Changing Landscapes in Graduate Education

2015 CGS Annual Meeting
December 4, 2015

David Payne, Ph.D.
Vice President and COO
Global Education Division
# TOEFL® Board Members

<table>
<thead>
<tr>
<th>Name</th>
<th>Institution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Joanne Barker</td>
<td>The University of Adelaide, Australia</td>
</tr>
<tr>
<td>Kim Bartlett</td>
<td>McGill University, Canada</td>
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<tr>
<td>Kelley Brayton</td>
<td>Santa Monica College</td>
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<tr>
<td>Keith Brown</td>
<td>Teesside University, United Kingdom</td>
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<tr>
<td>Adele Brumfield</td>
<td>University of Wisconsin-Madison</td>
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<tr>
<td>Jonathan Burdick</td>
<td>University of Rochester</td>
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<tr>
<td>Aysegul Daloglu</td>
<td>Middle East Technical University (METU), Turkey</td>
</tr>
<tr>
<td>Sheila Embleton</td>
<td>York University, Canada</td>
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<tr>
<td>Bridget Herrera</td>
<td>Escola Americana de Campinas, Brazil</td>
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<tr>
<td>Steve Matson</td>
<td>University of North Carolina at Chapel Hill</td>
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<tr>
<td>Lakshmi Reddi</td>
<td>Florida International University</td>
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<tr>
<td>Henning Schroeder (Board Chair)</td>
<td>University of Minnesota</td>
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<tr>
<td>Keith Todd</td>
<td>Greenhill School</td>
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<tr>
<td>Obdulio Velásquez Posada</td>
<td>Universidad de La Sabana, Colombia</td>
</tr>
<tr>
<td>Sara Weigle</td>
<td>Georgia State University</td>
</tr>
<tr>
<td>John J. Wood</td>
<td>University at Buffalo, The State University of New York</td>
</tr>
</tbody>
</table>
GRE® Board Members

William Andrefsky, Washington State University
Robert Augustine, Eastern Illinois University
Robin Garrell, University of California, Los Angeles
Noreen Golfman, Memorial University
Jacqueline Huntoon (Board Chair), Michigan Technological University
Frances Leslie, University of California, Irvine
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Dwight McBride, Northwestern University
Paula McClain, Duke University
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Abigail Panter, University of North Carolina at Chapel Hill
Lakshmi Reddi, Florida International University
Janet Rutledge, University of Maryland, Baltimore County
Henning Schroeder, University of Minnesota
Mark J. T. Smith, Purdue University
Susan Stites-Doe, The College of Brockport, State University of New York
Peter Weber, Brown University
Karen Weddle-West, University of Memphis
What We Will Cover Today

• Changes in the Global Flow of Students
• Helping Students Prepare for Admissions
• Identifying and Recruiting Top Talent
• Helping Admissions Committees
• Importance of Noncognitive Assessments
• Higher Education Accountability
Changes in the Global Flow of Students
Since 2001, the number of students traveling to another country in pursuit of higher education has increased by 114%, with over 4.5 million students studying globally. Since 2009, there has been an compound annual growth rate of 6.7% in the number of mobile students abroad.

- The forecasted total global higher education international students will increase to approximately 8 million by 2025.*
- While the United States remains the top host destination of international students, its share of the overall total has declined.
- The market share of international students studying in China, Canada and Australia has grown.

*Making a Difference: AUS Intl. Ed- Bob Godard  
Source: IIE, OECD
Volume of GRE® revised General Test Examinees, by U.S. Citizenship Status

- U.S. citizens continue to take the GRE® revised General Test in great numbers.
- Non-U.S. citizen test takers accounted for 43% of test takers worldwide.
Non-U.S. Citizen Test Takers Increased 7% from 2013–14 to 2014-15

International growth

NEARLY 7% MORE NON-U.S. CITIZENS TOOK THE GRE REVISED GENERAL TEST COMPARED TO THE PRIOR TESTING YEAR

INDIA 12% UP

CHINA 1.6% UP

KOREA 9% UP

TAIWAN 5% UP
Non-U.S. Citizen Test Takers Increased 7% from 2013–14 to 2014-15 (continued)

96,000+ citizens from India took the test, continuing a multiyear growth pattern.

42,700+ citizens from China took the test, 3 years of continued stable growth.
# Mobility Continues as GRE® Test Takers Consider U.S. and Non-U.S. Destinations

## Preferred Region for Graduate Study, Test-Taker Population

<table>
<thead>
<tr>
<th>World Region</th>
<th>2012-13</th>
<th></th>
<th>2013-14</th>
<th></th>
<th>2014-15</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>Percent</td>
<td>N</td>
<td>Percent</td>
<td>N</td>
<td>Percent</td>
</tr>
<tr>
<td><strong>U.S. Regions</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>New England</td>
<td>141,771</td>
<td>26</td>
<td>163,713</td>
<td>29</td>
<td>164,600</td>
<td>29</td>
</tr>
<tr>
<td>Mid-Atlantic</td>
<td>147,332</td>
<td>27</td>
<td>163,967</td>
<td>29</td>
<td>166,245</td>
<td>29</td>
</tr>
<tr>
<td>South</td>
<td>161,061</td>
<td>30</td>
<td>179,586</td>
<td>31</td>
<td>184,442</td>
<td>32</td>
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<tr>
<td>Midwest</td>
<td>134,994</td>
<td>25</td>
<td>152,509</td>
<td>27</td>
<td>156,788</td>
<td>27</td>
</tr>
<tr>
<td>Southwest</td>
<td>107,308</td>
<td>20</td>
<td>127,366</td>
<td>22</td>
<td>133,935</td>
<td>23</td>
</tr>
<tr>
<td>West</td>
<td>164,913</td>
<td>31</td>
<td>190,010</td>
<td>33</td>
<td>193,901</td>
<td>34</td>
</tr>
<tr>
<td><strong>Non-U.S. Regions</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Canada</td>
<td>55,617</td>
<td>10</td>
<td>71,746</td>
<td>12</td>
<td>74,946</td>
<td>13</td>
</tr>
<tr>
<td>Africa</td>
<td>5,231</td>
<td>1</td>
<td>6,297</td>
<td>1</td>
<td>6,013</td>
<td>1</td>
</tr>
<tr>
<td>Asia</td>
<td>19,737</td>
<td>4</td>
<td>25,298</td>
<td>4</td>
<td>25,513</td>
<td>4</td>
</tr>
<tr>
<td>Australia/New Zealand</td>
<td>30,356</td>
<td>6</td>
<td>40,893</td>
<td>7</td>
<td>43,543</td>
<td>8</td>
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<tr>
<td>Europe</td>
<td>72,150</td>
<td>13</td>
<td>85,954</td>
<td>15</td>
<td>89,330</td>
<td>16</td>
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<tr>
<td>Latin America</td>
<td>11,381</td>
<td>2</td>
<td>13,192</td>
<td>2</td>
<td>13,613</td>
<td>2</td>
</tr>
</tbody>
</table>

Note: This table is based on 536,352, 574,132, 576,220 unique test takers who took the GRE revised General test in testing year 2012-13, 2013-14, and 2014-15 respectively. Since test takers were allowed to select more than one region, the percentages do not add up to 100.
**TOEFL® Data**

- Countries showing *TOEFL®* growth in 2014–2015:
  - India 25%
  - Malaysia 14%
  - Mexico 9%
  - Nigeria 43%
  - Taiwan 10%
- In July 2014–July 2015, new international students coming to Australia for higher education grew by 8.3%.
- TOEFL scores to Australia grew by 19% in that same period.
The *TOEFL®* Program in Cuba

With the easing of restrictions, ETS can now offer *GRE®* and *TOEFL®* testing in Cuba

- Testing is taking place at the U.S. Embassy in Havana
- First *TOEFL iBT®* test administration held June 27, 2015
- First GRE test administration November 19, 2015
- With the permission of the Cuban government, ETS has conducted *Propell®* workshops for the *TOEFL iBT®* test in Havana, Santiago de Cuba and Cienfuegos to approximately 95 teachers of English
The TOEFL® Program in Cuba (continued)

- Universidad de Oriente in Santiago de Cuba is working with ETS to obtain its certification to offer TOEFL iBT® and GRE® testing.
- The U.S. Embassy is now offering TOEFL iBT preparation classes, with GRE test preparation coming soon.
- TOEFL and GRE outreach for teachers and students to increase in 2016 in Santiago de Cuba, Cienfuegos and Havana.
The TOEFL® Program in Colombia

- ETS is consulting with the Ministry of Education on ways the TOEFL® Program can assist with Colombia’s ambitious national bilingualism goals
- TOEFL testing continues to grow, moving Colombia to the top 15 volume countries
Helping Students Prepare for Admissions
FREE Official GRE® Test Preparation

POWERPREP® II Software
Comprehensive, downloadable software includes two full-length practice tests as well as strategies, sample questions and more. It’s as close to the actual computer-based test as you can get!

GRE® Math Review
This 100-page math refresher includes definitions, properties, examples and a set of exercises with answers at the end of each section.

Now with links to material in the Khan Academy®

GRE® Math Conventions
Mathematical notations, symbols, terminology and guidelines are included for interpreting information in the GRE revised General Test.

ets.org/gre/prepare

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Official GRE® Test Preparation Available for Purchase

- The Official Guide to the GRE® revised General Test, Second Edition
- Official GRE® Verbal Reasoning Practice Questions, Volume One
- Official GRE® Quantitative Reasoning Practice Questions, Volume One
- Official GRE® Guide Mobile App
- ScoreItNow!™ Online Writing Practice
- GRE® Success Starter Video Series

ets.org/gre/prepare
Coming in 2016! GRE® Practice Online

- A new online product that will simulate the actual GRE® revised General Test.
- Will include up to two timed practice tests
- Users will receive:
  - Scaled scores on the Verbal Reasoning, Quantitative Reasoning and Analytical Writing sections of the test.
  - Detailed practice test results including for each question, the difficulty level, the time spent on it, the answer the user provided, whether the user got it right or wrong and the correct answer.
  - Explanations for correct answers for every question in each practice test.
- Will be available to test takers, institutions and test preparation companies
**GRE® Educate Webinar Series**

- This free webinar series brings key facts, details, tips and strategies directly to advisors and educators in time-friendly video modules
- Perfect for individuals who conduct GRE test preparation workshops on campus
- Webinars Offered:
  - *Introduction to the GRE® Program*
  - *An Overview of the GRE® revised General Test*
  - *A Closer Look at the GRE® Verbal Reasoning Measure*
  - *A Closer Look at the GRE® Quantitative Reasoning Measure*
  - *A Closer Look at the GRE® Analytical Writing Measure*

Sign up at [ets.org/gre/educatewebinars](http://ets.org/gre/educatewebinars)
**GRE® Advisor Kit**

- Designed to help advisors and educators give students everything they need to know about test registration, preparation, sending scores and more!
- Includes easy-access student presentation with script, printable brochures, posters and helpful links
- Some materials available in multiple languages
- All downloadable

ets.org/gre/advisorkit


**TOEFL® Test Preparation**

- **TOEFL Go!™ Official Mobile App by ETS**
  - Beta launched August 2015
  - For iOS and Android™ devices
  - Test prep by skill, which include scoring by e-rater® and SpeechRaterSM engines

- **Official TOEFL iBT® Tests, Volume 1, 2nd Edition**
  - Launched July 2015
  - Updated print/eBook publication
  - Includes interactive DVD with five retired tests
TOEFL® Test Preparation (continued)

- **Official TOEFL iBT® Tests, Volume 2**
  - On schedule for December 2015 launch
  - New print/eBook publication
  - Includes interactive DVD with five new retired tests

- **TOEFL® Practice Online – Speaking Pack**
  - Launched June 2015
  - Three Speaking forms (separate or one test experience)
  - Focus on preparing for the speaking section of TOEFL iBT test
**GRE® Fee Reduction Programs**

- Offered as a way to remove cost as a potential barrier to graduate study
- General Fee Reduction Programs
  - For those who can demonstrate financial need
  - For those who are unemployed
- Institutional Fee Reduction Programs
  - Gates Millennium Program
  - McNair Scholars Program
  - National Consortium for Graduate Degrees for Minorities in Engineering and Science (GEM)
  - Post-baccalaureate Research Education (PREP) Program
  - Project 1000 Program
- Individuals who qualify for a GRE® fee reduction pay 50% of the test fee for a GRE test. These individuals can also retake a GRE test for the reduced test fee.

[ets.org/gre/feereduction](http://ets.org/gre/feereduction)
TOEFL® Scholarships and Giving

• The TOEFL Program supports an array of
  – Scholarships
  – Educational initiatives
  – Community programs

• Our Scholarships and Giving initiative aims to provide educational assistance and opportunities to students worldwide to help them achieve their academic goals. TOEFL scholarships are currently available for students in China, India, Japan, Korea and Taiwan

www.ets.org/toefl/scholarships
Identifying and Recruiting Top Talent
GRE® Search Service Helps You Reach Potential Applicants

Reach prospects who have demonstrated graduate-level readiness through their GRE® test performance.

Select from about 30 criteria to EXPAND your pool or REFINe your recruitment strategy.

- Be cost efficient in your recruitment, knowing they've already taken a decisive step toward pursuing an advanced degree.
- Identify potential candidates using GRE® score bands and UGPA academic performance criteria.
- Recruit a diverse class for graduate or business school programs using demographic and geographic data, academic disciplines and more!

ONLY with the GRE® Search Service.

gresearch.ets.org

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# GRE® Search Criteria

## GRE® Search Service Criteria

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<tr>
<th>Demographics</th>
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</thead>
<tbody>
<tr>
<td>• Gender</td>
</tr>
<tr>
<td>• Ethnic background</td>
</tr>
<tr>
<td>• Citizenship</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>• World region</td>
</tr>
<tr>
<td>• Country</td>
</tr>
<tr>
<td>• State or province (US/Canada)</td>
</tr>
<tr>
<td>• Postal code</td>
</tr>
<tr>
<td>• State of permanent residence (US)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Educational/Employment History</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Current educational level</td>
</tr>
<tr>
<td>• Undergraduate major</td>
</tr>
<tr>
<td>• Post-graduate full-time work experience</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Educational Objective/Intent</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Degree objective</td>
</tr>
<tr>
<td>• Part-time or full-time study</td>
</tr>
<tr>
<td>• Intended graduate major</td>
</tr>
<tr>
<td>• Planned date of enrollment</td>
</tr>
<tr>
<td>• Preferred region of study</td>
</tr>
<tr>
<td>• Have reported GRE scores to your institution</td>
</tr>
<tr>
<td>• Preferred method of study</td>
</tr>
</tbody>
</table>

## Academic Performance

- Self-reported overall Undergraduate Grade Point Average (UGPA)
- Self-reported UGPA in major

## Academic Performance – Enhanced Insight

### GRE® General Test
- GRE Verbal Reasoning score bands with overall UGPA
- GRE Verbal Reasoning score bands with UGPA in major
- GRE Quantitative Reasoning score bands with overall UGPA
- GRE Quantitative Reasoning score bands with UGPA in major
- GRE Analytical Writing score bands with overall UGPA
- GRE Analytical Writing score bands with UGPA in major

### GRE® Subject Test
- Score bands with overall UGPA
- Score bands with UGPA in major

## Timing

- GRE test date

## Other Criteria

- Have an email address
Putting the GRE® Search Service to Work for You

Use the largest and most diverse database of people who have taken a major step toward graduate or business school to

- Develop **discipline-specific campaigns** based on undergraduate majors
- Create highly **geo-targeted campaigns** to promote open houses, student fairs or regional events, based on current mailing address of student
- Reach prospective students in **areas outside of your travel budget** using World Region/Country/Citizenship criteria
- Enhance **diversity** planning by using a blend of criteria
- And more!

We offer a free webinar and recruitment tips to get started.
Visit [ets.org/gre/searchservicewebinar](ets.org/gre/searchservicewebinar) to sign up.
**TOEFL® Search Service** helps universities recruit international students with the right English skill levels for their programs

- Search the database of **nearly 1 million names** using 26 criteria, including country, TOEFL score and field of study
- More info. and a video tour at [www.ets.org/toefl/search](http://www.ets.org/toefl/search)
TOEFL® Search Criteria

DEMOGRAPHICS
- Gender
- Country of citizenship
- Native language

LOCATION
- State or province
- Postal code
- Country

EDUCATIONAL HISTORY
- Current level of study
- Time spent studying English independently
- Time spent receiving instruction in English
- Attended test preparation class
- Number of months studied for the TOEFL iBT® test
- Hours per month studied for the TOEFL iBT test
- Lived in country where English is main language spoken

EDUCATIONAL OBJECTIVES
- Desired field of study
- Desired country to pursue education
- Next level of study
- Main reason for taking the TOEFL test
- Desired type of institution
- Scores sent to my institution
- Intended date of enrollment

TOEFL TEST SCORES
- Total Score
- Listening Section Score
- Reading Section Score
- Writing Section Score
- Speaking Section Score

TIMING
- Date registered
Helping Admissions Committees
New GRE® Score Use Infographic: The 5 Mistakes to Avoid When Using GRE Scores

- Created at the request of the GRE Board
- Sent to graduate deans in October 2015 and included in the GRE® eUpdate Newsletter in November 2015
- Provides an easy-to-share reminder about appropriate ways to use GRE scores.
- Available at the ETS booth
- Pass it along to your colleagues today!

Available at ets.org/gre/bestpractices
Avoid These Five Common Mistakes When Using GRE® Scores

Avoid adding scores together. Verbal Reasoning, Quantitative Reasoning and Analytical Writing scores should be treated as three separate and independent pieces of information. Using a single score masks critical information about an applicant’s specific skills (e.g., quantitative reasoning) that may be important for your field or department.
Avoid using an arbitrary cut score. GRE® scores help you compare applicants, but if you use an arbitrary cut score as a criterion, you could miss an applicant who would be a great asset to your program.
Avoid These Five Common Mistakes When Using GRE® Scores (continued)

Avoid using only GRE scores. Many factors can provide information about an applicant’s potential for success. Using multiple criteria in admissions decisions helps ensure fairness and balances the limitations of any single measure of knowledge, skills or abilities.
Avoid These Five Common Mistakes When Using GRE® Scores (continued)

4 Avoid comparing percentile ranks of different admissions tests. Looking at percentile ranks can help you better understand the meaning of applicants’ GRE scores; however, you should never compare percentile ranks across different tests (e.g., GRE test with GMAT® test). Instead, use the GRE Comparison Tool for Business Schools to understand and appropriately interpret GRE scores in the context of GMAT scores: ets.org/gre/comparison.
Avoid These Five Common Mistakes When Using GRE® Scores (continued)

Avoid missing out on your free copy of the GRE® Guide to the Use of Scores. In this must-have resource, you’ll find GRE score interpretation data, best practices and more: ets.org/gre/guide.
Importance of Noncognitive Assessments
ETR® Personal Potential Index (ETR® PPI)

• Introduced in 2009, the ETR® PPI is not widely adopted and growth to date has been far below expectations.
• Earlier this year, ETS evaluated the viability of the ETS PPI going forward and decided to sunset the service. The ETS PPI will be discontinued in July 2016.
• The five-year ETS PPI validity study is continuing and will inform potential new products involving noncognitive measures and future research on noncognitive measures.
• While the ETS PPI was not widely adopted for a variety of reasons, GRE® Board members have reaffirmed the importance of noncognitive skills for success in graduate programs.
• ETS with be conducting additional market research to understand the need for noncognitive assessments in the graduate community and for what purpose.
Higher Education Accountability
The HEIghten™ Approach

Research & study existing frameworks

Develop construct definitions

Build assessment solutions

- Leveraged existing R&D capabilities
- Reviewed existing assessments
- Reviewed other student learning outcome frameworks research papers
- Conducted several rounds of market research
- Reached out to HEIs and organizations
What is the **HEIghten™** Outcomes Assessment Suite?

A suite of computer-based assessments measuring essential student learning outcomes in the general education space of higher education.

The assessment results will be used by institutions for accreditation and accountability initiatives, to guide curriculum improvement, and to measure growth and development.

The micro-credential earned by the test taker serves as a permanent credential of the skills demonstrated. The micro-credential can be used as a motivational tool by institutions to encourage their students to be invested in their accountability assessments.
With the HEighten™ Outcomes Assessment Suite an institution can:

• Paint a more complete picture of student performance. The tests can be used as a stand-alone assessment or in conjunction with an institution’s existing internal assessments.

• Use the actionable data to show that students have learned the general education skills needed after graduation.

• Mix and match the assessments to address individual institutional goals.
Launched in November 2015
HEIghten™ Critical Thinking Assessment

The Critical Thinking assessment will address major areas including:

**Analytic**
- Analyze Argument Structure
- Evaluate Argument Structure
- Evaluate Evidence and its Use

**Synthetic**
- Develop Valid or Sound Arguments
- Demonstrate Understanding of the Implications or Consequences of Information and Augmentation
HEIghten™ Quantitative Literacy Assessment

- The Quantitative Literacy assessment will measure different mathematical skills including reasoning, interpretation, modeling, computation and communication.
- Skills will be measured in the following math content areas:
  - Numbers and Operations
  - Algebra
  - Geometry and Measurement
  - Probability and Statistics

- The stimuli for all of these items are embedded in real-world contexts such as personal and everyday life, the workplace and society. To solve the problems, examinee must apply mathematical knowledge to authentic situations.
The Written Communication assessment will address major areas including:

- Knowledge of Social and Rhetorical Situations
- Knowledge of Conceptual Strategies
- Knowledge of Language Use and Conventions
- Procedural Knowledge and Skills
Next Phase

Pilot August 2016
Launch Spring 2017

Pilot August 2016
Launch Spring 2017

Pilot Spring 2017
Launch Fall/Winter 2017

Please note that all pilot and launch dates are tentative. We will communicate additional information as dates are finalized.
Connect with the Global Client Relations Team

The Global Client Relations team is here to help with your institution’s **GRE®-** and **TOEFL®-**-related needs

- Campus visits
- Student fairs
- Student presentations
- Webinars
- Prompt responses to questions and resolution of concerns

Stop by the ETS booth and receive the contact information for your Global Client Relations Representative.