

# **PRISM**

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

**Introduction of Version 3**

# AGENDA

## Housekeeping

**Rationale & Analytical Framework**

**Institutional Analysis**

**Benchmark Analysis**

**Thematic Perspective: Pathways Analysis**

**Thematic Perspective: Agent Management**

**Thematic Perspective: The Role of Language**

**Admitting Students for Retention: A new Analytical Front-end for Version 3**

**Key Value Propositions**

## DISCLAIMER

- **The presentation was delivered by ICG at the AIEC conference in Canberra on 9 October 2013.**
- **PRISM was launched at the 2012 NAFSA conference with institutions from Canada, Australia, and New Zealand.**
- **The presentation shall be considered incomplete without oral clarification. The opinions expressed in this presentation are those of the author alone.**
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# HOUSEKEEPING

**This presentation will be made available on the EAIE conference and ICG websites.**

**Further documents and reports are available on the ICG website or directly from the presenter ([guhr@illuminategroup.com](mailto:guhr@illuminategroup.com)).**

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# THE RATIONALE FOR PRISM

- **By 2011, international student enrollments had grown to 4.1 million (OECD) – 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.**

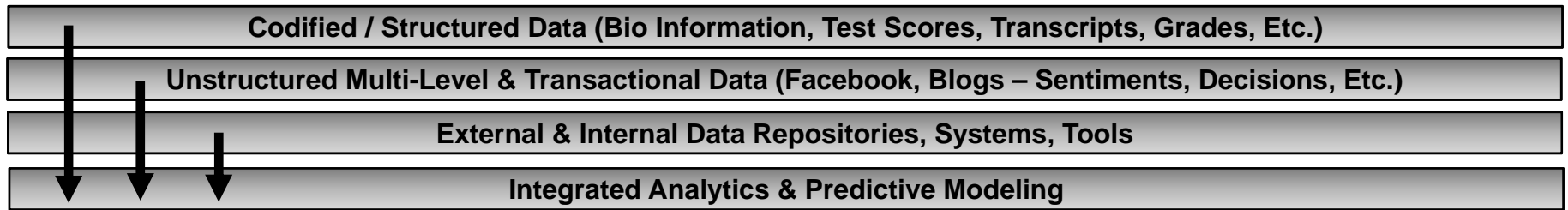
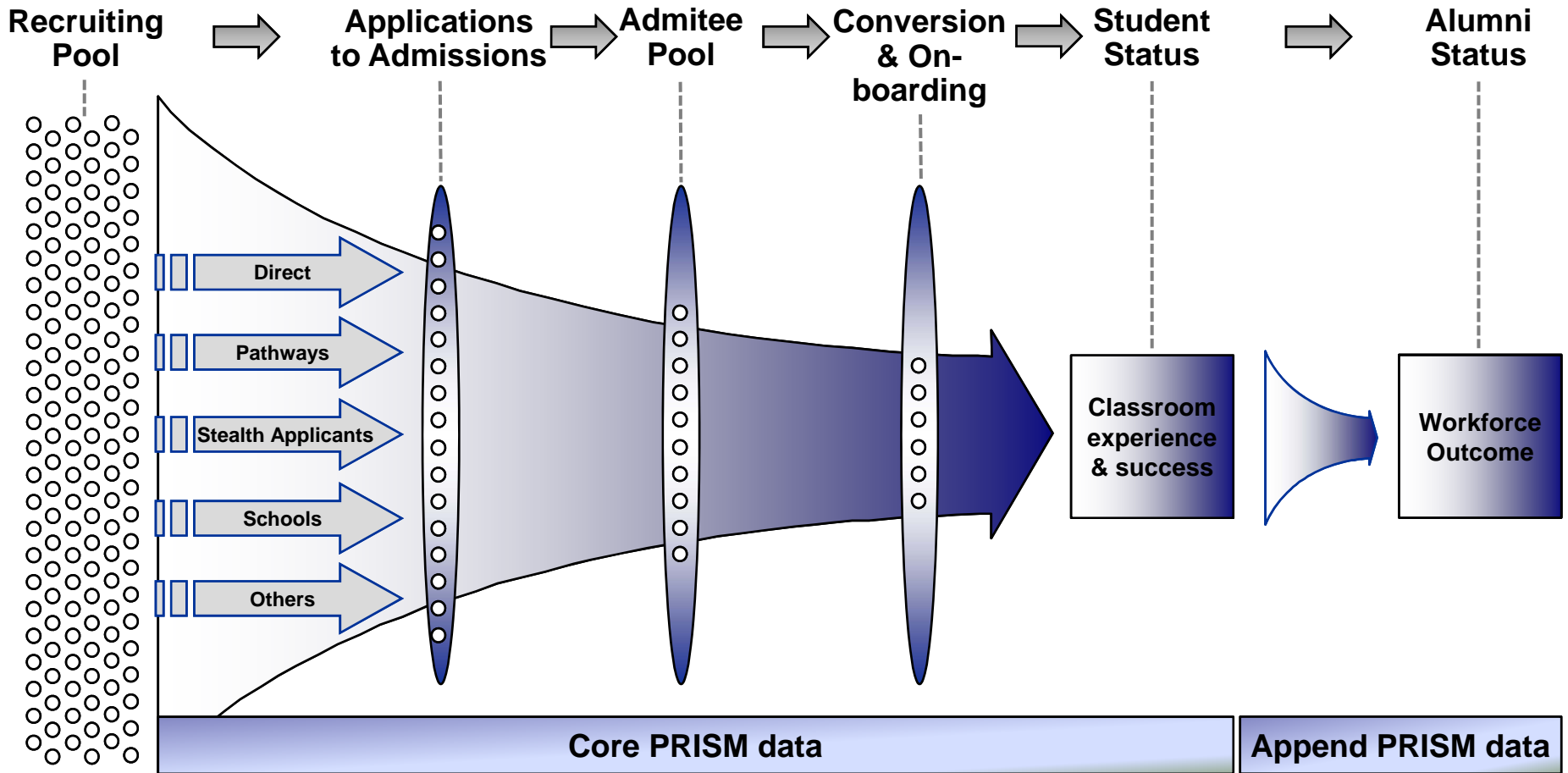
# **ANALYTICAL FRAMEWORK**

## **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 3)

### International Students: Recruiting Profile and Pathways Data

#### Required Data

- Country of Citizenship (UN classification)
- Enrollment Type (full-time / part-time)
- Registration Status (degree, non-degree)
- Degree Type (Bachelor 3 years, Bachelor 3 years w/ Honors, Bachelor 4 years, Bachelor 4 years with Honors, Master's 1 year, Master's 2 years)
- Subject / Study Field (ICG roll-up table)
- "Technical" data
  - Commencement Year
  - Degree Program Expected Duration
  - Graduation Year (or: end of record)

#### Add-on Data

- Gender (male / female)
- English Language Proficiency at Admission
- Secondary Education Qualification (Country of Attainment)
- Secondary Education Qualification (Kind)
- Additional Education Post a Secondary Leaving Qualification
- Recruitment Channel
- Agent Identifier
- Scholarship status
- Degree track model (joint, dual, etc.)

### International Students: Performance and Success Data

- Academic Performance (Grades)
- Transfer destination (if available)
- 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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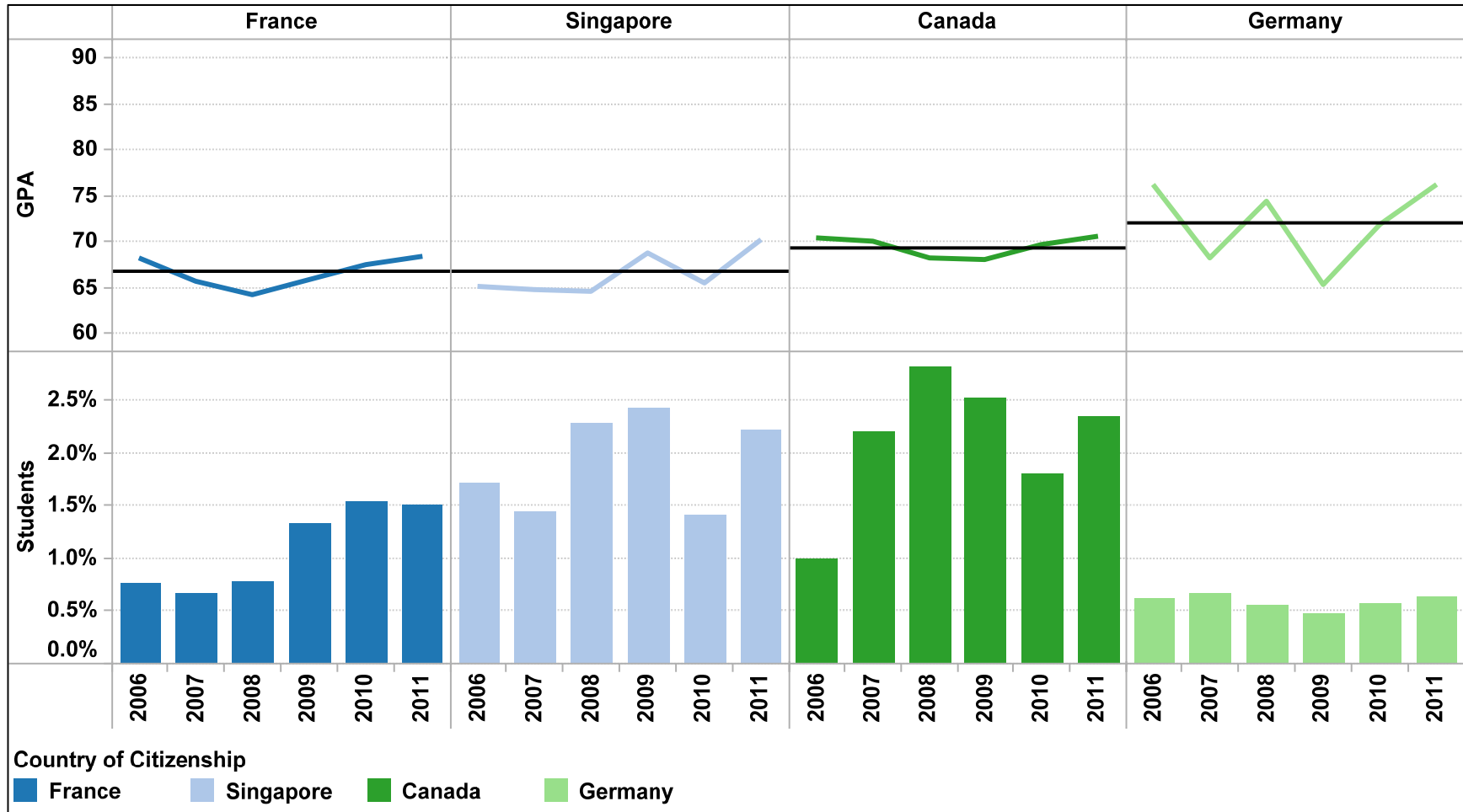
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**Key Value Propositions**

# INSTITUTIONAL ANALYSIS

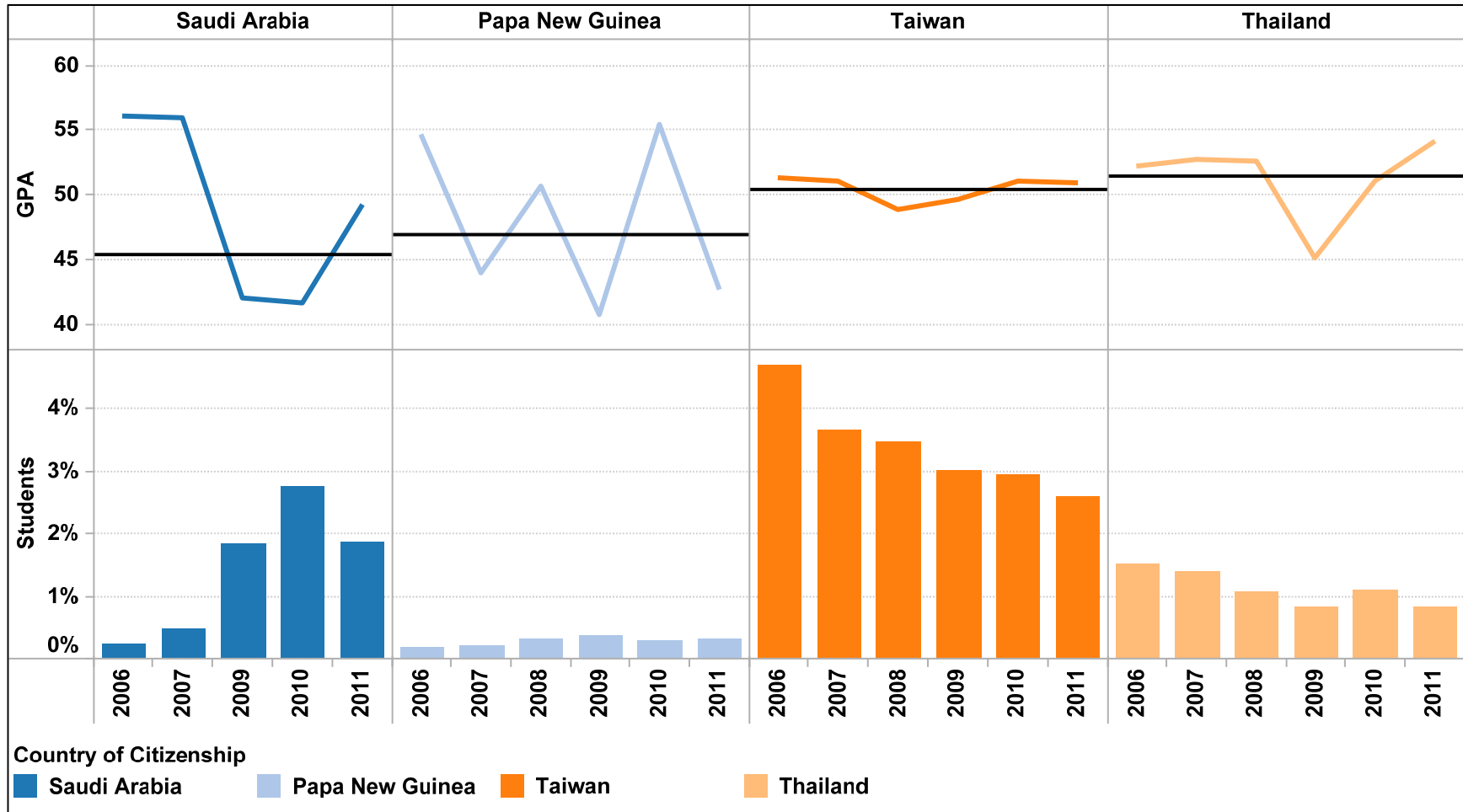
## Measuring Student Performance by Nationality Over Time (I)



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

# INSTITUTIONAL ANALYSIS

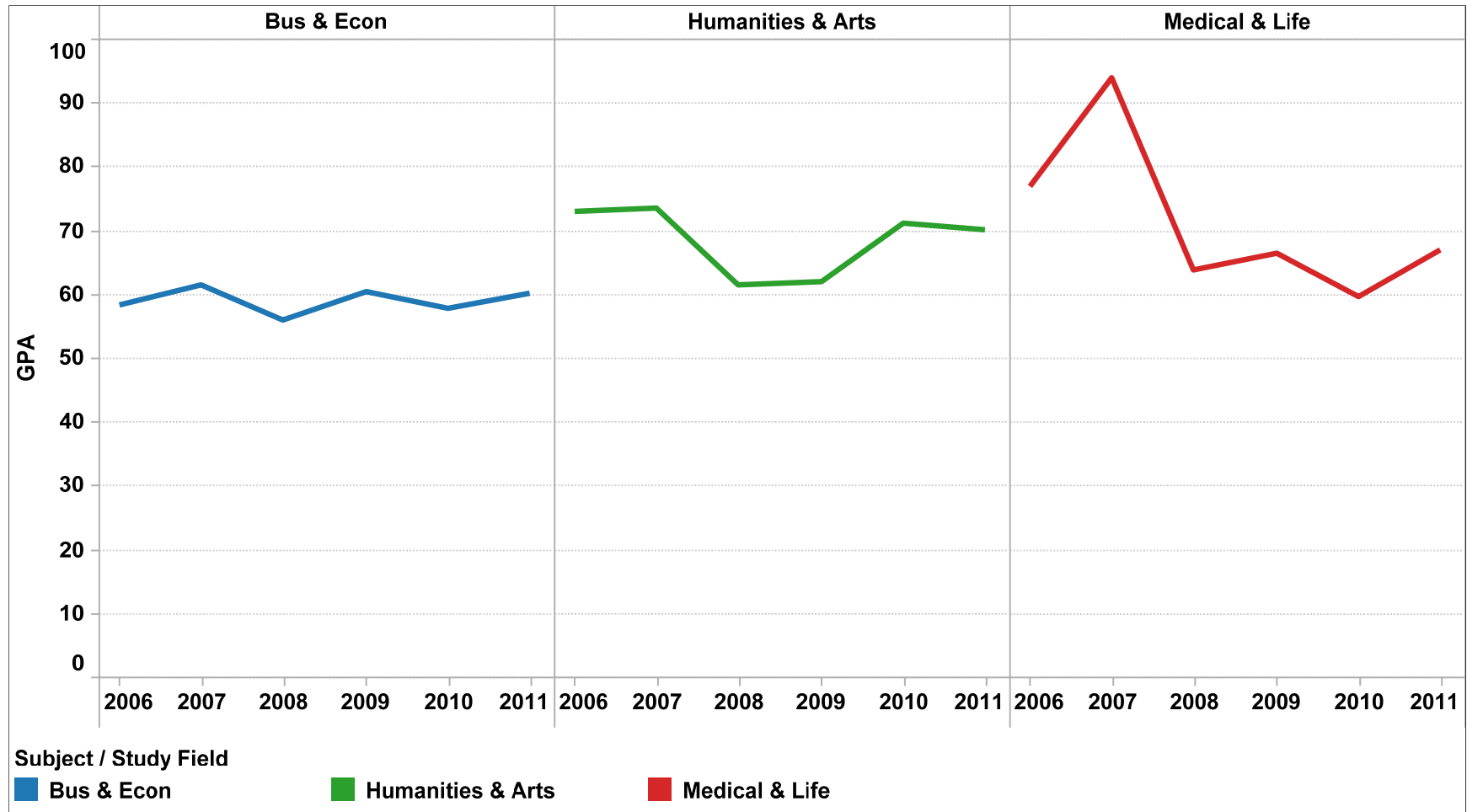
## Measuring Student Performance by Nationality Over Time (II)



**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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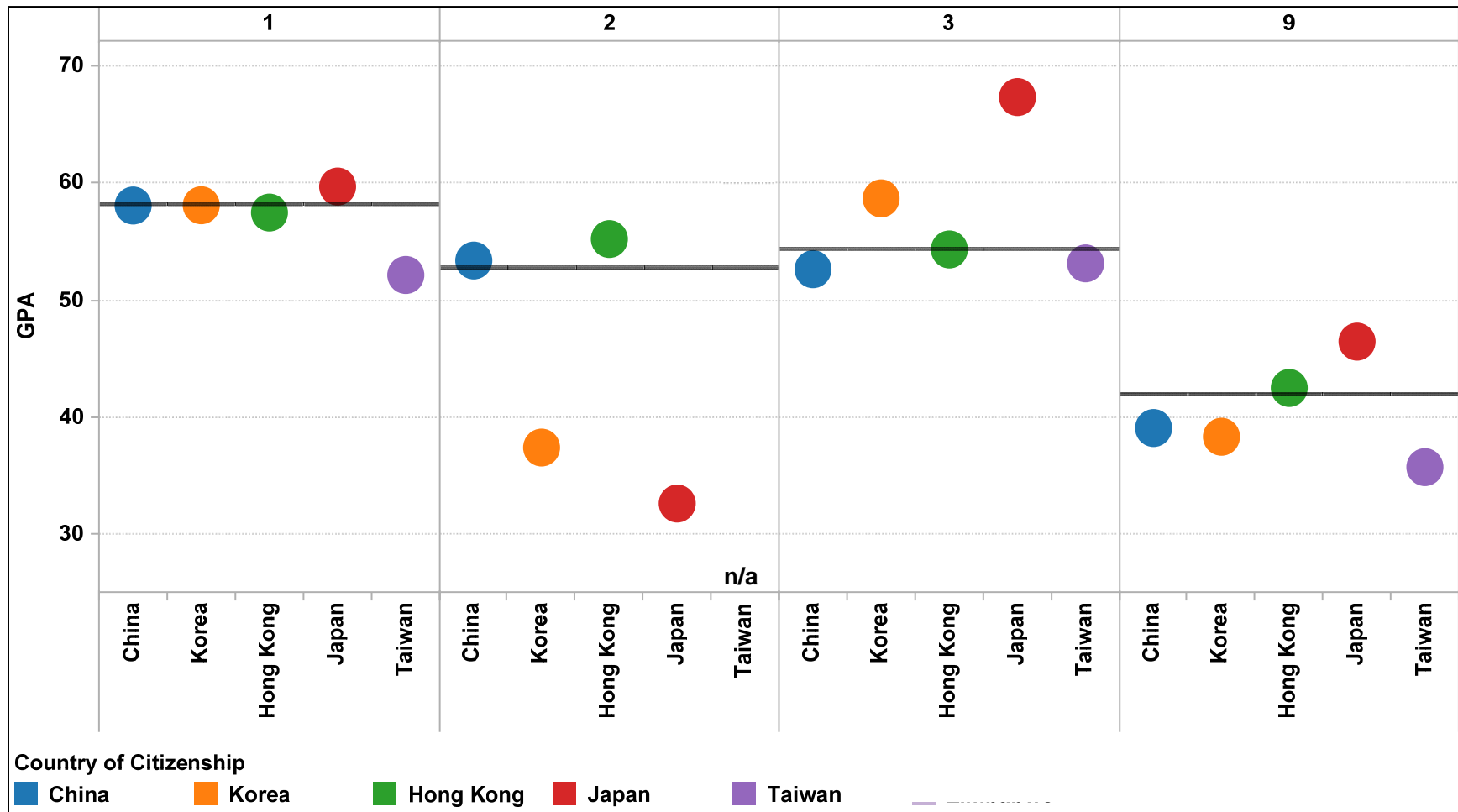
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# BENCHMARK ANALYSIS

## Measuring Student Performance by Nationality Across Institutions



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

# BENCHMARK ANALYSIS

## 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

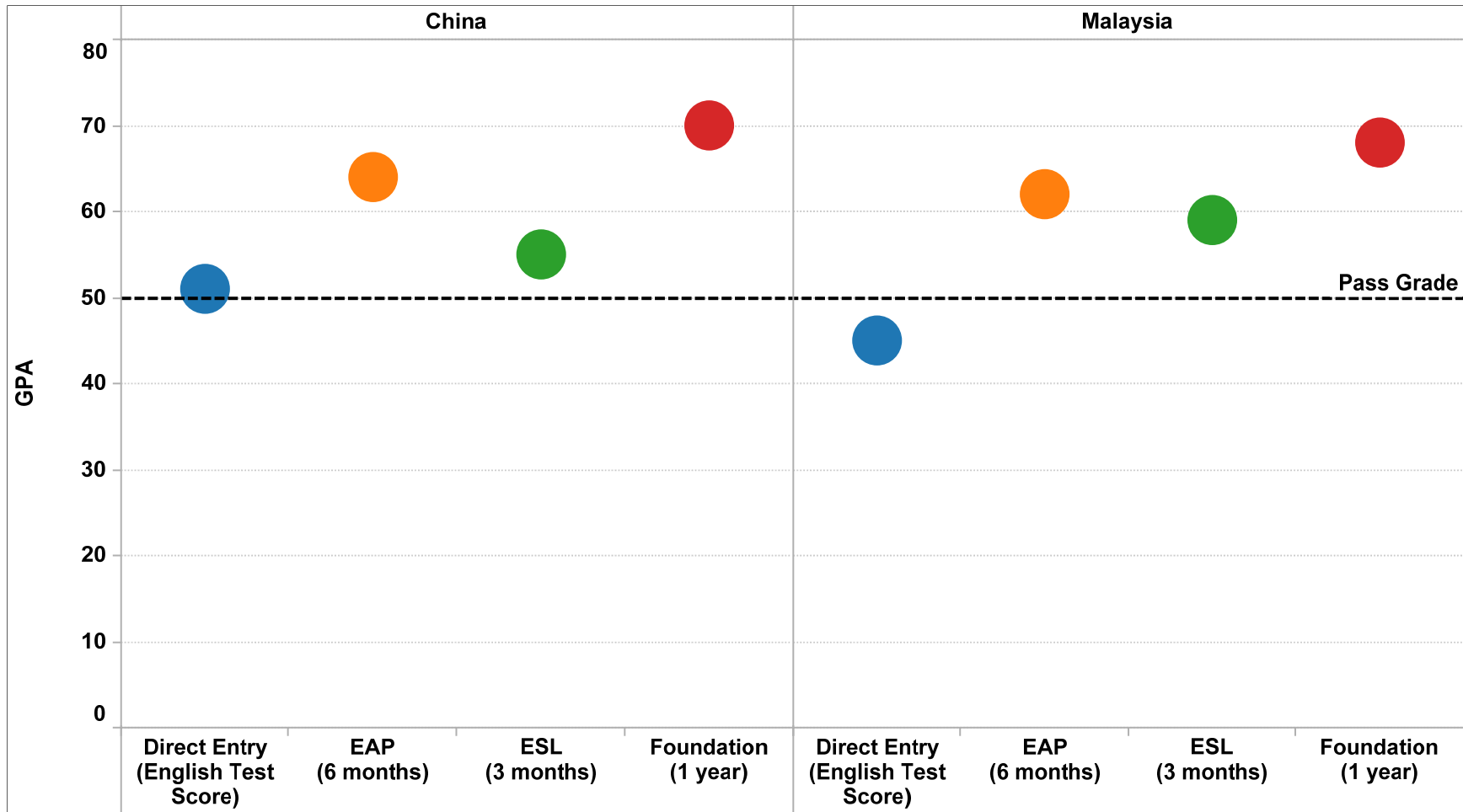


**This specific EAP pathways program delivers well performing students**

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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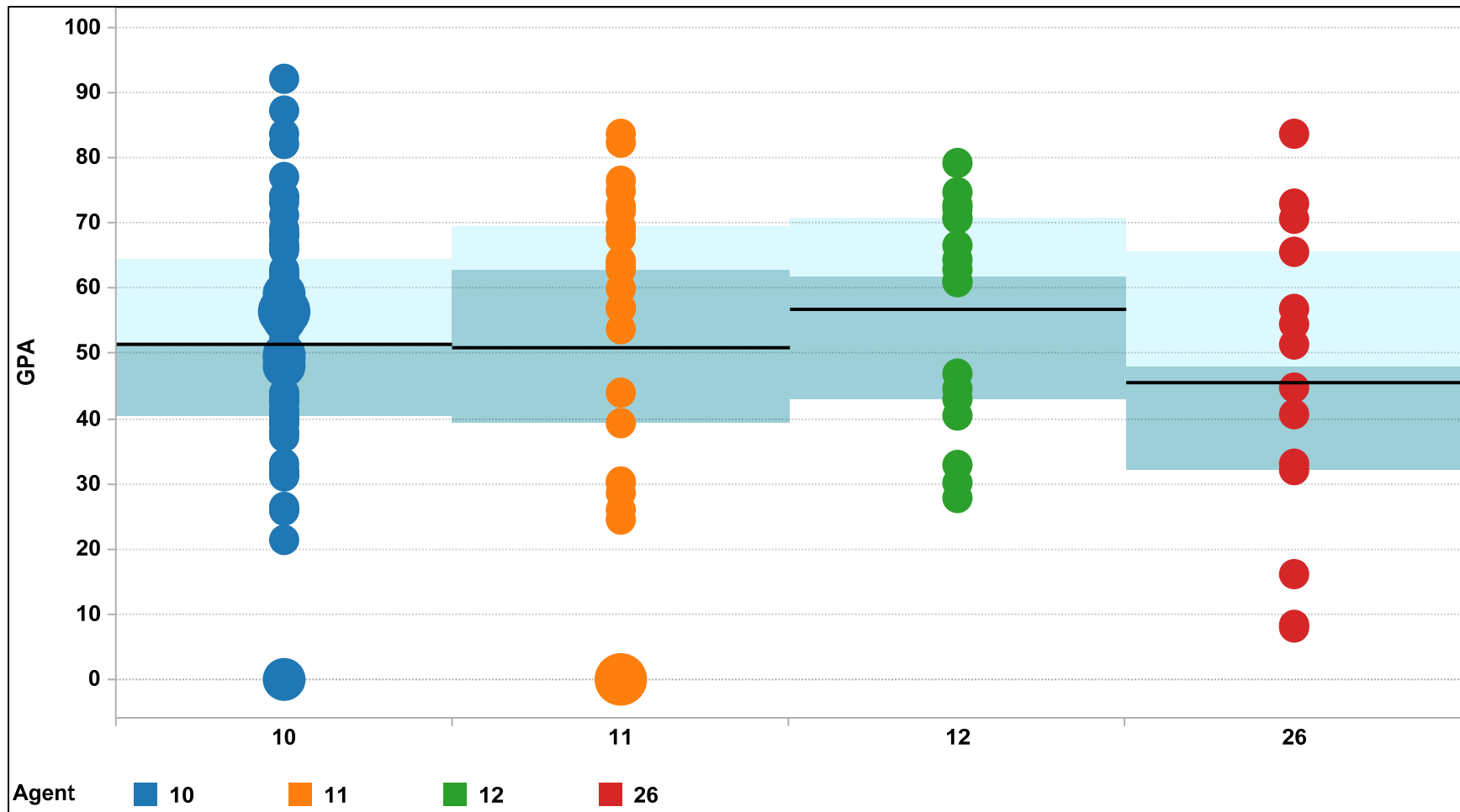
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# THEMATIC PERSPECTIVE: AGENT MANAGEMENT

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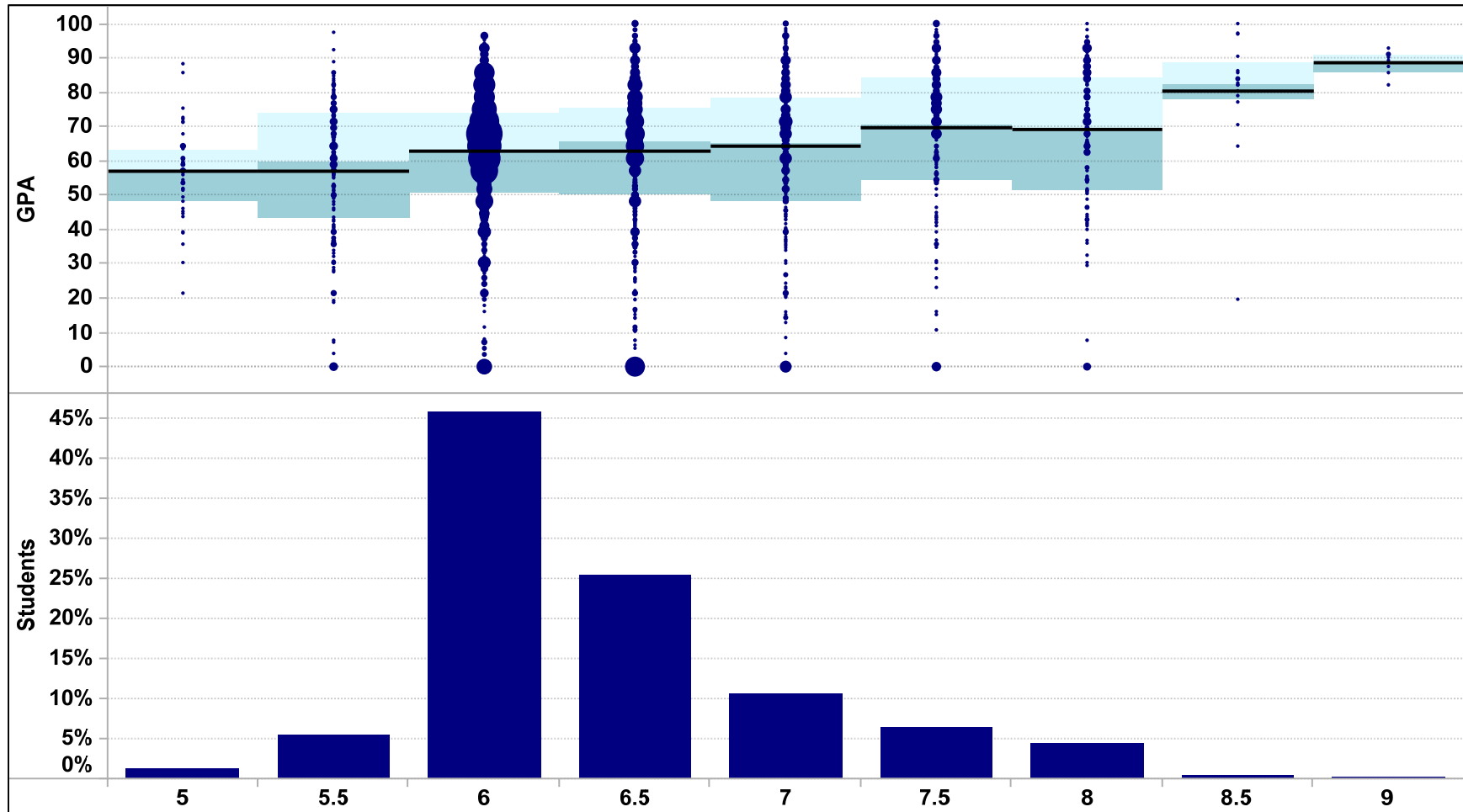
## **THEMATIC PERSPECTIVE: THE ROLE OF LANGUAGE**

### **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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# **ADMITTING STUDENTS FOR RETENTION**

## **From Threshold to Retention-Centric Admissions**

- **Over the last decade, graduation rates of international students have started to drop notably in many higher education institutions.**
- **Retention thus is rapidly becoming a key issue in managing the academic progress of international students.**
- **Many of the (by now evident) retention issues are based on a lack of comprehensiveness in the admissions process.**
- **PRISM is introducing a real-time model to scope, assess, and score applications for both traditional admissions models (since some are required by law) as well as for a student's probability to graduate.**
- **By adding this capability, PRISM drills into the root cause of retention issues rather than conducting post-fact analysis.**

# **ADMITTING STUDENTS FOR RETENTION**

## **How to Implement an Admitting-for-Retention Model**

- **Admitting for retention adds to the traditional threshold or top-down selection logic by focusing on two additional criteria which allow to calibrate for a student's likelihood to be retained and graduate.**
- **This model is based on gathering some additional information in the application process, and the analysis of observed student retention and graduation patterns (both internally as well as externally).**
- **Admitting-for-Retention components:**
  - **English language capability (can be any instructional language). Typically scored on an external scale (IELTS, TOEFL, etc.). Traditional**
  - **Academic capability (grades, test scores). Typically scored on an external scale or converted (GPA, SAT, GRE, gao kao, etc.). Traditional**
  - **Academic learning skills (problem solving, inquiry, etc.). Amalgamated observed learning skills and response-tested. New, retention enabler**
  - **Social integration (classroom interaction, etc.). New, retention enabler**

**More details are available upon request**

# ADMITTING STUDENTS FOR RETENTION

## How to Implement Admitting-for-Retention

- **Marketing:** Re-shape messaging based on quantified, program-based “Student Profiles” (profile of the mid-point student).
- **Recruiting:** Drive student self-selection against a program/institution to reduce applications from non-fit applicants.
- **Re-design application materials to capture critical context:** Educational history (9<sup>th</sup> to 12<sup>th</sup> grade), all standardized test scores, etc.
- **Introduce comprehensive models through randomized questions responses (50 words), multiple smart essays (150 words), etc. to assess for learning culture and social integration.**
- **Use historical student performance data for forward-looking modeling, coupled with behavioral research on learning cultures, to design score modifiers.**

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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.

## CONTACT INFORMATION

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