Understanding Middle East Education

UAE Country Profile

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The UAE is one of the more mature education markets in the region and remains a draw for investors, providers and students

This series of infographics provides a country by country overview of the education sector in the Middle East

The UAE is one of the more mature education markets in the region and remains a draw for investors, providers and students. Its scale and ambition remain undimmed, but what is the reality on the ground? What do the trends over time tell us about the education sector by segment, and what are the key differences between its main markets? In order to better understand the UAE's Education sector, it is important to understand the country's:

- Education Ecosystem
- Structure of the Education System
- Key Players
- Overall Quality of Education

This sets the scene for a deep dive into the enrolment trends and education outcomes of the UAE's education systems across its three main education stages: PreK, K-12 and Higher Education. We explore provision in the public and private education sectors across the seven Emirates, with a focus on its two biggest markets in Dubai and Abu Dhabi.

Education Ecosystem

Key influences on private provision in the UAE

Investment Climate

In the 2017-18 Global Competitiveness Report, the UAE's macroeconomic environment was ranked among the top 30 globally, with the country being the largest destination for FDI in the region.

The government recently introduced ownership laws to allow for 100% foreign investor ownership of companies outside free zones and 10 year residency visa options – a move designed to drive more foreign investment into the country and attract longer term residents.

More and more private equity firms in the region are growing their education portfolios in light of this climate, with the education sector ranking second in terms of private equity transactions among all sectors in the Middle East.

The cost of living in the UAE continues to increase however, and the degree to which this and the introduction of VAT will affect education sector growth is yet to be determined. The Dubai government has already stepped in by freezing K-12 tuition increases for the 2018/19 academic year to protect parents, but the move has caused some existing investors to reevaluate their investment decisions, at least for the coming year.

Operating Environment

The country's two biggest Emirates, Dubai and Abu Dhabi, have regulatory bodies in place to streamline the education investment and operations processes.

In Abu Dhabi, the Abu Dhabi Department of Education and Knowledge (ADEK) is undergoing changes to its mandate, shifting its focus away from public educational institutions – which are to move under the Ministry of Education's responsibility – to focus on private institutions, in a manner similar to that of the Knowledge and Human Development Authority (KHDA) in Dubai.

Schools continue to face challenges in attracting and retaining the highest quality teachers and principals regionally and in the UAE market in particular. Recent legislation from the Ministry of Education to introduce teacher licensing aims to ensure a minimum standard of quality for all teachers in the country.

Attractiveness to Expat Families

The UAE currently ranks 10th in HSBC's 2017 Expat Explorer Survey, climbing two spots from its 2016 ranking, making it the highest ranking country in the Middle East in terms of expat attitudes and behaviours – an indicator for the attractiveness of a country to expats.

However, a recent survey by YouGov shows that 42% of surveyed UAE residents think the introduction of VAT is likely to discourage expats from coming to the UAE. This is mainly driven by the belief that the tax will increase the cost of living, and have a somewhat uncertain effect on the overall economy.

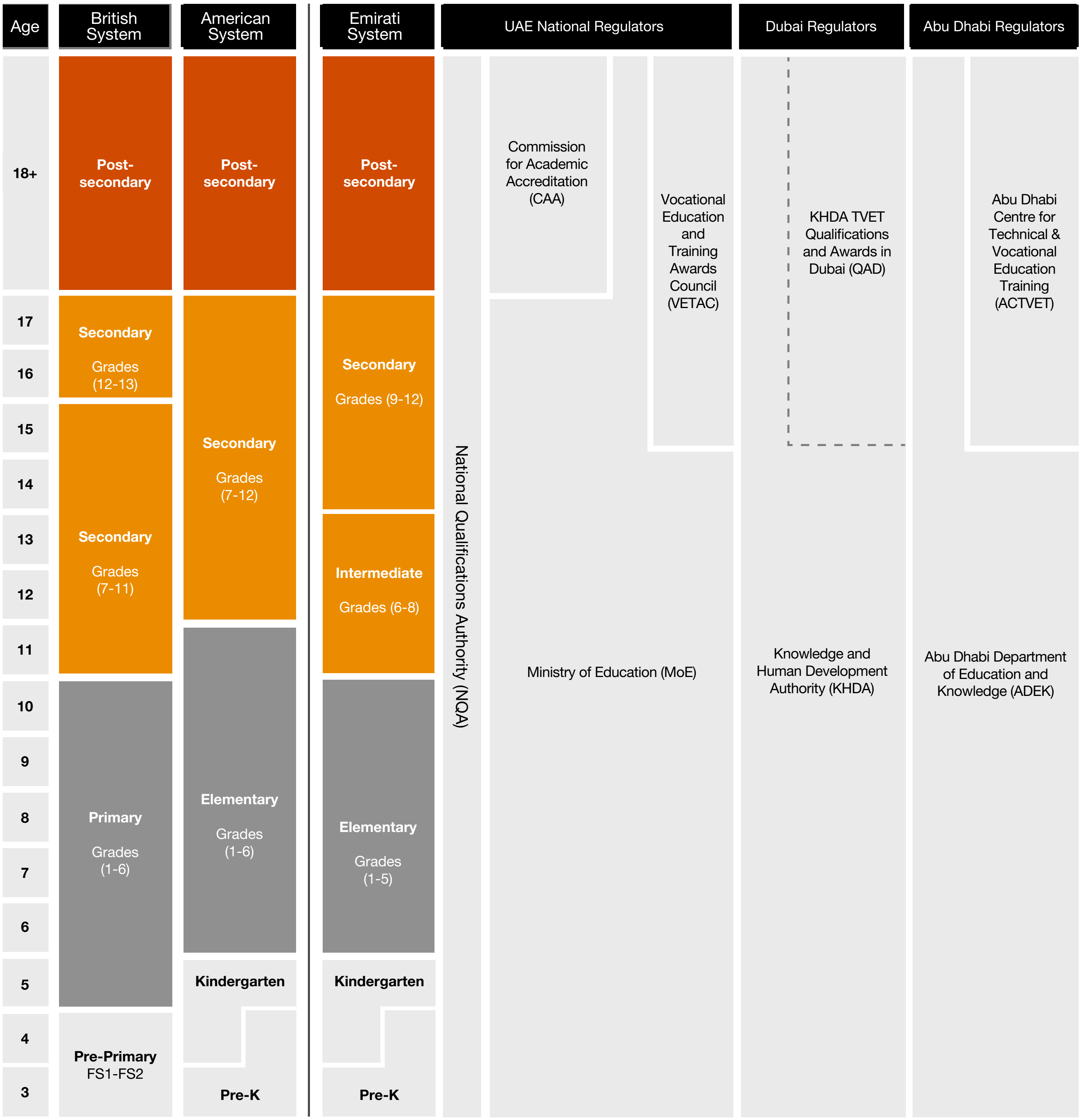
The UAE is at a point of inflection, making predictions for the coming years difficult to forecast. What is clear is that the country's potential – and government willingness – to create a successful sector make for a strong starting point in the region. This is particularly relevant considering that the relative immaturity of the private sector in surrounding GCC countries, in particular in KSA, continues to drive expats to base their families in the UAE.

Sources: World Economic Forum, HSBC Expat Explorer, PwC Middle East Economy Watch, S& Investment opportunities in the GCC education sector, YouGov Omnibus Research 2018

Structure of the Education System

Similar regulatory structures have emerged across the largest two Emirates in recent years

Figure 1: Structure of the UAE education system



Sources: UNESCO, UAE Government

Key Players

A small number of large operators and institutions play a major role in the UAE's delivery landscape, although the number and variety of providers is increasing

Figure 2: Key Players in the UAE education system

	Pre–K	K-12 (No. of Schools)	Higher Ed (Enrolment No.)	Local Government Regulators
Abu Dhabi	• GEMS Education • Aldar Academies • Bright Kids • Kids First Group • Bloom	• GEMS Education (7) • Aldar Academies (7) • SABIS (7) • Bloom (2)	• Higher Colleges of Technology (23,000) • UAE University (14,000) • Abu Dhabi University (7,500) • Zayed University (5,700)	• AD Department of Education & Knowledge (ADEK) • AD Centre for Technical & Vocational Education & Training (ACTVET)
Dubai	• GEMS Education • Taaleem • Innoventures • Kids First Group • Babilou • Bloom	• GEMS Education (32) • Taaleem (10) • Innoventures (5) • SABIS (2) • Bloom (2)	• University of Wollongong (3,900) • Zayed University (3,800) • Heriot-Watt University Dubai (3,600) • Middlesex University Dubai (3,100) • Manipal University (2,500) • American University in Dubai (2,300)	• Knowledge and Human Development Authority (KHDA)
Rest of UAE		• GEMS Education (10) • SABIS (5)	• University of Sharjah (13,800) • Ajman Uni of Science & Technology (6,300) • American University of Sharjah (5,650)	• Sharjah Education Council • Ajman Educational Zone • RAK Educational Zone • Fujairah Educational Zone • UAQ Educational Zone

Sources: numbers based on secondary sources, Nov 2018

Overall Quality of Education

The quality of the UAE's primary and higher education systems rank among the top 20 globally

Figure 3: Global Competitiveness Index Rankings (2015, 2016, 2017)

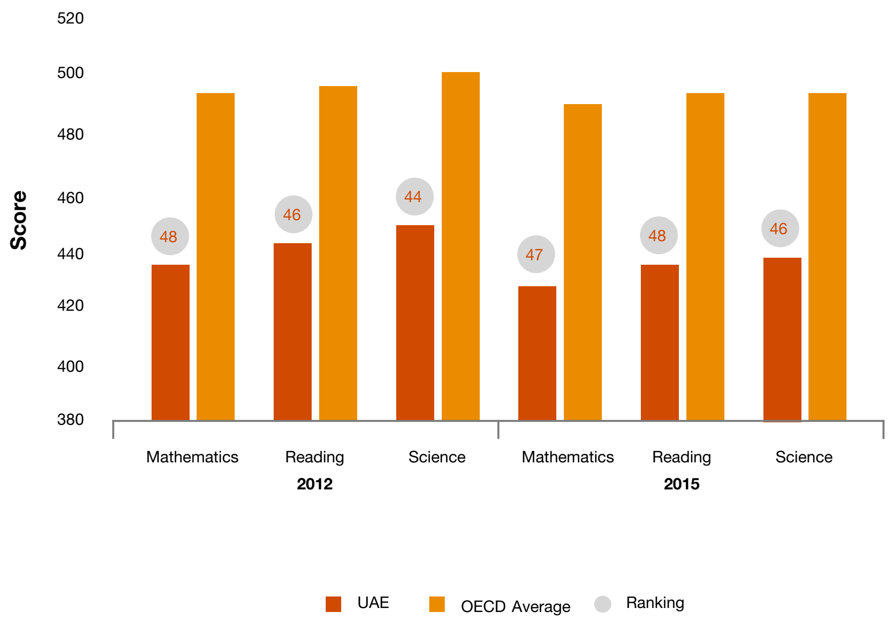
	Change from 2016-17 to 2017-18	2017-18	2016-17	2015-16
Overall	↓	17th	16th	17th
Quality of primary education	↓	16th	12th	13th
Quality of higher education	↓	12th	10th	12th
Primary education enrolment, net %	↑	87th	100th	94th
Secondary education enrolment, gross %		NA	71st	67th
Tertiary education enrolment, gross %	↑	94th	96th	99th

The UAE continues to be the most competitive country in the Arab World according to the Global Competitiveness Index, but its ranking dropped back to 2015-16 levels in 2017-18. This was mainly due to the relative improvement of other countries, highlighting a need to accelerate change. Education was highlighted as a key driver of competitiveness.

Sources: World Economic Forum

UAE's PISA rankings 2012-15 improved for Mathematics but dropped for Reading & Science, while TIMSS results showed better performance in Mathematics and Science for Dubai compared with Abu Dhabi 2011-15

Figure 4: PISA Results (2012, 2015)



PISA Rankings: between 2012 and 2015 the UAE moved up one spot in Mathematics, where it now stands in 47th place, but fell two places in Reading, from 46 to 48 and in Science, from 44 to 46. However, the UAE Government has an aspiration to move into the top 20 by 2021.

PISA Scores: both UAE scores and OECD average scores dropped compared with 2012 levels. The UAE scores are the highest in the region, but remain below the OECD average. Dubai private schools offering international curricula performed better than private and public schools offering MoE curricula. The MoE curricula is being modernised to address this issue.

Figure 5: TIMSS Results (2011, 2015)

	2011		2015		
Math 4th Grade	UAE	434	UAE	↑	452
	Dubai	468	Dubai	↑	511
	Abu Dhabi	417	Abu Dhabi	↑	419
Math 8th Grade	UAE	456	UAE	↑	465
	Dubai	478	Dubai	↑	512
	Abu Dhabi	449	Abu Dhabi	↓	442
Science 4th Grade	UAE	428	UAE	↑	451
	Dubai	461	Dubai	↑	518
	Abu Dhabi	411	Abu Dhabi	↑	415
Science 8th Grade	UAE	465	UAE	↑	477
	Dubai	485	Dubai	↑	525
	Abu Dhabi	461	Abu Dhabi	↓	454

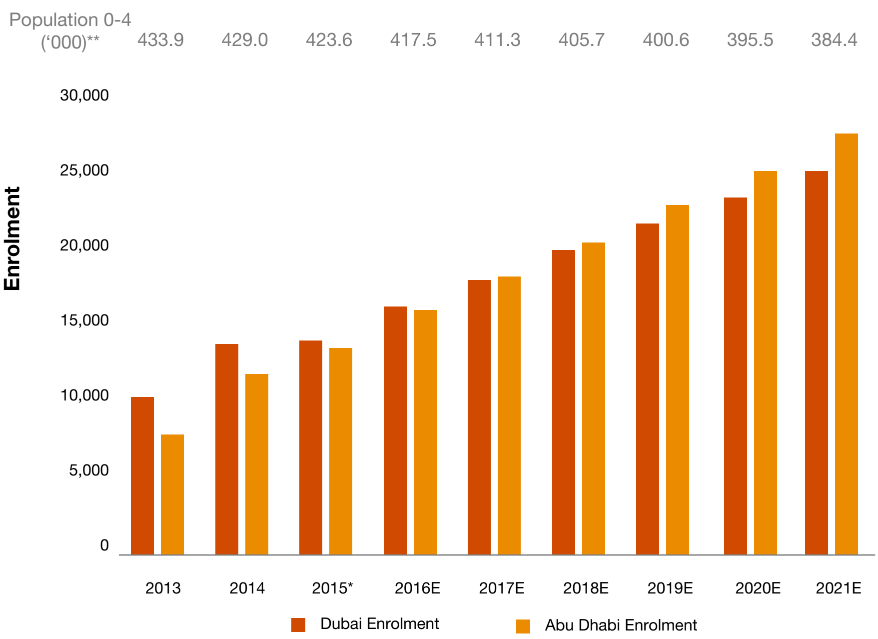
TIMSS Scores show significant improvement for Dubai in Mathematics and Science (4th & 8th Grade) and small improvement for Abu Dhabi in 4th Grade Mathematics & Science, with drops in 8th Grade Mathematics & Science performance.

Sources: OECD, Ministry of Education, International Monetary Fund, IEA TIMSS

Key Education Trends: Pre-K

Pre-K enrolment is expected to increase in Dubai & Abu Dhabi, with the latter expected to grow at a faster rate

Figure 6: Pre-K Enrolment Estimates (2013-2021)



*: Estimated figure for Abu Dhabi and actual data for Dubai
**: Population estimates include half the 4 year old population to account for academic year considerations
Sources: UN, Dubai Statistics Center (DSC), Statistics Centre Abu Dhabi (SCAD), PwC Analysis

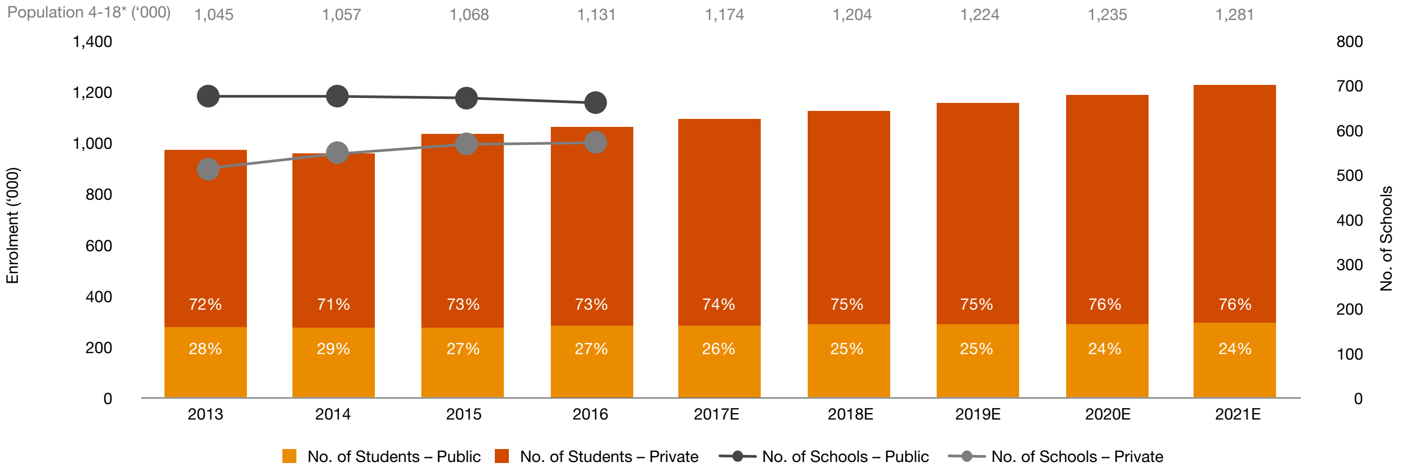
Whilst Dubai has reported having more than 200 nurseries, (around 50 more than Abu Dhabi reported), nursery enrolment in Abu Dhabi has seen faster growth, which, if it continues, will result in an expected 2016-2021 CAGR of 11.5% compared with 9% in Dubai. Overall we expect growth to continue as the emphasis on the importance of early childhood education increases, alongside a move towards higher female participation rates in the workforce.

OECD average participation rates of 0-2 year olds are estimated at 33%, compared to estimated participation rates of 7% in Abu Dhabi and 10% in Dubai.

Key Education Trends: K-12

Private education enrolment is expected to grow at a CAGR of ~4%, almost 4 times higher than the rate of public education enrolment growth

Figure 7: K-12 Enrolment Estimates (2013-2021)



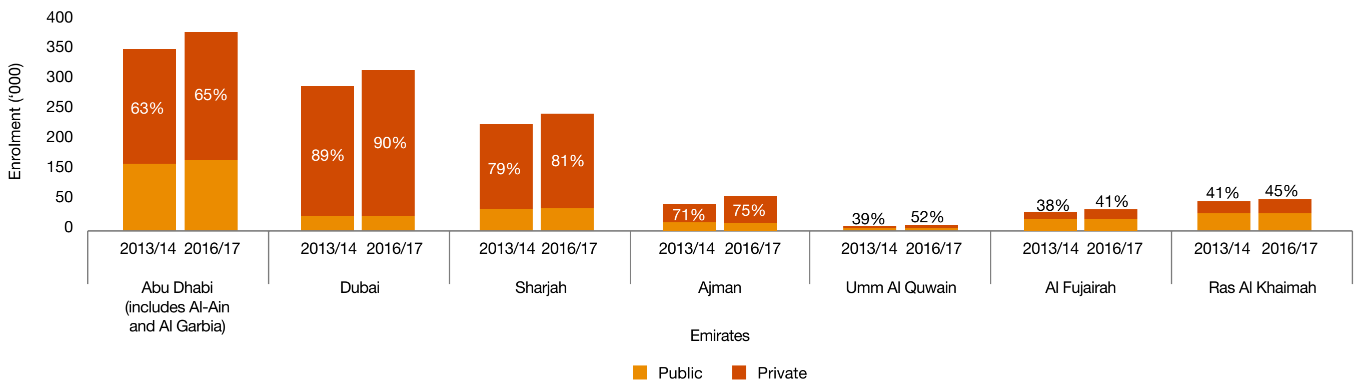
More than 150,000 new students will enroll between 2016 and 2021 in private K-12 if enrolment growth continues at the current rate – although some of this will be absorbed by capacity in existing school with low utilization rates, particularly those most recently opened. (*refer to Figure 9 for a breakdown of school growth in Dubai and Abu Dhabi*)

This growth is in line with UN projections, which predict that the overall population will continue to grow until 2021. The K-12 age group (4-18) shows the highest growth during the 2013-2016 period (CAGR 2.7%), and is likely to grow at a slightly slower rate for 2017-2021 (CAGR 2.2%). In 2016, the UAE had 27% of its students in public schools, and it spent around $22,000 (80,000 AED) per student, more than double the OECD average of $9,000 (33,000 AED).

* Population estimates include half the 4 year old population and half the 18 year old population to account for academic year considerations
Sources: UN, Ministry of Education, International Monetary Fund, PwC Analysis

By Emirate: K-12 private sector enrolment grew by more than 95,000 between 2013 and 2016 across all seven Emirates, with almost 60% of that growth coming from Dubai and Abu Dhabi

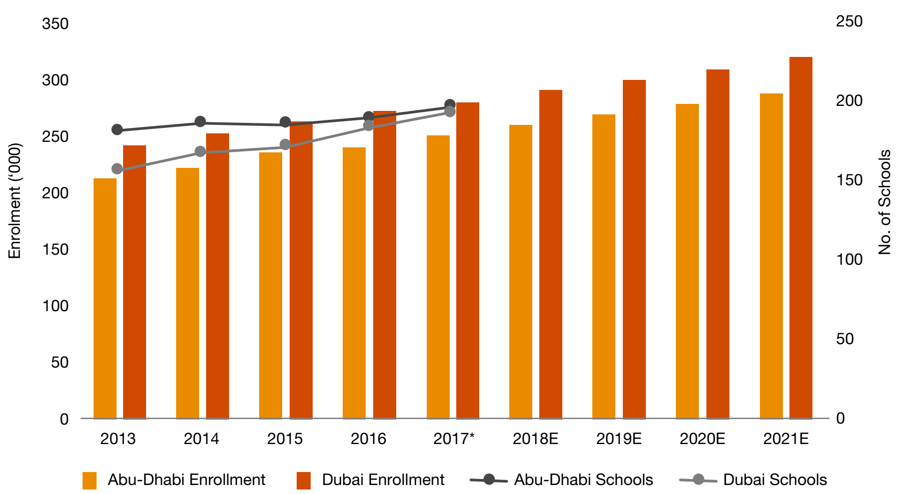
Figure 8: K-12 Enrolment by Emirate (2013, 2016)



Sources: Knowledge and Human Development Authority (KHDA), Ministry of Education, Statistics Centre Abu Dhabi (SCAD)

By Main Markets: Dubai and Abu Dhabi have been growing at similar rates when it comes to K-12 private sector enrolment (~CAGR 4%)

Figure 9: Private K-12 Enrolment Estimates in Dubai and Abu Dhabi (2013-2021)



While enrolment growth rates tend to be similar between the two Emirates (~CAGR 4%) 2013-2016, the number of schools has grown more quickly in Dubai than Abu Dhabi, possibly due to Abu Dhabi having started off with a higher number of schools. Abu Dhabi may be at the point of needing to introduce schools at a faster rate to increase capacity if enrolment growth continues.

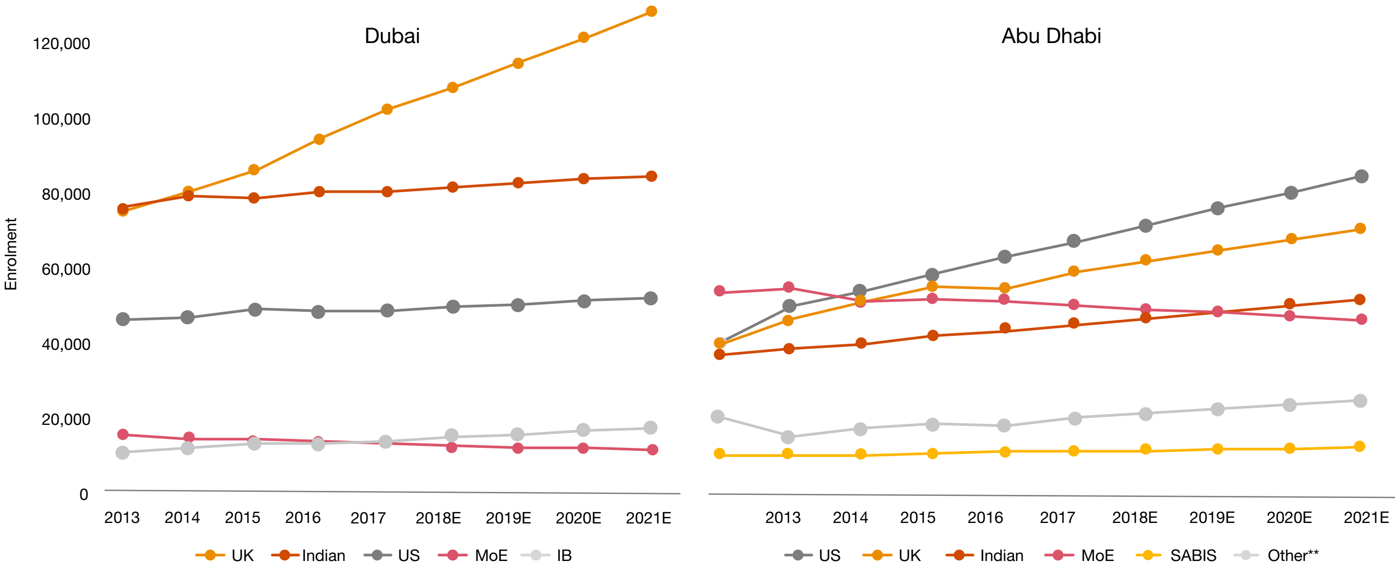
* Estimated figure for Abu Dhabi and actual data for Dubai

Sources: Knowledge and Human Development Authority (KHDA), Dubai Statistics Center (DSC), Statistics Centre Abu Dhabi (SCAD), PwC Analysis

By Curriculum: UK, Indian and US curriculum popularity continues to drive growth in enrolment, with UK preference being significantly higher in Dubai, compared with a mix of preferences in Abu Dhabi

Figure 10: Private K-12 Enrolment Estimates by Curriculum in Dubai and Abu Dhabi (2013-2021)

In Dubai, if UK school enrolment continues to increase, it will represent over a third of the market by 2021. This will translate into 26,000 more enrolments by 2021, representing growth over 6 times higher than any other school curriculum type. In Abu Dhabi, the case is similar for US curriculum schools, where, if enrolment continues to increase, it will represent almost a third of the market in 2021, with more than 21,000 additional enrolments. The drop in MoE curriculum popularity could reflect a preference among parents for more international curricula.



* Other includes IB, among other less common curricula (French, Canadian, etc.)
Sources: Knowledge and Human Development Authority (KHDA), Department of Education and Knowledge (ADEK), PwC Analysis

By Quality: Overall school quality in Dubai improved over the past 5 years, with schools rated good and higher growing from 49% of total schools to 66%

Figure 11: Private School Ratings in Dubai (2013-2017)

Overall utilization has dropped across curriculum types meaning that at least some of the projected additional enrolment will be provided for in existing schools. The new capacity in IB in particular has not been filled yet, which could be explained by the high tuition fees of these schools. Despite higher average fees, parents remain willing to send their children to “Outstanding” and “Very Good” schools. On the other hand, the utilization of ‘Good‘ and 'Acceptable' schools has dropped significantly. The ‘Weak' rated schools are now seeing higher utilization, perhaps explained by the closure of the weakest and emptiest schools and the fact that these schools tend to cater to lower income families.

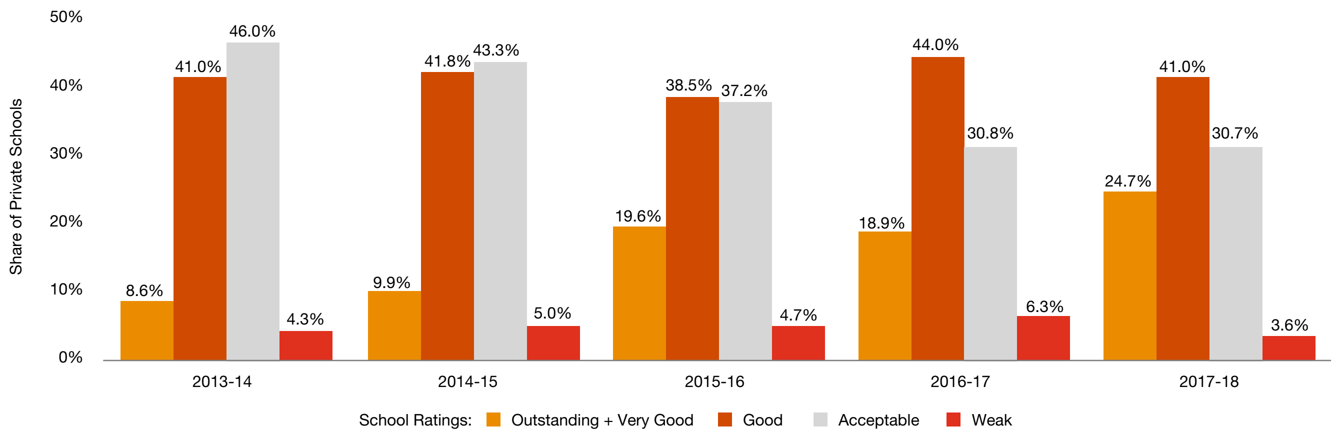


Figure 12: Private School Utilization Rates by Curriculum in Dubai (2014, 2017)

Utilization rates by curriculum*	UK	Indian	US	MoE	IB	Overall
2014	87.5%	88.6%	86.1%	84.2%	93.3%	88%
2017	82%	82%	79%	78%	78%	80%
Average Fees AED**	42,000	14,000	33,000	7,000	69,000	–

Figure 13: Private School Utilization Rates by Rating in Dubai (2014, 2017)

Utilization rates by rating*	Outstanding	Very Good	Good	Acceptable	Weak
2014	98.5%	–	95.3%	90.9%	79.5%
2017	93%	91%	81%	81%	85%
Average Fees AED**	60,000	50,000	32,000	18,000	7,000

* Utilization is calculated by dividing current school enrolment by current school capacity
** Fees have been rounded to the nearest thousand
Sources: Knowledge and Human Development Authority (KHDA)

By Market Size: There is a shortage of quality schools in the AED 30,000-50,000 fee range

Dubai's average fees per student is around 26,000 AED, with the majority of schools charging fees below 30,000 AED, particularly where schools tend be bigger and have ratings of "Good" or lower. The majority of "Very Good" and "Outstanding" Schools charge average fees over 40,000 AED. There is a market gap for schools in the 30,000-50,000 AED range, specifically for high quality schools.

Figure 14: Private School Fee Distribution by Size, Curriculum and Rating in Dubai (2017)

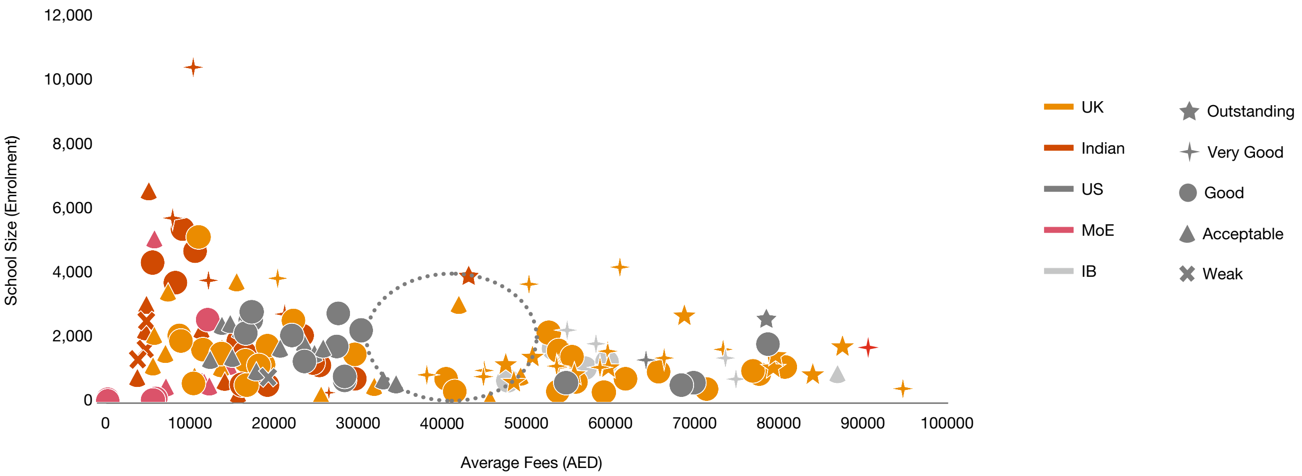
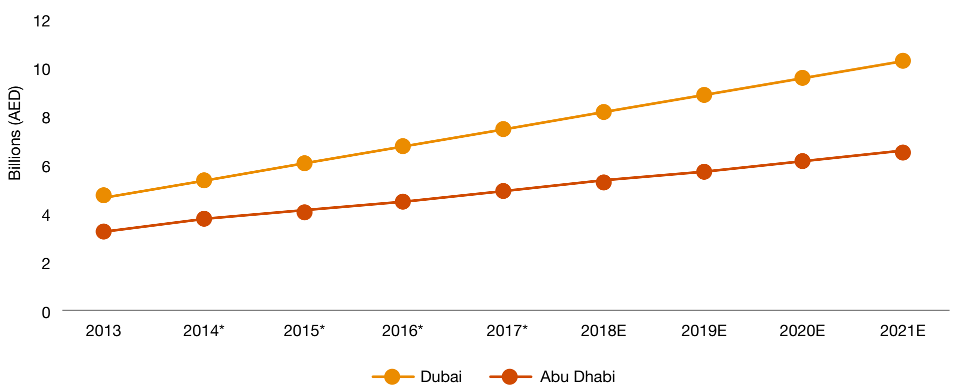


Figure 15: Private School Market Size Estimates in Dubai and Abu Dhabi (2013-2021)**



The Dubai and Abu Dhabi markets are expected to grow at CAGR rates of 7-8%, with Dubai growing at a slightly higher rate to a market value almost 4 billion AED higher than that of Abu Dhabi in 2021.

* Estimated figure for Abu Dhabi and actual data for Dubai
**Abu Dhabi and Dubai K-12 private school market size based on tuition fee (AED) and enrolment
Sources: Knowledge and Human Development Authority (KHDA), Department of Education and Knowledge (ADEK), PwC Analysis

Key Education Trends: Higher Education

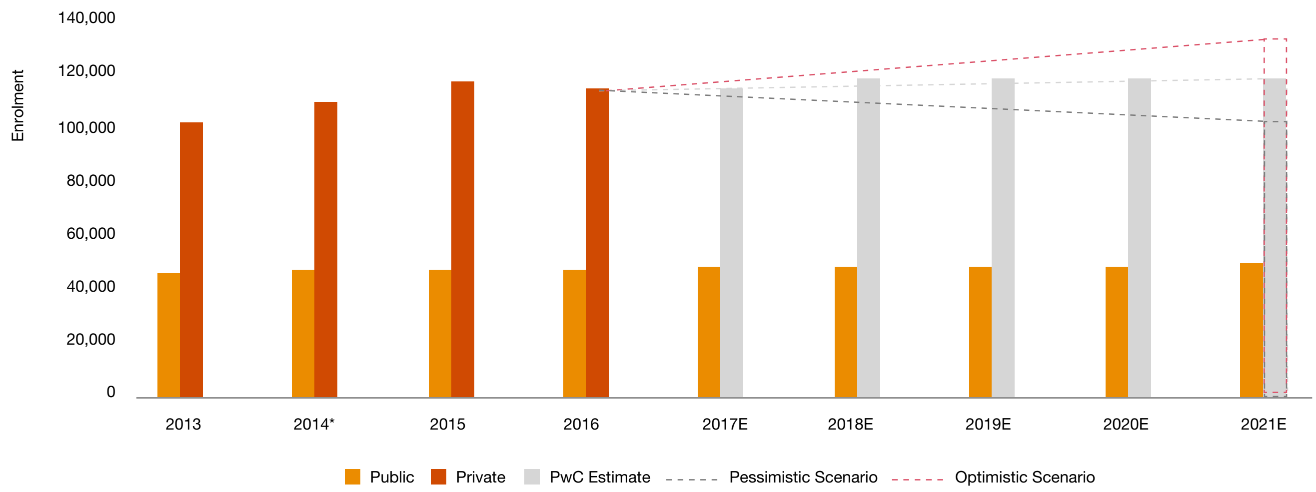
The environment is uncertain, but Higher Education enrolment has the potential to grow by around 5,500 students by 2021

Higher education enrolment grew between 2013 and 2015 but fell in 2016, due to a drop in private enrolment estimated at -2.5%. If enrolment continues to drop at the same pace, the market will lose more than 10,000 students in private HE by 2021, in what could be called a pessimistic scenario.

On the other hand, the 18-24 population is projected to grow at a CAGR of around 2% (2017-2021), inbound student numbers exceeded 70,000 in 2016, and recent reforms have extended student visas from 1 year to 5 years and up to 10 years for “exceptional” students. These factors, in addition to the arrival of highly ranked universities such as University of Birmingham, are likely to drive recovery in a “supply driven” market, closing some of the gaps resulting from the small range of programs currently offered. An optimistic scenario could see private enrolment continuing to grow linearly at a CAGR of 3.5%, adding more than 21,000 students by 2021.

The reality may be somewhere between these scenarios, where some recovery is expected, but at a growth rate lower than that seen over the past few years. We estimate both public and private enrolment will grow at a CAGR of around 0.7%, resulting in more than 5,500 extra enrolments by 2021.

Figure 16: Higher Education Enrolment Estimates (2013-2021)

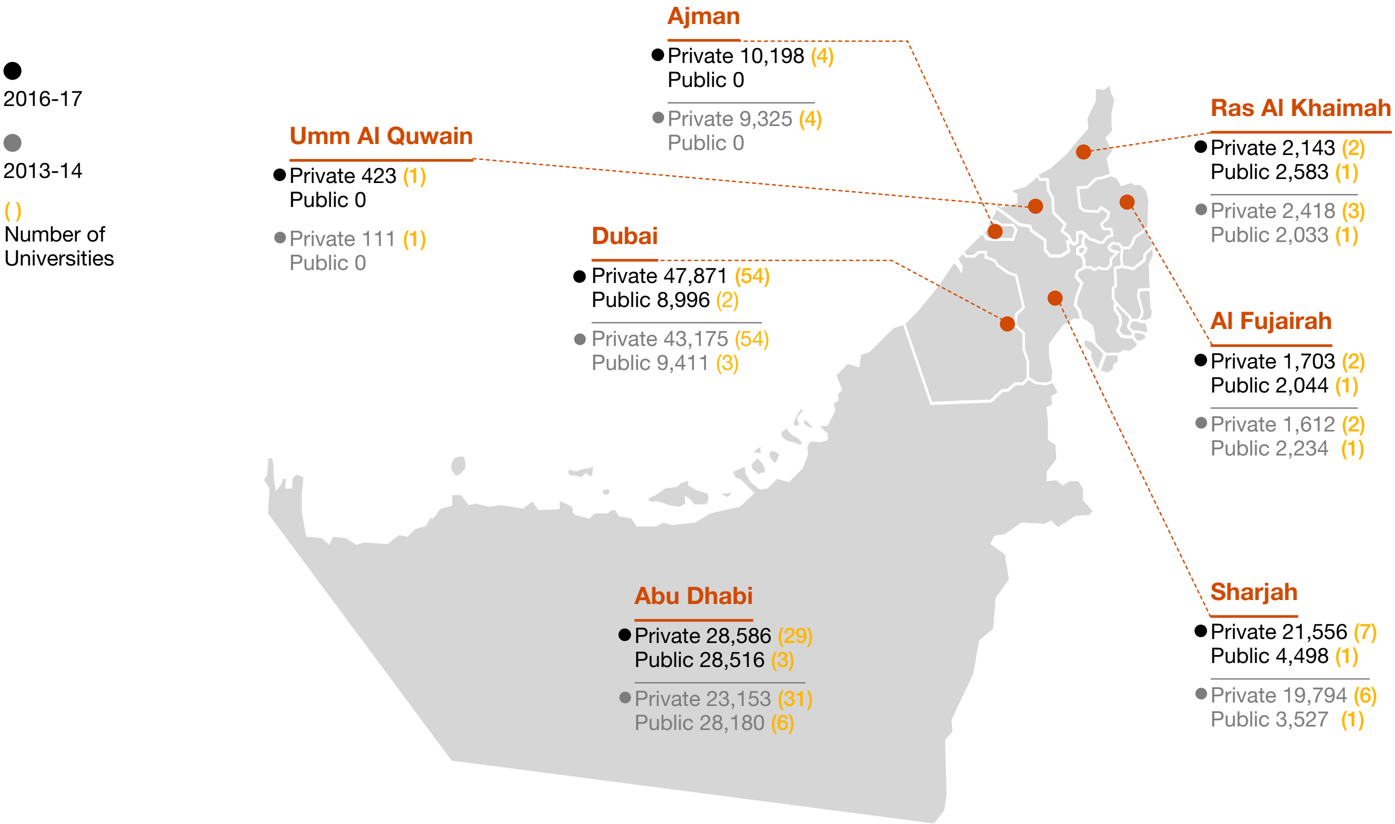


*2014 is an estimate
Sources: Knowledge and Human Development Authority (KHDA), UN, UNESCO, Federal Competitiveness and Statistics Authority (FCSA), PwC Analysis

By Emirate: Dubai and Abu Dhabi dominate with the largest number of higher education students

In Dubai private provision makes up a much larger proportion of seats while in Abu Dhabi the split is even, likely driven both by the fact that ~70% of Abu Dhabi students are Emiratis, compared with ~35% in Dubai. Equally important for understanding the difference is the impact of Dubai's academic free zones, which attract a large number of private universities and international branch campuses to the Emirate, making private higher education a more attractive option for students seeking quality international education.

Figure 17: Higher Education Enrolment Estimates by Emirate and by Sector (2016)

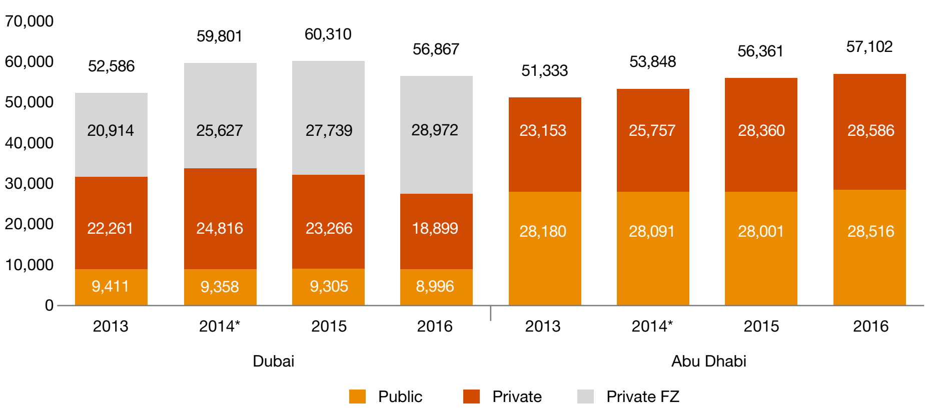


Sources: Knowledge and Human Development Authority (KHDA), Dubai Statistics Center (DSC), Federal Competitiveness and Statistics Authority (FCSA)

By Main Markets: The biggest drop in private higher education enrolment in the UAE in 2016 came from Dubai's non free zone universities

Enrolment in KHDA HEIs continued to grow, with the drop in 2016 coming from private HEIs outside of free zones in Dubai. Abu Dhabi's growth slowed in 2016 but did not see a drop in enrolment, continuing a trend of slower yet steady increase over the past 4 years.

Figure 18: Higher Education Enrolment Estimates in Dubai and Abu Dhabi (2013-2016)



CAGR 2013-2016 Public
Dubai -1.5% | AD: 0.4%

CAGR 2013-2016 Private
Dubai: -5.3% | AD: 7.3%

CAGR 2013-2016 Private FZ
Dubai: 11.5%

*2014 is an estimate
Sources: Knowledge and Human Development Authority (KHDA), Federal Competitiveness and Statistics Authority (FCSA)

By Specialization: There is little annual variation in graduating students' specializations, despite changing labor market needs, with Business and Engineering continuing to be the top choices in both public and private universities

Public universities tend to have more diversity among their graduating students' specializations than private HEIs in Dubai and Abu Dhabi, where 75% of all graduating students fall under 2 specializations: Business and Engineering in Dubai and Business and Education in Abu Dhabi. Private universities are also driven to offer more profitable programs, and often stay away from programs that either attract smaller enrolment numbers or have higher infrastructure and running costs. Examples include Medicine, Arts, Sports, History, Archaeology etc.

The UAE has a relatively low number of postgraduate students compared with mature markets and the number of undergraduate students in the country. To enhance its global standing in education, more is required to increase the number and attractiveness of postgraduate courses available as well as the availability of research funding.

Figure 19: Higher Education Graduates by Specialization in UAE Public Institutions (2015)

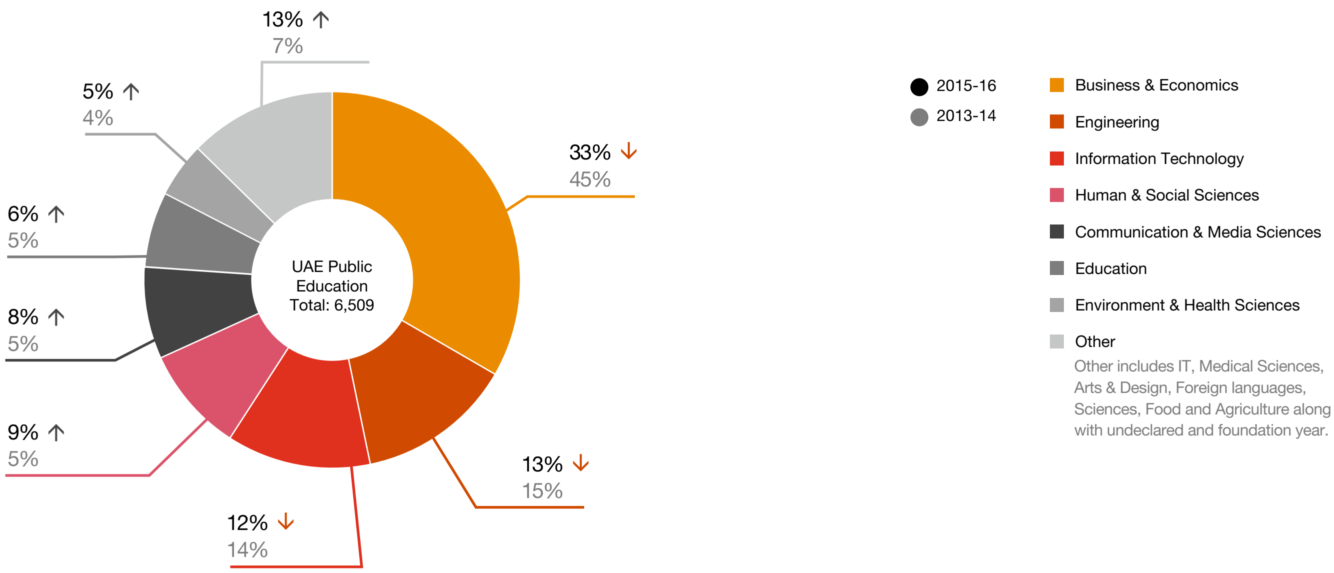
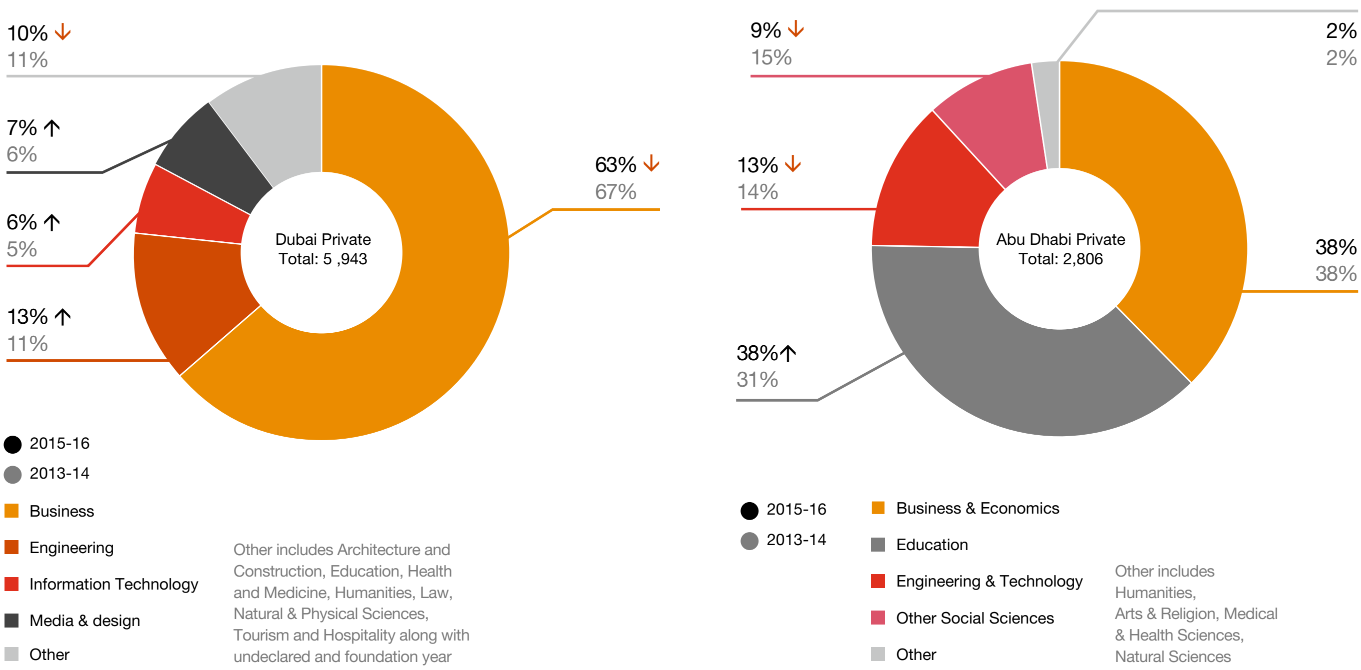


Figure 20: Higher Education Graduates by Specialization in Dubai and Abu Dhabi Private Institutions (2015)



Sources: Knowledge and Human Development Authority (KHDA), Federal Competitiveness and Statistics Authority (FCSA), Statistics Centre Abu Dhabi (SCAD)

UAE leadership recognizes the need to move away from business and finance courses and focus more on STEAM related subjects in preparation for a job market where technological disruption is underway and a push to reduce the current dependency on government employment will increase the need for private sector participation. Priority sectors identified as needed for the UAE's future job market include:

- Energy and Petrochemicals
- Travel, Tourism and Hospitality
- Manufacturing
- Trade and Logistics
- Financial Services
- Technology, Media and Communications
- Construction*

The UAE's national vision and major projects like the Expo 2020 are likely to influence a transition towards specializations like Information Technology, the Sciences, Communication, Media and Design, alongside a continued focus on engineering. However, to what extent and speed both the private universities and the student population will respond is yet to be determined. Private universities are unlikely to be able to invest in new programs with low initial student numbers, a gap that public universities might be expected to fill. Student uptake of these programs may need a combination of a necessary shift in mindset, alongside a rapid shift in the job market to supply new jobs that will encourage students to venture towards different specializations.

*The composition of the construction labor force is skewed towards lower skilled labor, and is dependent on the growth of other sectors, so is not considered a priority field for student studies.
Sources: Knowledge and Human Development Authority, Federal Competitiveness and Statistics Authority (FCSA), Statistics Centre Abu Dhabi, British Council Future Skills Report

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