TIMSS 2015
TIMSS Advanced 2015

Data Collected, Reporting Underway

Ina V.S. Mullis and Michael O. Martin
Executive Directors
TIMSS & PIRLS International Study Center
Boston College

56th IEA General Assembly
October 2015, Mexico City
Since last General Assembly...

Two major accomplishments for TIMSS and TIMSS Advanced

• Data collection completed
  – Southern Hemisphere Oct-Dec
  – Northern Hemisphere Mar-Jun

• International Reports underway
Countries Participating in TIMSS and TIMSS Advanced 2015

Armenia 4, 8
Australia 4, 8
Bahrain 4, N, 8
Belgium (Flemish) 4
Botswana 9
Bulgaria 4
Canada 4, 8
Chile 4, 8
Chinese Taipei 4, 8
Croatia 4
Cyprus 4
Czech Republic 4
Denmark 4
Egypt 8
England 4, 8
Finland 4
France 4, A
Georgia 4, 8
Germany 4
Hong Kong SAR 4, 8
Hungary 4, 8
Indonesia 4, N
Iran, Islamic Rep. of 4, N, 8
Ireland 4, 8
Israel 8
Italy 4, 8, A
Japan 4, 8
Jordan N, 8
Kazakhstan 4, 8
Korea, Rep. of 4, 8
Kuwait 4, N, 8
Lebanon 8, A
Lithuania 4, 8
Malaysia 8
Malta 8
Morocco 4, N, 8
Netherlands 4
New Zealand 4, 8
Northern Ireland 4
Norway 4, 8, A
Oman 4, 8
Poland 4
Portugal 4, A
Qatar 4, 8
Russian Federation 4, 8, A
Saudi Arabia 4, 8
Serbia 4
Singapore 4, 8
Slovak Republic 4
Slovenia 4, 8, A
South Africa N, 9
Spain 4
Sweden 4, 8, A
Thailand 8
Turkey 4, 8
United Arab Emirates 4, 8
United States 4, 8, A

Benchmarking Participants
Buenos Aires, Argentina 4, N, 8
Ontario, Canada 4, 8
Quebec, Canada 4, 8
Norway, younger grade
Abu Dhabi, UAE 4, 8
Dubai, UAE 4, 8
Florida, USA 4, 8

4: TIMSS 4th grade
N: TIMSS Numeracy 4th grade
8: TIMSS 8th grade
A: TIMSS Advanced final grade
Survey Operations

- Survey Operations Procedures Units developed and posted
  - Contacting schools and sampling classes
  - Preparing assessment instruments
  - Scoring constructed response items
  - Creating data files

- IEA DPC conducted Data Management Seminar
  - 45 participants from 31 countries, Sep 2014
Conducted Scoring Training

• TIMSS scoring training
  – Southern Hemisphere countries in Wellington, New Zealand, Nov 2014
  – Northern Hemisphere countries in Prague, Czech Republic, Mar 2015

• TIMSS Advanced scoring training
  – Prague, Czech Republic, Mar 2015
Sampling and Instrument Preparation

• Statistics Canada, assisted by IEA DPC, completed sample selection for all countries

• IEA Secretariat worked closely with countries to verify translations of achievement booklets and context questionnaires
  – Arabic source versions of TIMSS achievement booklets and questionnaires

• TIMSS & PIRLS International Study Center reviewed layout of final assessment materials
Completed International Quality Control Program

- TIMSS & PIRLS ISC and IEA Secretariat conducted International Quality Control Program
  - Trained Monitors for Southern Hemisphere, Sep 2014
  - Trained Monitors for Northern Hemisphere, Jan 2014

- TIMSS Monitors in 54 countries and 5 benchmarking entities
  - 750 4<sup>th</sup> grade sessions observed
  - 650 8<sup>th</sup> grade sessions observed

- TIMSS Advanced Monitors in 9 countries
  - 215 sessions observed
Data Processing

• Data submitted to IEA DPC
  – Southern Hemisphere March 2015
  – Northern Hemisphere September 2015

• Quality checks for 130 assessment populations
  – 75 currently at DPC (420,000 students)
  – 16 completed and sent to TIMSS & PIRLS International Study Center
Planning the International Reports

- TIMSS 2015 International Results in Mathematics
  - 4th grade, including Numeracy
  - 8th grade

- TIMSS 2015 International Results in Science
  - 4th grade
  - 8th grade

- TIMSS Advanced 2015 International Results in Advanced Mathematics and Physics
International Reports

TIMSS 2015 International Results in Mathematics
TIMSS 2015 International Results in Science
TIMSS Advanced 2015 International Results in Advanced Mathematics and Physics

- International student achievement in mathematics/science
- Performance at International Benchmarks
- Achievement in content and cognitive domains
- Home support for learning
- School resources
- School climate
- Teachers ready to teach
- Classroom instruction
- System organization and curriculum (only TIMSS Adv.)
TIMSS and TIMSS Advanced 2015
Online Publications

• TIMSS 2015 Encyclopedia
  – Country-level data gathered through the Curriculum Questionnaire
  – Individual chapters submitted by each participating country

• Methods and Procedures in TIMSS 2015
  – Documents technical aspects of developing, conducting, analyzing, and reporting the assessments

• Methods and Procedures in TIMSS Advanced 2015 (separate publication)
Joint TIMSS/TIMSS Advanced NRC Review December 2015 - Lisbon

- Complete set of draft exhibits
  - TIMSS 2015 International Mathematics Results (≈170)
  - TIMSS 2015 International Science Results (≈170)
  - TIMSS Advanced 2015 International Advanced Mathematics and Physics Results (≈150)

- Context questionnaire exhibits include data for review – home, school, teacher, student

- Draft Encyclopedia exhibits, with curriculum data
Joint TIMSS/TIMSS Advanced NRC Review June 2016 – Quebec City

• Final drafts
  – TIMSS 2015 International Mathematics Results
  – TIMSS 2015 International Science Results
  – TIMSS Advanced 2015 International Advanced Mathematics and Physics Results

• Confidential preview at next General Assembly
Schedule for International Reports

TIMSS 2015 Encyclopedia
  - September 2016

TIMSS and TIMSS Advanced 2015 International Results
  - Release November 29, 2016

Methods and Procedures (Technical Reports)
  - Ongoing November 2015 through December 2016

TIMSS and TIMSS Advanced 2015 International Databases
  - February 2017
Thank You!

Ina V.S. Mullis and Michael O. Martin
Executive Directors
TIMSS & PIRLS International Study Center
Boston College
56th IEA General Assembly
October 2015, Mexico City