



# PIAAC: Summary of First Results

**Frank Weldon**

Policy Research Directorate  
Strategic Policy and Research Branch

PIAAC — Showing Us the Way Forward  
Literacy Nova Scotia – November 22, 2013



# What is the Programme for the International Assessment of Adult Competencies (PIAAC)?

- Initiative of the Organisation for Economic Co-operation and Development (OECD) to assess skills of working-age adults across 24 countries, including most European Union countries, the United States and Australia. Nine other countries will participate in PIAAC in 2014 (See Annex A for a complete list).

## **PIAAC is:**

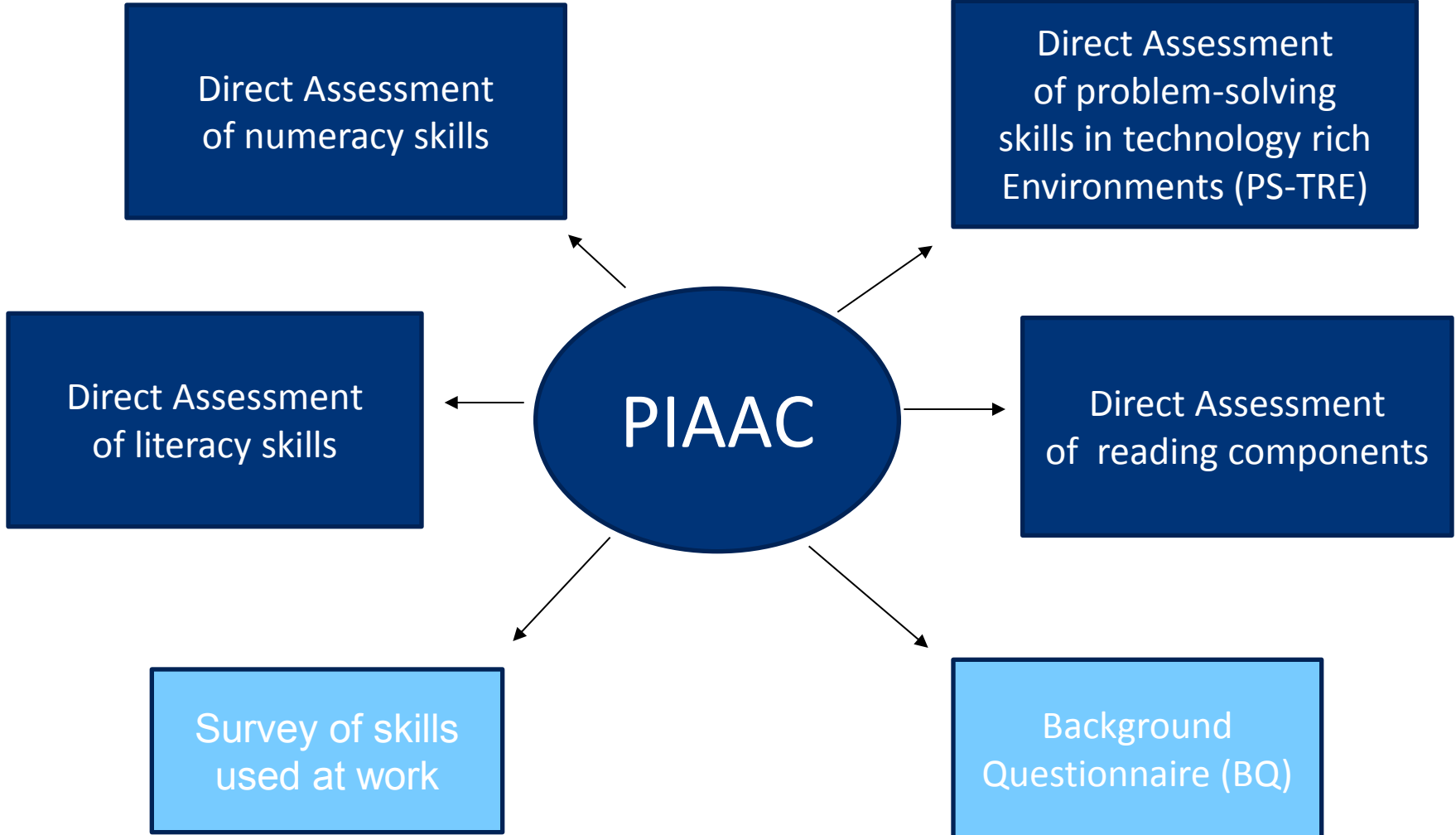
- Assessment of literacy, numeracy, and ability to solve problems in a technology-rich environment in a coherent and consistent way across countries.
- Focusing on key cognitive and workplace skills required for successful participation in the economy and in society.
- Providing sound basis for international benchmarking and analysis of youth and adult competencies.
- Offering more complete and nuanced picture of the stock of human capital than has yet been available to policy makers.

# Participating countries

A decorative header image showing a row of light blue silhouettes of people in various poses and activities, including a person in a wheelchair, a person with a cane, and a person with a stroller, set against a light blue background.

- Round 1 in 2012: Australia, Austria, Belgium (Flanders), Canada, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Ireland, Italy, Japan, Korea, Netherlands, Norway, Poland, Russia, Slovak Republic, Spain, Sweden, United Kingdom (England and N. Ireland), United States.
- Round 2 in 2015-2016: Chile, Greece, Indonesia, Israel, Lithuania, New Zealand, Singapore, Slovenia, Turkey.
- A third round is currently being planned.

# Main Elements of PIAAC



# PIAAC in Canada



## **Governance:**

- Multi-stakeholder partnership: ESDC; the Council of Ministers of Education, Canada (CMEC) representing all Provinces and Territories (P/T); CanNor; CIC; AANDC; PHAC and STC.

## **Structured to provide:**

- General population estimates at the national level (for both official languages), and for each of Canada's 13 provinces and territories due to largest sample of all participating countries (approximately 27,000 respondents nationally, and 1,440 in Nova Scotia).
- Allows for a deeper understanding of skills among Canada's youth, Aboriginal peoples, immigrants, and official-language minority communities (OLMC).

# Canada is at the OECD average in Literacy...

Literacy – Performance of countries, provinces, and territories. PIAAC 2012

OECD average: 273					
Above OECD average		At OECD average		Below OECD average	
Country	Score	Country	Score	Country	Score
Japan	296	<b>PEI</b>	278	Denmark	271
Finland	288	<b>YUKON</b>	277	Germany	270
Netherlands	284	<b>BRITISH COLUMBIA</b>	275	United States	270
Australia	280	Czech Republic	274	Austria	270
Sweden	279	<b>MANITOBA</b>	274	Cyprus	269
Norway	278	<b>NOVA SCOTIA</b>	274	<b>QUEBEC</b>	269
<b>ALBERTA</b>	278	Slovak Republic	274	<b>NEW BRUNSWICK</b>	268
Estonia	276	<b>CANADA</b>	<b>274</b>	Poland	267
<b>ONTARIO</b>	276	Korea	273	Ireland	267
Belgium	276	UK	273	<b>NEWFOUNDLAND AND LAB.</b>	265
		<b>SASKATCHEWAN</b>	272	France	262
				<b>NORTHWEST TERRITORIES</b>	253
				Spain	252
				Italy	251
				<b>NUNAVUT</b>	219

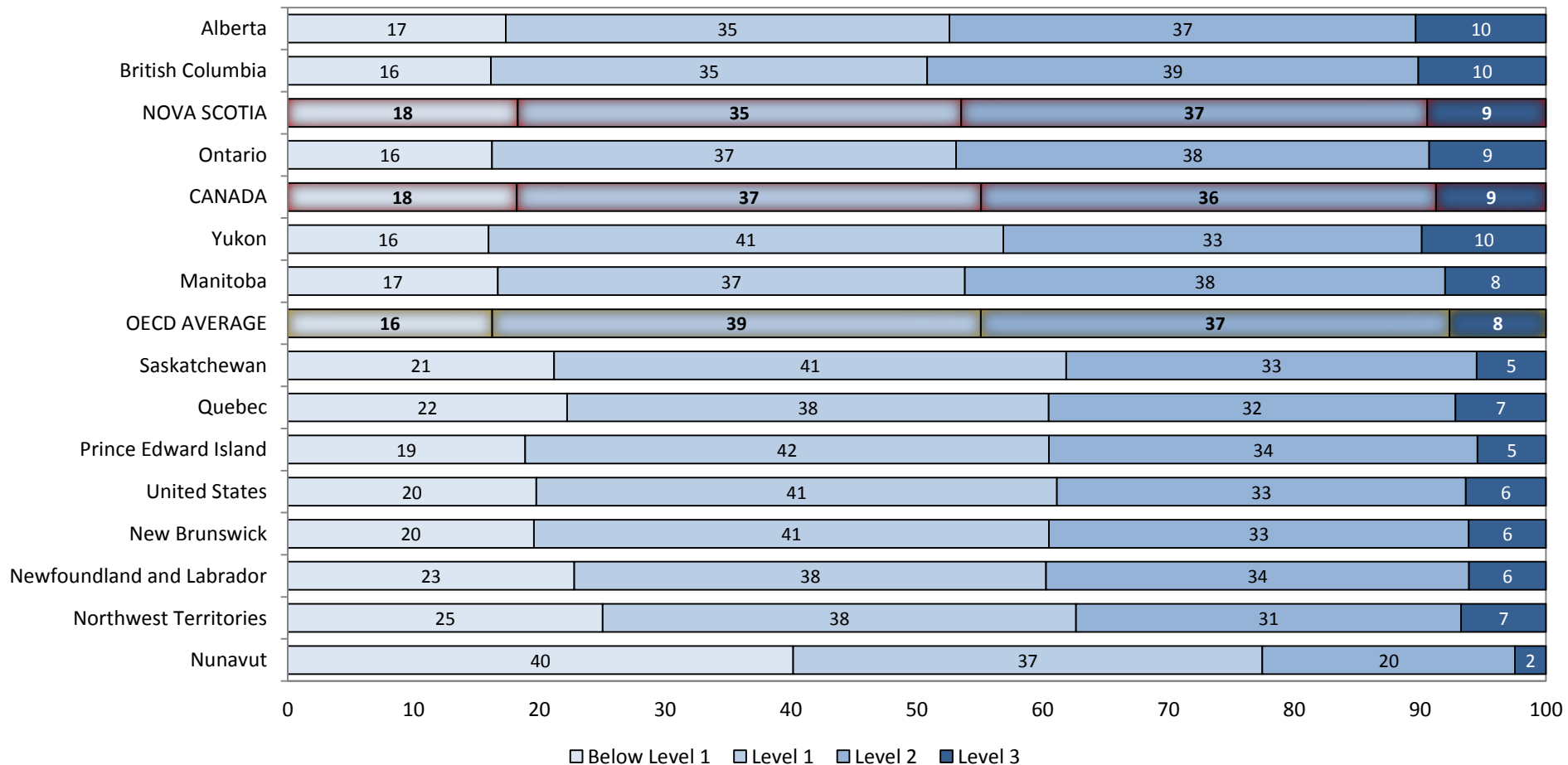
# ...and is below the OECD average in Numeracy.

## Numeracy – Performance of countries, provinces, and territories. PIAAC 2012

OECD average: 269					
Above OECD average		At OECD average		Below OECD average	
Country	Score	Country	Score	Country	Score
Japan	288	<b>ALBERTA</b>	269	<b>ONTARIO</b>	266
Finland	282	Australia	268	<b>CANADA</b>	266
Flanders (Belgium)	280	<b>BRITISH COLUMBIA</b>	266	<b>QUEBEC</b>	265
Netherlands	280	<b>PEI</b>	265	Cyprus	265
Sweden	279	<b>YUKON</b>	263	<b>MANITOBA</b>	264
Norway	278			Korea	263
Denmark	278			<b>SASKATCHEWAN</b>	263
Slovak Republic	276			<b>NOVA SCOTIA</b>	263
Czech Republic	276			England/N. Ireland (UK)	262
Austria	275			Poland	260
Estonia	273			<b>NEW BRUNSWICK</b>	256
Germany	272			Ireland	256
				France	254
				United States	253
				<b>NEWFOUNDLAND AND LAB.</b>	252
				Italy	247
				Spain	246
				<b>NORTHWEST TERRITORIES</b>	239
				<b>NUNAVUT</b>	201

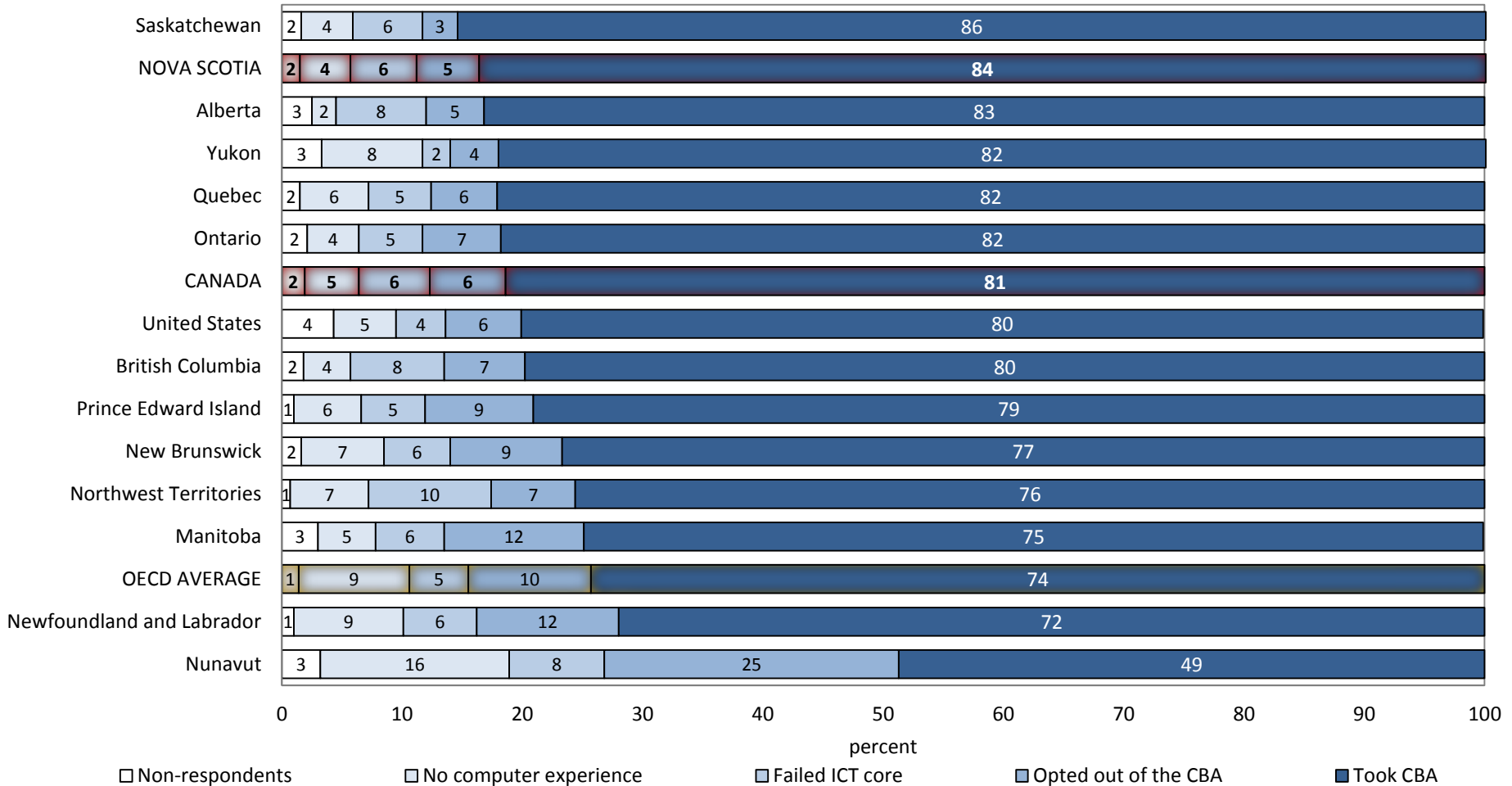
# Canada is above the OECD average in Problem Solving in a Technology-Rich Environment

Proportion of individuals at the various PS-TRE levels. Selected jurisdictions, PIAAC 2012



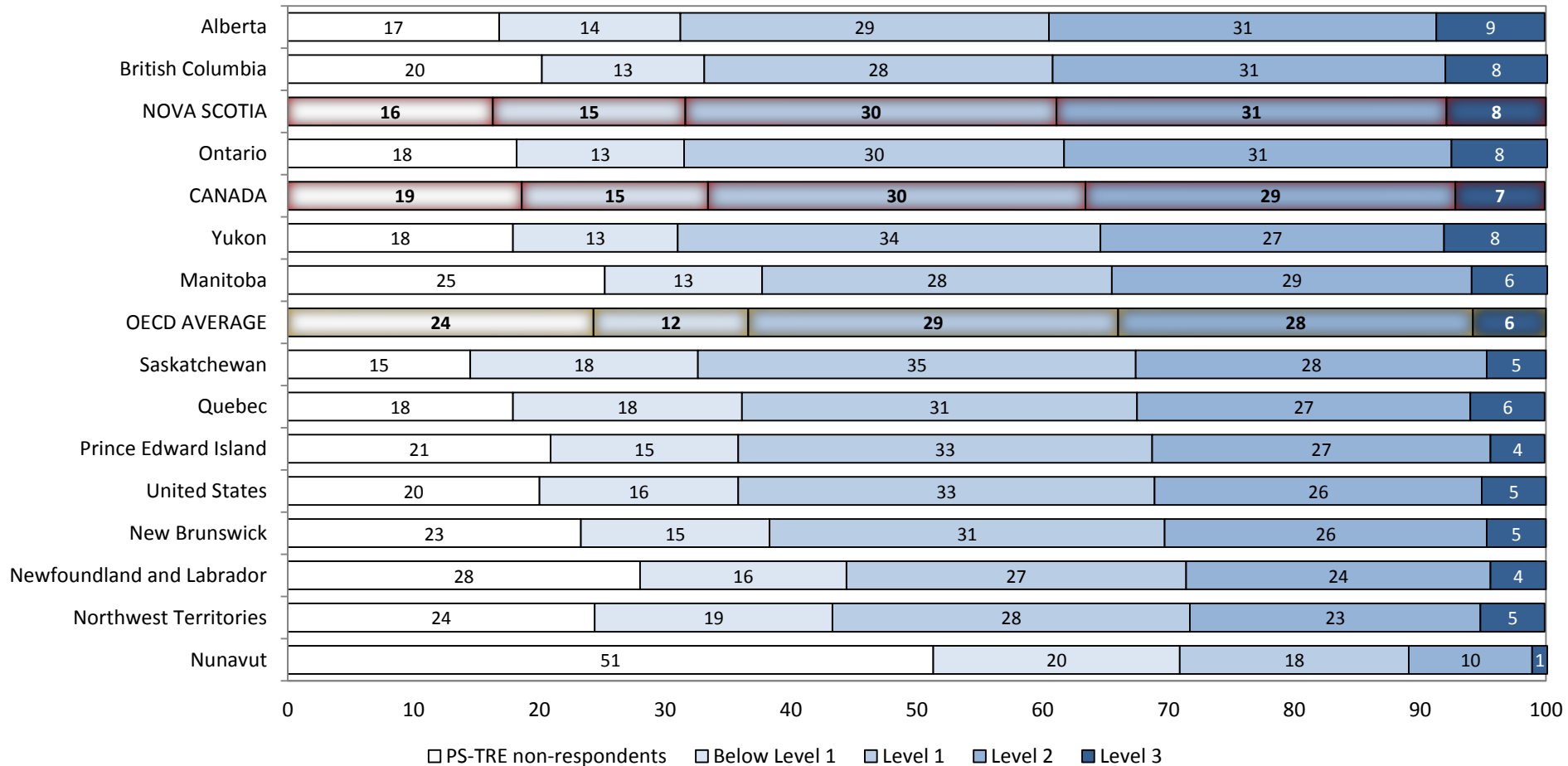
# A relatively high proportion of Canadians took the computer-based assessment

Proportion of individuals taking the computer-based assessment. Selected jurisdictions, PIAAC 2012



# Canada is above the OECD average in Problem Solving in a Technology-Rich Environment

Proportion of individuals at the various PS-TRE levels and PS-TRE non-respondents. Selected jurisdictions, PIAAC 2012



# Results by socioeconomic characteristics



- **By age:**

- Literacy and numeracy skills peak at age 25 to 34, and decline with older age groups.
- Canadian youth (16-24) perform below OECD average in literacy while 55-65 are above the OECD average.
- Younger individuals are more proficient in PS-TRE than older ones, no major difference between ages 16 to 44.

- **By gender:**

- Men have higher numeracy skills than women, regardless of age; but there are almost no differences in literacy and PS-TRE.

- **By education:**

- Higher education is associated with greater literacy, numeracy, and PS-TRE skills.
- Skills of individuals with post-secondary education (PSE) – below a bachelor's degree are similar to those with only a high school diploma.
- The impact of age on skills is partly offset by level of education.

# Results by socioeconomic characteristics

- **By labour force status:**
  - Skills (in the three domains) are higher for the employed population.
  - Unemployed and inactive individuals have similar literacy and numeracy skills; whereas PS-TRE skills of unemployed are similar to the one of the employed population.
- **By occupation type:**
  - Skilled occupations are associated with greater literacy, numeracy, and PS-TRE skills.

**Proportion of literacy proficiency levels by labour force status of the entire population, and by NOC skill level of those who are employed, PIAAC 2012**

LITERACY		Level 1 or below	Level 2	Level 3	Level 4 or 5
<b>Labour force status</b>	Employed	14	31	40	16
	Unemployed	20	37	34	9
	Out of the labour force	26	35	31	8
<b>Skill level (NOC) (**)</b>	Management + A	6	22	45	27
	B	14	31	42	13
	C + D	21	38	33	7

# Results for subgroups of the population



- **Aboriginal populations:**

- Lower literacy, numeracy and PS-TRE skills than the non-Aboriginal people; however the gap varies across jurisdictions.

- **Immigrants:**

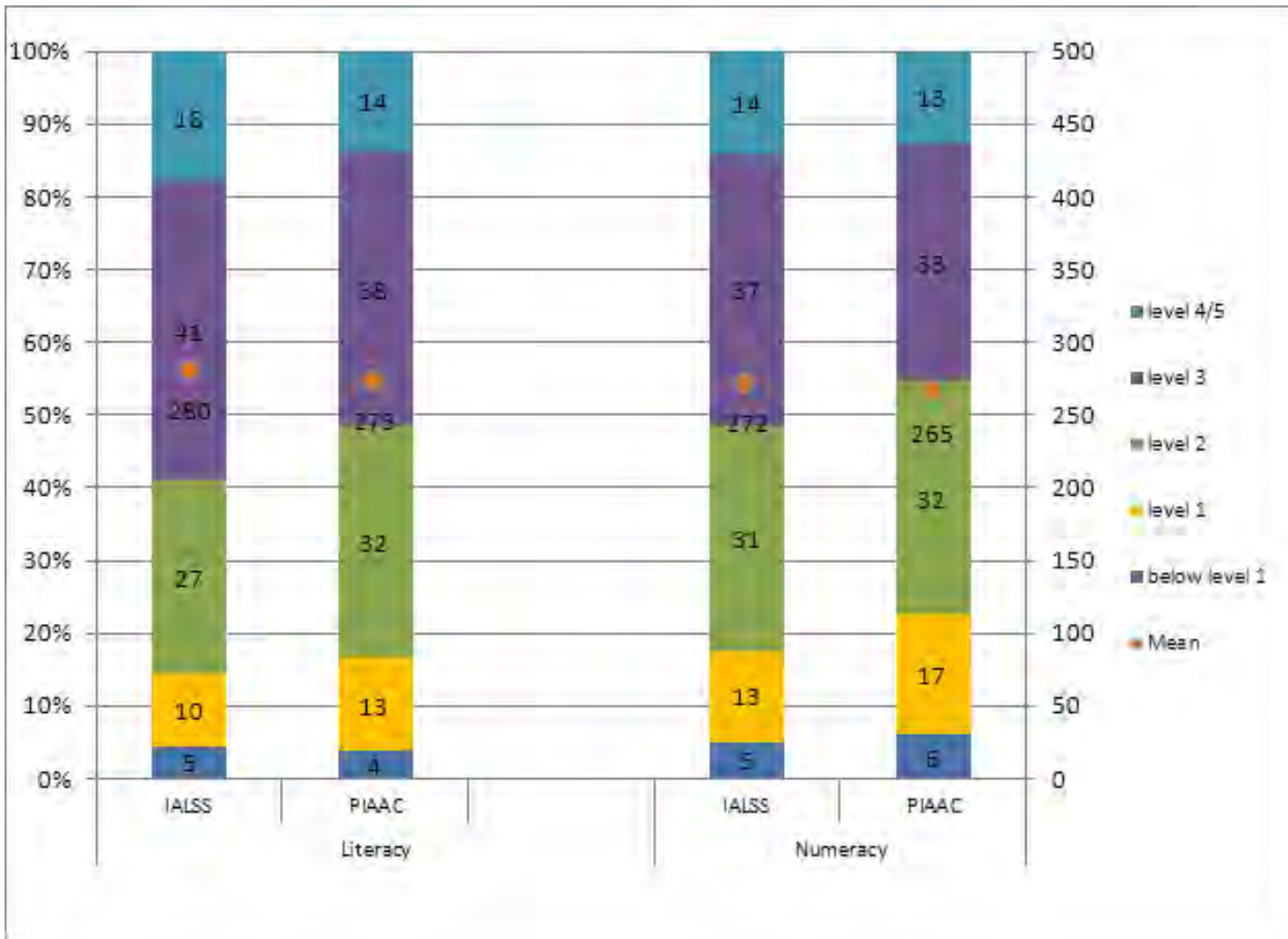
- Lower proficiency in literacy, numeracy and PS-TRE than Canadian-born.
- Recent and established immigrants' literacy, numeracy, and PS-TRE skills are similar.
- Compared to immigrants in other participating countries, immigrants in Canada score among the highest in Literacy.
- Difference between non-immigrants and immigrants is smaller in Canada than the OECD average.

- **Official-language minority populations:**

- Tend not to perform as well as official-language majority populations (except for Anglophones in Quebec), but differences vary across provinces.

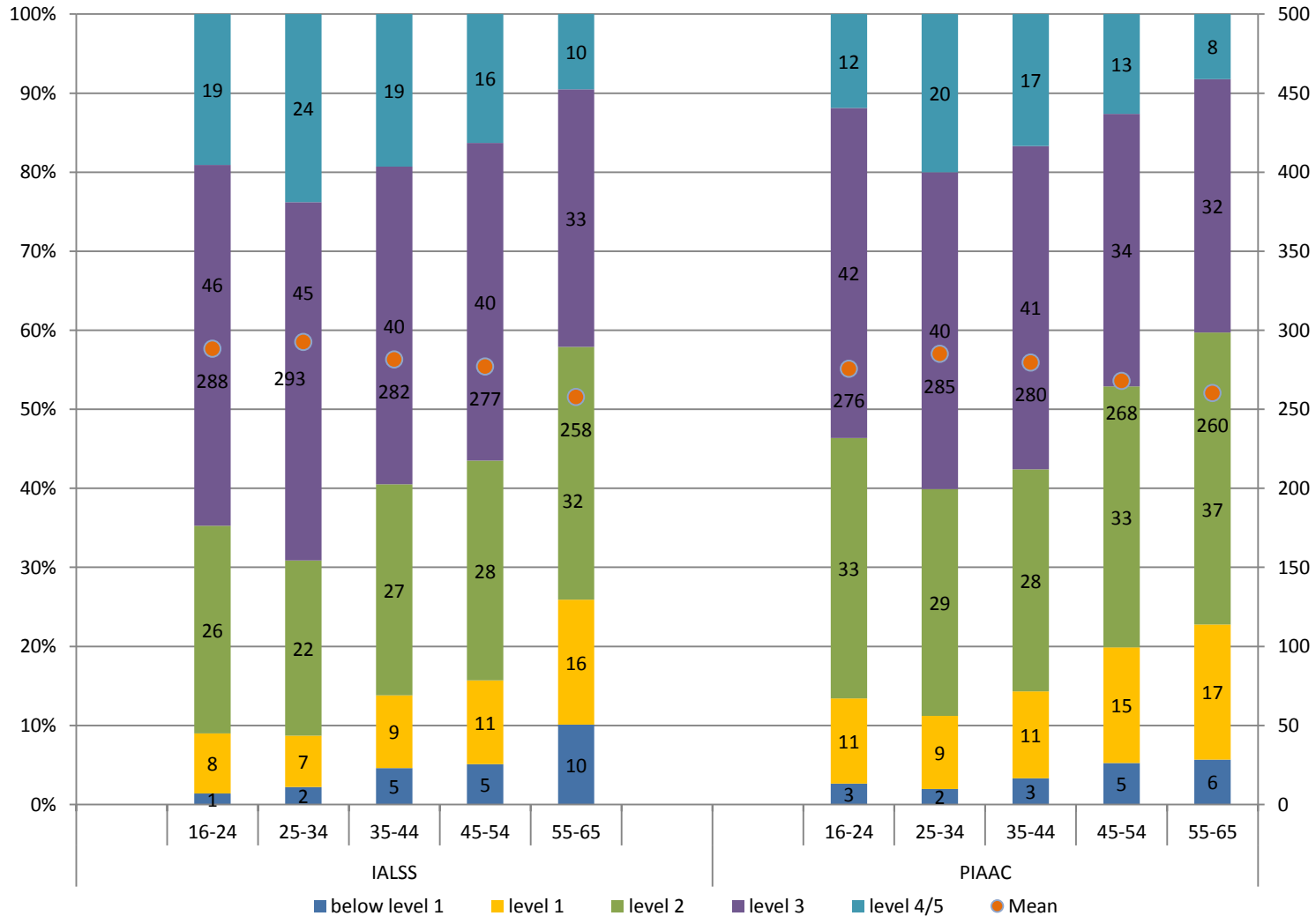
# A portrait of literacy and numeracy in 2003 and 2012

Literacy and Numeracy – Averages and proficiency levels of population aged 16 to 65 in IALSS and PIAAC, Canada, 2003 and 2012



# A portrait of literacy by age group in 2003 and 2012

Literacy — Averages and proficiency levels of population by age in IALSS and PIAAC, Canada, 2003 and 2012



ESDC calculations, not presented in the pan-Canadian report.

# Changes vary considerably across countries

Variation in mean scores, individuals aged 16-65, countries with comparable information, IALSS (ALL) 2003-2007, and PIAAC 2012.

Variation in mean proficiency scores	Literacy			Numeracy		
	2003-2007	2012	Change	2003-2007	2012	Change
Australia	273.0	280.4	7.4	267.9	267.6	-0.2
Canada	280.1	273.5	-6.6	272.4	265.5	-7.0
Italy	225.6	250.5	24.9	231.0	247.1	16.2
Netherlands	280.5	284.0	3.5	287.2	280.3	-6.8
Norway	295.1	278.4	-16.7	285.6	278.3	-7.3
United States	268.2	269.8	1.6	262.1	252.8	-9.2

(non-significant differences in red)

# Upcoming research projects using PIAAC with proposed timeline

Multiple research projects are already planned as joint products by the PIAAC partners in Canada:

## ▪ **PIAAC In Focus**

- February, 2014: Skills in the North
- April, 2014: Employment, Earnings, and Information Processing Skills
- May, 2014: Skills, Education, and Aboriginal populations

## ▪ **PIAAC Thematic Reports**

- September, 2014: Education
- November, 2014: Labour Market
- December, 2014: Aboriginal Populations
- January, 2015: Immigrants
- March, 2015: Official-Language Minority Populations
- June, 2015: Health and Social Outcomes