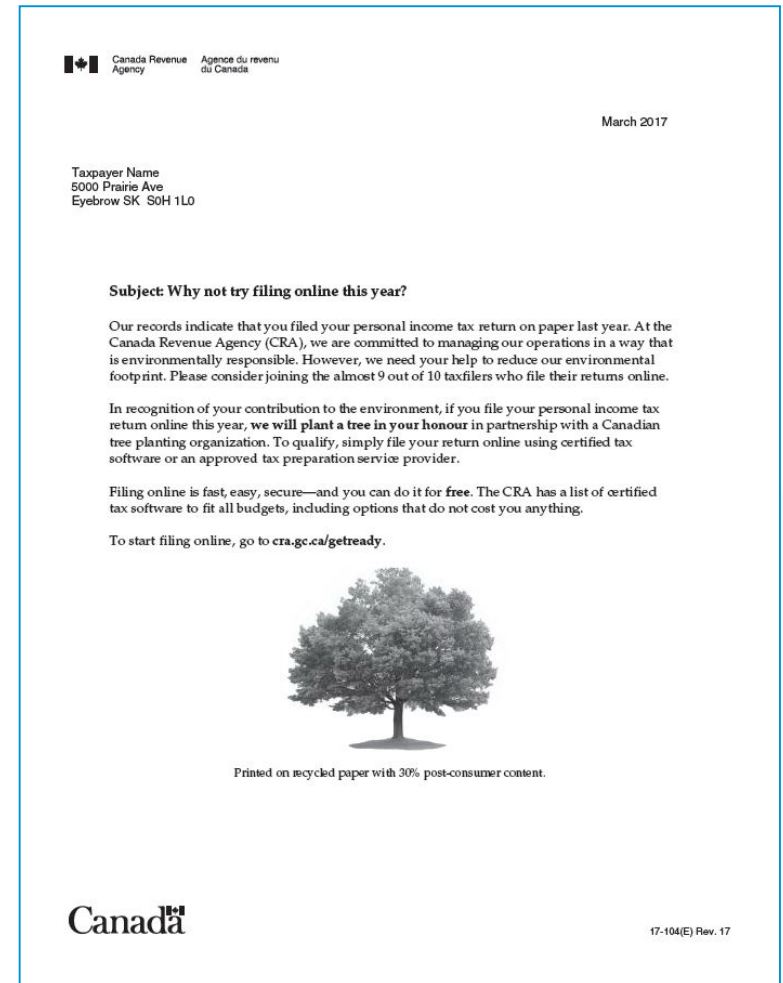
~~Suboptimal~~ decisions

Nudge

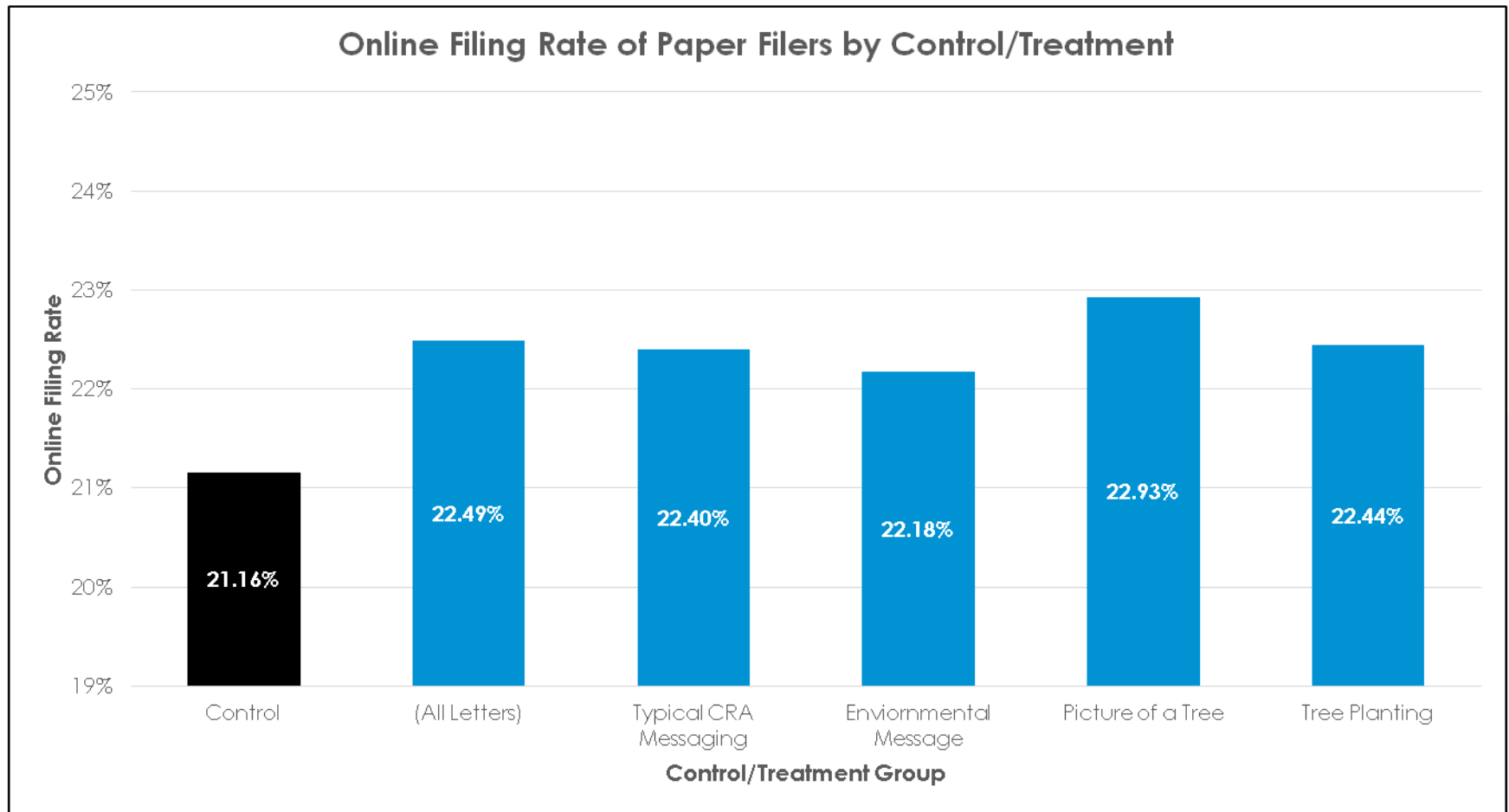
- Nudges seek to overcome barriers that lead to suboptimal choices
- Nudges change how choices are presented to facilitate better decisions (choice architecture)
- Nudges should:
 - not forbid any options
 - be cheap and easy to avoid
 - not significantly change economic incentives

Environmental Messaging Nudge

- Can letters encourage paper filers to file online? Are any messages more effective than others?
- Stratified randomization
- Control group (no letter)
- Treatment groups
 - Typical CRA messaging
 - Environmental message
 - Picture of a tree
 - Promise to plant a tree

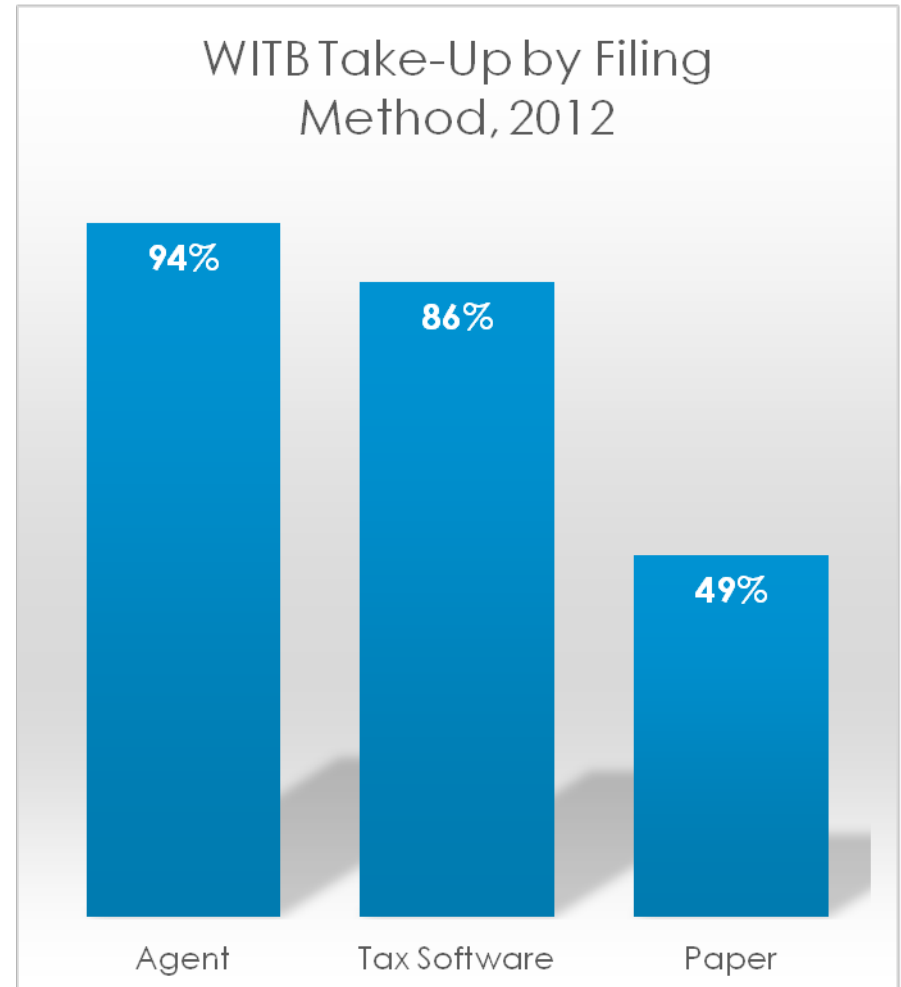


Environmental Messaging Nudge



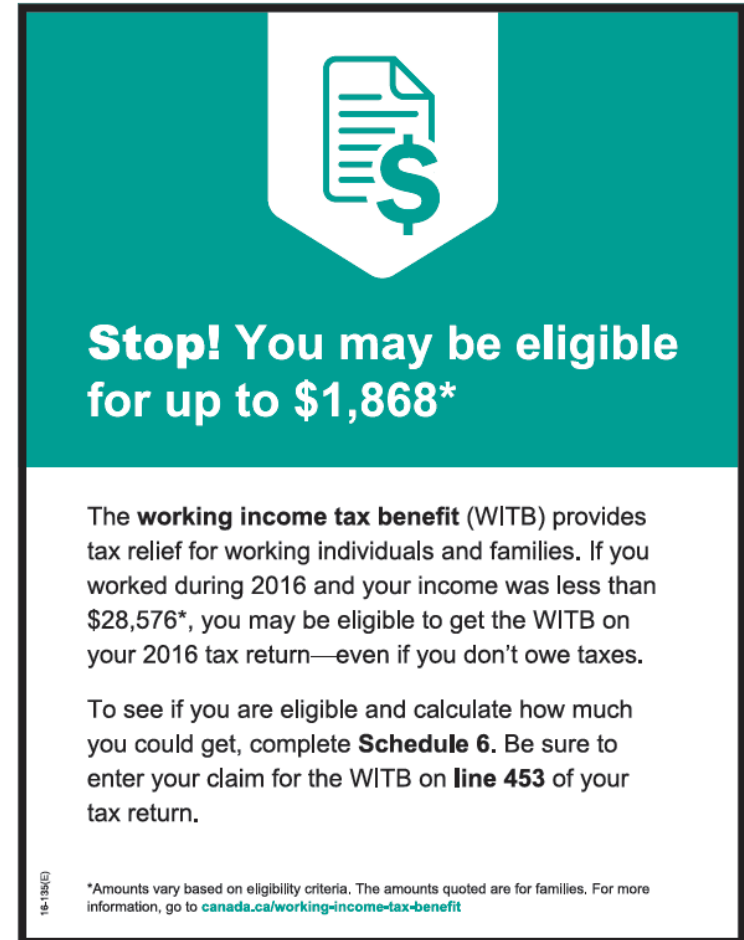
Working Income Tax Benefit Nudge

- Working Income Tax Benefit: **up to \$1,868 per year**
- Less than **50%** of eligible paper filers **do not apply**
- Can an insert in the paper forms book encourage these eligible paper filers to apply?



Working Income Tax Benefit Nudge

- We could not randomize the paper forms books that contained/did not contain inserts
- So we included the insert in all paper forms books in New Brunswick, and had no insert in every other province

A graphic with a teal background. At the top center is a white shield-shaped icon containing a document with a dollar sign. Below the icon, the text "Stop! You may be eligible for up to \$1,868*" is written in white. The bottom half of the graphic has a white background with black text. The text describes the Working Income Tax Benefit (WITB) and provides instructions on how to claim it. At the bottom left, there is a small reference number "16-139(E)". At the bottom right, there is a footnote about eligibility criteria and a link to the Canada.ca website.

Stop! You may be eligible for up to \$1,868*


The **working income tax benefit** (WITB) provides tax relief for working individuals and families. If you worked during 2016 and your income was less than \$28,576*, you may be eligible to get the WITB on your 2016 tax return—even if you don't owe taxes.

To see if you are eligible and calculate how much you could get, complete **Schedule 6**. Be sure to enter your claim for the WITB on **line 453** of your tax return.

16-139(E)

*Amounts vary based on eligibility criteria. The amounts quoted are for families. For more information, go to canada.ca/working-income-tax-benefit

The Insert



Stop! You may be eligible
for up to **\$1,868***

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Step 1 – Identification

Please answer the following question:
Did you own or hold specified foreign property where the total cost amount of all such property at any time in 2016, was more than CAN\$100,000?
See "Specified foreign property" in the guide.
If yes, complete Form T1135 and attach it to your return.
If you had dealings with a non-resident trust, see the guide.

Step 2 –

As a resident of Canada, you have to report the following information when you file your return:

Employment income (box 14 of all T4 slips)
Commissions included on line 101 (box 42 of all T4 slips)
Wage loss replacement contributions (see line 101 in the guide)

Other employment income (box 18 of the T4A)
Old age security pension (box 20 of the T4A(P))
CPP or QPP benefits (box 20 of the T4A(P))

Disability benefits included on line 114 (box 18 of the T4A(P) slip)
Other pensions and superannuation (box 18 of the T4A(P) slip)

Elected split-pension amount (attach Form UCCB amount designated to a dependent (attach Schedule 4))
Employment insurance and other benefits (attach Schedule 4)

Taxable amount of dividends (eligible and other than eligible) (attach Schedule 4)
Canadian corporations (attach Schedule 4)
Taxable amount of dividends other than eligible (attach Schedule 4)

Interest and other investment income (attach Schedule 4)
Net partnership income: limited or non-active (attach Schedule 4)
Registered disability savings plan income (attach Schedule 4)

Rental income (attach Schedule 3)
Taxable capital gains (attach Schedule 3)
Support payments received (attach Schedule 3)

RRSP income (from all T4RSP slips) (attach Schedule 3)
Other income (attach Schedule 3)
Self-employment income (attach Schedule 3)

Business income (attach Schedule 3)
Professional income (attach Schedule 3)
Commission income (attach Schedule 3)
Farming income (attach Schedule 3)
Fishing income (attach Schedule 3)

Workers' compensation benefits (box 10 of all T4A slips)
Social assistance payments (attach Schedule 3)
Net federal supplements (box 21 of the T4A) (attach Schedule 3)

Add lines 144, 145, and 146 (see line 250 in the guide)
Add lines 101, 104 to 143, and 147.

5000-R

Step 1 – Identification and other information (continued)

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FORMS 2016

T1 General New Brunswick

- Returns
 - Schedules
 - Provincial Information and Forms
- Envelope available separately – take one if needed

Save time—file online!
GO TO CRA.GC.CA/GETREADY



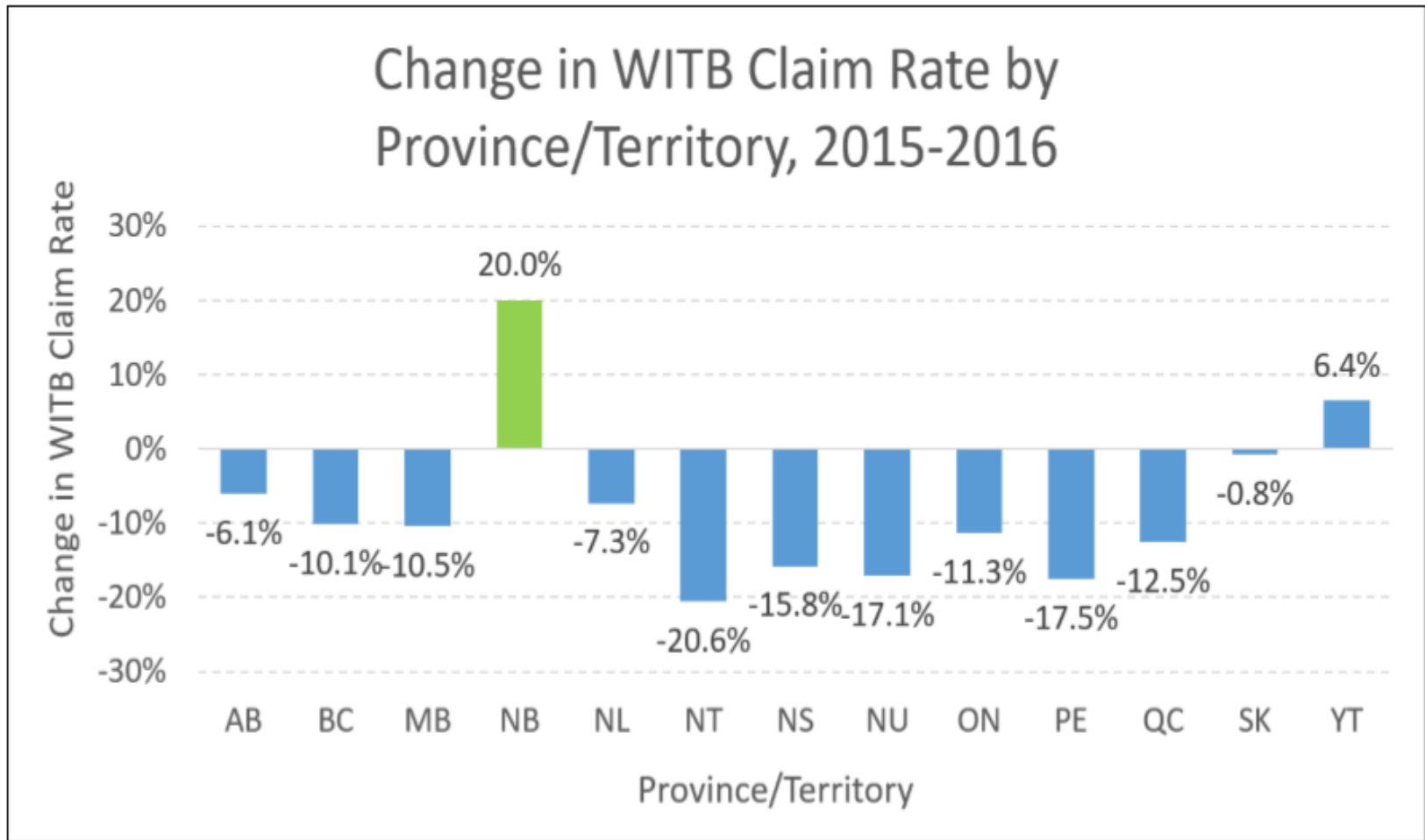
Canada Revenue Agency
Agence des Revenus
du Québec

Canada

Canada

Canada

Working Income Tax Benefit Nudge



Thank You

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Canada Revenue Agency

