

Are Canadian jobs more or less skilled than American jobs?

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STATISTICS CANADA

ONE HUNDRED YEARS AND COUNTING

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2018 AIR PIAAC Research-to-Practice Conference

December 6, 2018



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Background



- Changes in skill demands due to automation an increasing concern
 - Workers in jobs with higher skill requirements in technical skills and skills complementary to technology may be better prepared
- Canada-U.S. comparison:
 - Similarities between labor markets suggest workers' occupational skill requirements may be comparable
 - However, on average, Canadians have higher levels of education, literacy, numeracy than Americans

Research Questions

- Are the occupational skill level requirements of Canadians' jobs higher or lower than Americans' jobs?
 - Are there notable gaps in particular skill areas?
- How do occupational skill requirements differ among workers with the same level of education?
- To what extent do workers' characteristics (e.g., sex, age, education level, literacy, numeracy) account for differences in occupational skill levels?

Data & Methods

- Data: 2012 Programme for the International Assessment of Adult Competencies (PIAAC)
 - Canada and U.S. data
 - Paid employees aged 25 to 64
- Occupational skill level requirement data from the Occupational Information Network (O*NET, U.S. Dept. of Labor, version 17)
- O*NET occupation codes (SOC2010) converted to ISCO codes and linked to PIAAC's ISCO codes



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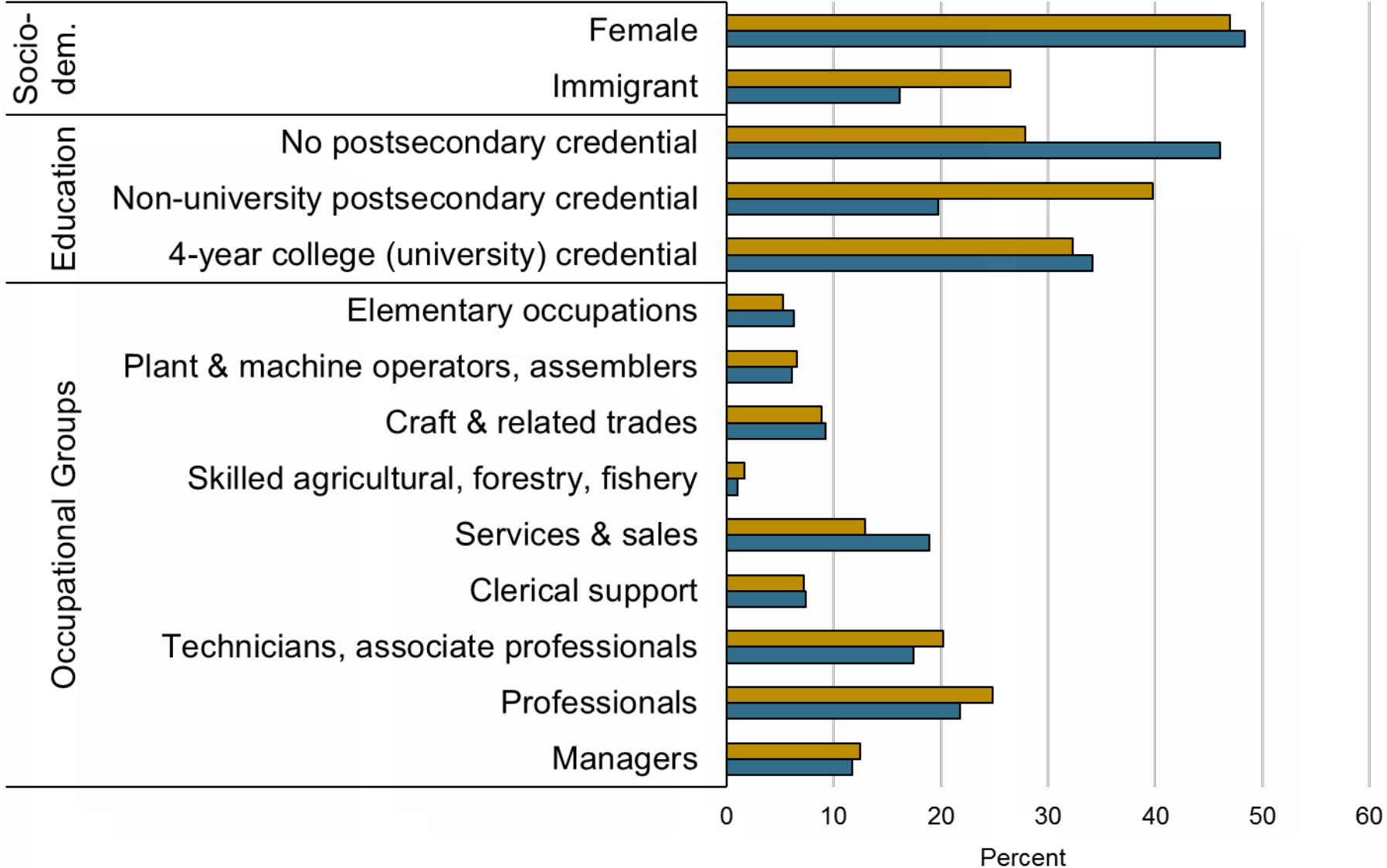
Data & Methods

- 35 O*NET occupational skill levels examined
 - Includes reading, writing, math, science, social, problem solving, technical, and management skills
- Main outcome: Percentage differences in occupational skill levels for Canadian and U.S. jobs
- Oaxaca decomposition of skill level gaps
 - Indicates portion of occupational skill level gaps explained by worker characteristics (socio-demographics, education level, literacy, numeracy)

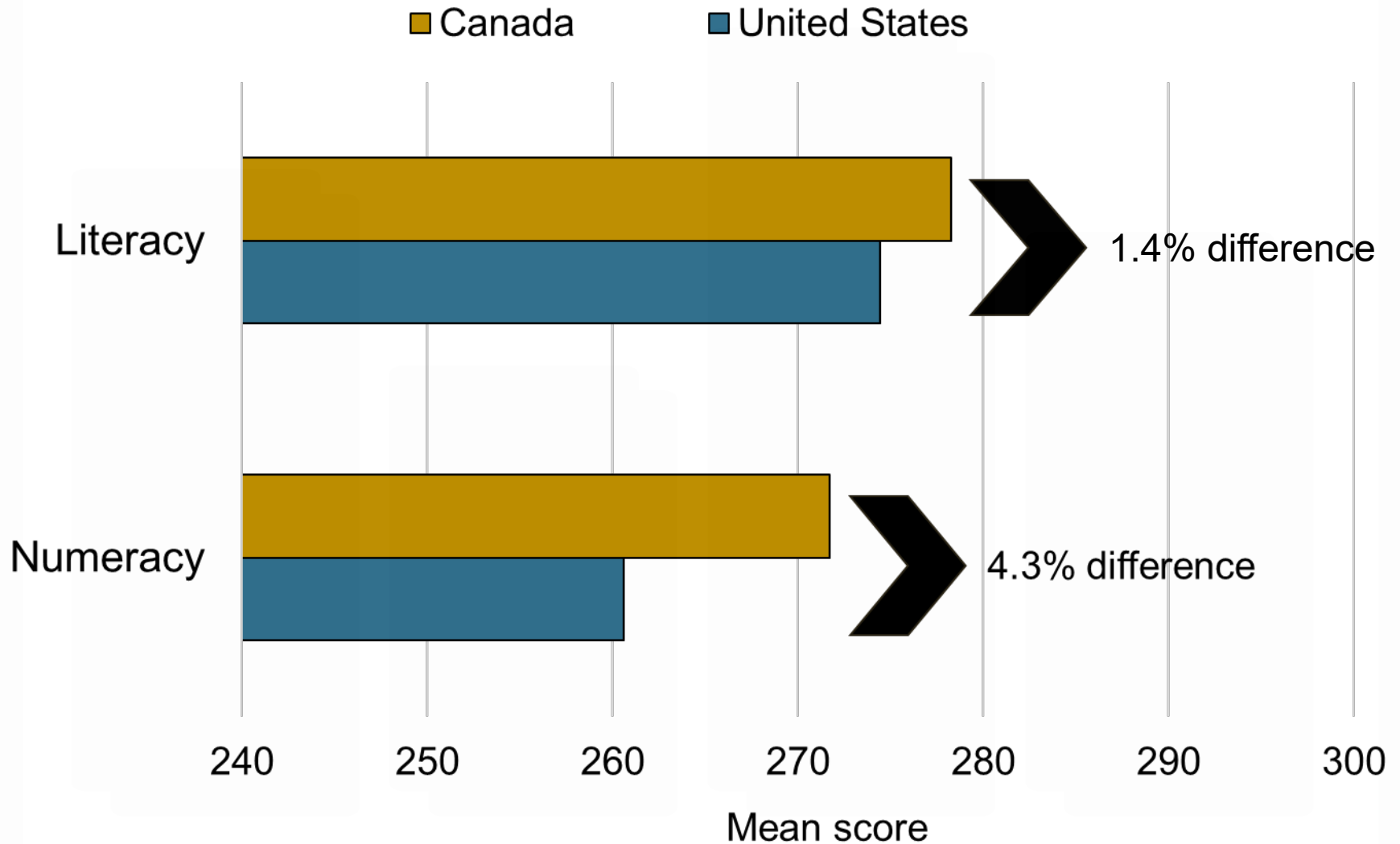


Sample characteristics by country

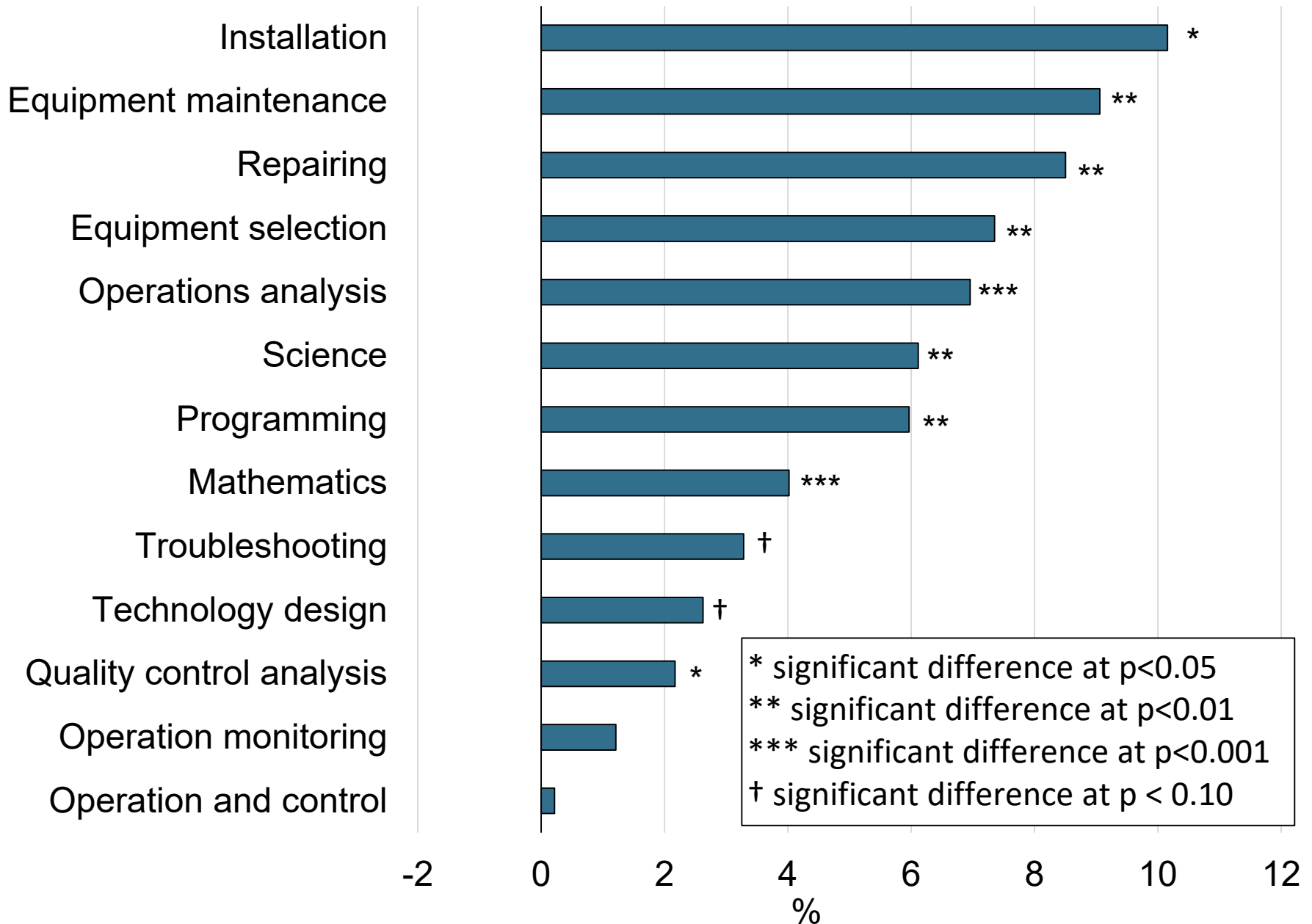
■ Canada ■ United States



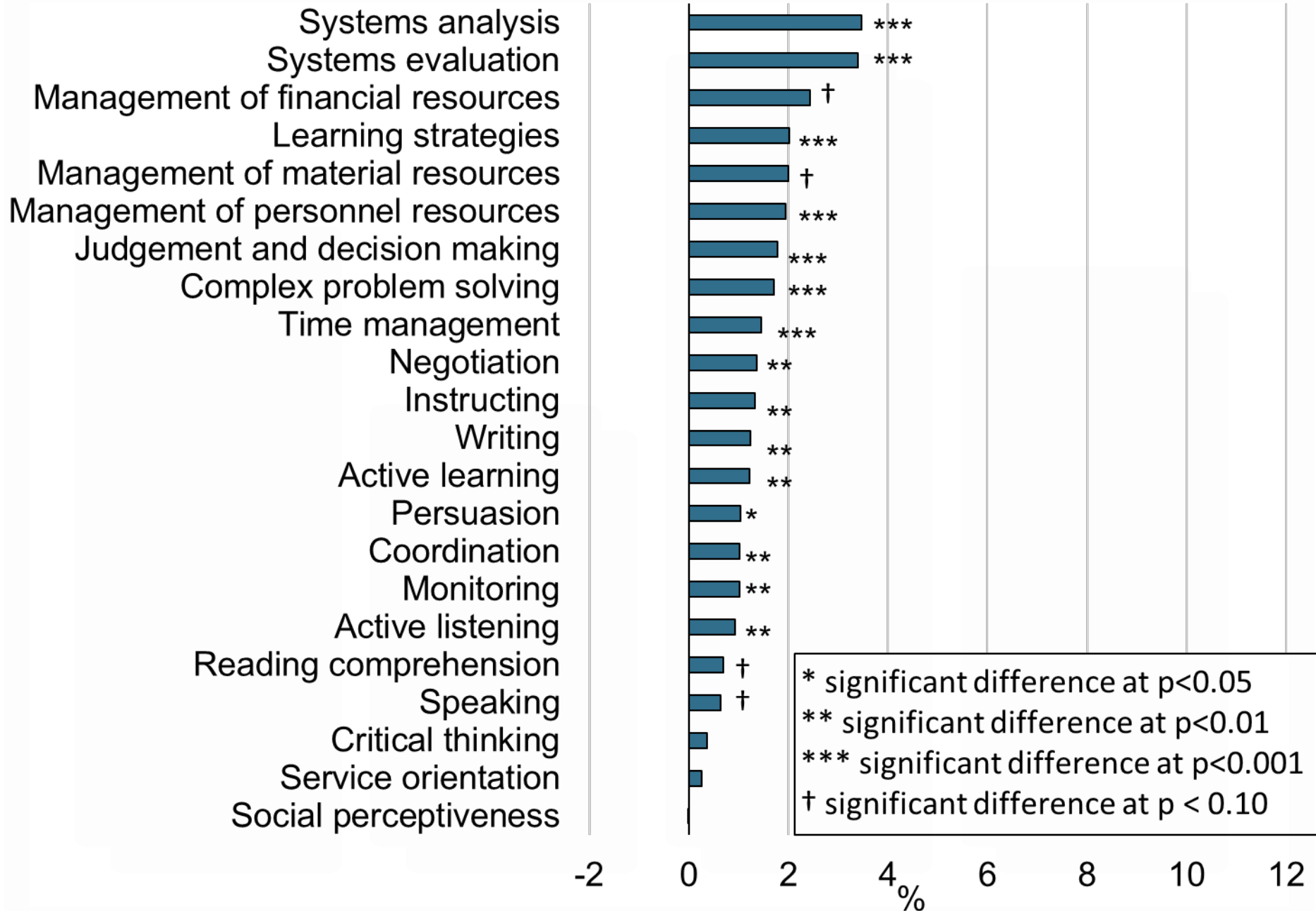
Mean literacy and numeracy scores by country



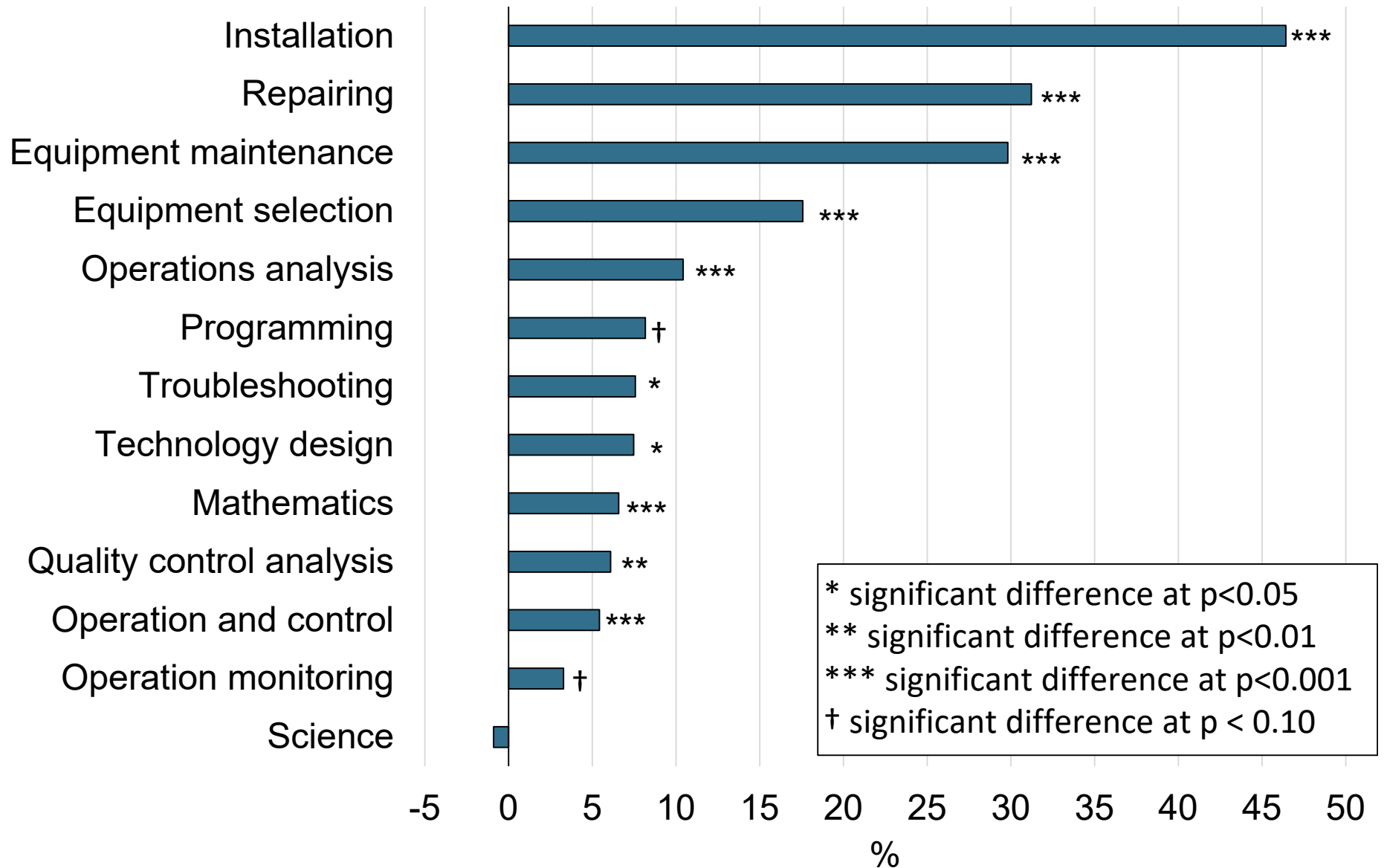
Percent difference in skill level of Canadian vs. U.S. jobs



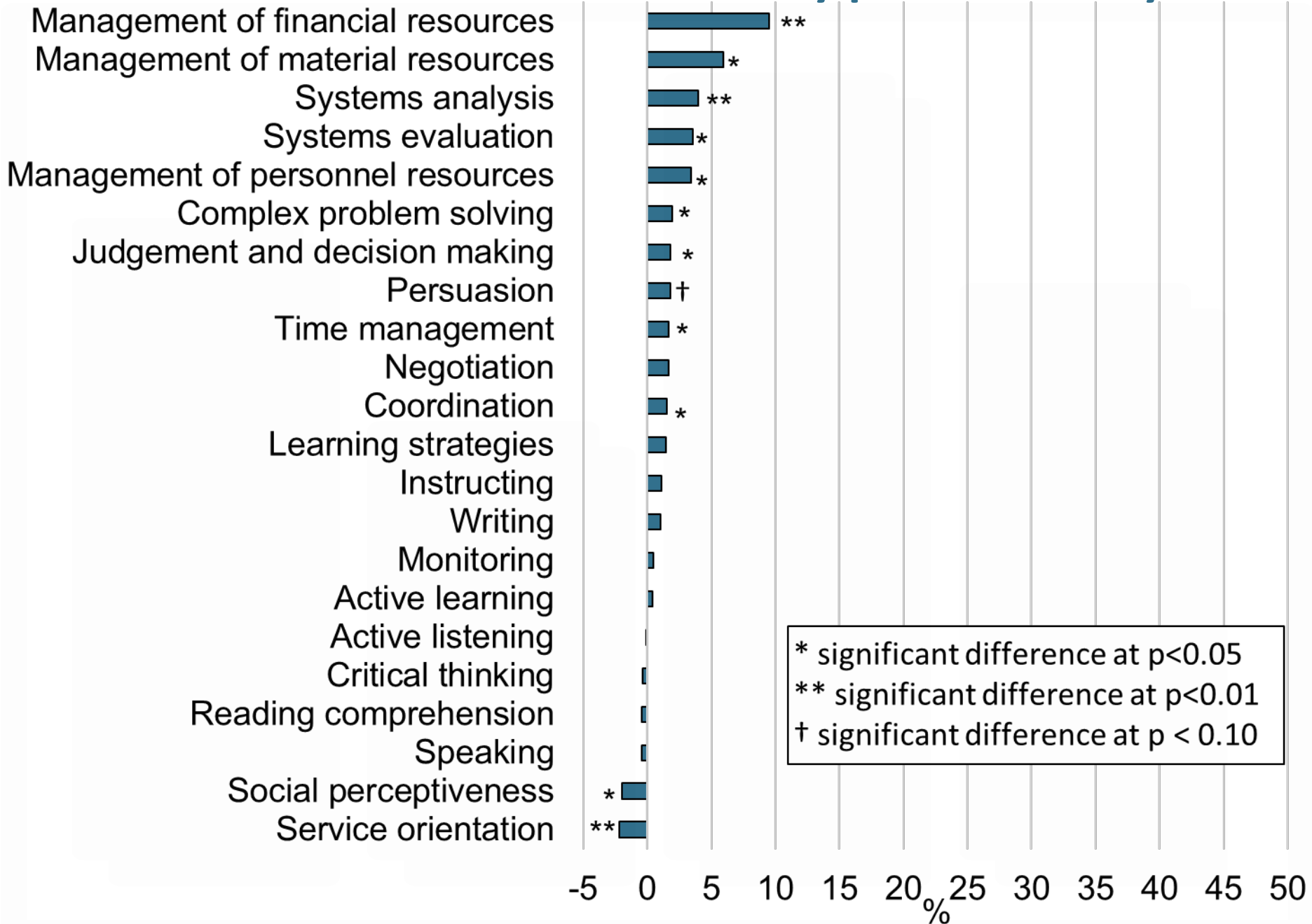
Percent difference in skill level of Canadian vs. U.S. jobs



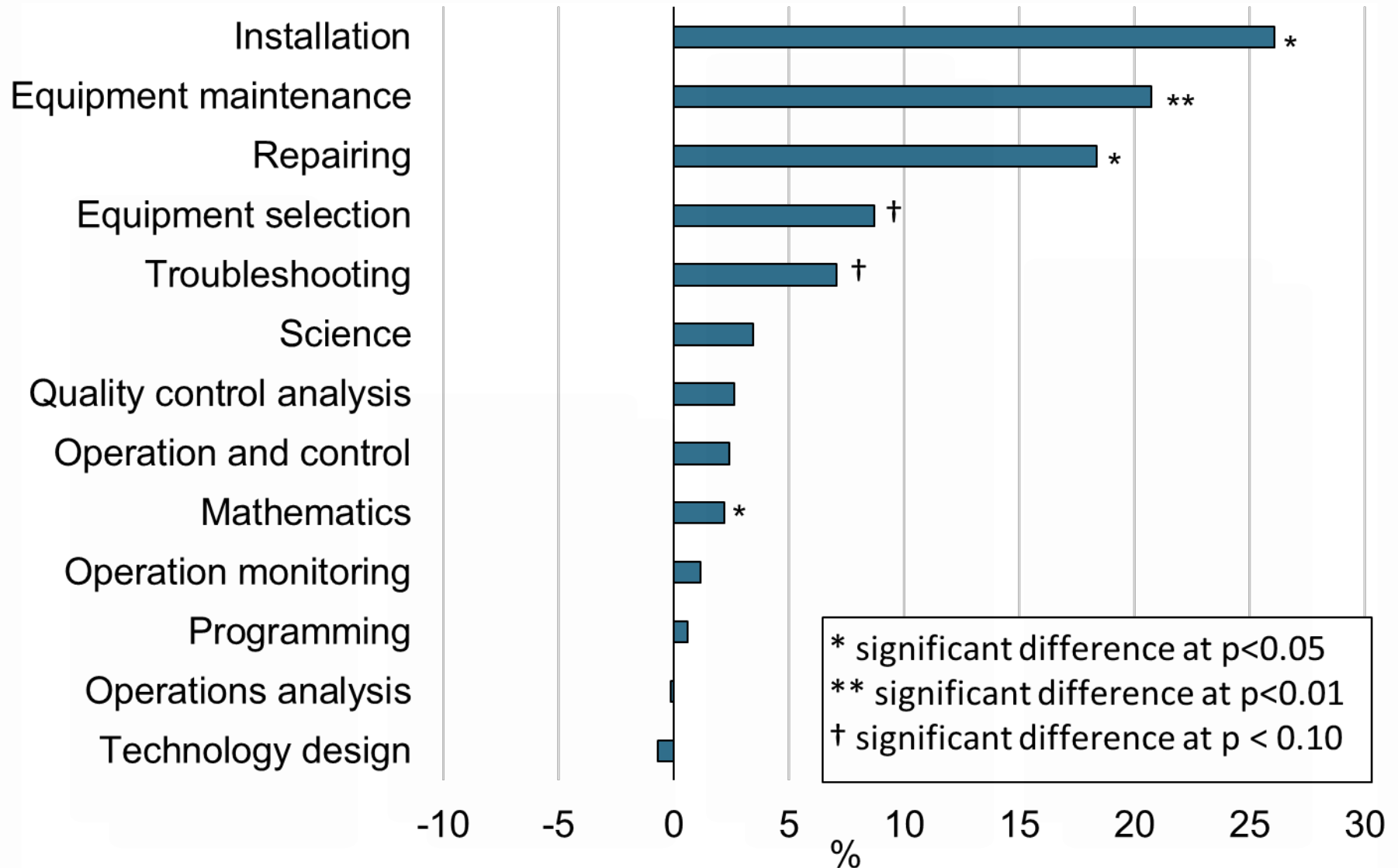
Percent difference in skill level of Canadian vs. U.S. jobs, workers with non-university postsecondary credential



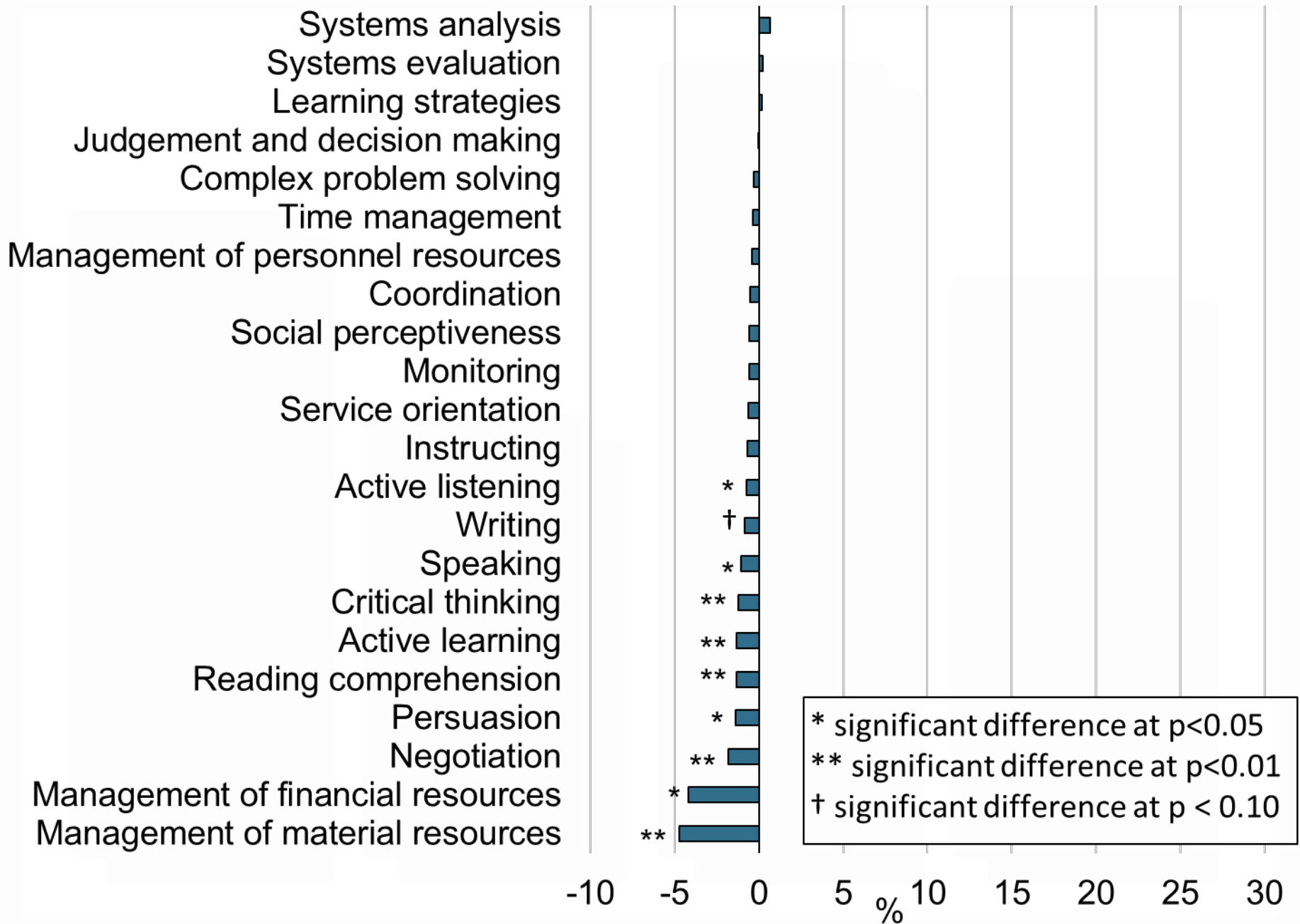
Percent differences for non-university postsecondary cont'd



Percent difference in skill level of Canadian vs. U.S. jobs, workers with 4-year college (university) credential



Percent differences for 4-year college (university) continued



Decomposition results: Explaining Canada-U.S. skill level gaps



- Differences in worker characteristics explained over 50% of the skill gaps in 26 of 30 skill areas
 - Educational attainment, literacy, and (especially) numeracy skills played important roles in explaining the skill gaps
 - Socio-demographics (sex, age, immigrant status) only explained a small portion of the skill gaps



Conclusions

- Overall, Canadian jobs more skilled than American jobs, particularly in technical skills
 - Among 4-year college degree holders, Americans held jobs with higher reading, writing, social skills
- Higher numeracy skills have led Canadian workers to be matched to more skilled occupations than their U.S. peers
 - Literacy, education level played smaller roles
- Improving numeracy skills may increase workers' ability to find higher skilled jobs



THANK YOU!

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www.statcan.gc.ca

Link to study:

<https://www150.statcan.gc.ca/n1/pub/11f0019m/11f0019m2018406-eng.pdf>

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