

# **PRISM**

**A CROSS-NATIONAL, CROSS-INSTITUTIONAL  
BENCHMARK MODEL OF INTERNATIONAL STUDENTS'  
ACADEMIC PERFORMANCE AND SUCCESS**

**EAIE 2012 Conference**

# DISCLAIMER

- **The presentation was delivered by ICG at the EAIE 2012 Conference in Dublin on 13 September 2012.**
- **The presentation shall be considered incomplete without oral clarification.**
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- **Data presented is sanitized and in a few instances modulated in order to prevent the disclosure of institution-specific data.**

# AGENDA

## Housekeeping

**Rationale & Analytical Framework**

**Institutional Analysis**

**Benchmark Analysis**

**Thematic Perspective: Pathways Analysis**

**Thematic Perspective: Agent Management**

**Thematic Perspective: Fraud Detection**

**Thematic Perspective: The Role of Language**

**Key Value Propositions**

**On-boarding & Development Roadmap**

# HOUSEKEEPING

- **The Benchmark Model was launched at the 2012 NAFSA conference with institutions from Canada, Australia, and New Zealand.**
- **It was introduced under the name of “PRISM”. PRISM is not related in any way to the Australian Government’s PRISMS reporting system.**
- **This presentation will be available as a PDF file.**

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# THE RATIONALE FOR PRISM

- **In 2010 international student enrollments have grown to 4.1 million (OECD, 2012) – along the way increasing the variety of students studying abroad for different reasons relative to 20 years ago.**
- **During that time, the overall academic performance of international students has declined – partially owing to growth factors, and partially to an increased lack of linguistic preparation, curricular fit and learning style, or outright fraud and deception.**
- **The combination of these dynamics has resulted in student-institution mismatches, academic underperformance, high attrition rates and difficulties to focus on talent. This is proving costly to institutions on many levels.**

**To date, no systematic analysis of this issue has been undertaken. PRISM offers a unique evidence-based, comparative, in-depth approach to analyze and model these issues.**

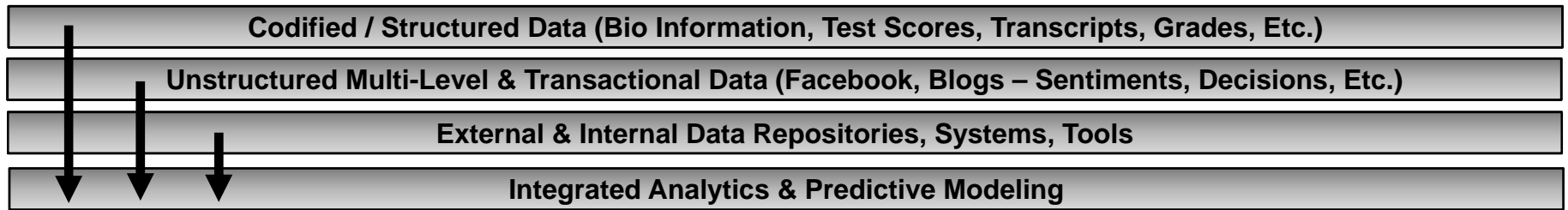
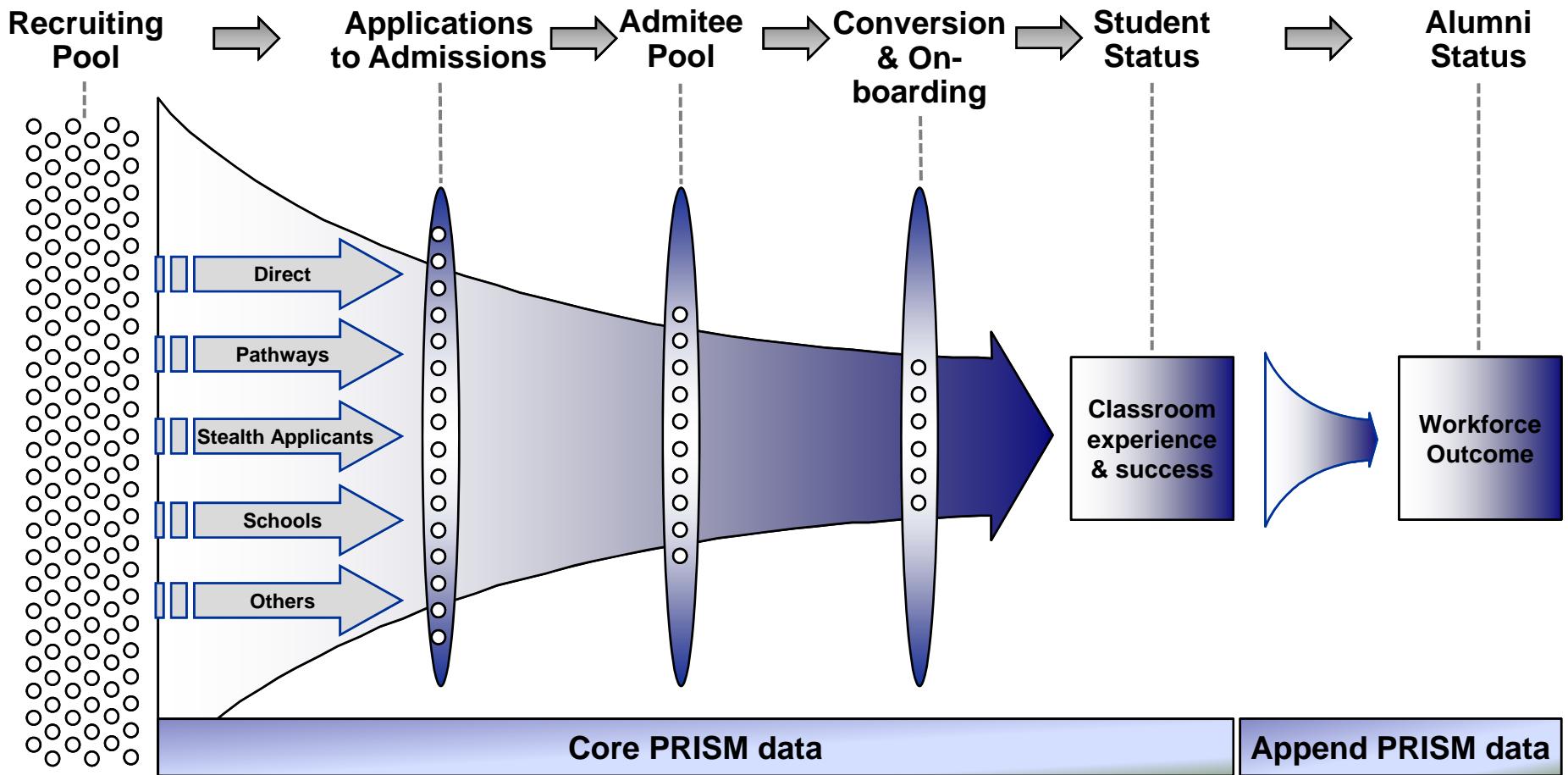
# **ANALYTICAL FRAMEWORK**

## **Key Drivers to Benchmark International Students' Performance**

- **The shift to outcome-based marketing and recruiting**
- **Institutional competition and differentiation (national and international)**
- **In-classroom quality improvement (learning, experience)**
- **Regulatory compliance**
- **The need to improve strategic data management across an institution**
- **Pressure through much more visible feedback loops (social media, etc.)**
- **Others...**

# ANALYTICAL FRAMEWORK

## Integrated Strategic Data Management Along the Student Lifecycle





# **ANALYTICAL FRAMEWORK**

## **High Level Overview of PRISM**

- **Participants: Higher education institutions (and their partners) worldwide.**
- **Data: International students' admissions and registrar data (e.g., gender, nationality, secondary leaving qualification, language test scores, study field, pathways, agent code, degree type – grades, graduation rates).**
- **Data add-on: Minimal domestic students' cohort grades and graduation data for control group purposes.**
- **Security, privacy, and brand protection: PRISM operates with dedicated privacy, security and brand protection features.**
- **On-boarding: Supported by extensive templates, guides, and discussions with technical staff.**
- **Results documentation: Provided by ICG in two standardized formats – institutional and benchmark analysis.**

# **ANALYTICAL FRAMEWORK**

## **PRISM Student Data Attributes (Version 1)**

- **International Students: Recruiting Profile and Pathways Data**
  - Gender
  - Country of Citizenship
  - Enrollment Type
  - Registration Status
  - Degree Type
  - Subject / Study Field
  - Commencement Year
  - Degree Program Expected Duration
  - Graduation Year
  - English Language Proficiency at Admission
  - Secondary Education Qualification (Country of Attainment)
  - Secondary Education Qualification (Kind)
  - Additional Education Post a Secondary Leaving Qualification [optional]
  - Recruitment Channel
  - Agent Identifier [optional]
- **International Students: Performance and Success Data**
  - Academic Performance (Grades)
  - Student Success (Graduation)
- **Domestic Students: Performance and Success Data (for baseline purposes)**
  - Academic Performance (Grades)
  - Student Success (Graduation)

# **ANALYTICAL FRAMEWORK**

## **Safeguarding Privacy and Protecting Data**

- **PRISM operates with dedicated privacy, security and brand protection features.**
- **Student privacy – No data segments containing less than 5 records are displayed. Any names and identifiers have been deleted/sanitized/coded with numerical ID numbers.**
- **Institutional data transformation – Data can be delivered to ICG in a fully recoded manner, ensuring the ability of cross-jurisdictional data transfer.**
- **Institutional brand protection – Institutional information is sanitized and protected against involuntary discovery.**
- **Data security – Master data set is safely stored in ICG's office.**

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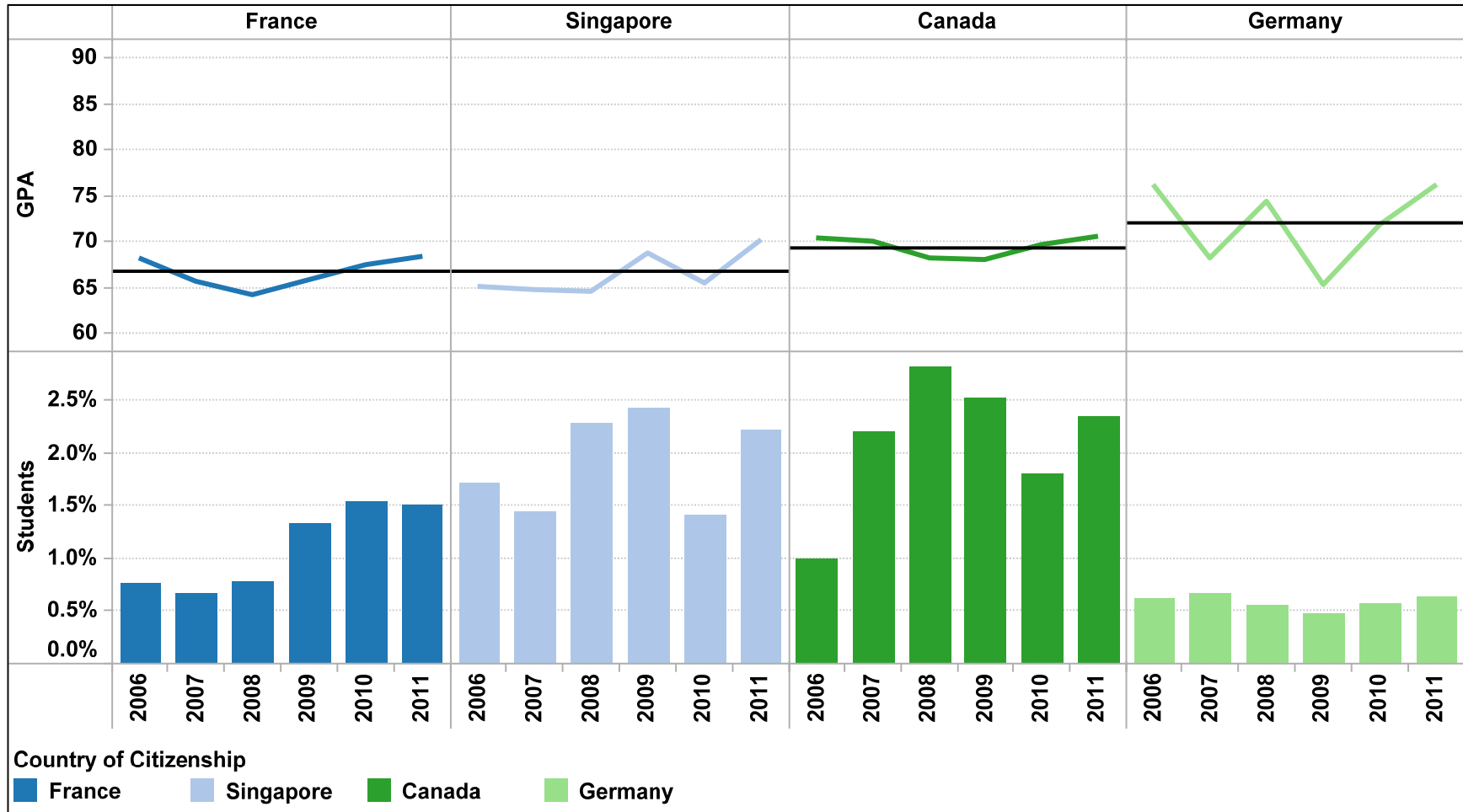
**Thematic Perspective: The Role of Language**

**Key Value Propositions**

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# INSTITUTIONAL ANALYSIS

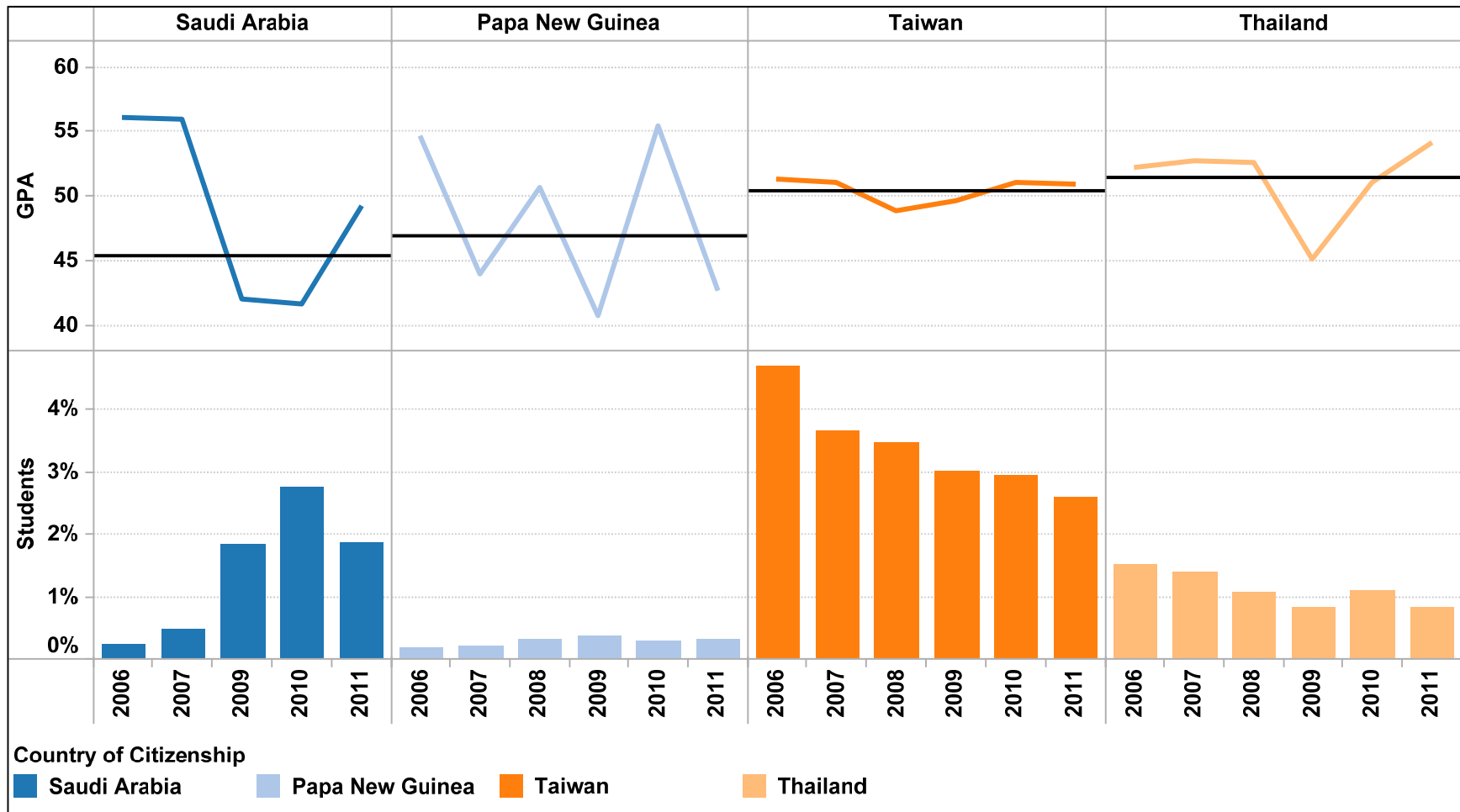
## Measuring Student Performance by Nationality Over Time (I)



**Four variable institutional analysis of well-performing international students**

# INSTITUTIONAL ANALYSIS

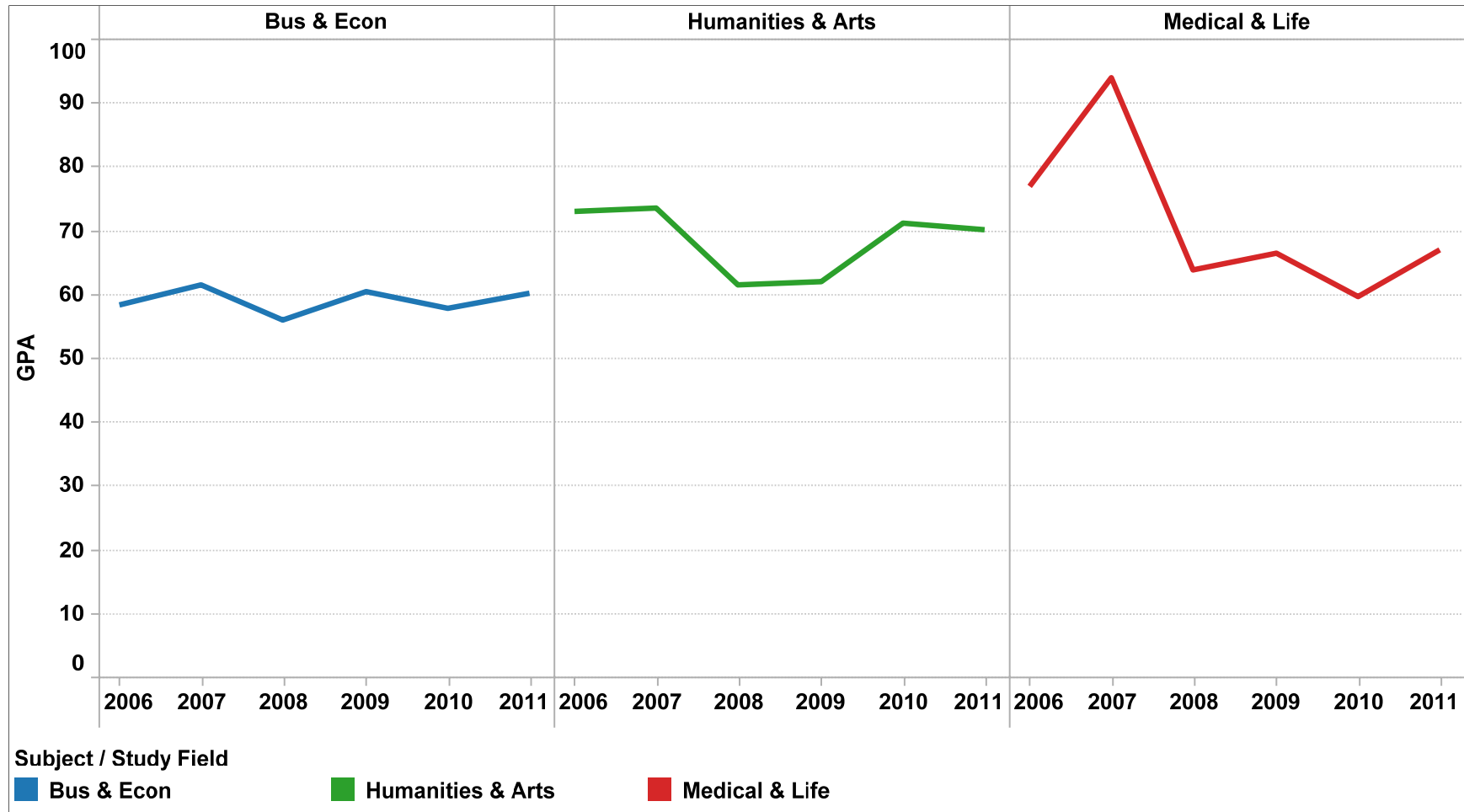
## Measuring Student Performance by Nationality Over Time (II)



**Four variable institutional analysis of low-performing international students**

# INSTITUTIONAL ANALYSIS

## Measuring Student Performance by Study Field Over Time



Four variable institutional analysis of Malaysian students across study fields

# INSTITUTIONAL ANALYSIS

## Summary of PRISM's Institutional Analysis Capabilities

- **PRISM offers two services at the institutional level:**
  - **Core data analysis:** Based on PRISM's 15 core student attributes.
  - **Custom data analysis:** Any institutional data which is properly codified, consistent, and connected to student records.
- **Student attributes can be analyzed on their own, or in combination with other attributes. Theoretically, all 15 attributes could be employed; practically five to seven offer the best possible depth.**
- **The institutional analysis provides powerful evidence on:**
  - **The actual student performance results of recruiting and admissions policies and practices.**
  - **Student performance changes over time (historical data can be loaded).**
  - **Risk and compliance issues with a view on magnitude and trajectory.**
  - **Forward looking dynamics (including *a priori* testing and predictive modeling).**



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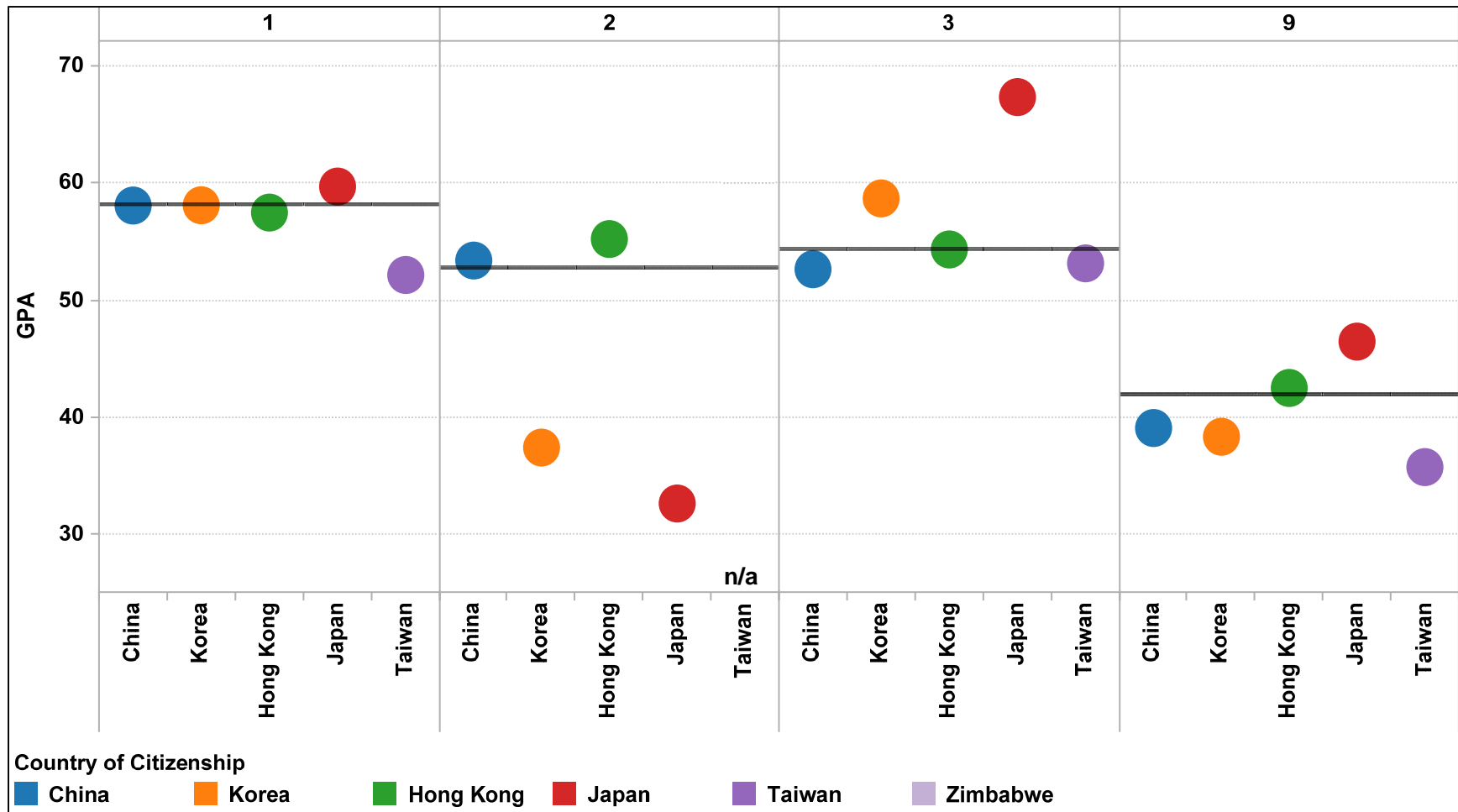
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# BENCHMARK ANALYSIS

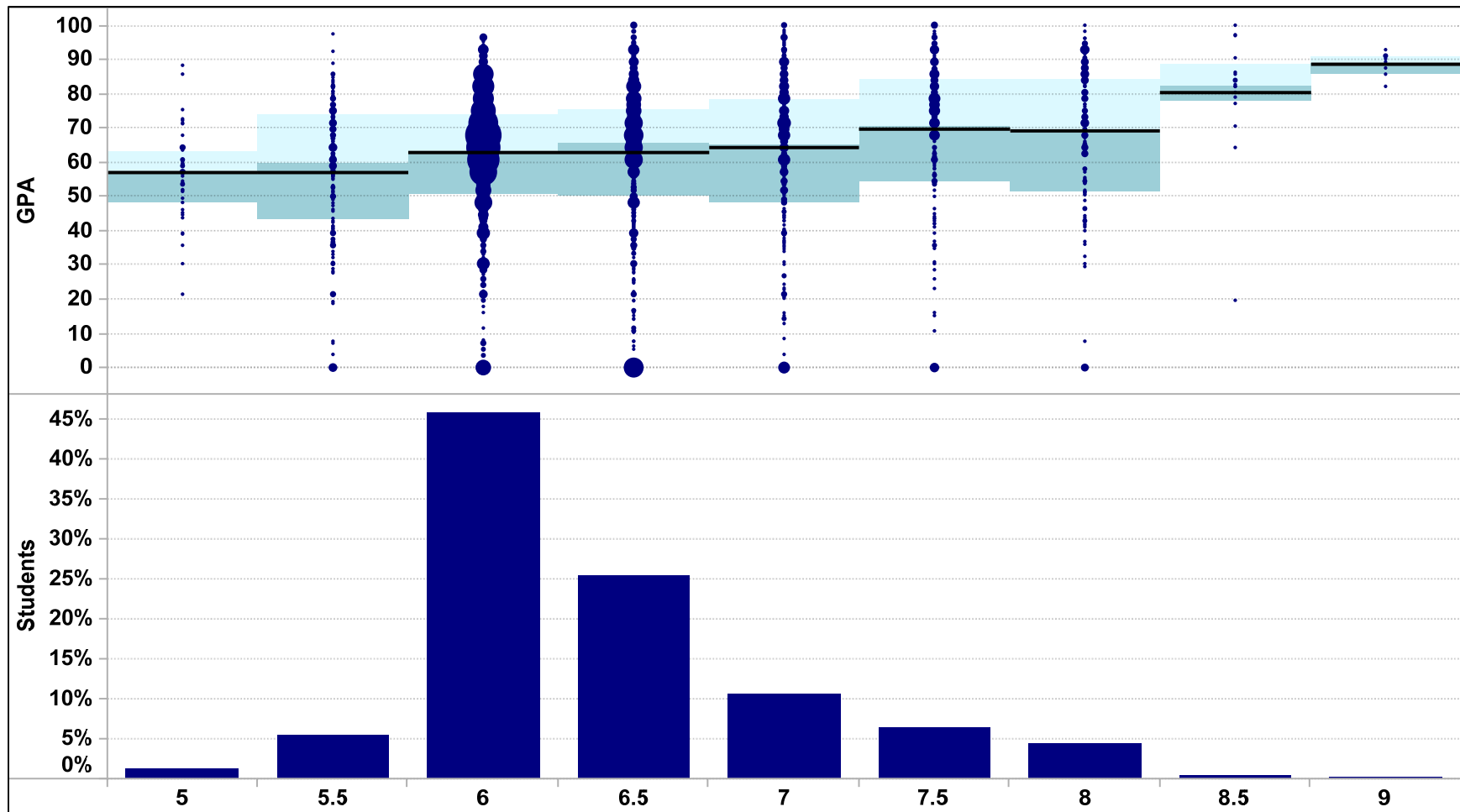
## Measuring Student Performance by Nationality Across Institutions



**Benchmark analysis allows for feedback loops into recruiting channels**

# BENCHMARK ANALYSIS

## Measuring Student Performance Across Institutions Relative to English Ability



**This analysis can be further unpacked: Failure rates, threshold analysis, etc.**

# BENCHMARK ANALYSIS

## Summary of PRISM's Benchmark Analysis Capabilities

- **PRISM offers three services at the cross-institutional benchmark analysis level:**
  - **Core benchmark analysis:** Based on the selection of key student attributes which provide the most meaningful insights.
  - **Custom benchmark analysis:** Available as an add-on service to institutions which wish to benchmark against specific peer groups, or run an analysis on non-core benchmark attributes (e.g. agents).
  - **Data harmonization:** This underlying service harmonizes institutional data for the full benchmark analysis (e.g., study fields, grades).
- **The benchmark analysis focuses on key student attributes such as country of citizenship, degree type, study field, English language proficiency, secondary leaving qualification, and pathways programs.**
- **The benchmark analysis provides powerful evidence on:**
  - **Multiple levels of relative performance aspects (global/peer/aspirational/etc.).**
  - **Global trend analysis.**
  - **Untapped and emerging challenges and opportunities.**

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# THEMATIC PERSPECTIVE: PATHWAYS ANALYSIS

## Summary of PRISM's Pathways Analysis Capabilities

- **PRISM operates with a finely grained data structure to capture granular pathways aspects:**
  - **Category: ESL, EAP, Foundation**
  - **Function (I): Conditional admission**
  - **Function (II): Academic credit**
  - **Function (III): Duration (3, 6, 9, 12 months)**
  - **Instances: Count of any pathway program attended (1, 2, 3, ...)**
- **By differentiating the above categories and functions, specific analysis can be conducted, including:**
  - **Assessing the quality of specific pathways programs on their own and within a benchmark framework.**
  - **What thresholds (e.g., entry standards, duration) produce desired results.**
- **A key value is the ability to manage a given institutional pathway landscape based on outcome – addressing issues from recruiting funnels to admissions to classroom dynamics to regulatory compliance.**

# THEMATIC PERSPECTIVE: PATHWAYS ANALYSIS

## Performance of EAP Pathways Students v. Reference Student Cohort

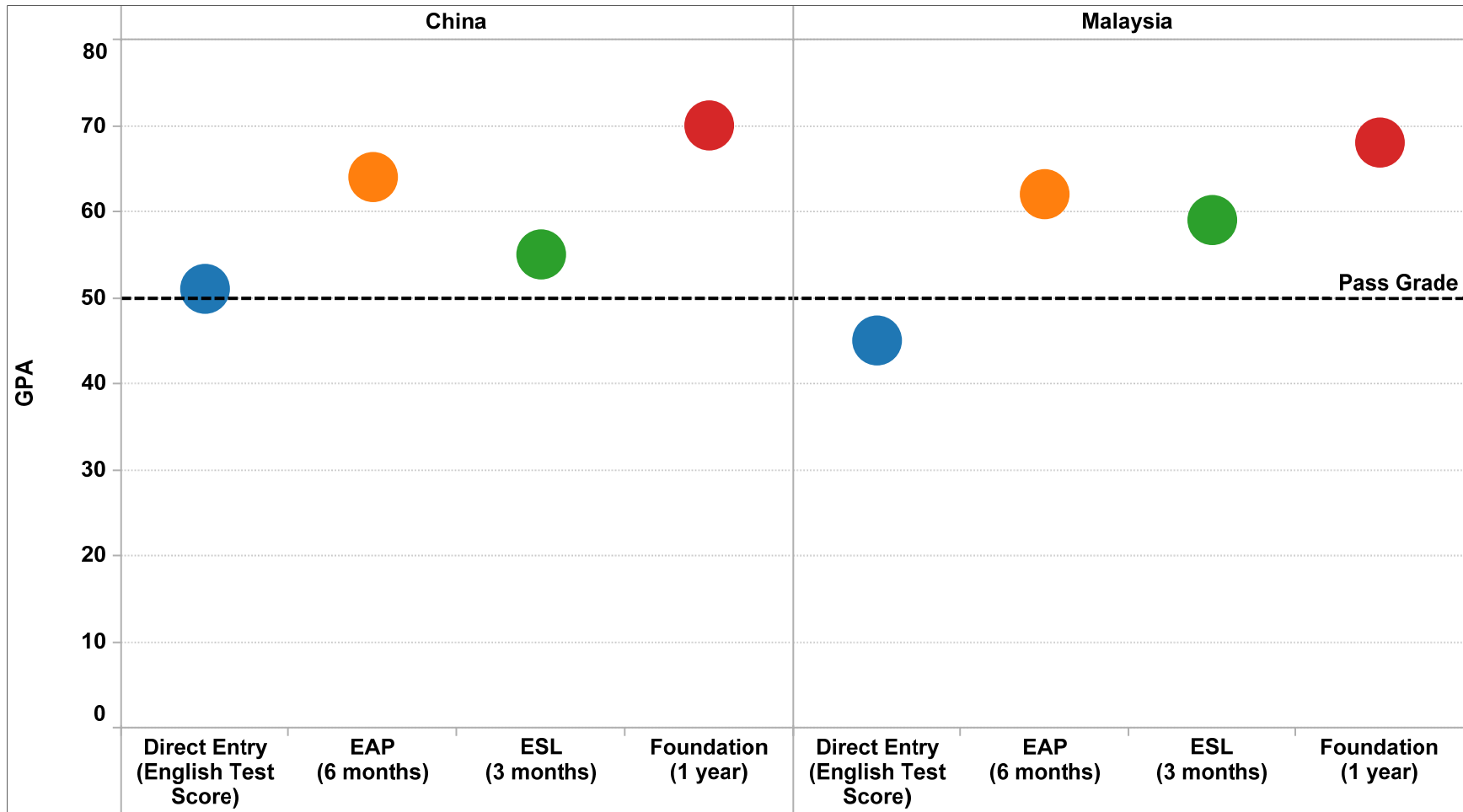


**This specific EAP pathways program delivers well performing students**

Notes: Data selected from a PRISM Version 1 institutional dataset.

# THEMATIC PERSPECTIVE: PATHWAYS ANALYSIS

## Comparison of Pathways Programs by Pathway Type and Citizenship



### Three variable analysis of pathways programs

Notes: Modulated data.



# **THEMATIC PERSPECTIVE: PATHWAYS ANALYSIS**

## **The Relevance of Measuring Pathways' Performance**

- **Pathway programs are growing to become a key component of international student intakes in most top destination countries.**
- **Pathway programs have become a necessity. The global pool of students who can be directly admitted into quality universities is not sufficiently large enough.**
- **Managing pathway programs for academic outcome is thus a critical task. This requires an in-depth analytical perspective on the specific aspects of a given pathway program relative to measured student outcomes over time.**
- **The Benchmark Model's analytical structure allows institutions to load highly detailed information. Depending on the granularity of the information supplied, highly specific feedback can be provided, which in turn can drive pathways program optimization and rationalization.**
- **Key value propositions include:**
  - **Regulatory compliance**
  - **Risk management**
  - **Operational and academic quality improvements**

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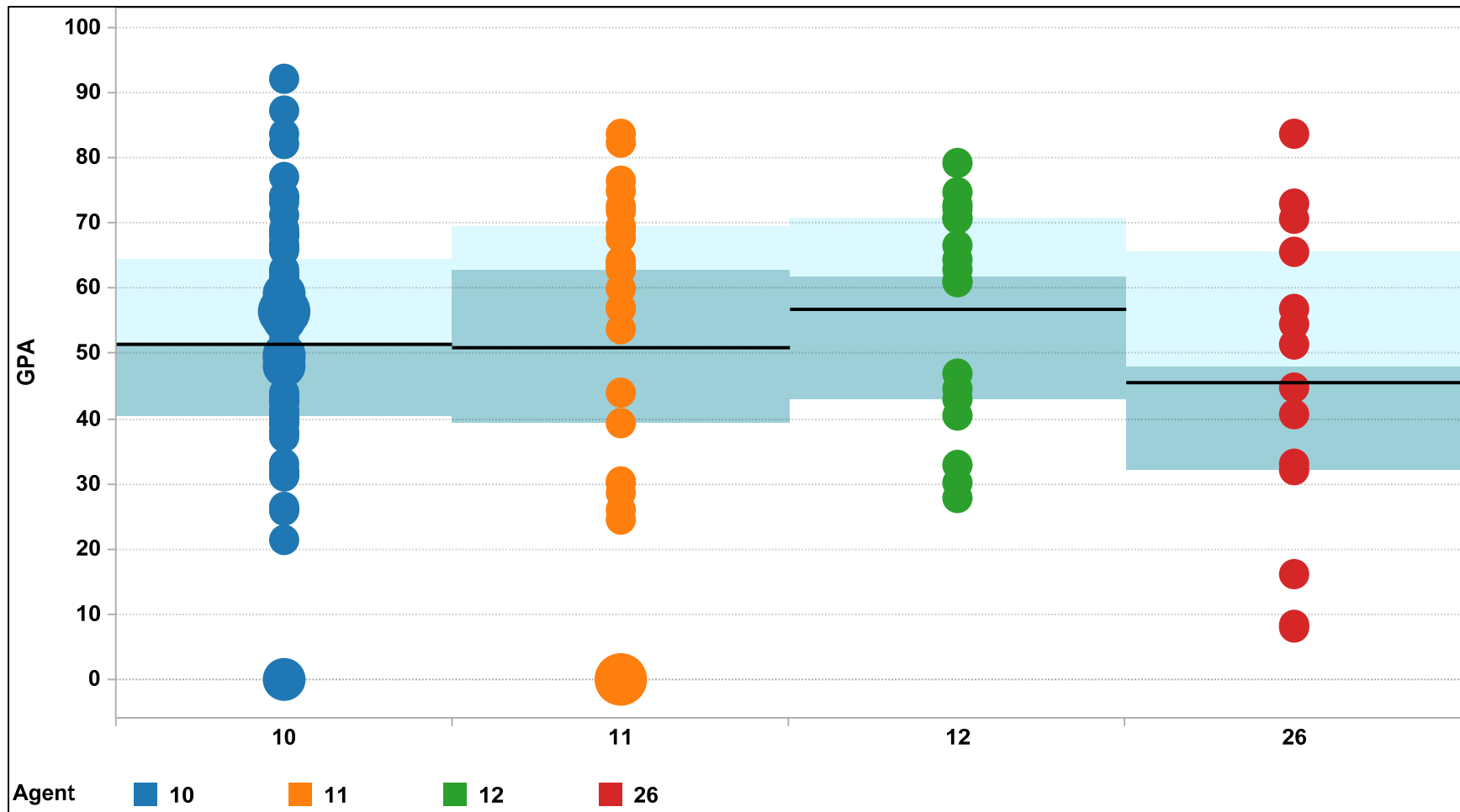
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# THEMATIC PERSPECTIVE: AGENT MANAGEMENT

## Student Performance by Recruiting Agent



The model enables fine-tuned performance-driven agent management

## **THEMATIC PERSPECTIVE: AGENT MANAGEMENT**

### **Introducing Performance-based Agent Management**

- **Typical agent contracts do not hold agents accountable for the downstream academic performance and success of students they recruited.**
- **Institutions can load agent codes into the benchmark model to develop an evidence-based understanding of the relative and overall performance of students by agent (i.e. outcome-based).**
- **In a second step, agent compensation can be pegged to outcome – to the point of not compensating agents for failing students, and raising compensation for agents recruiting students who perform well.**
- **Employing such a feedback-loop driven approach will incentivize agents to focus on student quality.**
- **Outcome-based agent performance management is a logical response to regulatory requirements and business improvement dynamics.**

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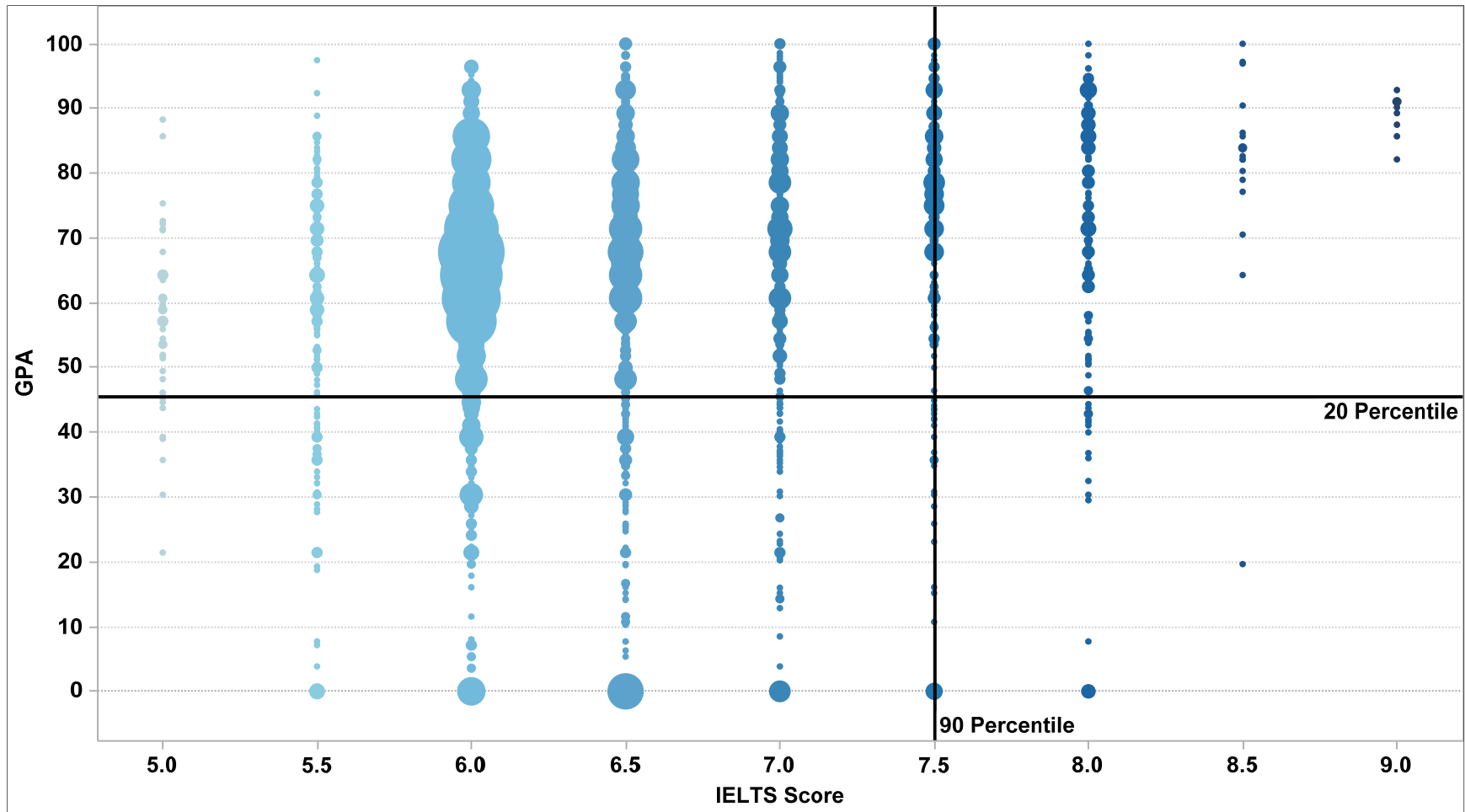
# **THEMATIC PERSPECTIVE: FRAUD DETECTION**

## **Diffusion and Impact of Fraud & Deception in International Education**

- **Fraud in international education is an unpleasant but significant and growing fact.**
- **A key fraud target is standardized language tests. Fraud in such tests is especially prevalent in some Asian countries.**
- **PRISM has the capability to detect language testing and secondary leaving qualification fraud patterns based on language test data in conjunction with other admissions attributes that in turn allow to isolate student failure and underperformance.**
- **Importantly, PRISM cannot “prove” fraud regarding individual students given its student segment-centric methodology.**

# THEMATIC PERSPECTIVE: FRAUD DETECTION

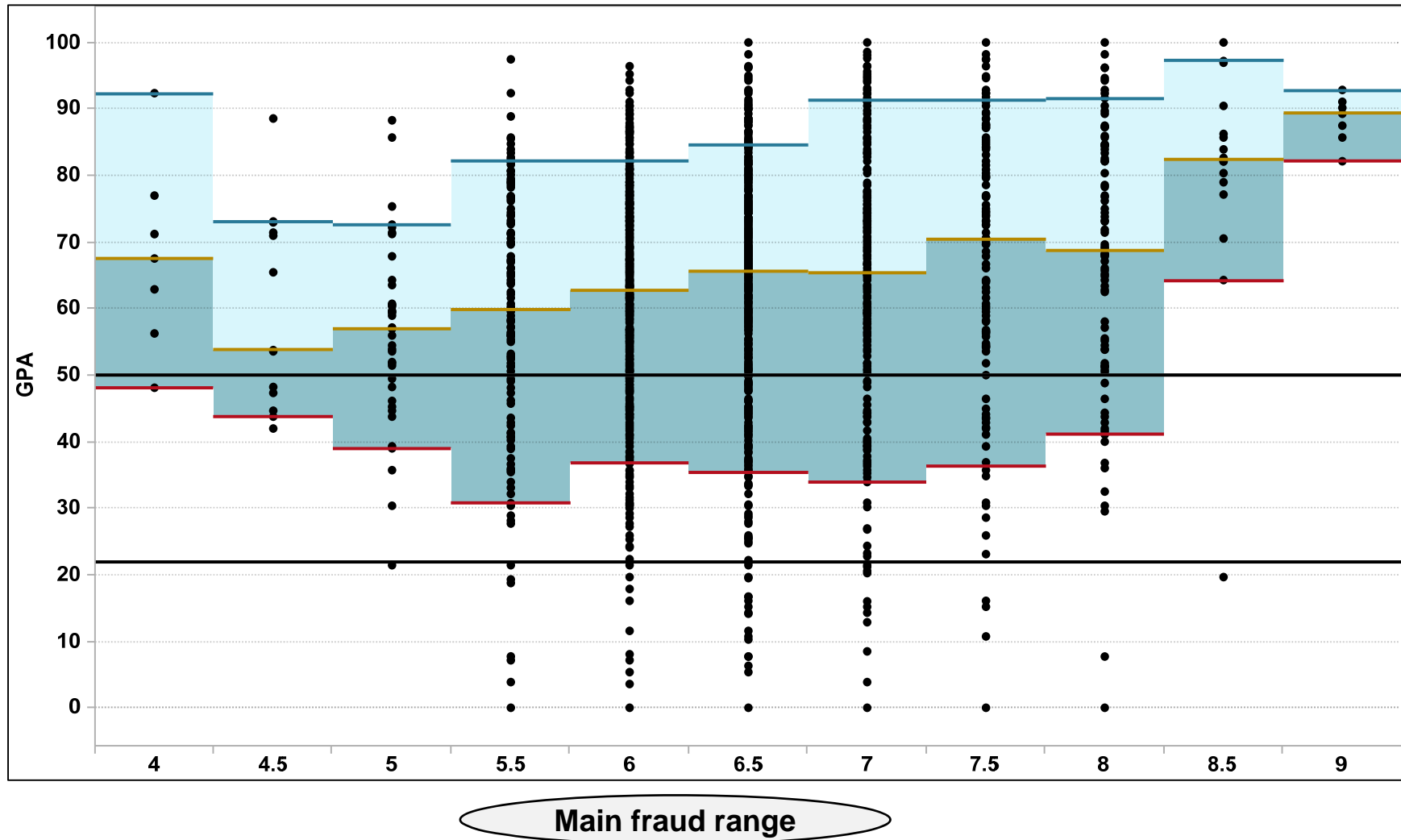
## Testing for Fraud Through PRISM (I)



**Student performance can be tested against expected results**

# THEMATIC PERSPECTIVE: FRAUD DETECTION

## Testing for Fraud Through PRISM (II)



Notes: Left hand scale depicts normalized GPA. X-axis denotes IELTS scores. Blue line denote P10/P50/P90 distribution bands.  
Source: PRISM.



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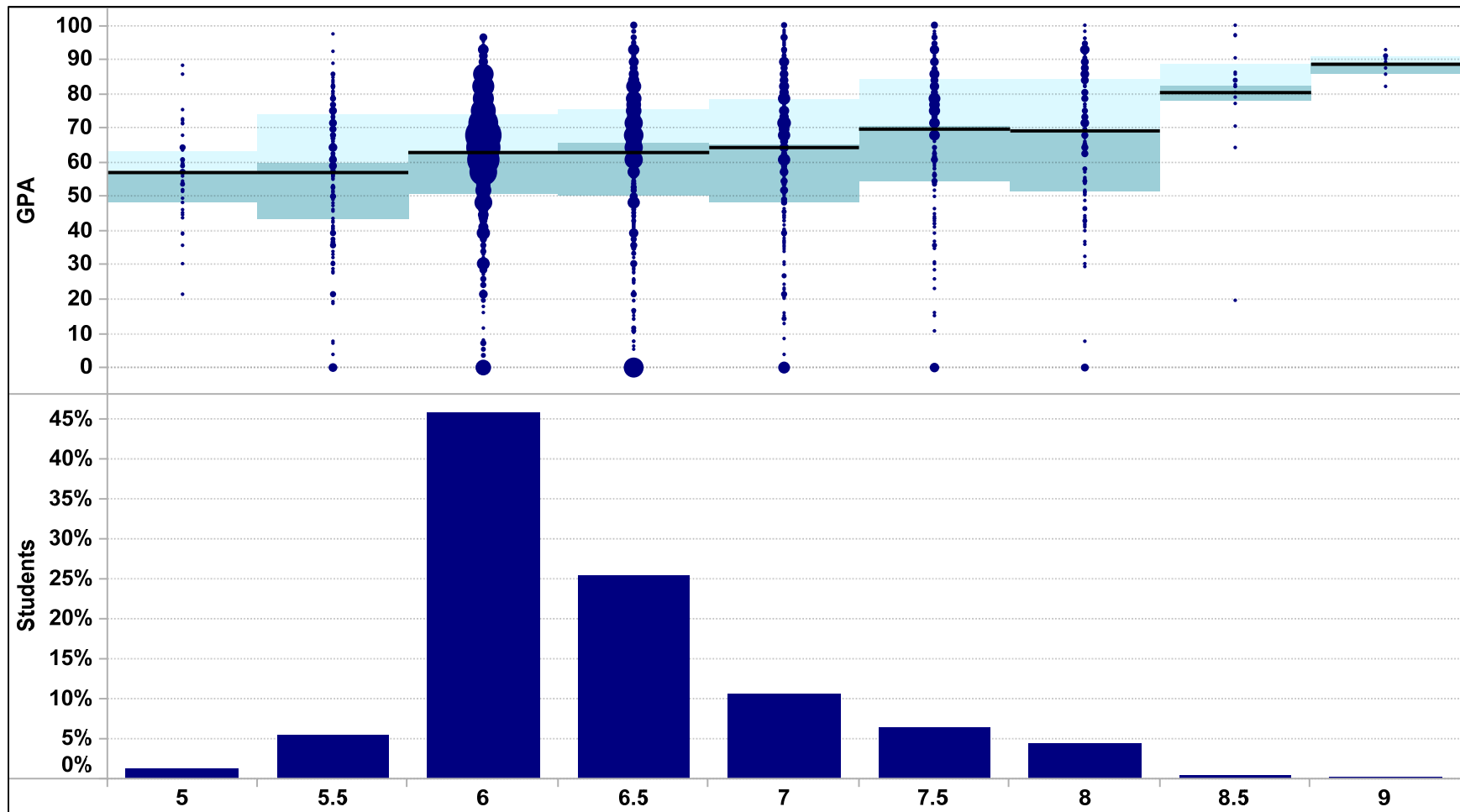
# **THEMATIC PERSPECTIVE: THE ROLE OF LANGUAGE**

## **The Rationale for Measuring Student Performance Against Language Ability**

- **Language proficiency is crucial to shape many (most) international students' academic performance trajectory.**
- **The impact of language proficiency has been long understood to be notable – but little systematic data has been gathered in the past.**
- **PRISM captures language proficiency data directly by loading any of 12 standardized English language tests, as well as indirectly by loading contextual data such as country of nationality, country of secondary leaving qualification, etc.**
- **Language capability serves as a multi-faceted tool in the admissions process, ranging from a cut-off to a ranking or predictor tool.**

# THEMATIC PERSPECTIVE: THE ROLE OF LANGUAGE

## PRISM Benchmark Results



**This analysis informs institutional policies on language ability thresholds**

- **Language matters.**

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# KEY PRISM VALUE PROPOSITIONS

- 1** The ability to benchmark against domestic/international as well as peer/comparator institutions.
- 2** An unprecedented systematic, integrated, in-depth, and multi-attribute analysis capability.
- 3** An evidence-based analysis allowing for tactical and strategic adjustments to marketing, recruiting, and admissions practices.
- 4** The *a priori* testing as well as predictive modeling of marketing, recruiting, and admissions policy changes.
- 5** The creation of performance feedback loops at the institution to increase overall competitiveness.

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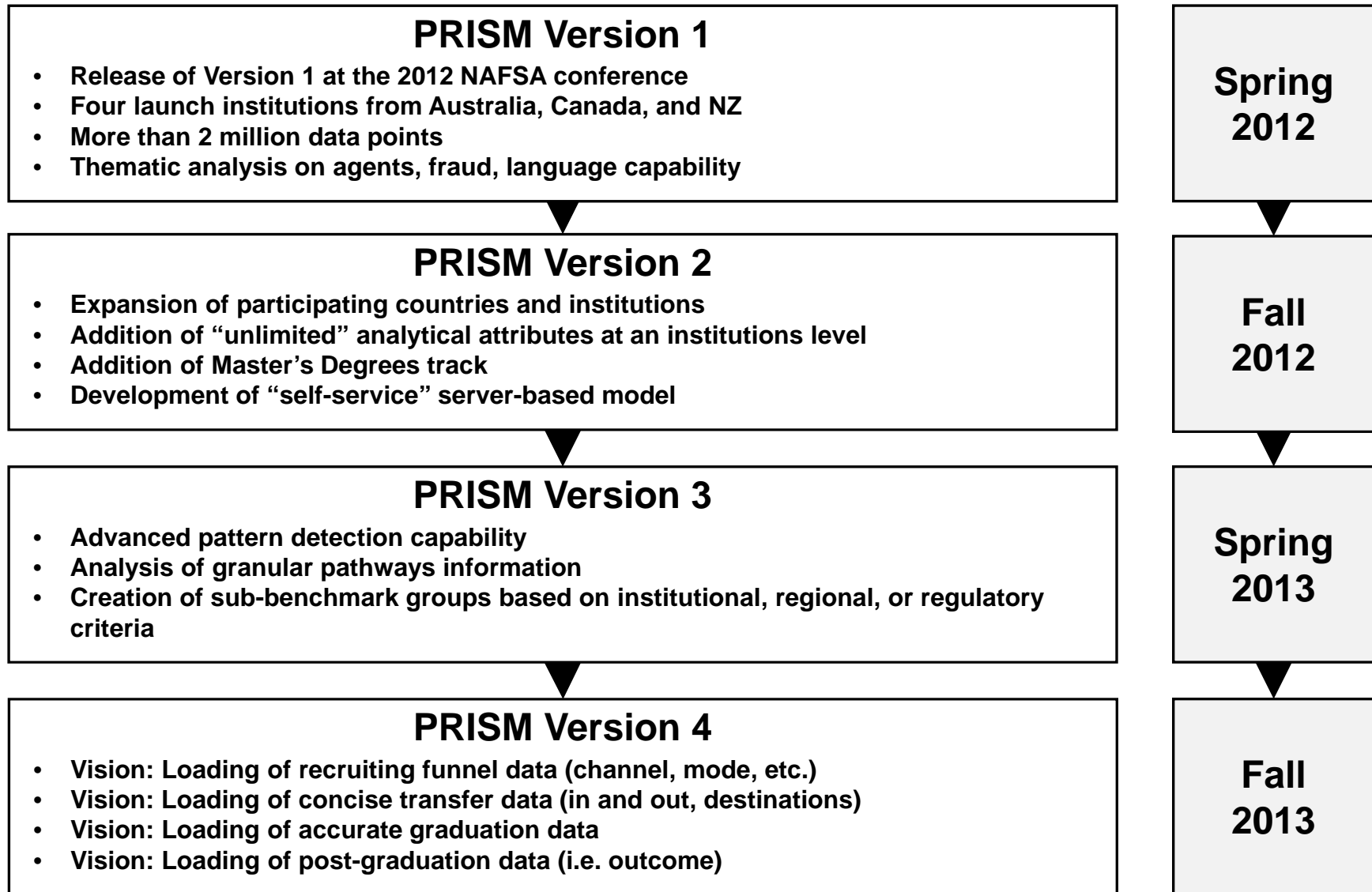
**On-boarding & Development Roadmap**

# ON-BOARDING

- **Institutions joining will be provided with:**
  - **An on-boarding guide (mapping out processes)**
  - **Detailed requirement guidelines (including a 30-page technical guide)**
  - **Data dictionaries and data input templates (in MS Excel)**
- **Institutions can chose services à la carte:**
  - **The cross-institutional benchmark service**
  - **Multiple levels of institutional data analysis**
  - **The custom analysis of institution-specific data**
- **Institutions will receive:**
  - **A report covering the benchmark analysis (report)**
  - **A report covering the institutional analysis (annually or bi-annually)**
  - **Access to self-service data analysis (being build for 2013)**
- **PRISM operates as an annual subscription model.**



# 2012-13 DEVELOPMENT ROADMAP



## CONTACT INFORMATION

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