

# School performance of immigrant students in Finland: Results of PISA 2012

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# Content of the presentation

- Purpose of the performance audit
- PISA data and the Finnish sample
- Some main results of the audit
- Concluding remarks



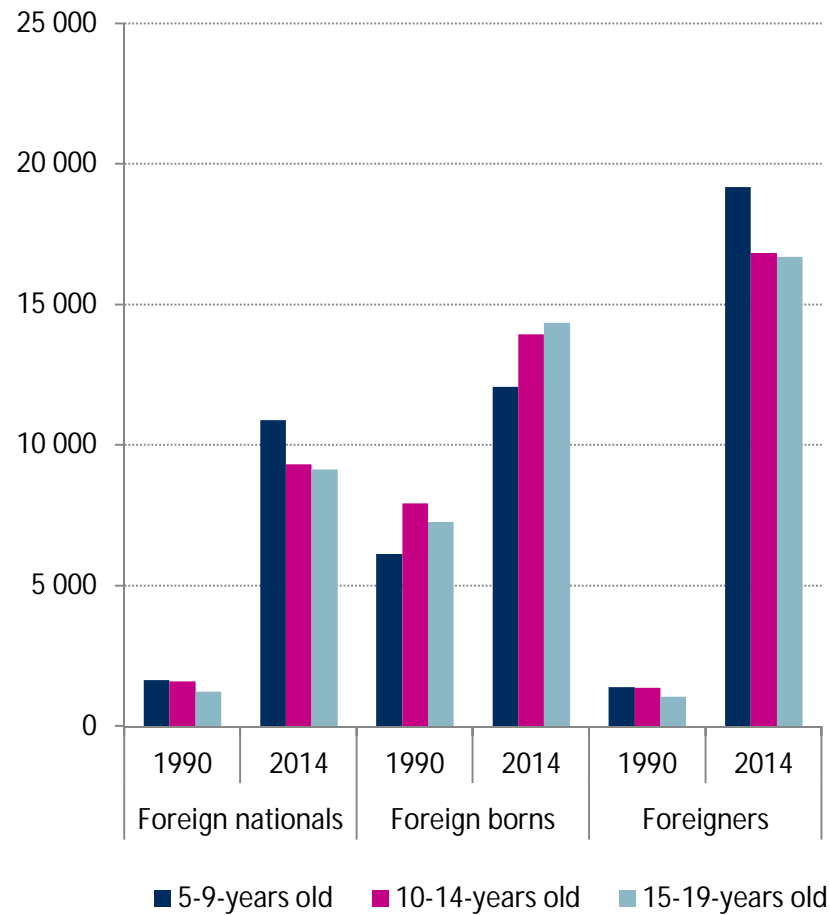
# Purpose of the performance audit

- Does compulsory schooling (grades 1-9) provide equal opportunities for immigrant students compared to native students in terms of student achievement, preparedness in further studies and development? (Based on Basic Education Act)
- One of the subquestions:
  - Are there differences in school achievement between native and immigrant students after controlling for the background of students?



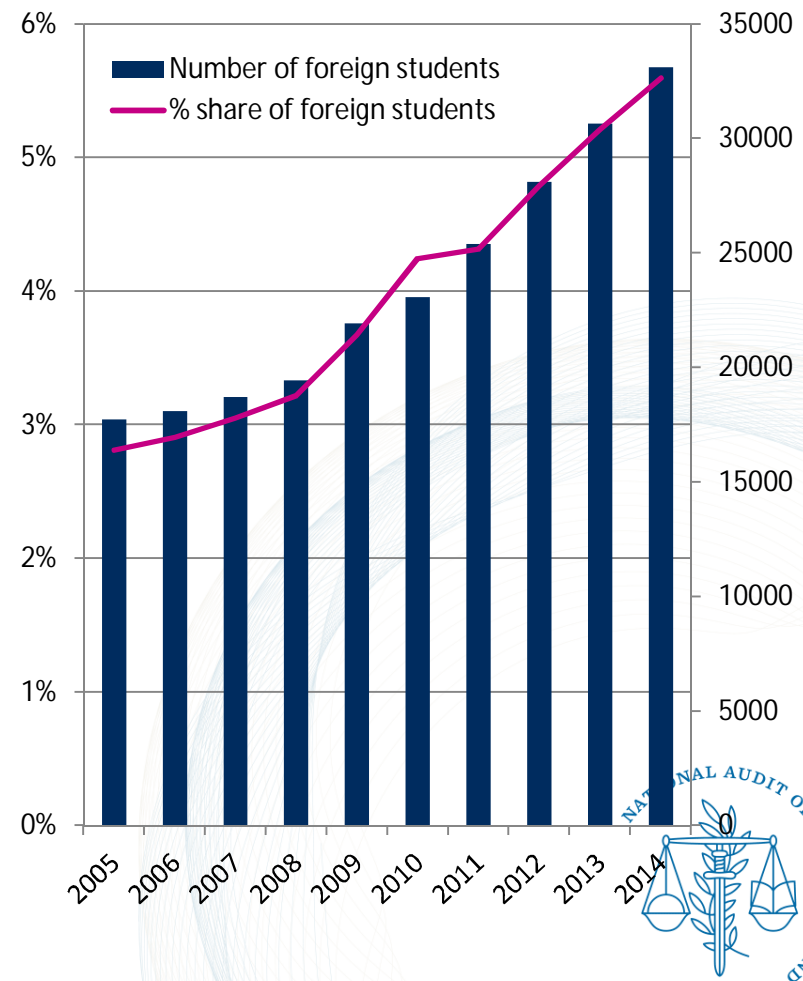
# Immigrant children in Finland

Foreign population in 1990 and 2014



Source: Statistics Finland

Foreign students in basic education



# PISA 2012

- PISA (Programme for International Student Assessment)
  - Internationally standardized achievement assessment conducted by the Organization for Economic Cooperation and Development (OECD)
  - Administered to 15 -year old students in schools in all OECD countries (34 countries) and in a number of other countries (31 countries)
  - PISA 2012 assesses students' mathematics (main area), reading and scientific skills
  - Comprehensive background information on students and schools (student questionnaire, school questionnaire)



# PISA 2012

## Finnish sample and immigrant students

- 8 828 students were sampled in 311 schools
  - In Finland students are normally at the 9th grade (final year of compulsory schooling)
- Oversampling of immigrant students (1 300 students) to provide the possibility to study them in more detail
  - 691 first generation immigrants
  - 609 second generation immigrants
  - information on the birth country of first generation immigrants and of parents of second generation immigrants
    - largest countries of origin (Russia, Somalia, Estonia, Former Yugoslav republics and Irak)



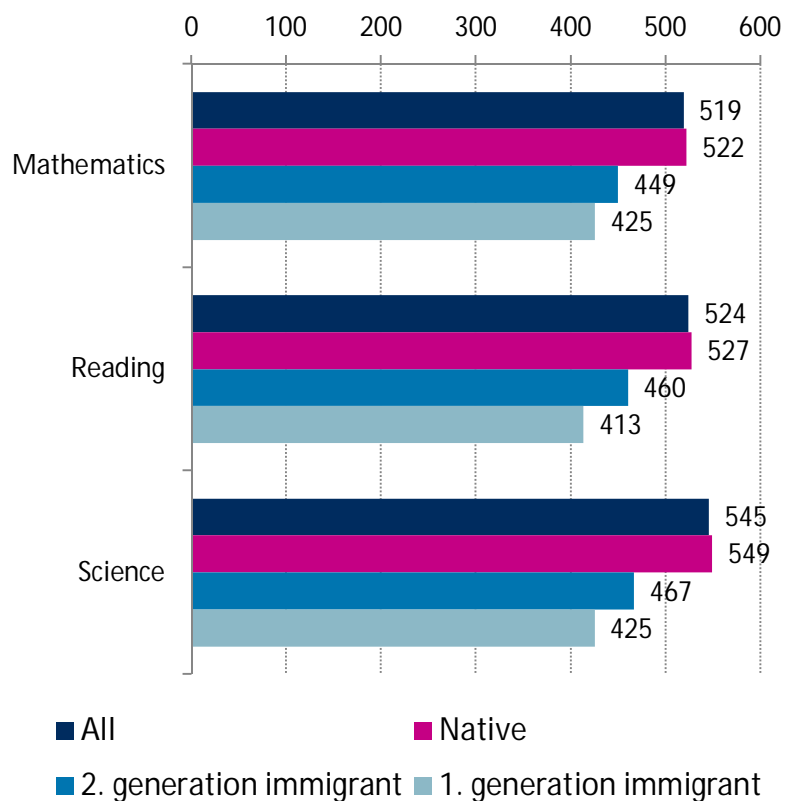
# Analysis of the data

- Different statistical models were estimated in order to evaluate the performance gap between the immigrant and native students.
- STATA statistical program was used in the analysis (survey methods and pv-module)

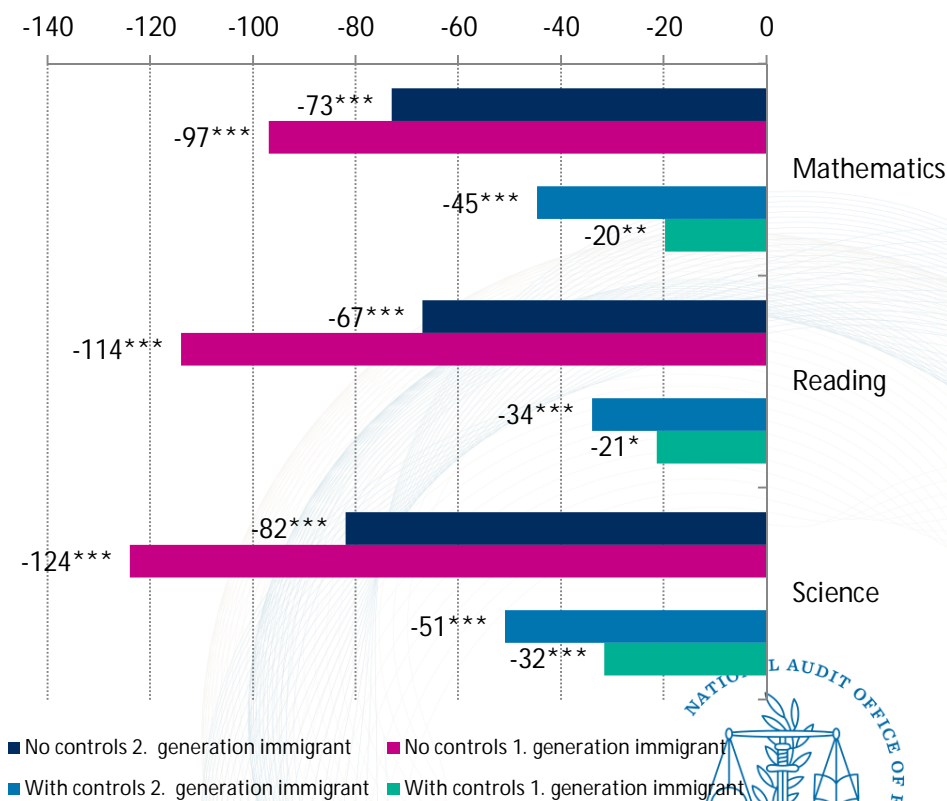


# Immigrant/native gap in PISA scores in Finland

## PISA scores



## Immigrant/native gap

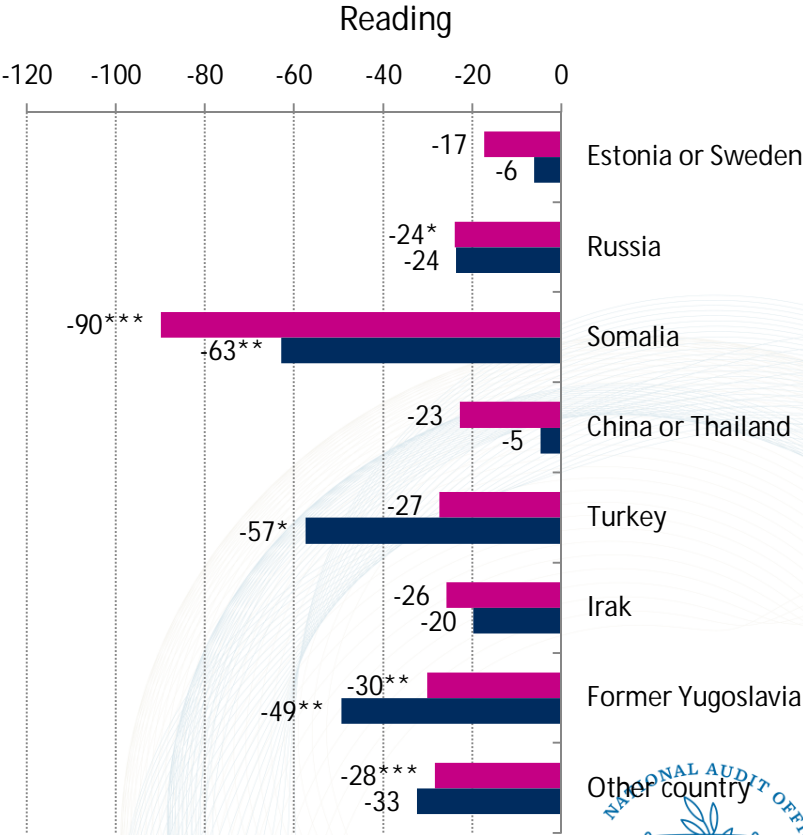
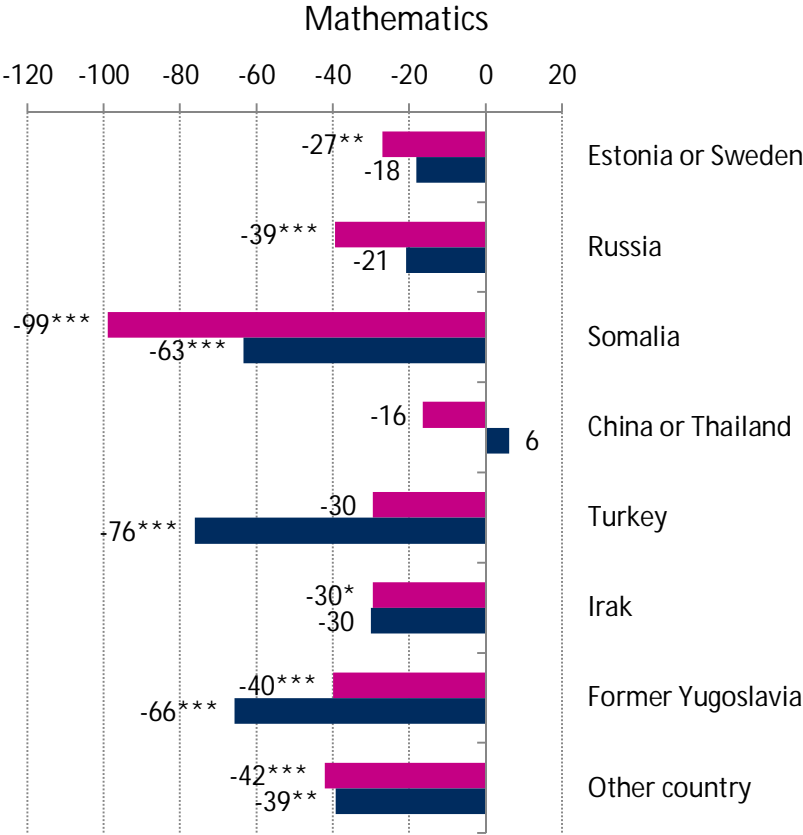


Control variables: gender, age, socioeconomic status, grade, language spoken at home, age of arrival;  
 \*\*\* Significant at 1 % risk level, \*\* 5 %, \* 10 %





# Immigrant/native gap in PISA scores in Finland by country of origin



■ 2. generation immigrant ■ 1. generation immigrant

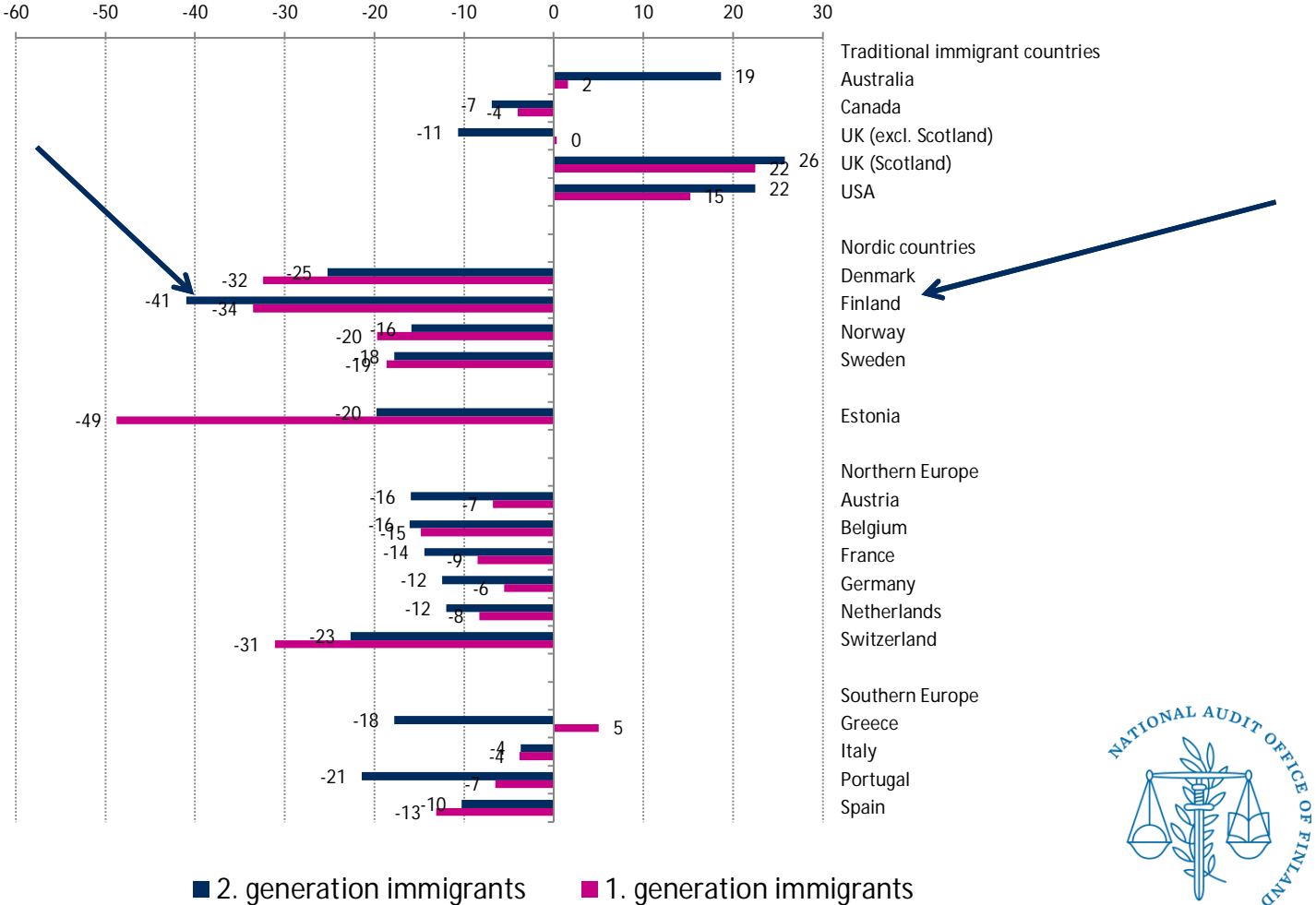
■ 2. generation immigrant ■ 1. generation immigrant

Gap after controlling for student background, grade, language spoken at home and age of arrival. \*\*\* Significant at 1 % risk level, \*\* 5 %, \* 10 %.



# Immigrant/native gap in PISA scores in Finland and some other countries

Gap in *mathematics* after controlling for student background and some school factors



# Concluding remarks

- Finland is one of the highest scoring countries in PISA
- Performance gaps between native and immigrant students is large and larger than elsewhere in Northern Europe at the age of 15 even after controlling student background
  - partly because of high scoring natives.
  - partly because of less experience in schooling of immigrant students.
  - not because of attitude since immigrant students have a more positive attitude towards school than native students.
- The performance of second generation immigrants is in some cases lower than the performance of first generation immigrants after controlling for the background of students
- Ministry of Education and Culture should
  - ensure that the support and language-training is at adequate levels.
  - examine if the weakest performing immigrant students should be provided with additional support to ensure integration and ability to continue their studies.



# Concluding remarks

- PISA data provided a good basis for auditing the schooling performance of immigrant students in Finland
- Freely available
- Extensive background information on students, parents and schools
- Possibility to make cross-country comparisons
- Use of PISA data requires quite advanced knowledge of statistical methods
  - sampling and sampling weights, use of plausible values, missing values in some variables
- Requires good computation power
- OECD provides good guides for the use and analysis of PISA data
- [www.oecd.org/pisa](http://www.oecd.org/pisa)



*Thank you!*