

INTERNATIONAL STUDENTS' ACADEMIC SUCCESS AS A FACTOR OF ENGLISH LANGUAGE ABILITY AND TRAINING

ACTFL Conference

DISCLAIMER

- **The presentation was delivered by ICG at the 2013 ACTFL conference in Orlando on 28 May 2013.**
- **PRISM was launched at the 2012 NAFSA conference with institutions from Canada, Australia, and New Zealand (it is not related, whatsoever, to the US Government's PRISM program).**
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Housekeeping

Welcome by the Chair: Why Measuring Student Performance Matters

Rationale & Analytical Framework

Institutional Analysis

Benchmark Analysis

Thematic Perspective: Pathways Analysis

Thematic Perspective: The Role of Language

Discussion

- **The session will be Chaired by Gonzalo Peralta (Languages Canada).**
- **The Chair will share perspectives for about 10 minutes.**
- **The ICG presentation is geared to run for about 40 minutes.**
- **About 20 minutes are allocated for discussion.**

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- **By 2011-12, 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.

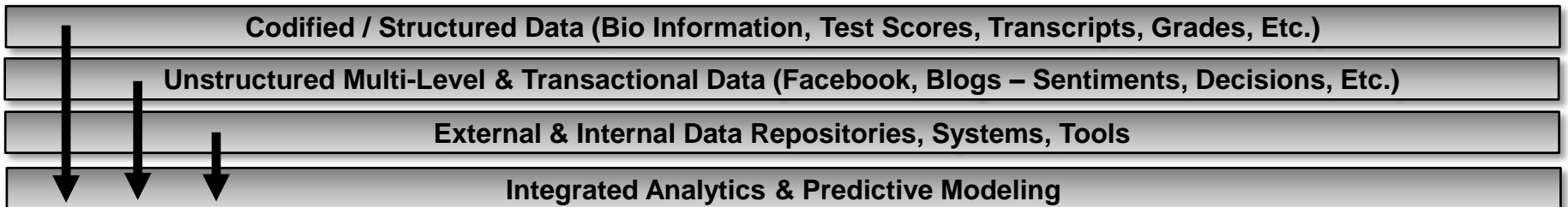
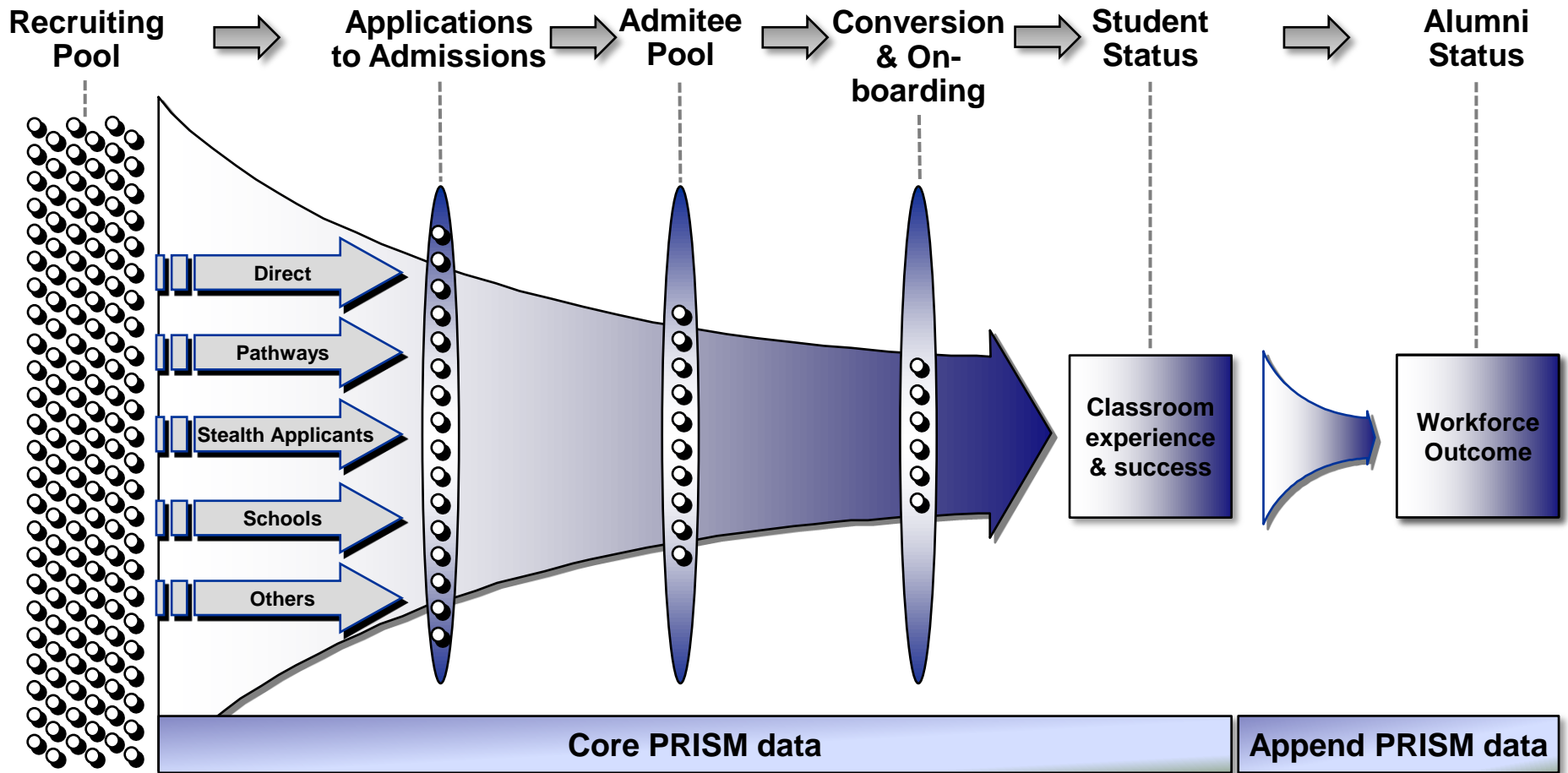
ANALYTICAL FRAMEWORK

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)**
- **Validation of test scores (especially language tests)**
- 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 2)

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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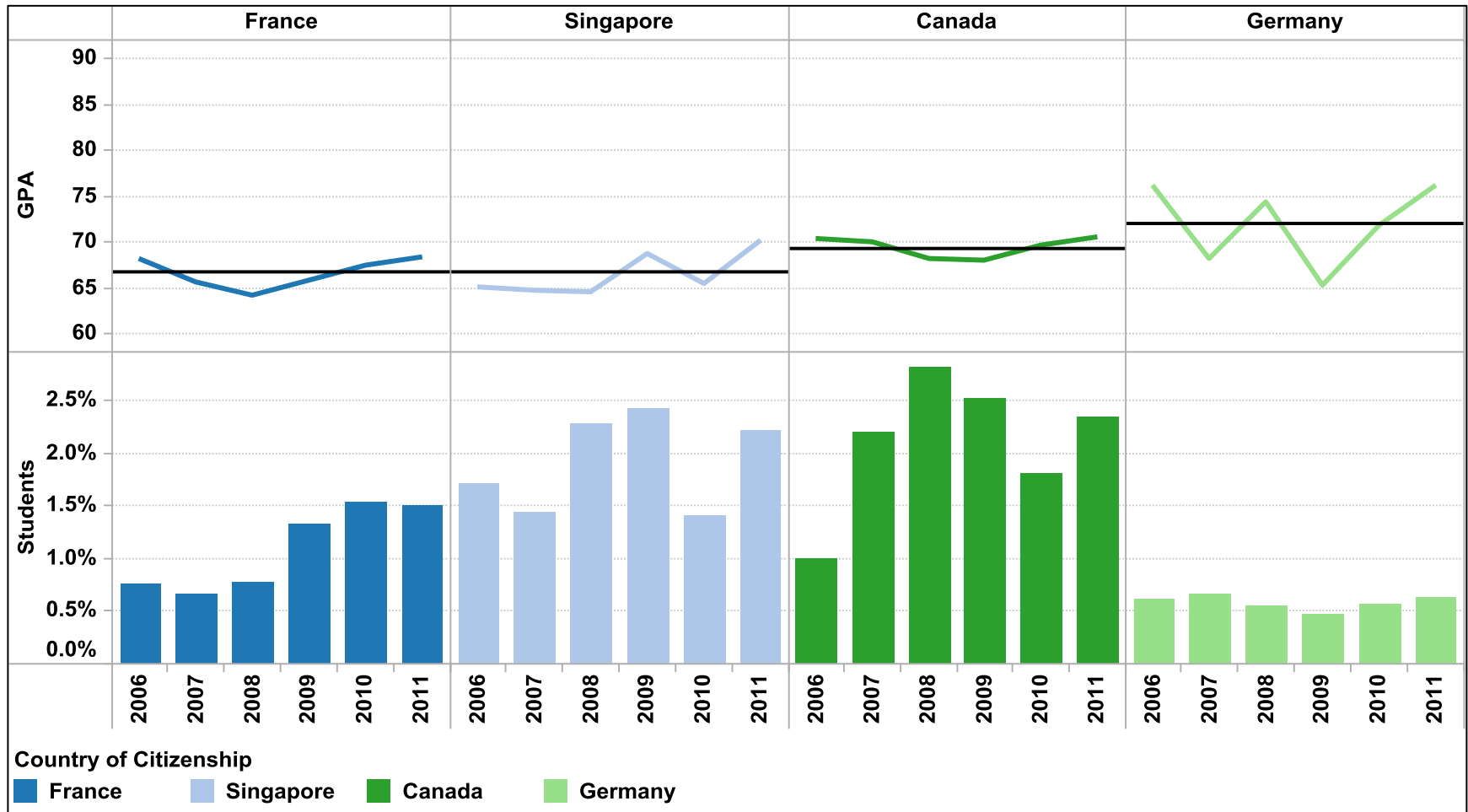
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INSTITUTIONAL ANALYSIS

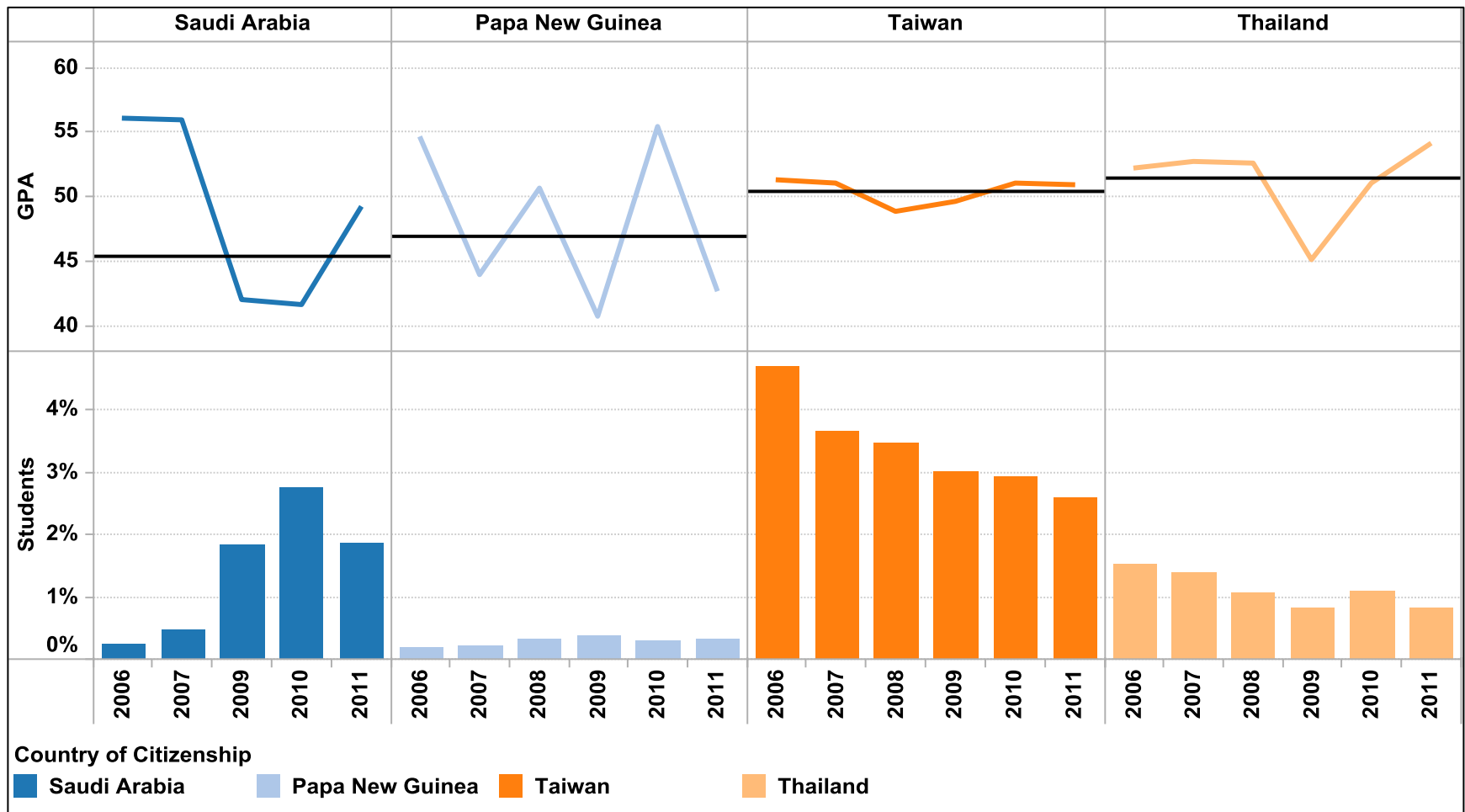
Measuring Student Performance by Nationality Over Time (I)



Four variable institutional analysis of well-performing international students

INSTITUTIONAL ANALYSIS

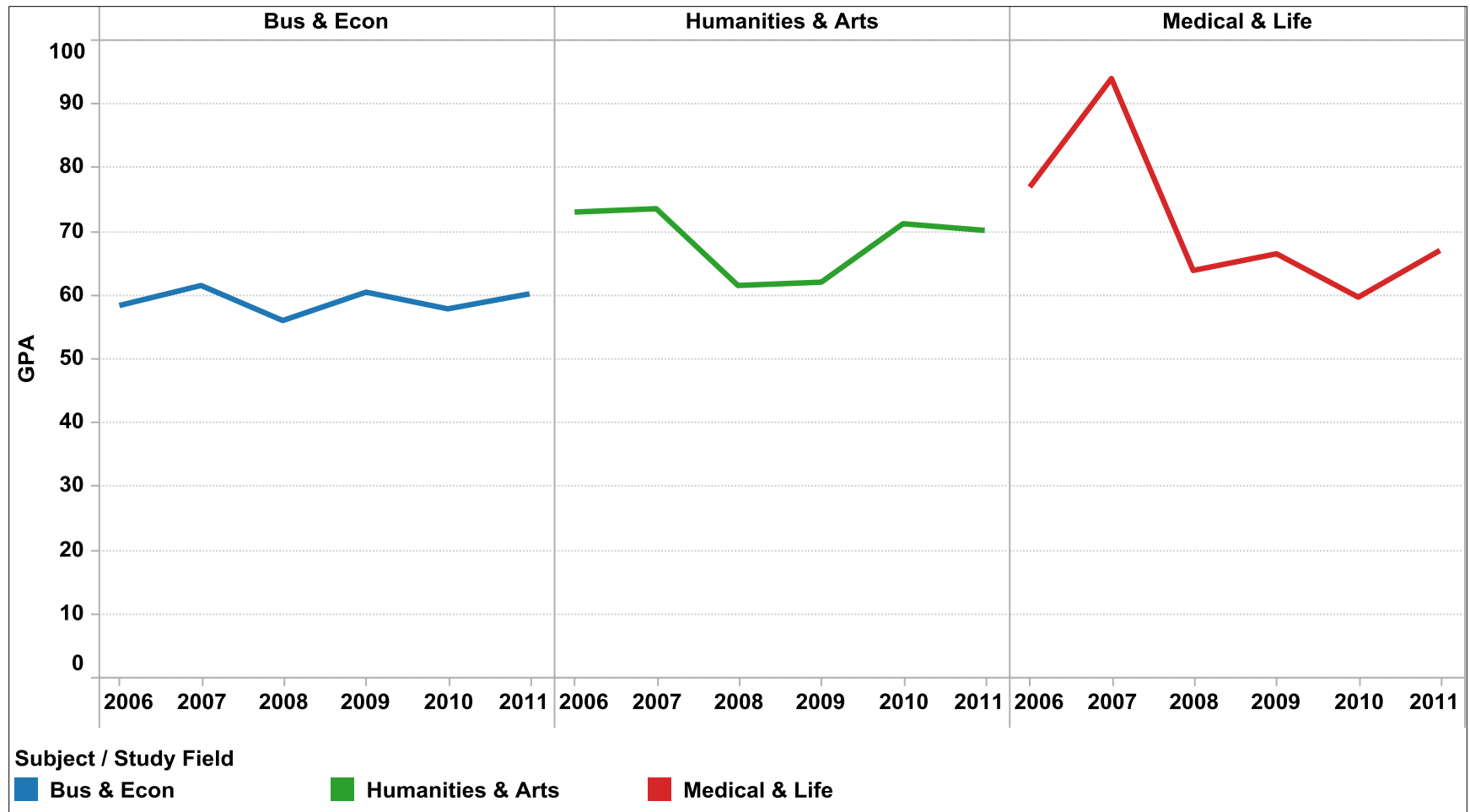
Measuring Student Performance by Nationality Over Time (II)



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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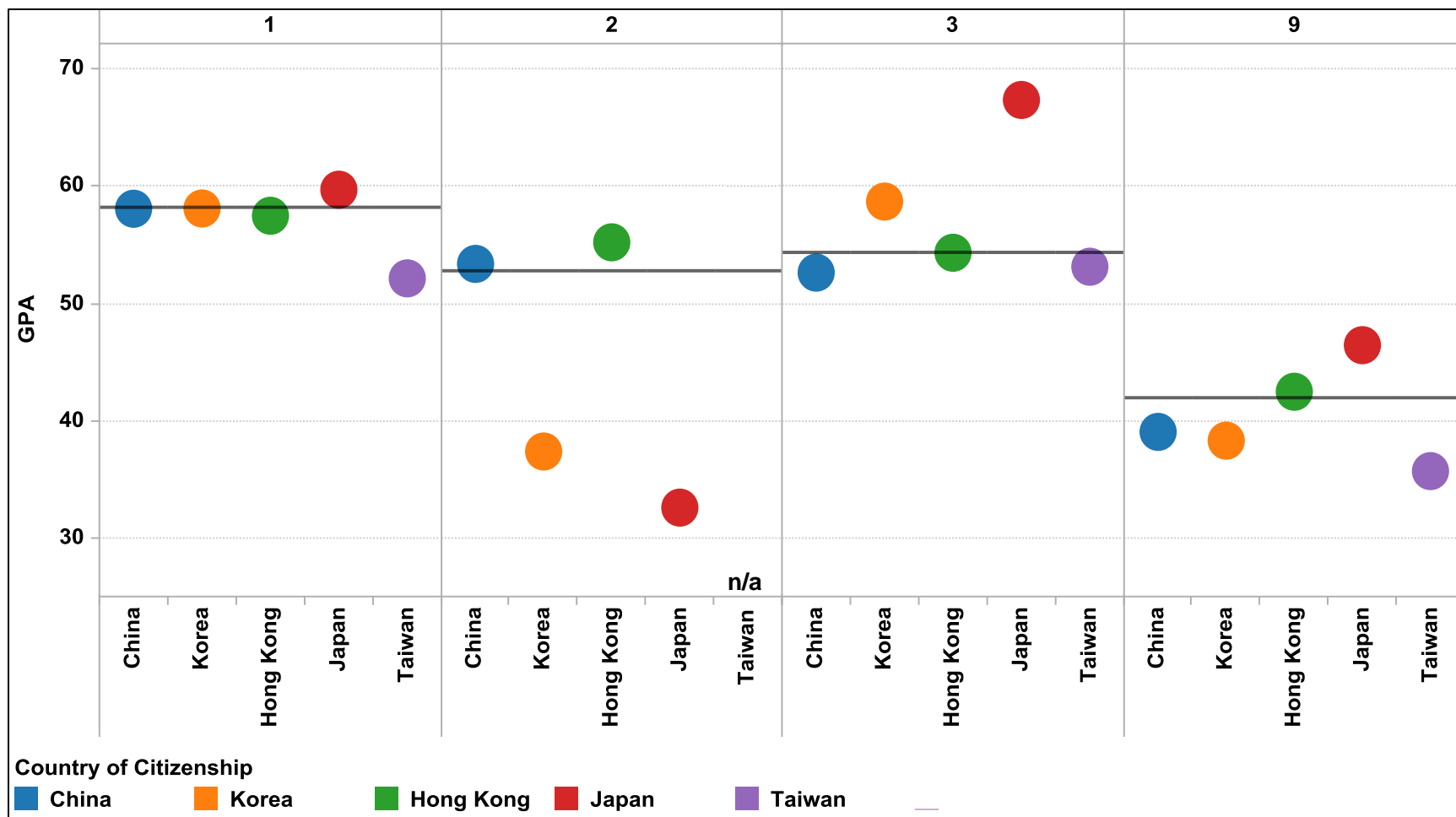
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BENCHMARK ANALYSIS

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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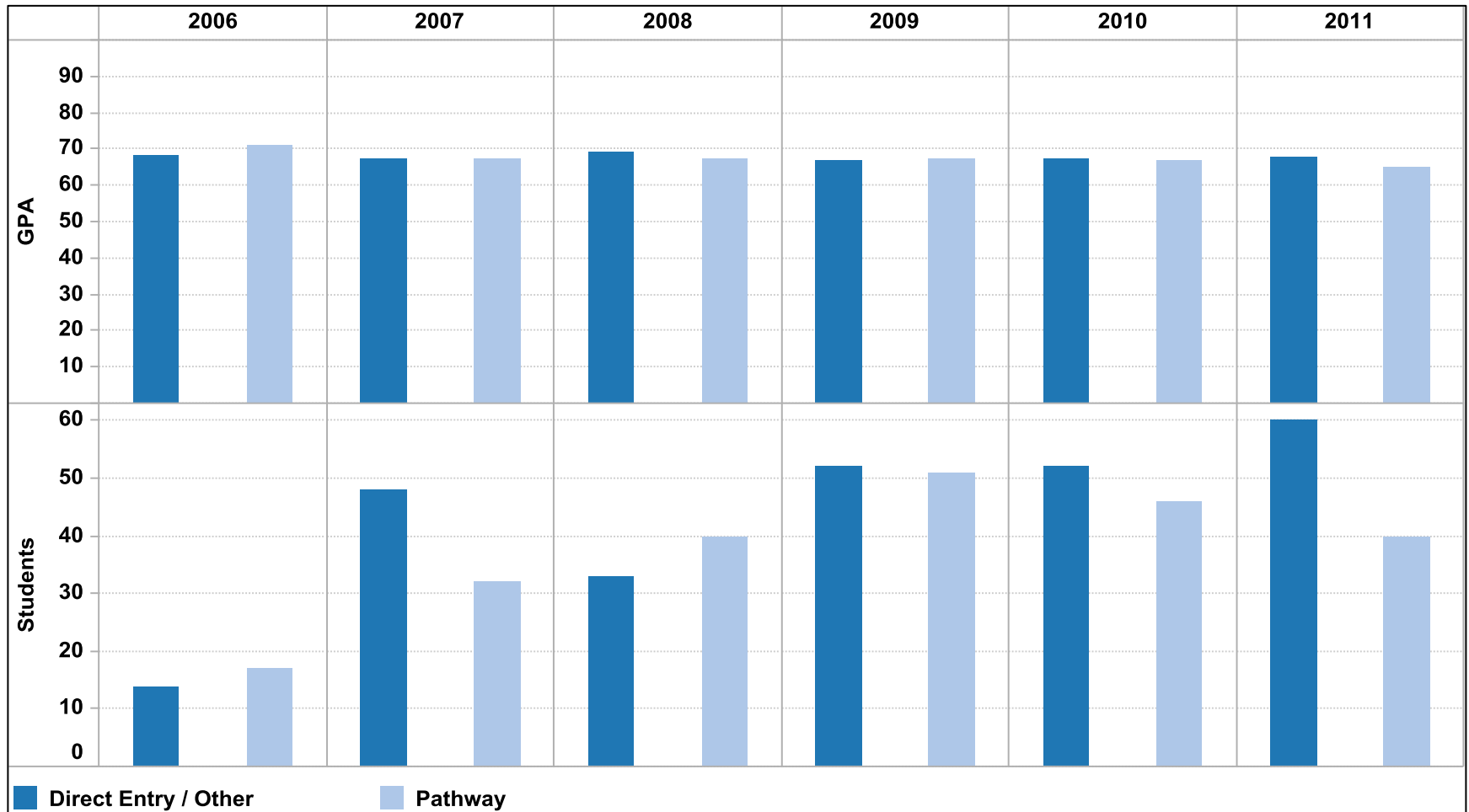
THEMATIC PERSPECTIVE: PATHWAYS ANALYSIS

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

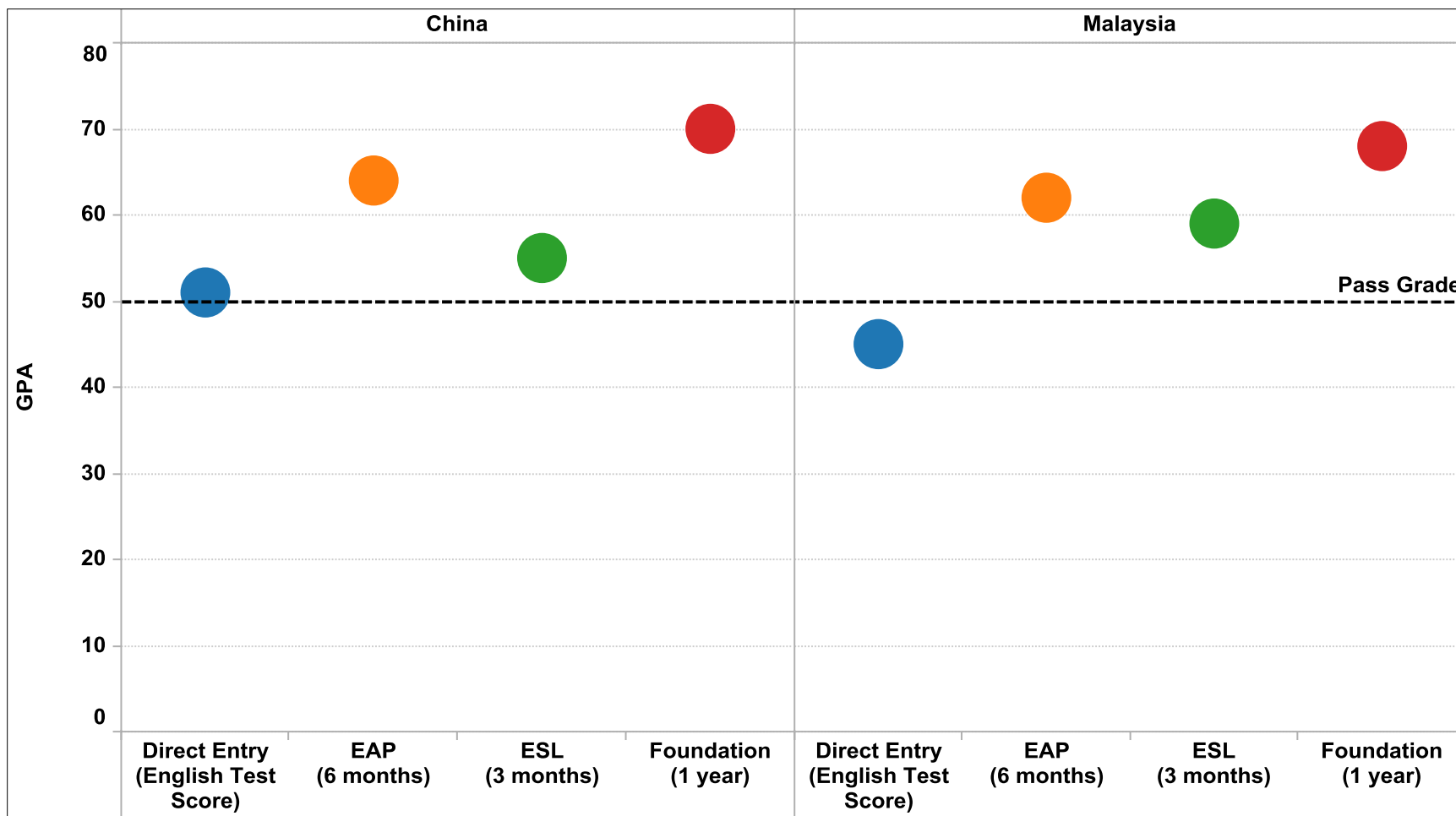


This specific EAP pathways program delivers well performing students

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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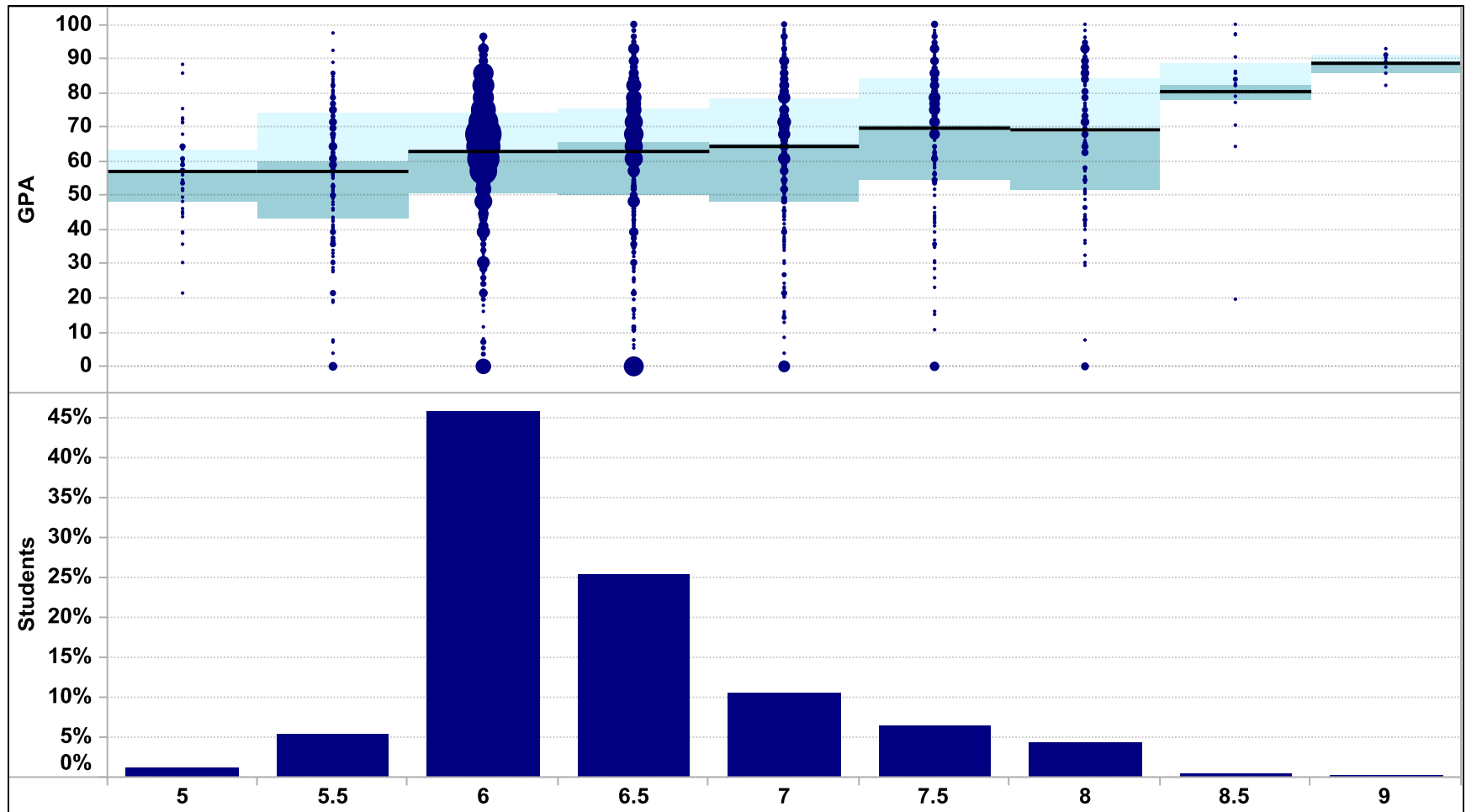
THEMATIC PERSPECTIVE: THE ROLE OF LANGUAGE

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

- **Research operates with four methods/concepts:**
 - **A student survey – the “starting line”**
 - **Language Background Segments (LBS) – six major segments based on placing survey data on the Language Learner Profile Matrix x-axis**
 - **A Language Usage Behavior Scale (LUBS) – the observational tool to gather quantitative student language usage data**
 - **Language Learner Profiles (LLPs) – the “outcome”**
- **The student survey can incorporate additional evidence delivered by parents, teachers, etc..**
- **LBS will be “auto” generated based on the survey and LLP Matrix.**
- **LUBS is classroom specific.**

- **A current research project is underway with the survey having closed on 22 November.**
- **The total pool of responses is 106 (3-8 years olds). Such a response level assures that the six major language background segments are properly represented.**
- **The survey contained 16 questions:**
 - **A student bio section with 7 questions.**
 - **A language environment section with 6 questions.**
 - **A social and play environment section with 2 questions.**
 - **A final, open-ended comment box.**
- **The survey results will be populates on the x-axis of the Language Learner Profile Matrix.**
- **The survey will be reused for future school years.**

- **Language Background Segments (LBS) are used to segment students covered in the parents survey into six discrete language background segments:**
 - **German only**
 - **Mostly German**
 - **English only**
 - **Mostly English**
 - **Bi-lingual (assumed to be a somewhat heterogeneous segment)**
 - **Third language (assumed to be a significantly heterogeneous segment)**
- **It is assumed that students in these segments will show somewhat aligned overall learning behaviors. Research will aim at discovering intra- and inter-group differences. These differences form the basis of determining the different progression path to bilingual capability.**
- **Each segment is intended to encompass 6-8 students for observation. Tail-end behavior will be clipped off in the final analysis to reduce behavioral outliers.**

- **Language Learner Profiles are based on utilizing a comprehensive set of factors in order to describe how a student utilizes language from a learning-centered perspective.**
- **LLPs encompass the following elements:**
 - **A scale reflecting German and English language usage (x-axis), with bilingual capability as the center-point**
 - **Three categories of behavior: Social integration; academic progress; language competence**
 - **The above categories are segmented into High/Mid/Low**
- **The LLP Matrix is based on multi-input data streams and stages:**
 - **Parents survey as a baseline**
 - **Teachers' observations relative to the parents survey as an adjustment factor**
 - **ICG observations via LUBS**
 - **Statistical evaluation of LUBS data by LBS with tail-end clipping and sanity checks**
 - **Iteration of findings with a view on future usability for teachers when teaching a new set of students.**

- **Language matters.**

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