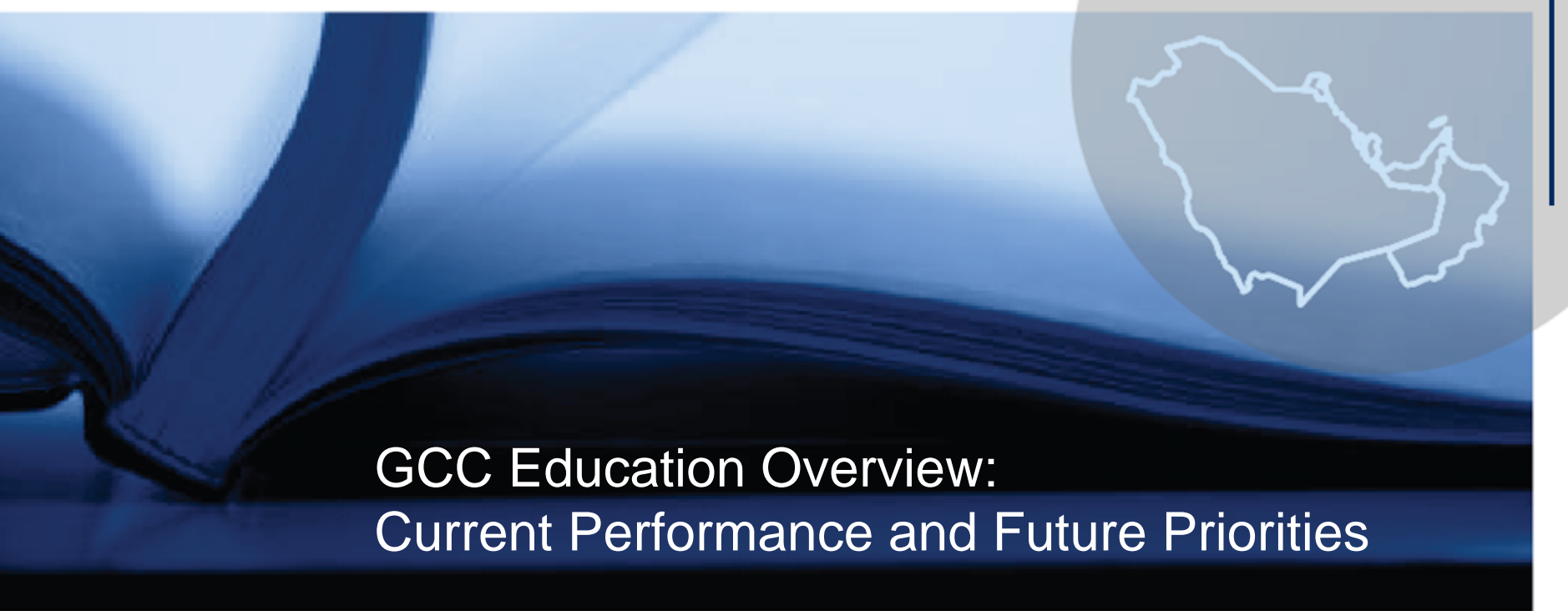


GCC Education Leaders Conference
November 28-29, 2007



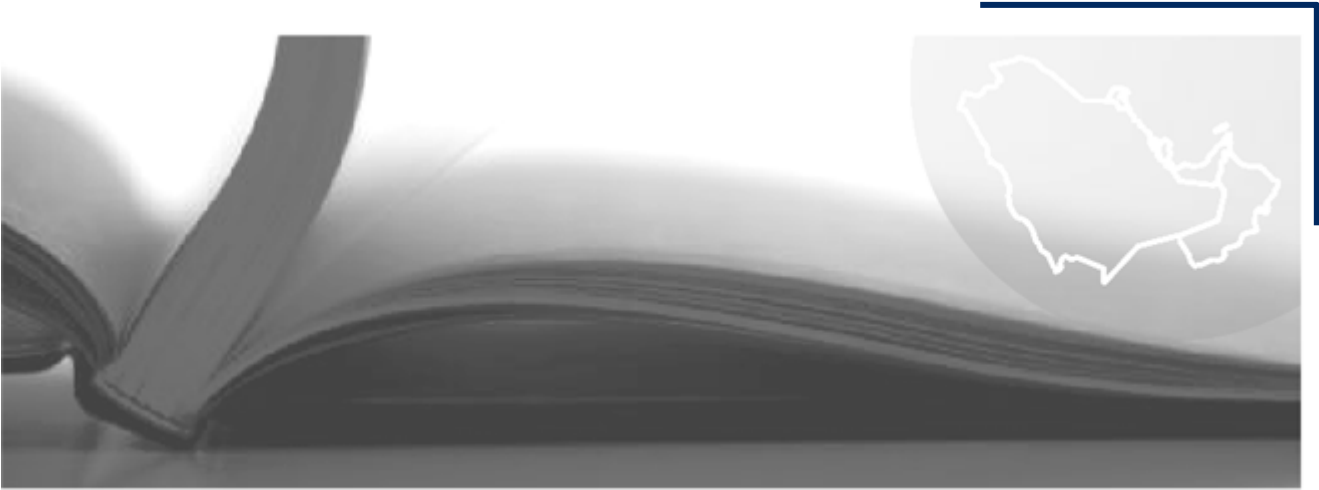
GCC Education Overview: Current Performance and Future Priorities

This report contains information that is confidential and proprietary to McKinsey & Company, Inc. and is solely for the use of McKinsey & Company, Inc. personnel. No part of it may be used, circulated, quoted, or reproduced for distribution outside McKinsey & Company, Inc. If you are not the intended recipient of this report, you are hereby notified that the use, circulation, quoting, or reproducing of this report is strictly prohibited and may be unlawful.

Agenda

GCC student outcomes: schools, vocational, tertiary

The path forward



GCC education has three key features

1

Schools: Student outcomes in core subjects (math, Arabic, English, science) are low relative to international standards

2

Vocational: Vocational education is under-represented and skills do not match employer needs

3

Universities: Females dominate enrolment; employers indicate that graduates do not have the hard and soft skills required

Arab countries performed significantly below average on TIMSS in 2003: mathematics

TIMSS 2003 – Mathematics Achievement 8TH Grade

Rank	Country	Mean score	Rank	Country	Mean score
1	Singapore	605	25	Bulgaria	476
2	Korea	589	26	Romania	475
3	Hong Kong	586		International Average	467
4	Chinese Taipei	585	27	Norway	461
5	Japan	570	28	Moldova	460
6	Belgium (Flemish)	537	29	Cyprus	459
7	Netherlands	536	30	Macedonia	435
8	Estonia	531	31	Lebanon	433
9	Hungary	529	32	Jordan	424
10	Malaysia	508	33	Iran	411
11	Latvia	508	34	Indonesia	411
12	Russia	508	35	Tunisia	410
13	Slovakia	508	36	Egypt	406
14	Australia	505	37	Bahrain	401
15	United States	504	38	Palestine	390
16	Lithuania	502	39	Chile	387
17	Sweden	499	40	Morocco	387
18	Scotland	498	41	Philippines	378
19	Israel	496	42	Botswana	366
20	New Zealand	494	43	Saudi Arabia	332
21	Slovenia	493	44	Ghana	276
21	Italy	484	45	South Africa	264
23	Armenia	478			
24	Serbia	477			

Arab countries performed significantly below average on TIMSS in 2003: science

TIMSS 2003 – Science Achievement 8TH Grade

Rank	Country	Mean score	Rank	Country	Mean score
1	Singapore	578	25	Jordan	475
2	Chinese Taipei	571	–	International Average	474
3	Korea	558	26	Moldova, Rep. of	472
4	Hong Kong	556	27	Romania	470
5	Estonia	552	28	Serbia	468
6	Japan	552	29	Armenia	461
7	Hungary	543	30	Iran, Islamic Rep. of	453
8	Netherlands	536	31	Macedonia, Rep. of	449
9	United States	527	32	Cyprus	441
10	Australia	527	33	Bahrain	438
11	Sweden	524	34	Palestine	435
12	Slovenia	520	35	Egypt	421
13	New Zealand	520	36	Indonesia	420
14	Lithuania	519	37	Chile	413
15	Slovakia	517	38	Tunisia	404
16	Belgium (Flemish)	516	39	Saudi Arabia	398
17	Russia	514	40	Morocco	396
18	Latvia	512	41	Lebanon	393
19	Scotland	512	42	Philippines	377
20	Malaysia	510	43	Botswana	365
21	Norway	494	44	Ghana	255
21	Italy	491	45	South Africa	244
23	Israel	488			
24	Bulgaria	479			

More than half of grade 8 students from Arab countries demonstrated “little or no mathematical skill”

% of students at each performance level in TIMSS math, 2003

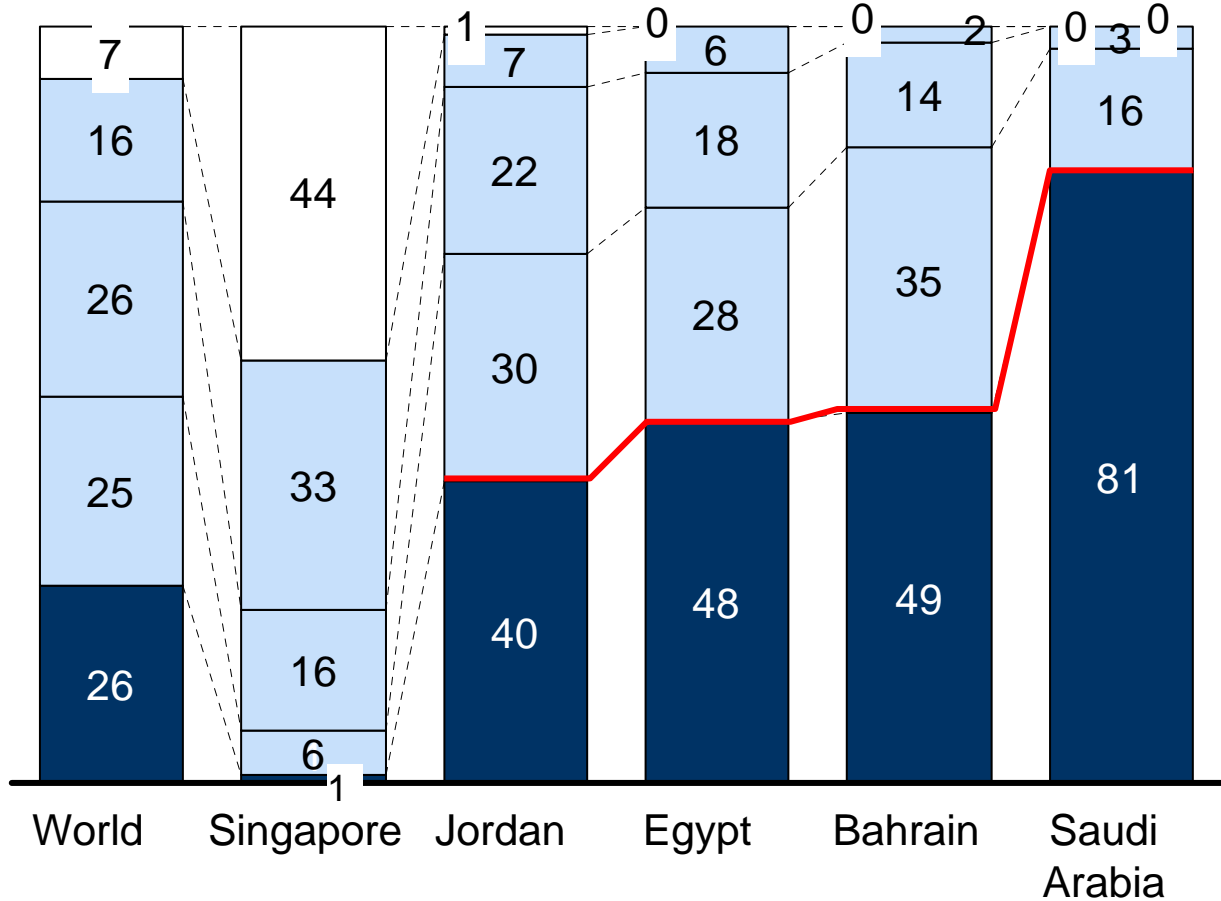
Advanced benchmark

High performance benchmark

Intermediate performance benchmark

Low performance benchmark

Below benchmark (little or no mathematical skill)



Source: TIMSS, (Trends in International Math and Science Survey), 2003

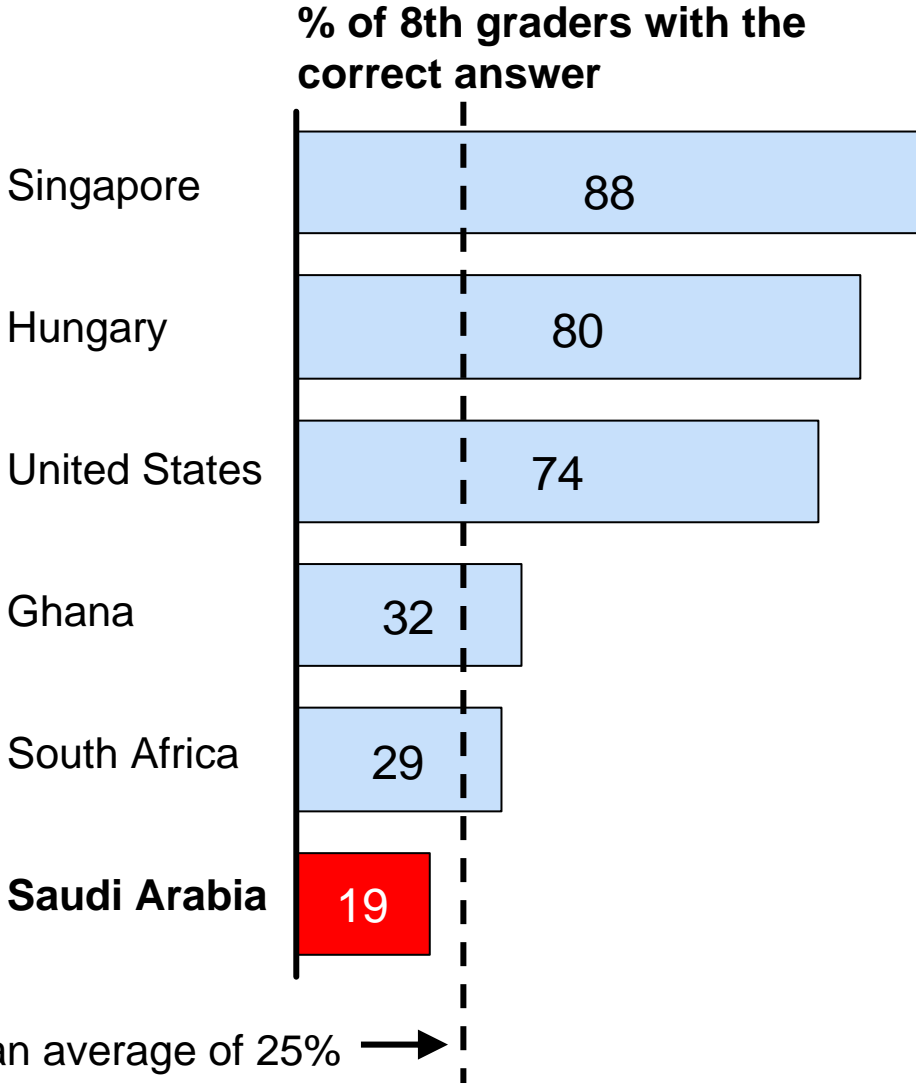
A sample question from TIMSS 2003

Alice ran a race in 49.86 seconds.

Betty ran the same race in 52.30 seconds.

How much longer did it take Betty to run the race than Alice?

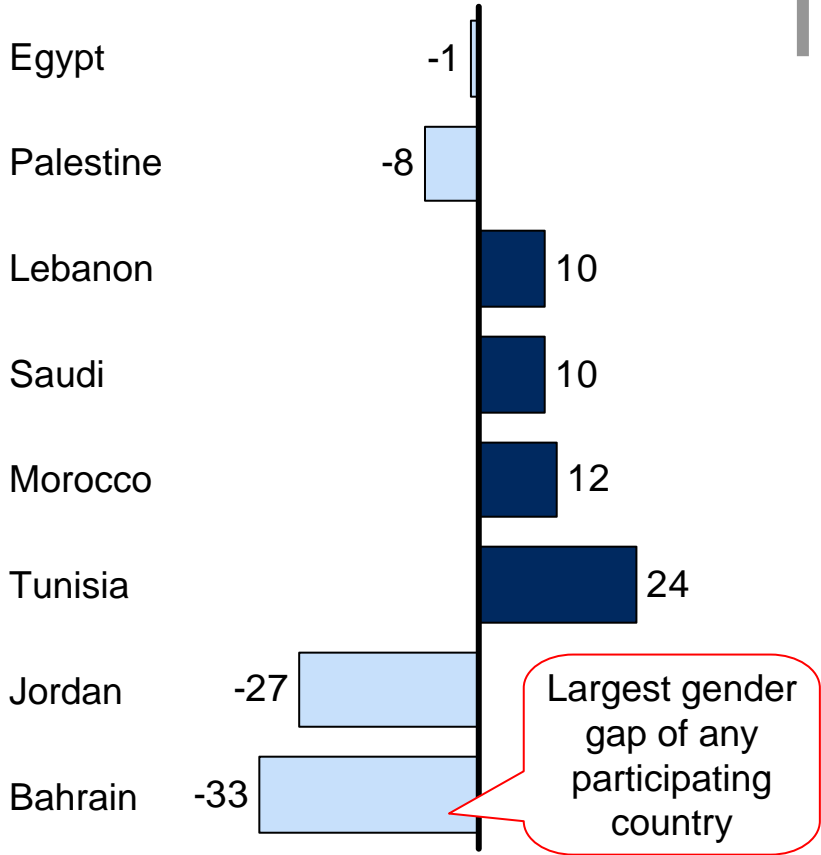
(a) 2.44 seconds
(b) 2.54 seconds
(c) 3.56 seconds
(d) 3.76 seconds



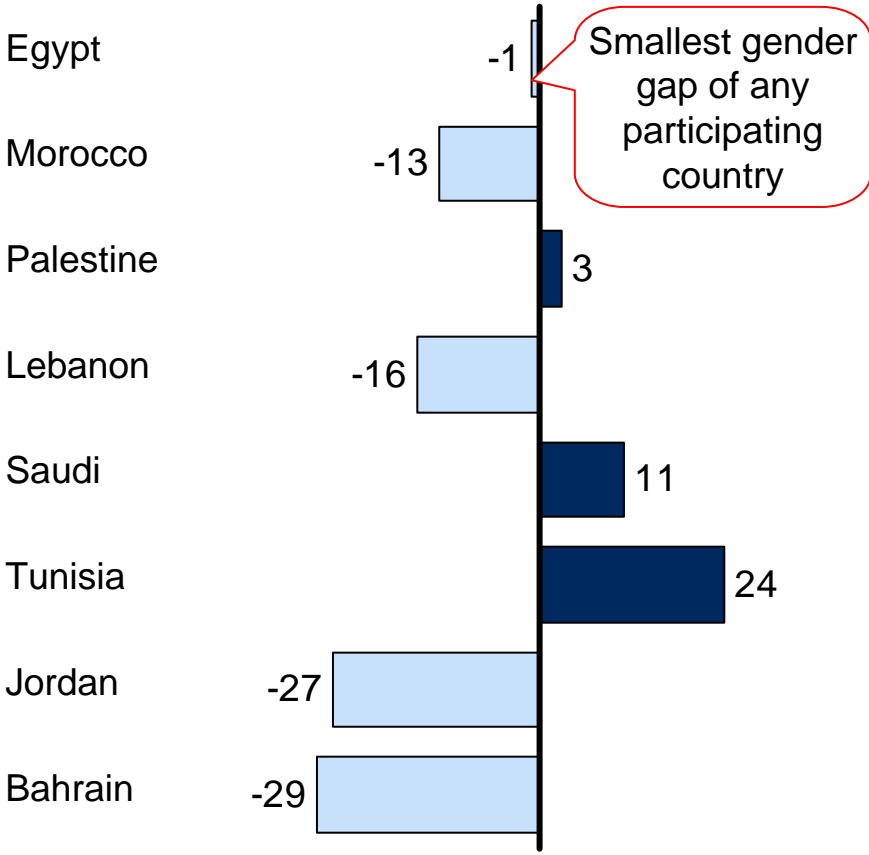
A wide variation in gender performance exists across the Arab world

■ Girls perform best
■ Boys perform best

TIMSS Math 8th grade:
Boys average score – girls average score

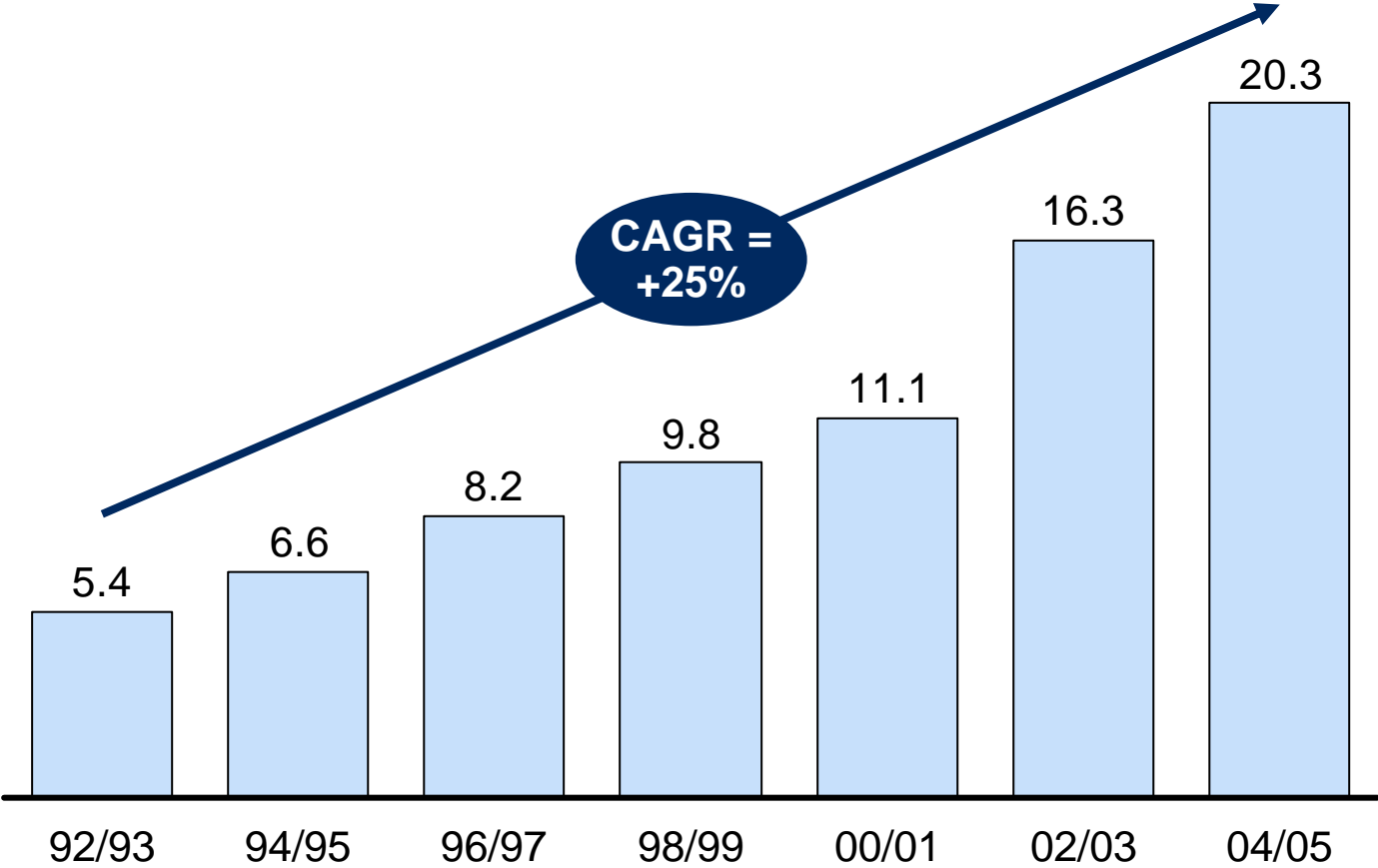


TIMSS Science 8th grade:
Boys average score – girls average score



Private school enrolment is rising rapidly: UAE example

Percentage of total UAE national pre-tertiary students enrolled in private schools



GCC education has three key features

1

Schools: Student outcomes in core subjects (math, Arabic, English, science) are low relative to international standards

2

Vocational: Vocational education is under-represented and skills do not match employer needs

3

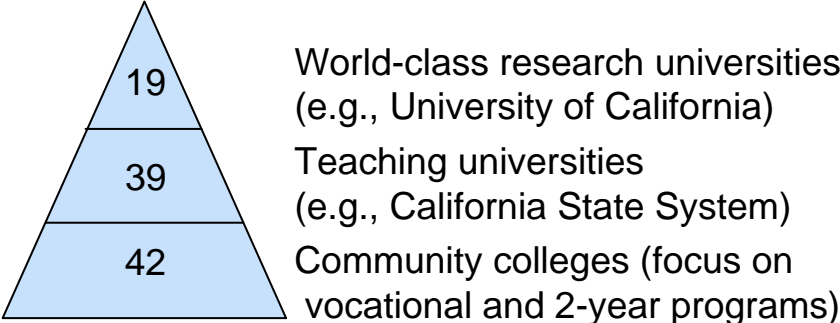
Universities: Females dominate enrolment; employers indicate that graduates do not have the hard and soft skills required

Vocational education is under-represented in the GCC

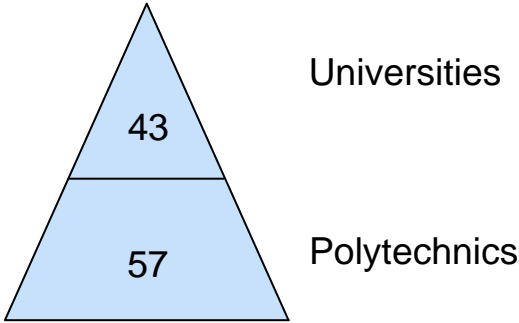


Breakdown of post-secondary student population, %

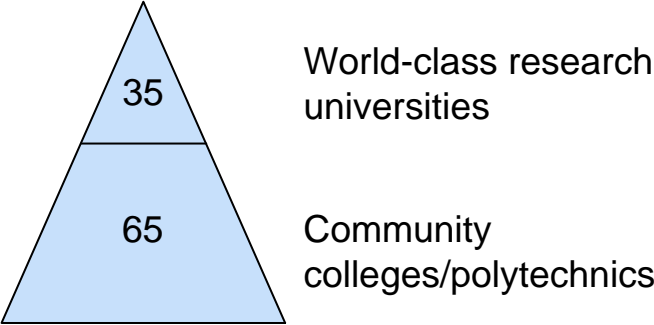
California



Finland



Singapore



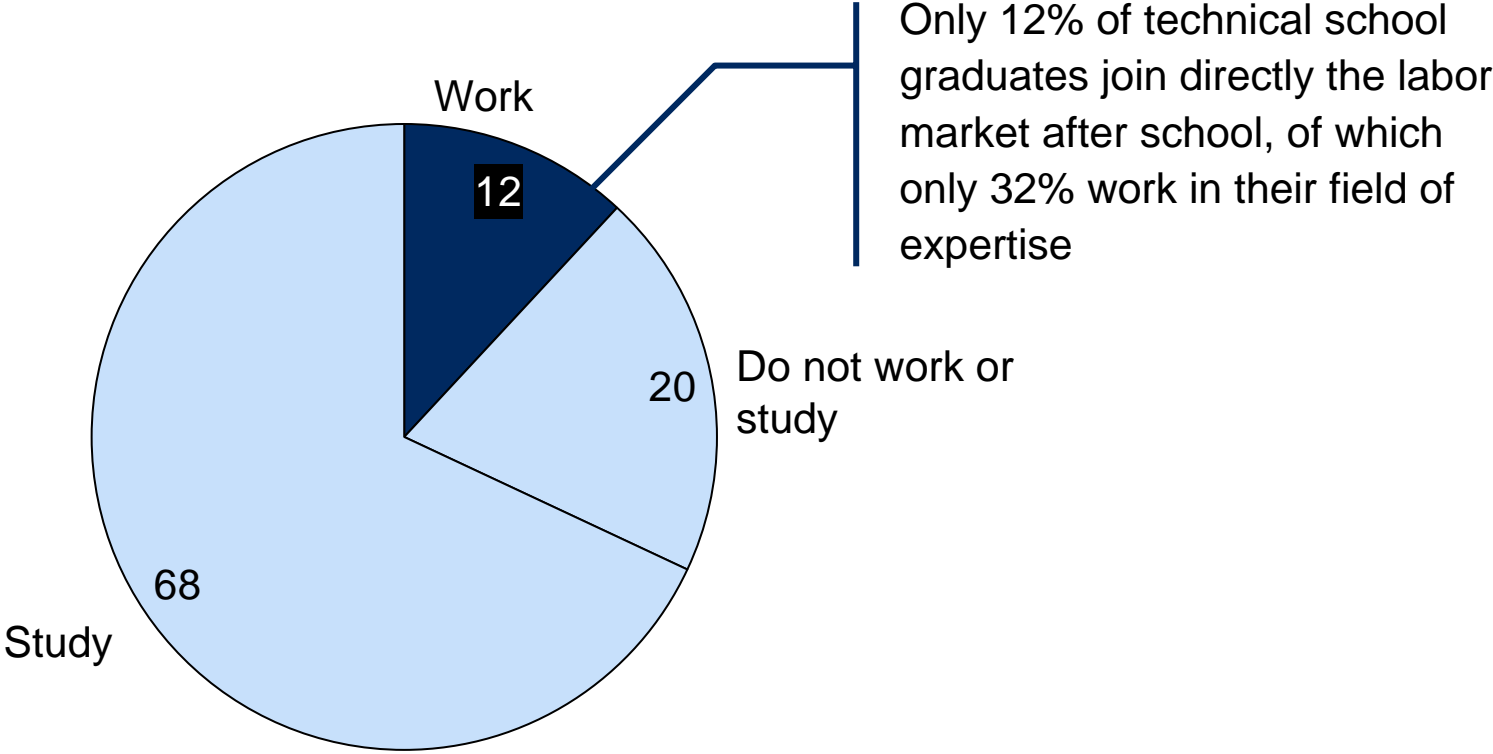
GCC example

Institution Type	Percentage
Teaching universities (public and private)	~80
Vocational colleges*	~20

Source: Interviews, web search, UNESCO, OECD, team

GCC example: only 12% of technical school graduates directly enter the job market

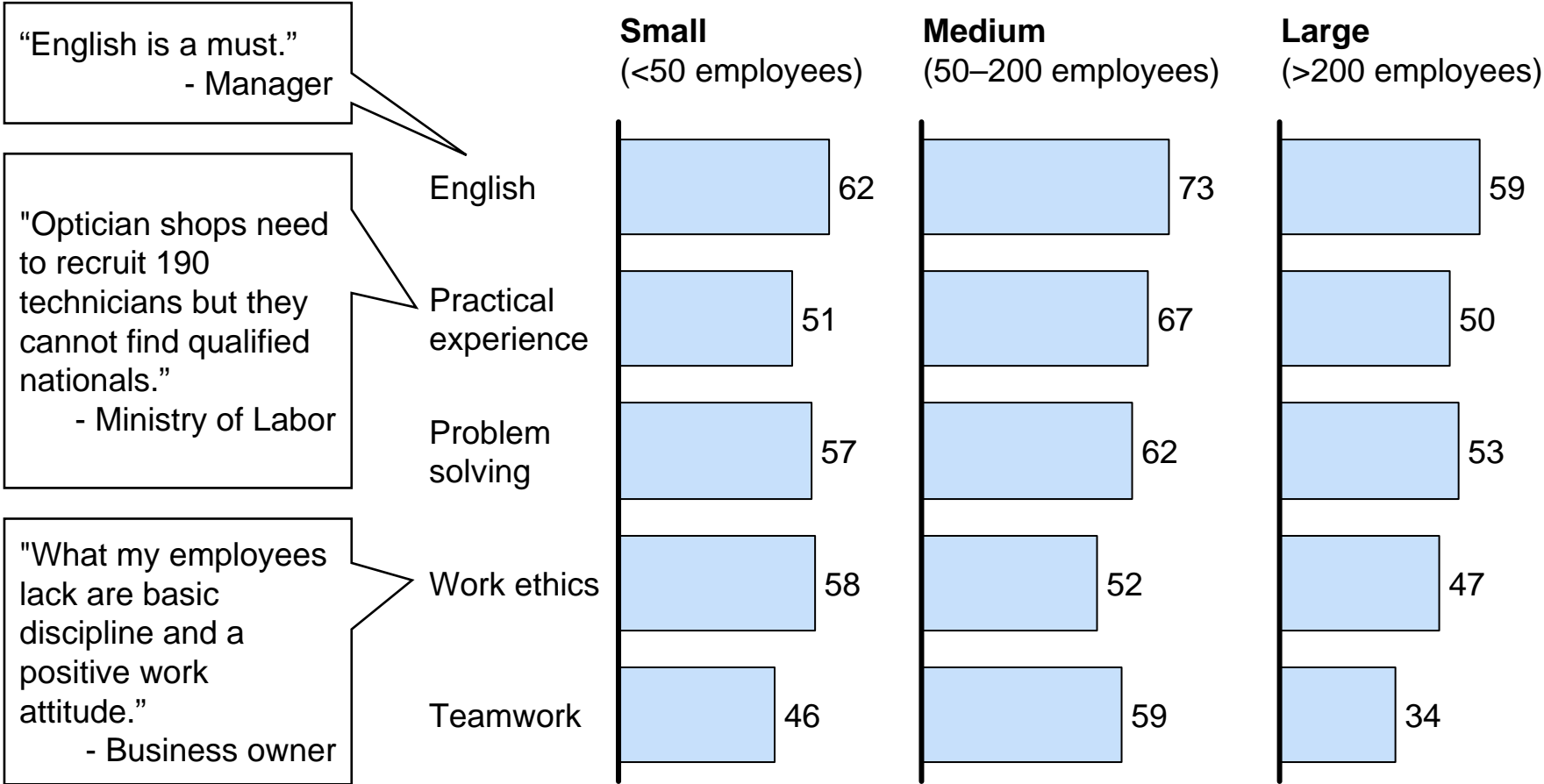
Destination of secondary technical school graduates
%, 2005



Practical experience, English, and problem solving are the skills most frequently lacking in new vocational hires: GCC country example

What skills are lacking for new vocational (diploma) hires?

Top 5 answers out of 20 choices, % of respondents



GCC education has three key features

1

Schools: Student outcomes in core subjects (math, Arabic, English, science) are low relative to international standards

2

Vocational: Vocational education is under-represented and skills do not match employer needs

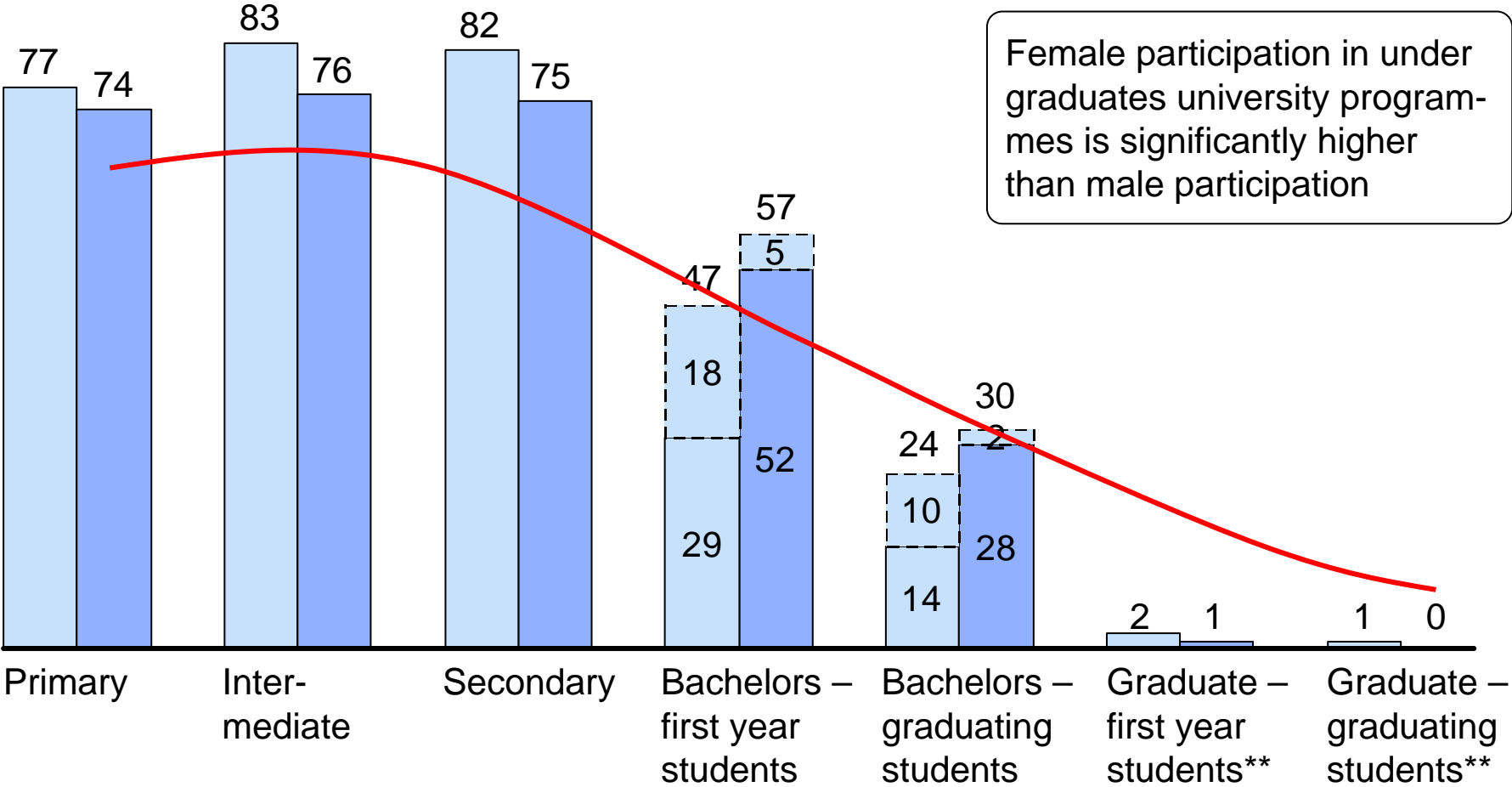
3

Universities: Females dominate enrolment; employers indicate that graduates do not have the hard and soft skills required

Participation rate drops-off sharply at the university level: Saudi example

Participation rate, % of Saudi population*

- Male
- Female
- Diploma programs



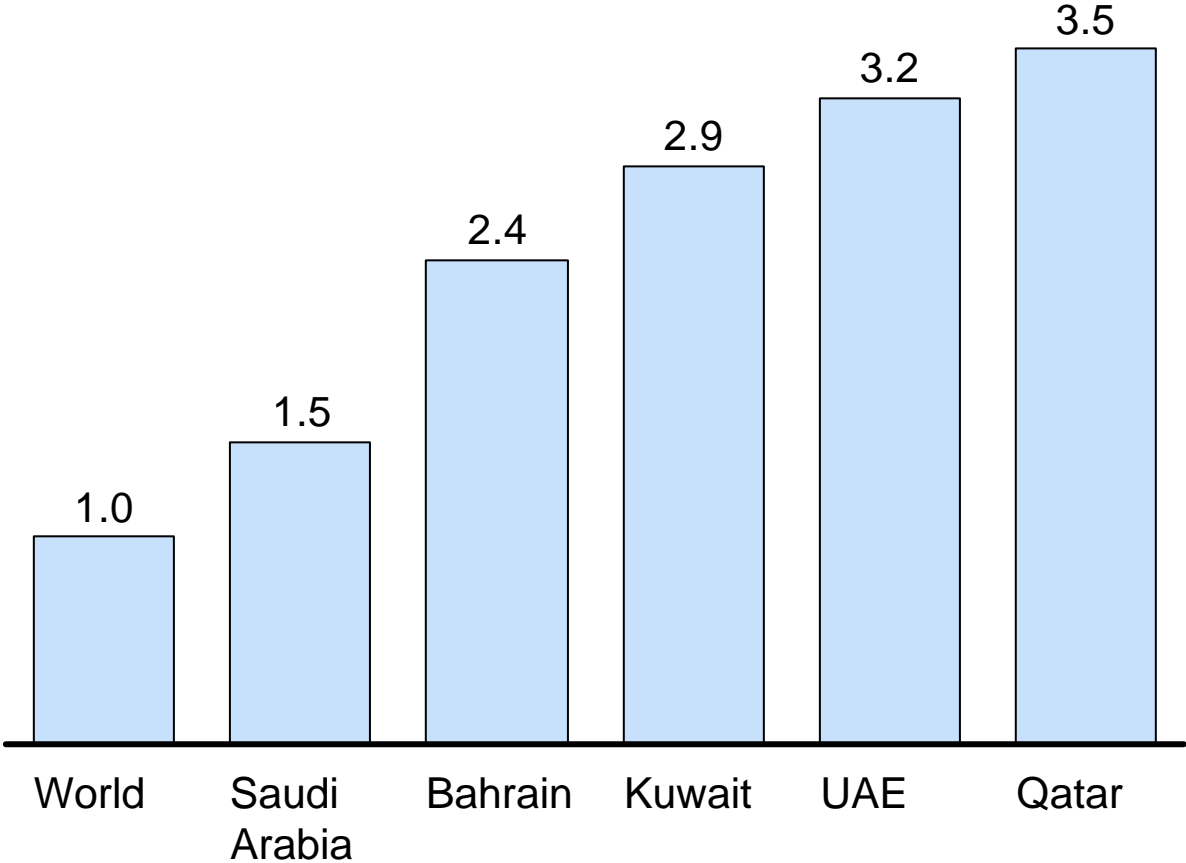
Female participation in under graduates university programmes is significantly higher than male participation

* Slightly inflated due to inclusion of foreign students in Saudi university figures

** Graduate enrolment at Saudi universities

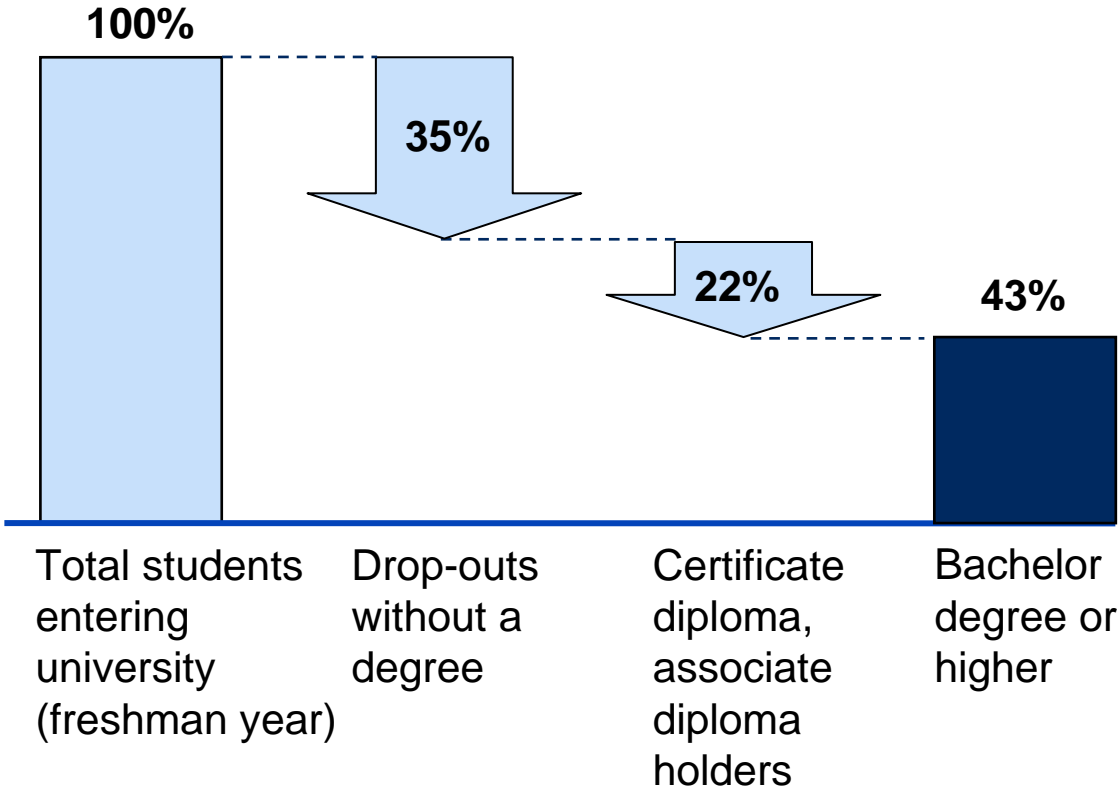
Female enrolment in GCC universities is significantly higher than that of male students

2005, Gender parity index (Ratio of female students to male students enrolled in university)



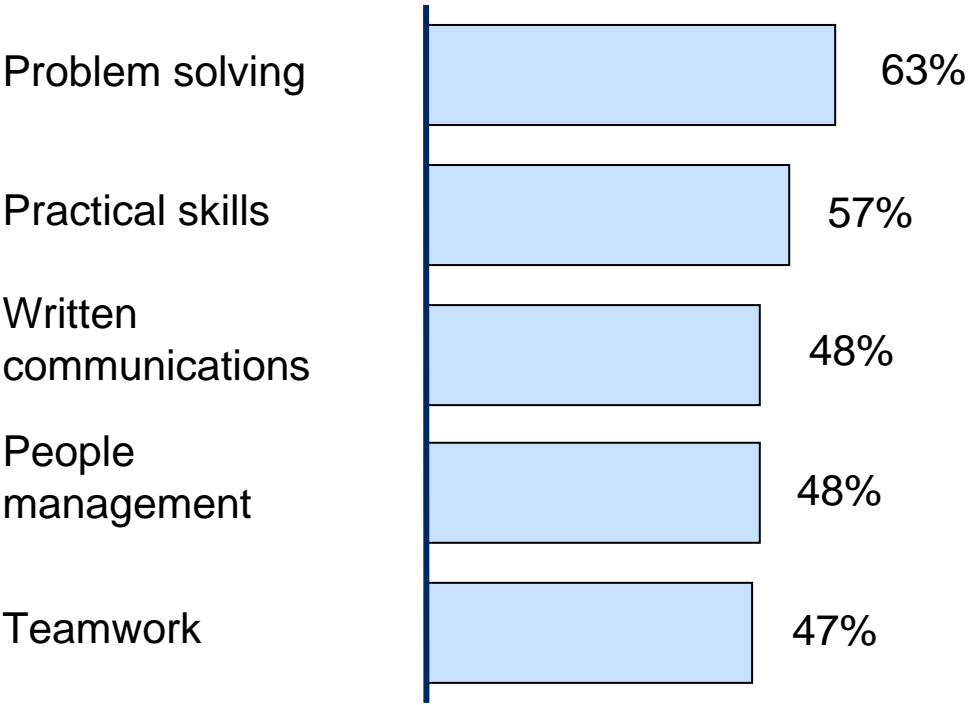
GCC example: only 40% of entering students are expected to complete their bachelor's degree or higher from the national public university within five years

Survival rates in university education are 70% in Germany, 75% in Finland and 83% in the UK



GCC example: employer survey results show that university graduates lack core skills

**What skills do new university graduates lack?
(Top 5 responses)**



Agenda

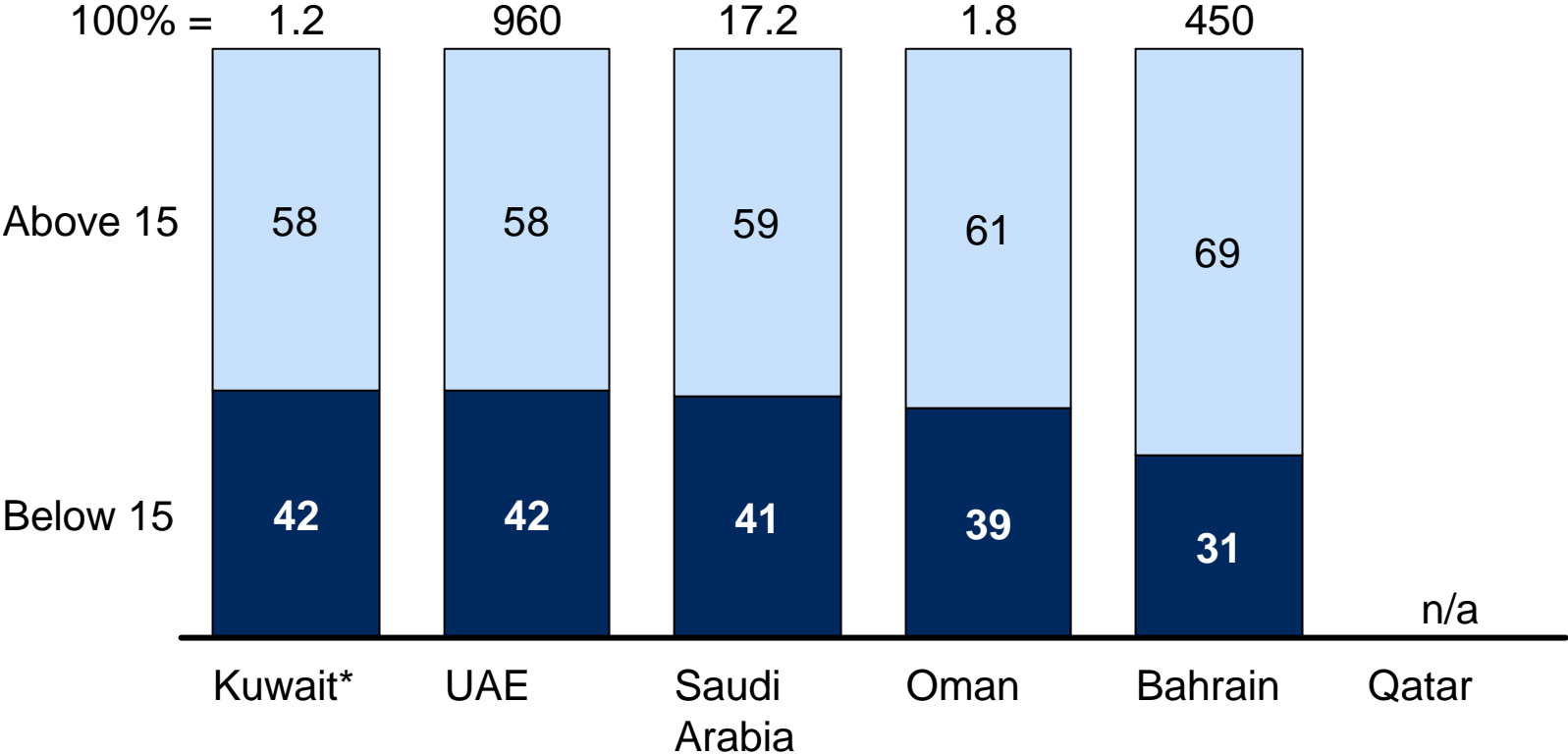
GCC student outcomes: schools, vocational, tertiary

The path forward



The case for urgency: More than 40 per cent of the GCC population is younger than 15 years

NATIONAL POPULATION YOUNGER THAN 15 YEARS, 2006, IN PERCENT



* Estimates based on census data for population below 20 years

Source: EIU country reports; Ministry Websites; Bahrain 2005 census; CIA World Factbook; WMM (Global Insight)

The case for urgency: McKinsey labor survey indicates that while overall unemployment is low, national youth unemployment exceeds 30 percent

ZOGBY SURVEY 2007, IN PERCENT OF LABOR FORCE*

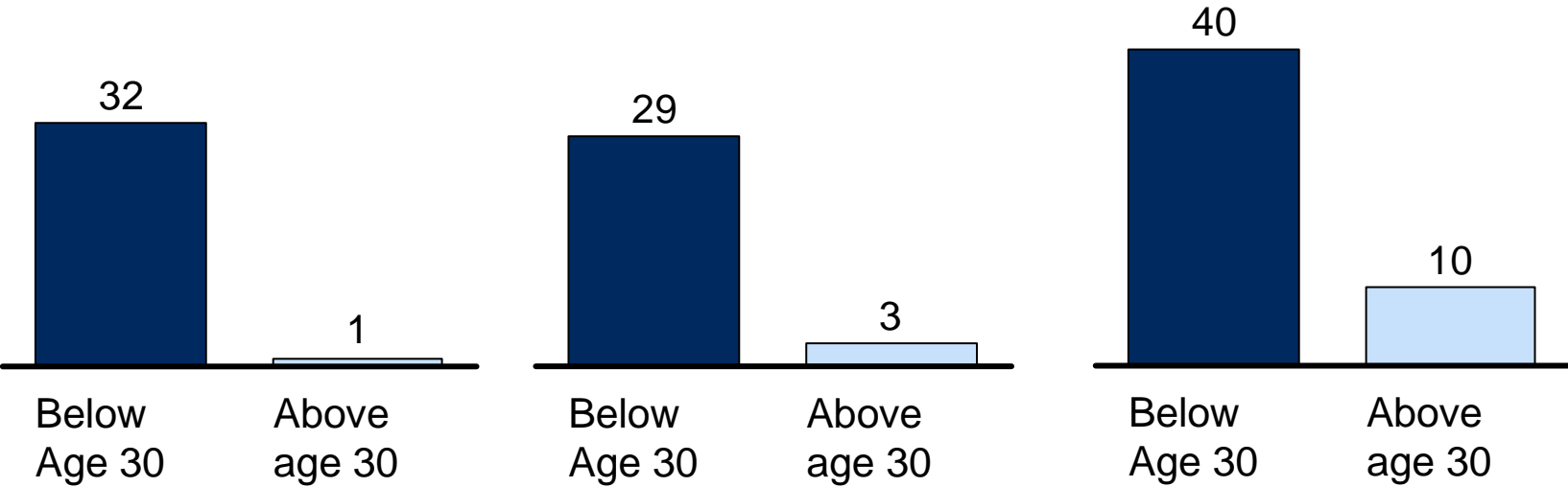
100%= 2,387 respondents

“I AM ACTIVELY LOOKING FOR A EMPLOYMENT, BUT CANNOT FIND A JOB”

UAE**

Saudi Arabia***

Bahrain



~80% of the unemployed youth never held a job before

* Survey conducted by Zogby International for McKinsey (01/2007); Sample size 600 UAE, 1,188 KSA, 599 Bahrain. Labor Force definition follows the definition of the International Labour Organization (ILO). It is defined as respondents employed and respondents actively looking for employment (=unemployed), excluding students, retirees, and respondents who voluntarily chose not to work (not in labor force)

** Survey in the Emirates of Abu Dhabi, Sharjah, Ajman, Um Al Quwain, Ras Al-Khaimah, and Fujairah, excluding Dubai

*** Survey on Dammam, Riyadh, and Jeddah; The selection of this sample suggests that KSA wide unemployment is significantly higher

The path forward: top education priorities for the region

A coherent system spanning schools, vocational, and higher education

1

Teachers and school leaders

2

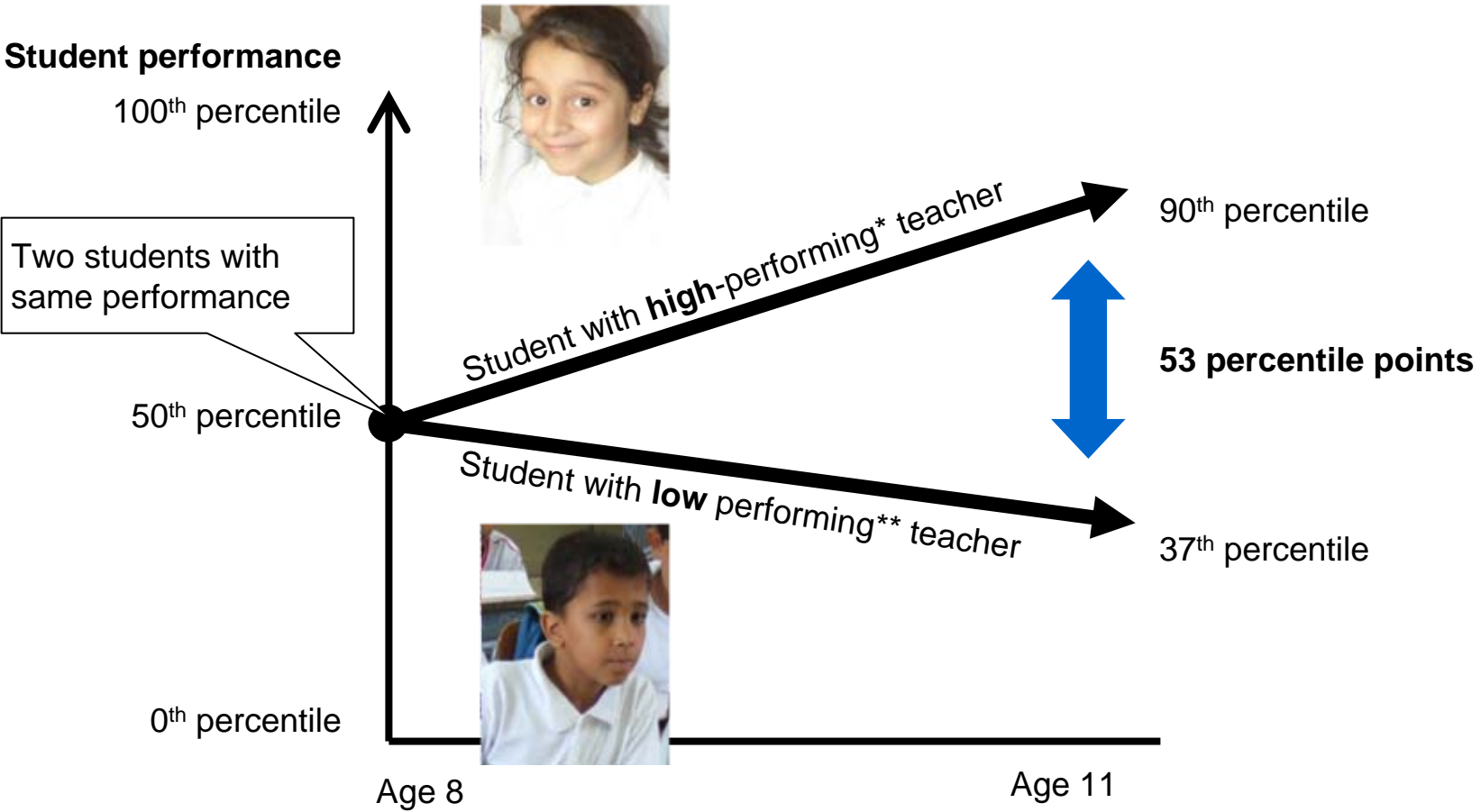
Performance management at the student, school, and system level

3

Private sector collaboration for vocational and university programs

Teacher quality matters more than anything else

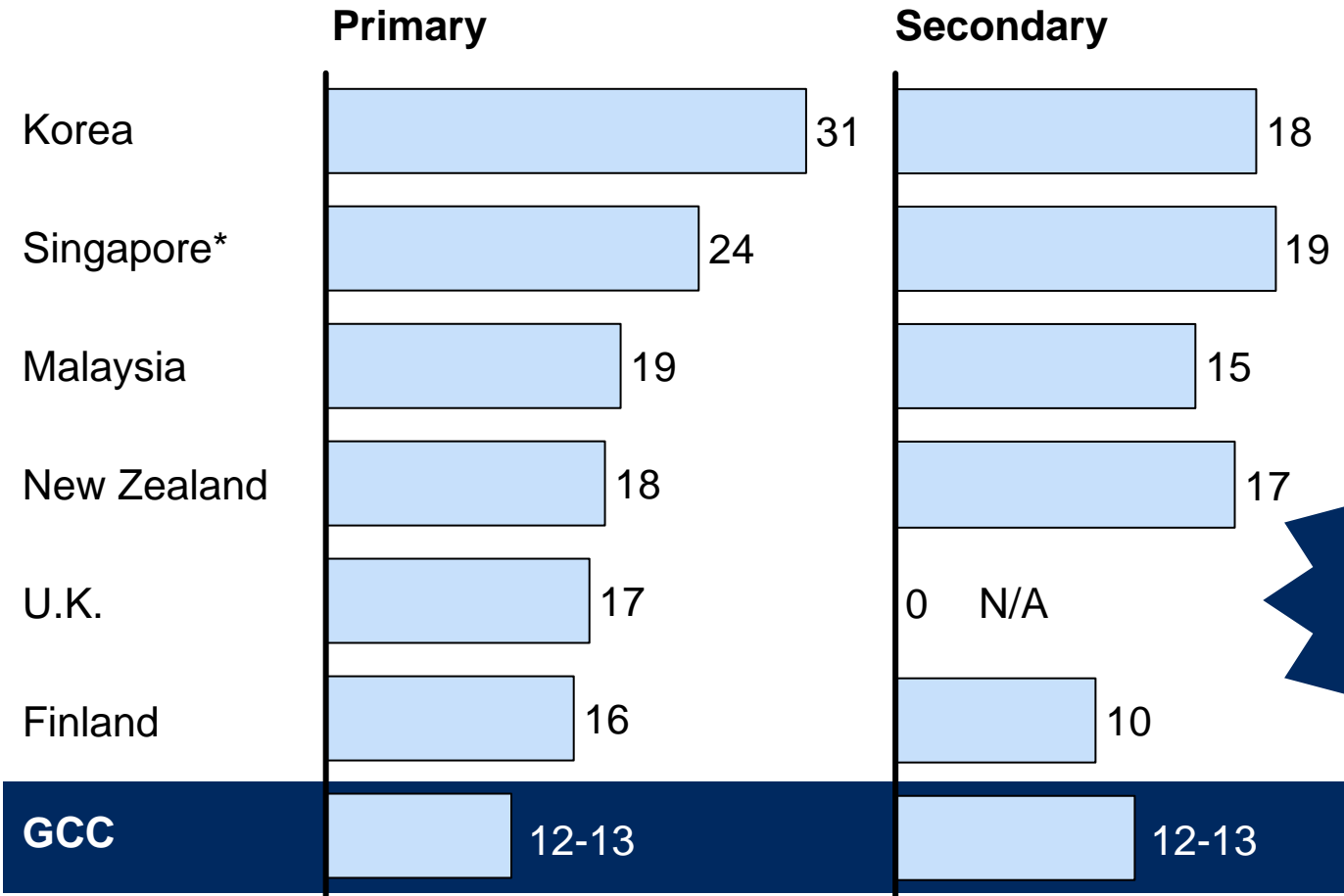
US EXAMPLE



*Among the top 20% of teachers; **Among the bottom 20% of teachers
Analysis of test data from Tennessee showed that teacher quality effected student performance more than any other variable; on average, two students with average performance (50th percentile) would diverge by more than 50 percentile points over a three year period depending on the teacher they were assigned
Source: Sanders & Rivers Cumulative and Residual Effects on Future Student Academic Achievement

The GCC has a low student to teacher ratio compared to international benchmarks

2004/05

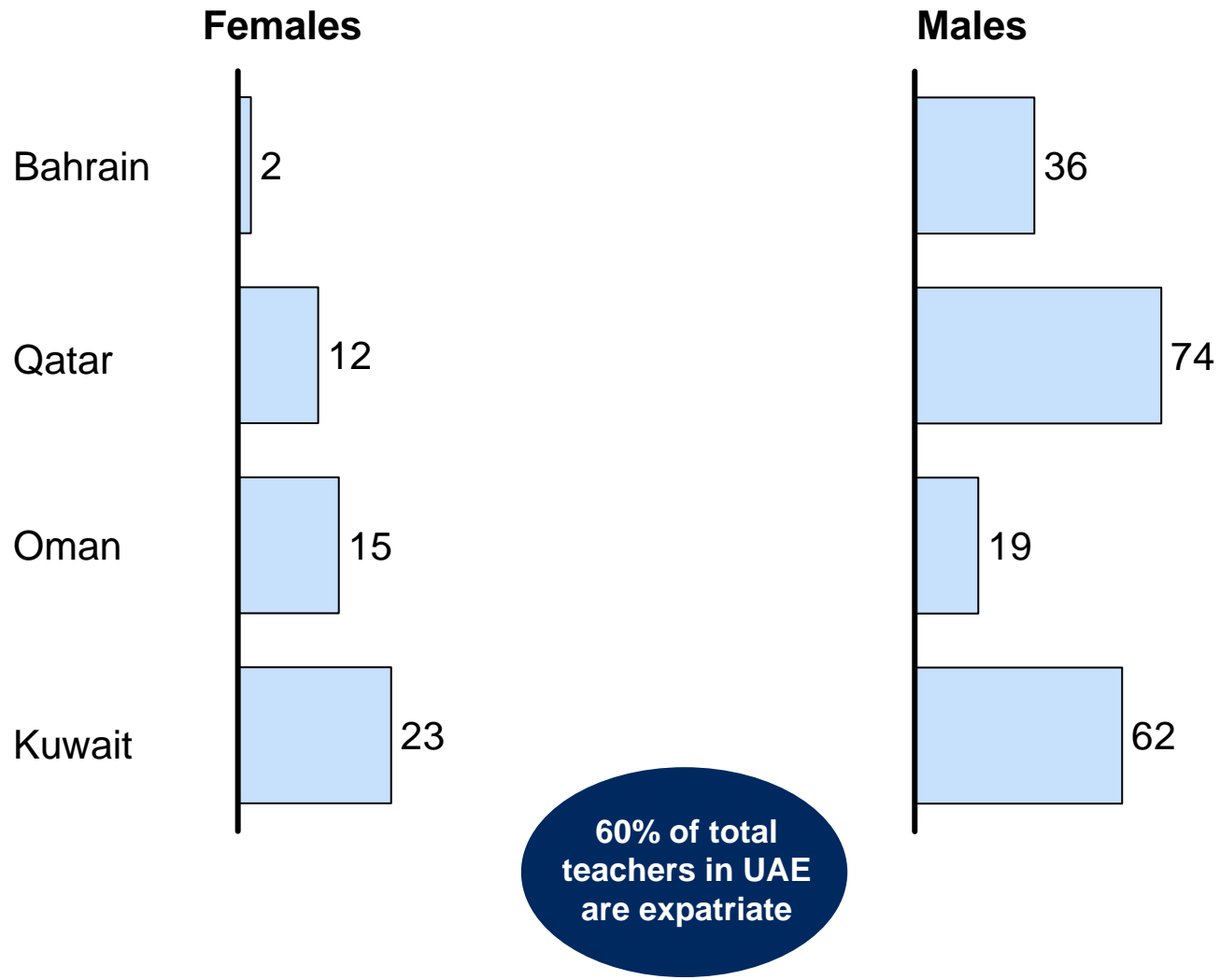


Highest ranking countries on the 2003 TIMSS survey of 4th and 8th grade students in mathematics and science

Weeks of required training for new hires is 1-3 weeks in several GCC countries and on-going professional development is minimal

A high share of teachers in the GCC are expatriate, particularly males

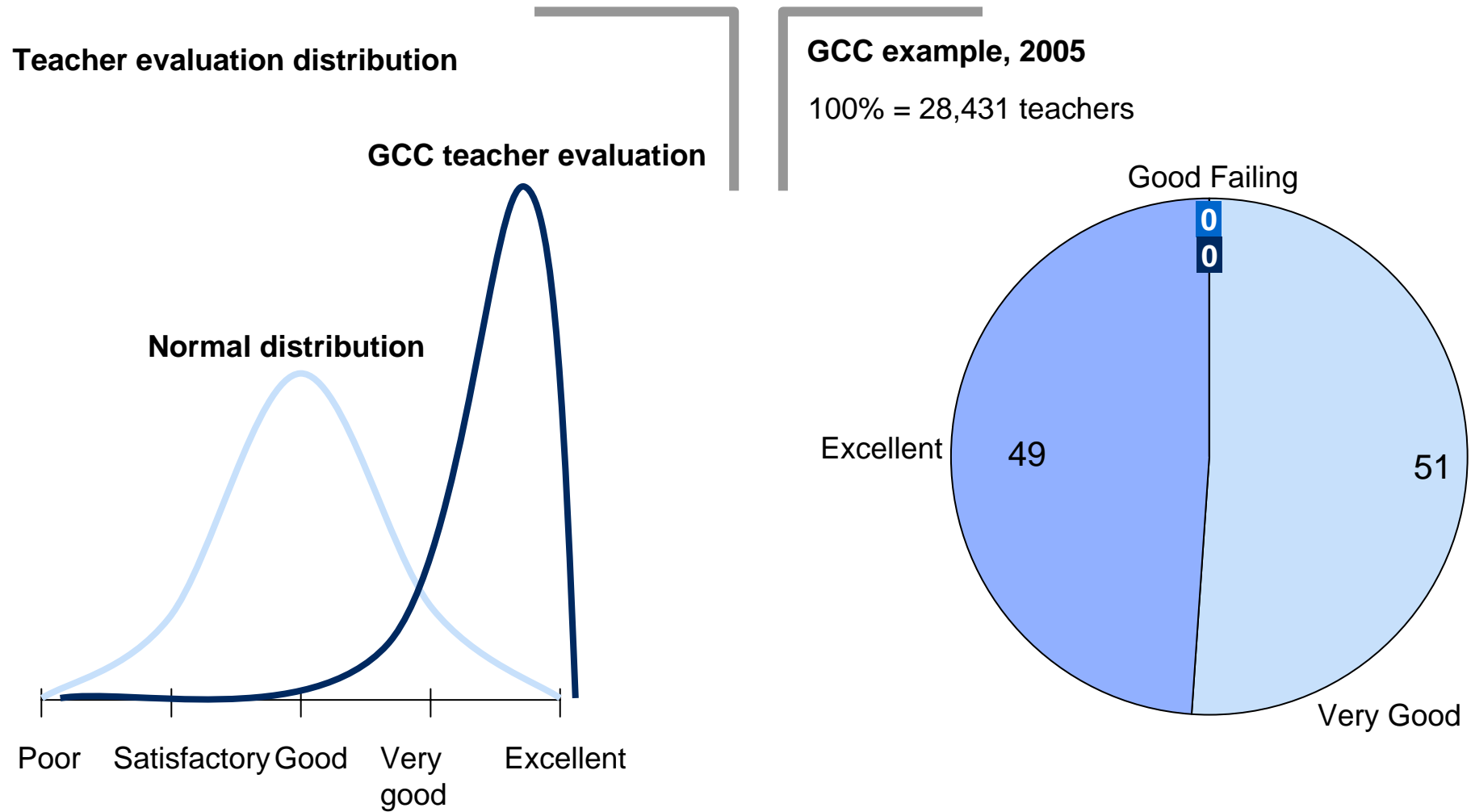
Percent of public school teachers who are expatriate, 2005



Source: National education statistics

Public school teachers receive high performance ratings: GCC example

Percentage of total public school teachers rated at each evaluation grade*



Teacher evaluation distribution

GCC example, 2005

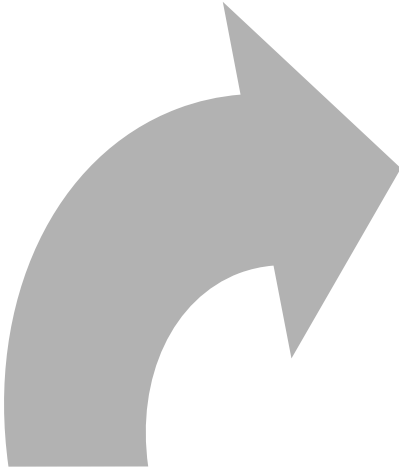
100% = 28,431 teachers

Poor Satisfactory Good Very good Excellent

* Average of primary, intermediate and secondary level teacher ratings

It is easy to create a few good schools, the challenge is to create a system that can deliver the same quality at scale

How to make 100,000 great math lessons happen simultaneously, every day, all over a country



A great math lesson



Standards, inspections, and examinations enable schools to continuously track their performance and improve

Standards



School System	School review/ inspections*	System-wide assessments**	School exit examinations**
Alberta	○	◐	◐
Boston	○	●	○
Chicago	○	●	○
England	●	●	●
Finland	○	◐	◐
Hong Kong	◐	●	●
Korea	○	●	●
Netherlands	●		
New York	◐		
New Zealand	●	◐	●
Singapore	◐	●	●

- Not separated
- ◐ Separate unit within Ministry
- External organization

Some GCC countries (eg Qatar, Bahrain) are putting similar inspection/examination systems in place

* Formal school reviews conducted by a person to whom the school is not directly accountable

** Assessments of students during the first 10 grades; School Exit examinations refers to leaving qualifications

Private sector should be involved at multiple stages of vocational and university education

Private sector provides input into program offering

- Private sector gives input on which programs to offer in light of:
 - Current job needs and market gaps
 - Future growth opportunities

Private sector provides input on curricula

- Vocational education: Private sector representatives sit on sector-based committees developing curricula
 - Determine fundamental skills needed (e.g. English)
 - Determine content of specialized in-school education (e.g. electrical engineering's occupational standards)
 - Determine training plans for on-the-job components
- University education: Private sector representatives provide input on the balance of theoretical and application skills taught in program

Private sector provides on-the-job training

- Private sector provides training to students through apprenticeship and internship positions
 - Provides relevant skills to apprentices to increase their 'job readiness'
 - Builds relationship with apprentice that can lead to permanent employment

Tomorrow's breakouts are aligned to the future reform priorities

1

Recruiting and developing excellent **teachers and principals** in the GCC

2

Managing education **system** performance in the GCC

3

Preparing GCC youth with the skills to meet **job market** needs