



Education

Research Team

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Education

Introduction

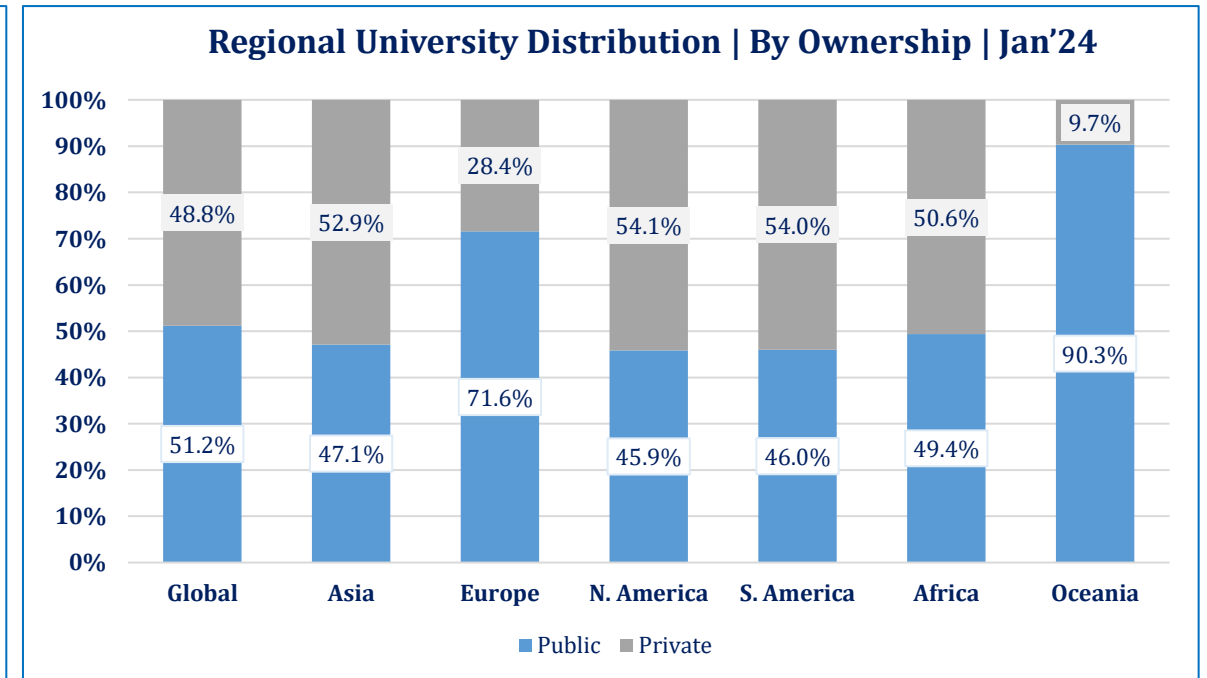
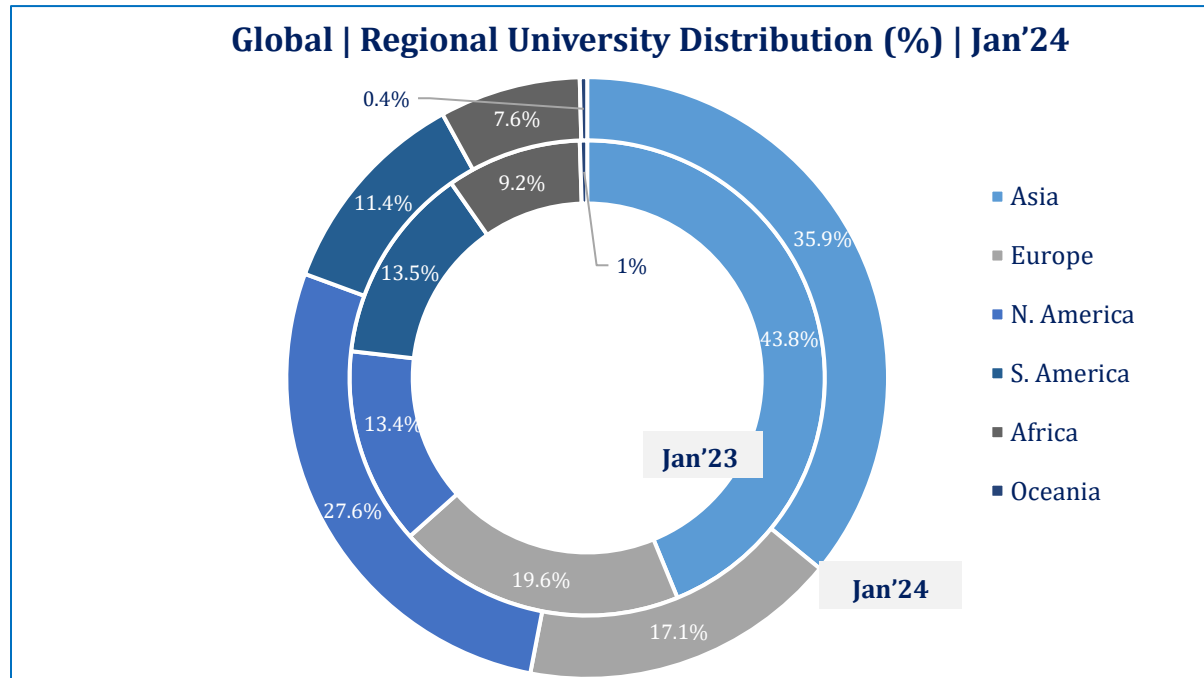
- The sector encompasses all institutions, processes, and systems involved in providing learning experiences and disseminating knowledge and plays a crucial role in the social, economic, and cultural development of individuals and societies. UN's Sustainable Development Goal (SDG) 4 focuses on ensuring inclusive and equitable quality education and promoting lifelong learning opportunities for all.
- **Primary Education** is typically defined for children aged ~6-12 years, aimed at providing basic literacy and numeracy skills, along with a fundamental understanding of subjects such as science, social studies, and physical education.
- **Secondary Education** covers ages ~12-18 and prepares students for higher education/ vocational training. It often includes more specialized subjects and may be divided into lower-secondary (middle school) and upper-secondary (high school).
- **Tertiary Education** includes universities, colleges, and vocational schools offering undergraduate, graduate, and postgraduate programs. It focuses on advanced knowledge and skills in specific fields.
- Global literacy rate for adults (~15 years and older) in CY23 stood at ~86.0%, with significant variations across regions. Sub-Saharan Africa and South Asia recorded the lowest literacy rates, at ~66.0% and ~73.0%, respectively. Europe recorded the highest literacy rate at ~98.5%.
- In CY23, global learning poverty was estimated at ~70.0%, implying that ~70% children in low- and middle-income countries are not able to understand a simple text by age 10.



Education

Global | Region-wise University Distribution

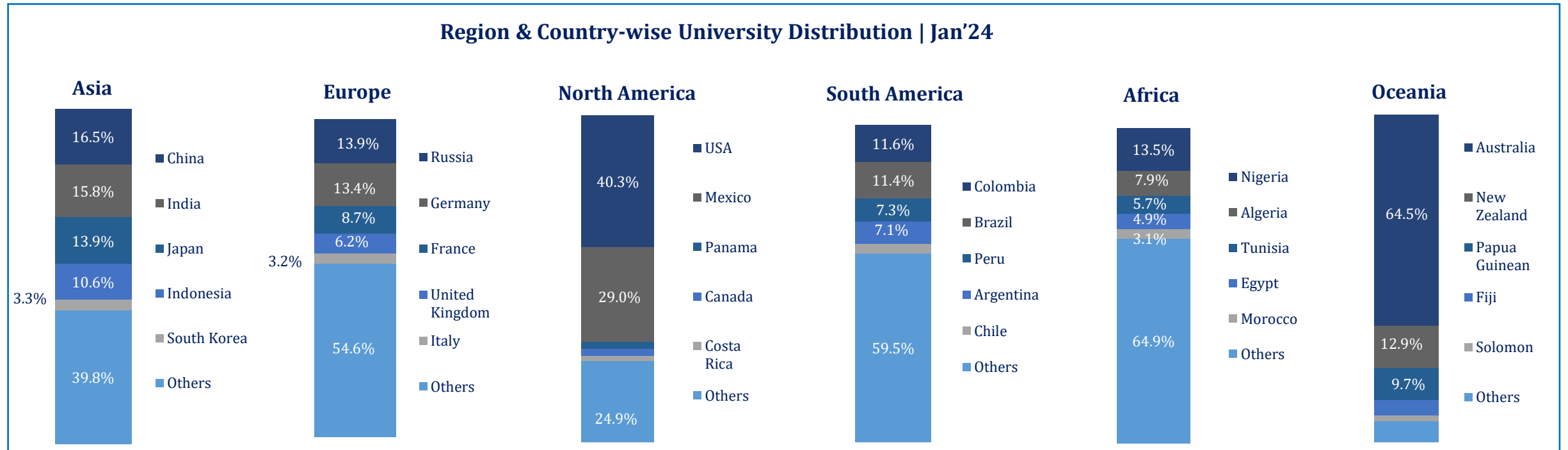
- Total number of universities around the globe, as of Jan'24, stood at ~15,647 (SPLY: ~13,723). Region-wise, Asia accounted for ~35.9% (SPLY: ~43.8%) of the global total and recorded ~5,621 universities.
- During the period under review, ~51.2% of universities worldwide were public universities while ~48.8% were privately-owned (SPLY: ~47.0% and ~53.0%, respectively). In Asia, the ownership mix was skewed towards private universities, with ~47.1% public universities and ~52.9% private universities.
- North America, meanwhile, recorded ~45.9% public universities and ~54.1% private universities in Jan'24. Additionally, ~27.6% of the world's universities were located in this region. In contrast, Oceania recorded ~90.3% public and only ~9.7% private universities during the period. The region formed ~0.5% of the global total, with ~62 universities recorded in Jan'24.



Education

Global | Region & Country-wise University Distribution

- As of Jan'24, the highest number of universities in the world were located in the USA, recording at ~1,741 (SPLY: ~1,711), with 11.1% global share (SPLY: ~13.3%). In the Americas, share of USA clocked in at ~40.3% during the year (SPLY: ~42.5%).
- During this time period, ~16.5% of universities in Asia were located in China (SPLY: ~15.6%), whereas, globally, the country recorded the second-highest number of universities at ~929 (SPLY: ~928), forming ~5.9% global share (SPLY: ~5.8%).
- Meanwhile, India recorded ~890 universities during the period (SPLY: ~888). With ~15.8% regional share as of Jan'24, India has the third-highest number of universities in the world, forming ~5.6% global share (SPLY: ~5.1%).



Education

Education Levels

ISCED 0: Early & Pre-Primary Education	This level of education includes early childhood education, for 0 to 2 years age group and pre-primary education aimed at children aged 3, till start of ISCED 1.
ISCED 1: Primary Education	This level of education provides students with basic reading, writing and mathematical skills with an objective of preparing them for secondary education. This level has basic complexity, with little to no specialization. (grade 1-5)
ISCED 2 & 3: Secondary Education (Lower & Upper)	This level aims to lay the foundation for lifelong learning, is typically specialized and designed in preparation for tertiary education and/or provide skill for employment. (usually grades: 6-10 & 11-12)
ISCED 4: Post-secondary non-tertiary Education	This level provides individuals who completed ISCED level 3 with non-tertiary qualifications required for progression to tertiary education or for employment, however it's not sufficiently complex to be regarded as tertiary education.
ISCED 5: Short-cycle tertiary Education	These are designed to provide students professional skills, knowledge and competencies and typically are occupationally specific and prepare students for the labor market.
ISCED 6: Tertiary education (Bachelors or equivalent)	Bachelor's or equivalent level, are often designed to provide students with intermediate academic and/or professional knowledge, skills and competencies. They are offered by Universities and equivalent Tertiary educational institutions.
ISCED 7: Tertiary education (Masters or equivalent)	These are typically designed to provide students with advanced academic and/or professional knowledge, skills and competencies. Programs at this level may have a substantial research component but do not lead to a doctoral qualification.
ISCED 8: Tertiary education (Doctoral or equivalent)	These are designed primarily to lead to an advanced research qualification. Programs at this level are devoted to advanced study and original research and are typically offered only by research-oriented tertiary educational institutions.

Education

Global | Regional Population and Education Stats

- Global population recorded at ~8,045mln in CY23 (CY22: ~7,975mln), up ~0.8% YoY. Tertiary enrollments in CY23 accounted for ~42.0% of global population, while global per capita GDP recorded at USD~13,138 (CY22: USD~12,730).
- Asia and Africa collectively constituted ~77.2% of global population in CY23 (SPLY: ~77.0%). Moreover, these recorded ~82.3% of the global population falling in the ~15-29 years age group (assumed tertiary education age). However, tertiary enrollments remained below than those recorded in Europe, Americas and Oceania regions (depicted below).
- Oceania, representing ~0.6% of global population in CY23, boasted the highest tertiary education enrollments at ~107.9%, largely due to a high number of foreign student enrollments in Australia (~115.9% of total population during the year).

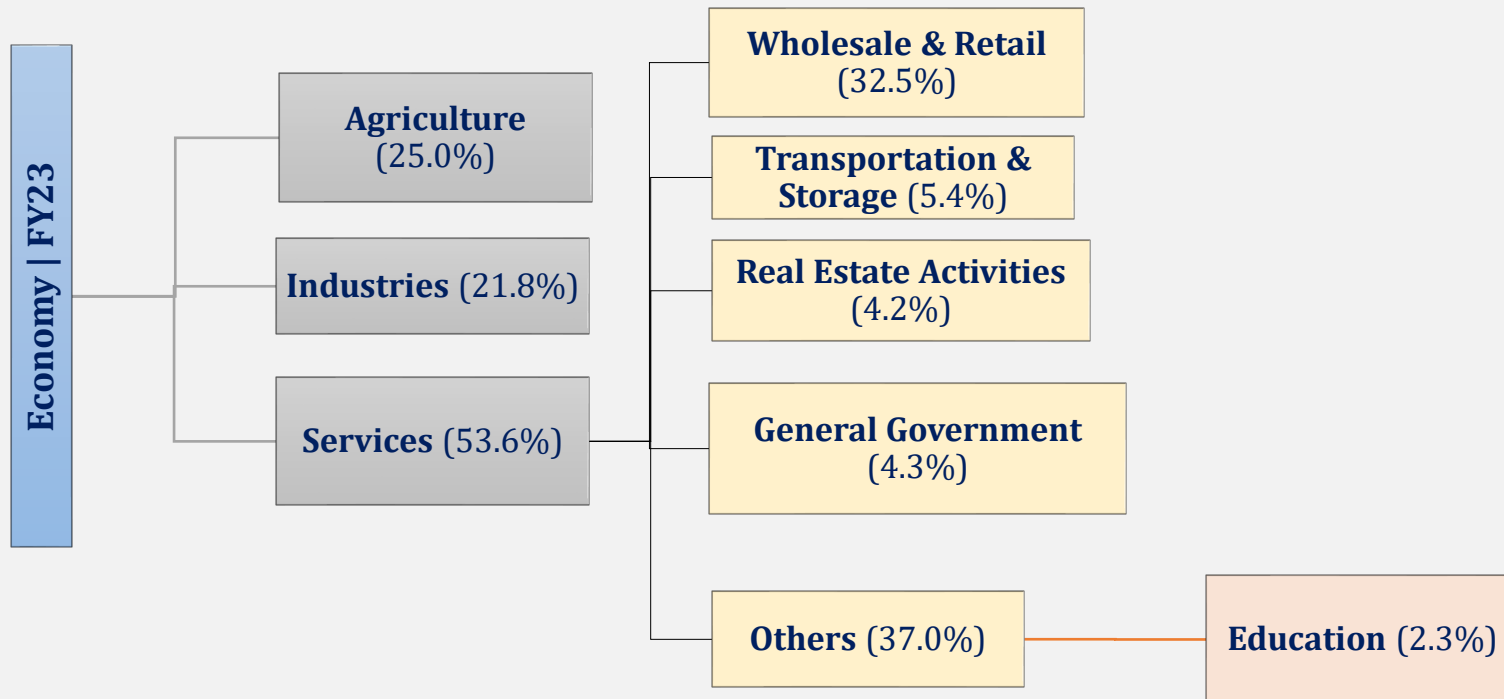
Region CY23	Region-wise Population (mln)	Share in Global Population (%)	(15-29) Age Group (mln)	(15-29) Age Group (% Population)	% age Tertiary Enrollments*
Asia	4,753	59.1%	717	15.1%	42.7%
Africa	1,460	18.2%	292	16.9%	16.6%
Europe	742	9.2%	85	11.2%	77.0%
South America	439	5.5%	111	17.5%	58.5%
North America	374	4.7%	55	14.0%	86.6%
Oceania	45	0.6%	6	14.4%	107.9%
Global	8,045	100.0%	1,266	15.7%	46.2%

*Tally of enrollments in post-secondary programs only, and not successful completion.

Education

Local | Overview

- In FY23, Pakistan’s GDP (nominal) stood at PKR~83.9trn (FY22: PKR~66.7trn) and contracted, in real terms, by ~0.17% YoY (FY22: ~6.3% growth). However, country’s nominal GDP during FY24 is forecast to clock in at PKR~106.0trn, with ~2.4% YoY growth in real terms, depicting improved economic activity. Moreover, the SBP estimates GDP growth at ~2-3% for FY24, while IMF’s forecast for the same period stands at ~2.0%. In 9MFY24, Pakistan’s GDP (nominal) stood at PKR~73.8trn, an uptick of ~2.04% YoY (real terms).
- During FY23, the Education sector held ~2.3% share in GDP (FY22: ~2.6%) (9MFY24: ~2.1%) and contributed ~4.4% to overall services segment (SPLY: ~4.7%; 9MFY24: ~4.0%).



Education

Local | Snapshot

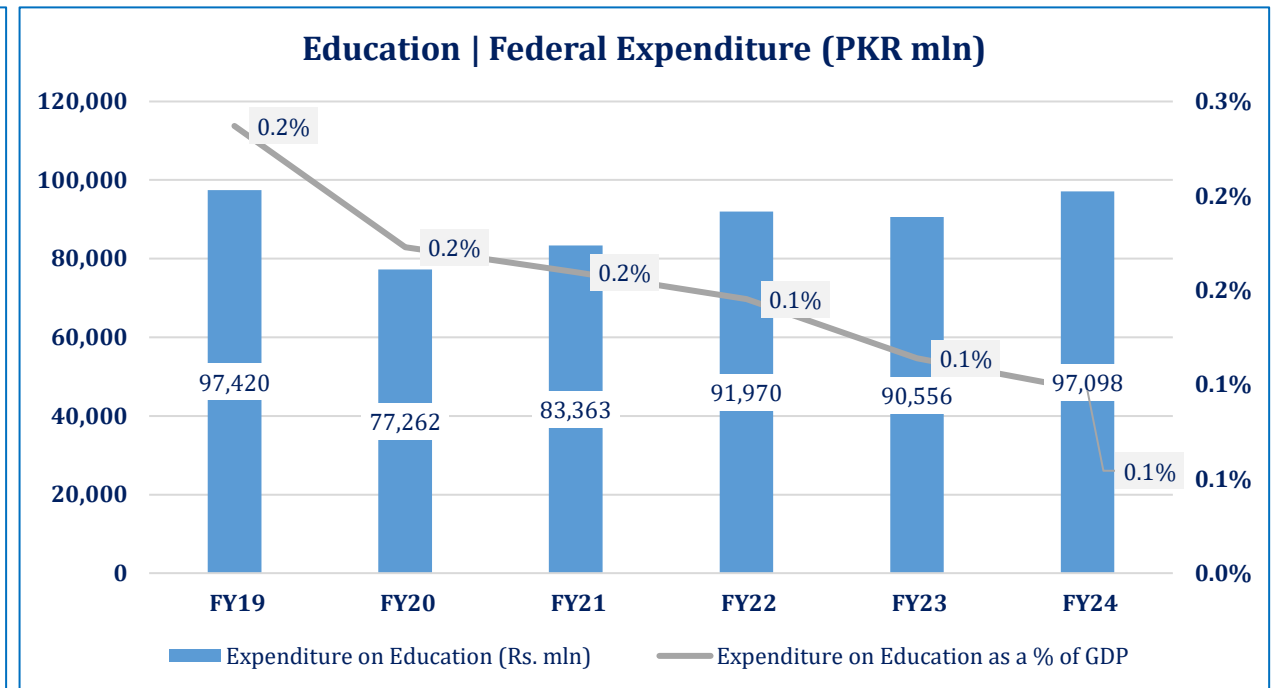
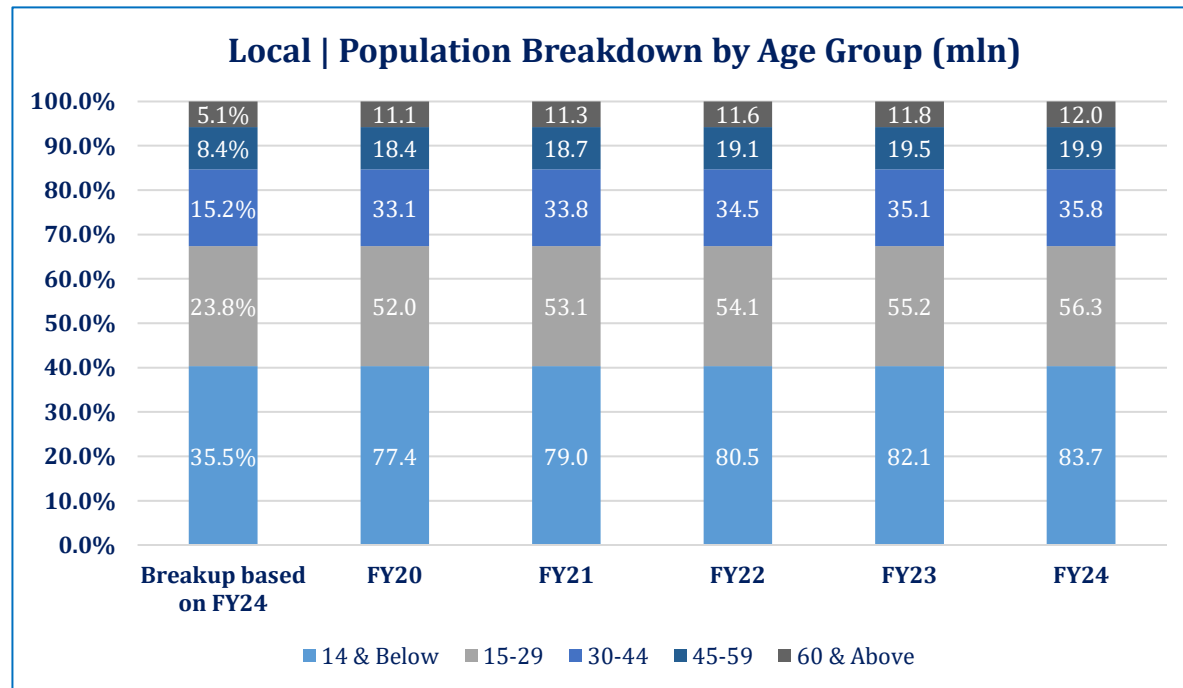
- Pakistan’s population grew by ~2.6% YoY in FY23, recording at ~231mln. During the year, ~27.0% of the population comprised the age group ~15-29 years, that recorded at ~56mln (FY22: ~63mln). Meanwhile, income per capita stood at USD~1,551, down ~12.2% YoY.
- As of FY23, total tertiary institutes in the country stood at ~7,244 (FY22: ~6,889), registering ~5.1% YoY growth. These include universities, degree colleges and technical & vocational institutes. Meanwhile, university-level teachers formed ~47.4% of tertiary-level teachers in FY23 (SPLY: ~47.8%).
- There are ~228 universities in Pakistan that are recognized by the HEC in FY23. Overall, universities comprised ~3.1% of total tertiary institutions during the year (SPLY: ~3.2%).
- Primary enrollments increased ~1.6% YoY from ~32,616 to ~33,141 students in FY23, whereas, secondary enrollments increased ~3.9% YoY ~6,898 students.
- In FY23, primary and secondary educational institutions stood at ~208 and ~44 institutions, respectively. However, the number of primary teachers was down ~1.4% YoY, whereas that of secondary-level teachers increased by ~2.3% YoY.

Particulars	FY21	FY22	FY23
Sector Size (PKR bln)	1,488	1,646	1,876
Total Population (mln)	222	227	231
Population (~15-29 years) (mln)	53	54	55
Population Growth Rate (%)	1.8%	2.2%	1.7%
Income per Capita (USD)	1,677	1,767	1,551
Literacy Rate*		62.8%	
No. of Tertiary Institutes	6,981	6,889	7,244
Tertiary Level Teachers ('000' No.)	147	145	153
University Teachers ('000' No.)	69	69	72
Tertiary Enrollments ('000' No.)	2,984	2,850	3,037
No. of Universities	220	220	228
New University Enrollments ('000' No.)	2,226	2,226	2,410
Regulator		HEC	

Education

Local | Socioeconomic Indicators

- Pakistan is the 5th most populated country in the world, representing ~3.0% of global population in FY23. Of the total population, the ~15-29 year age group represented ~27.0%, recording at ~56.2mln (FY22: ~63.0mln).
- Federal education expenditure increased in FY24 by ~7.2% YoY, amounting to PKR~97,098mln. For FY25, this has been budgeted at PKR~103,781mln, up ~6.9% YoY. However, the share of budgeted education allocation in country's GDP averaged ~0.1% FY22-24 and ~0.2% in FY19-21.

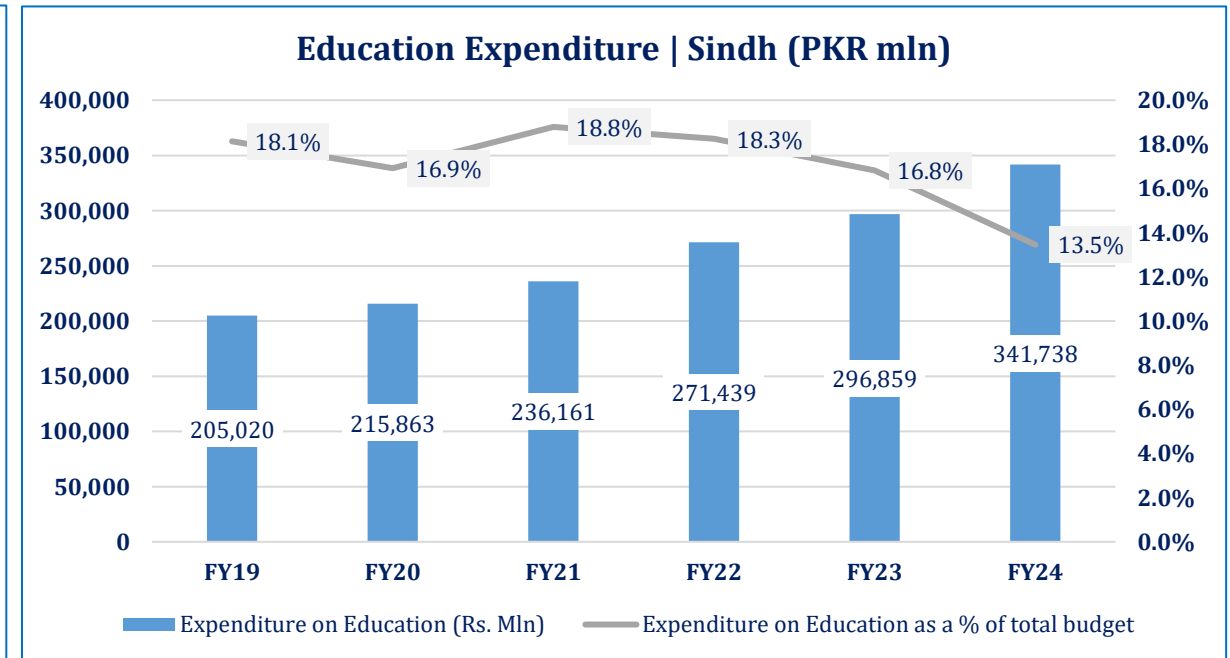
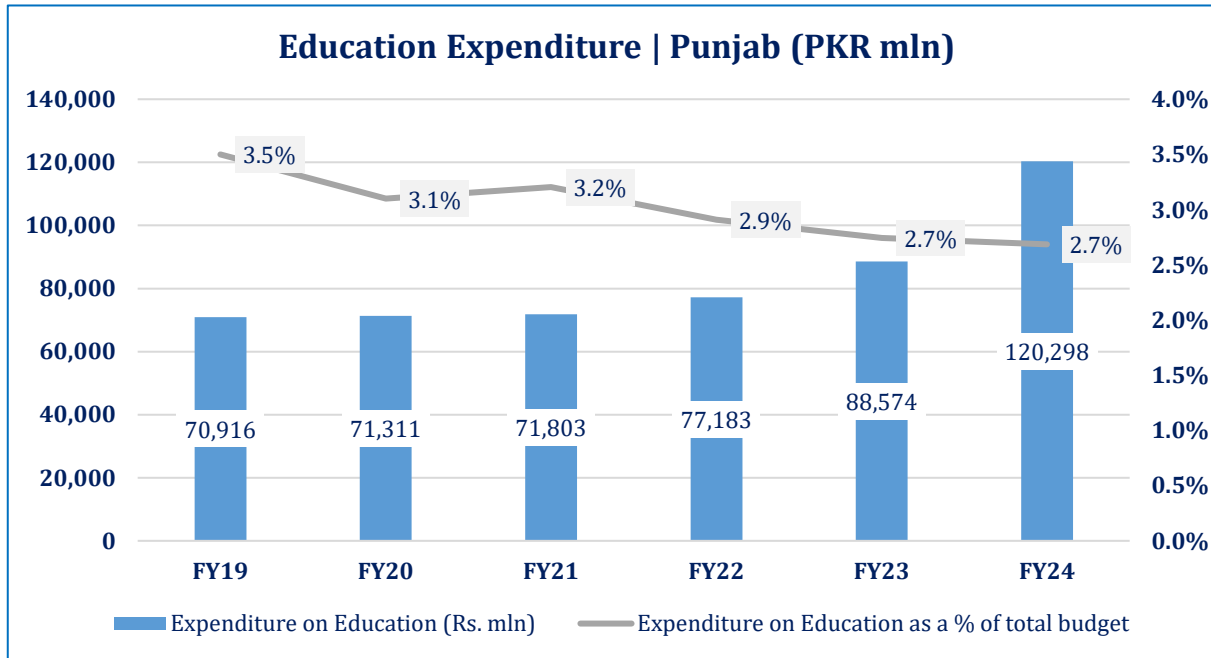


Note: Population breakdown is estimated based on CY17 census. Expenditure figures are budgeted.

Education

Local | Provincial Expenditure

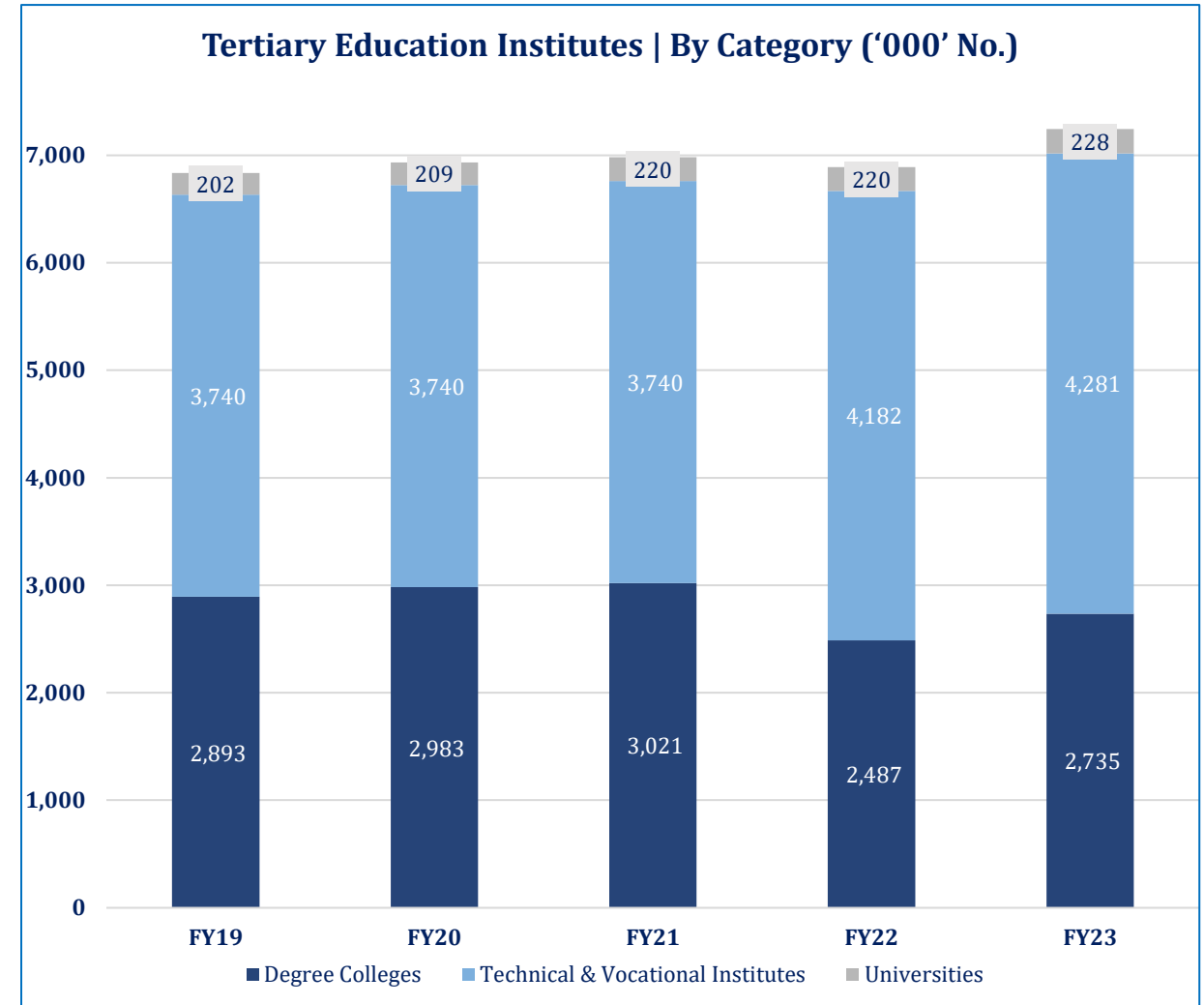
- The expenditure on education in Punjab remained relatively stable during FY19-21, averaging PKR ~71,343mln, and forming ~3.3% of total provincial budget. In FY23, this recorded ~14.7% YoY increase, while in FY24, it further rose by ~35.8% YoY. The share of education expenditure in total budget was recorded at ~2.7% in FY24 (FY23: ~2.7%, FY22: ~2.9%).
- In Sindh, the budgeted education expenditure recorded ~15.1% YoY increase in FY24, however, its share in total allocated budget declined to ~13.5% (FY23: ~16.8%).



Education

Local | Tertiary Institutes

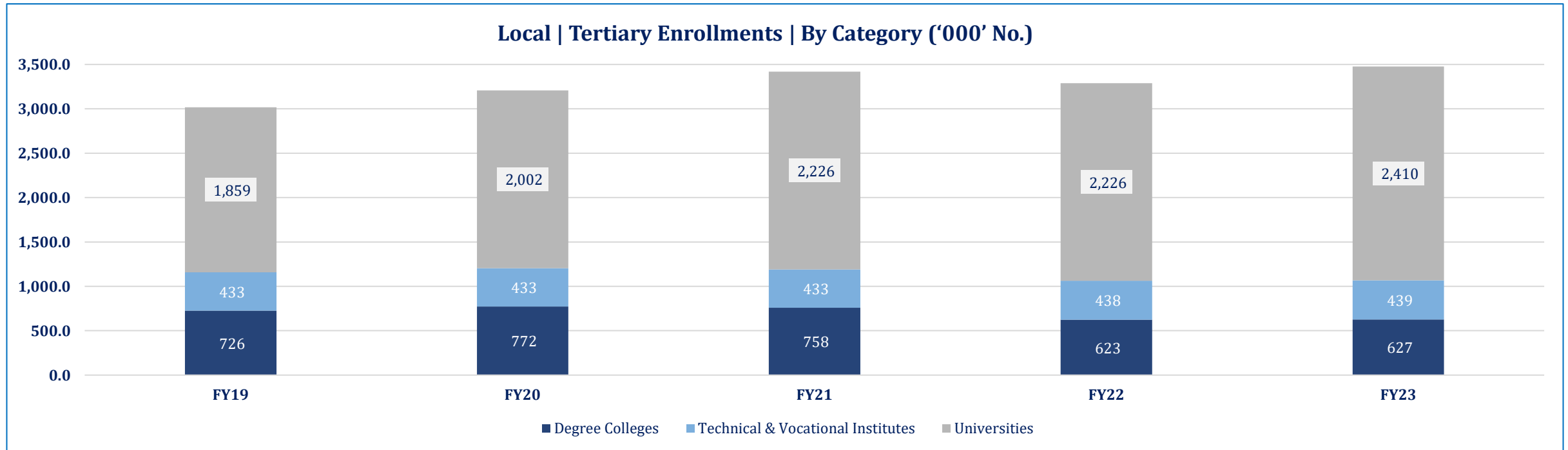
- In FY23, Pakistan recorded ~7,244 (FY22: ~6,889) tertiary education institutes, including Technical & Vocational (T&V) Institutes, Degree Colleges and Universities. Examples of T&Vs include National Vocational and Technical Education Commission (NAVTTTC), National Training Bureau (NTB), Punjab Vocational Training Council (PVTTC), among others.
- In FY23, technical and vocational Institute made up the highest share in Tertiary Education with ~59.0% and Degree Colleges with ~37.7%. Universities had the lowest portion of ~3.1% in FY23 (FY22: ~3.1%).
- Tertiary education institutes grew with 5-year (FY19-23) CAGR of ~1.2%, while technical & vocational Institutes, recorded this at ~2.7%, followed by universities (~2.5%) and degree colleges (~1.1%).
- The need for education and demand for Tertiary Education Institutes is also expected to increase in the future, with the increase in population.



Education

Local | Tertiary Enrollments

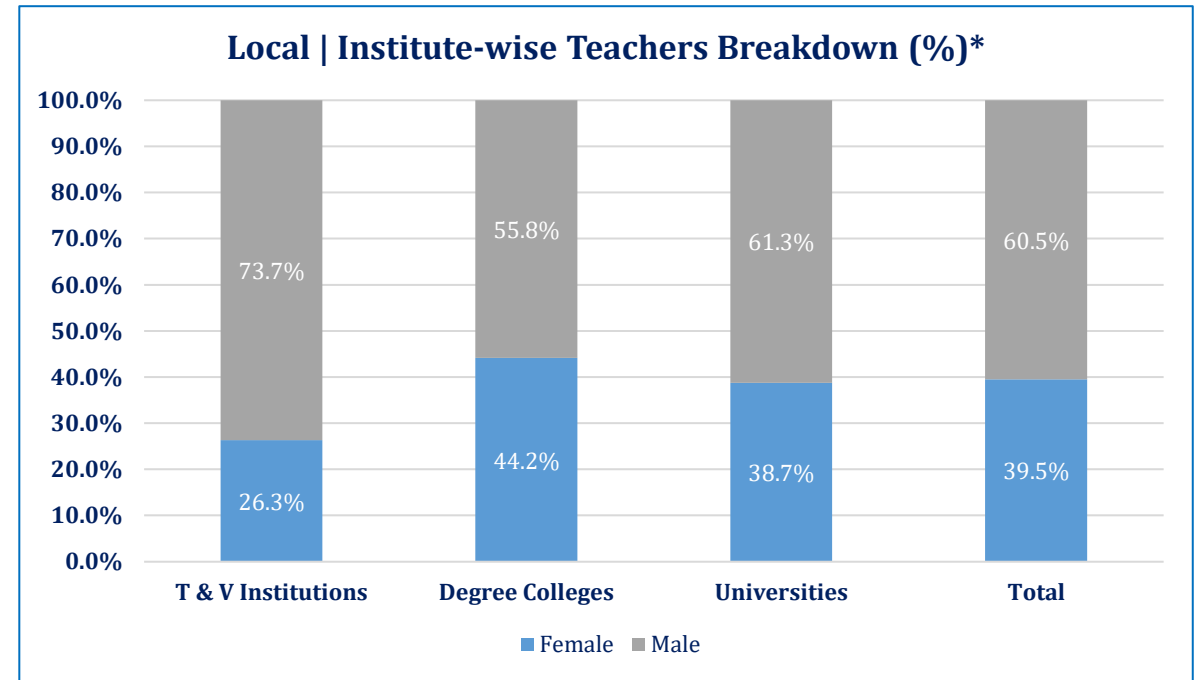
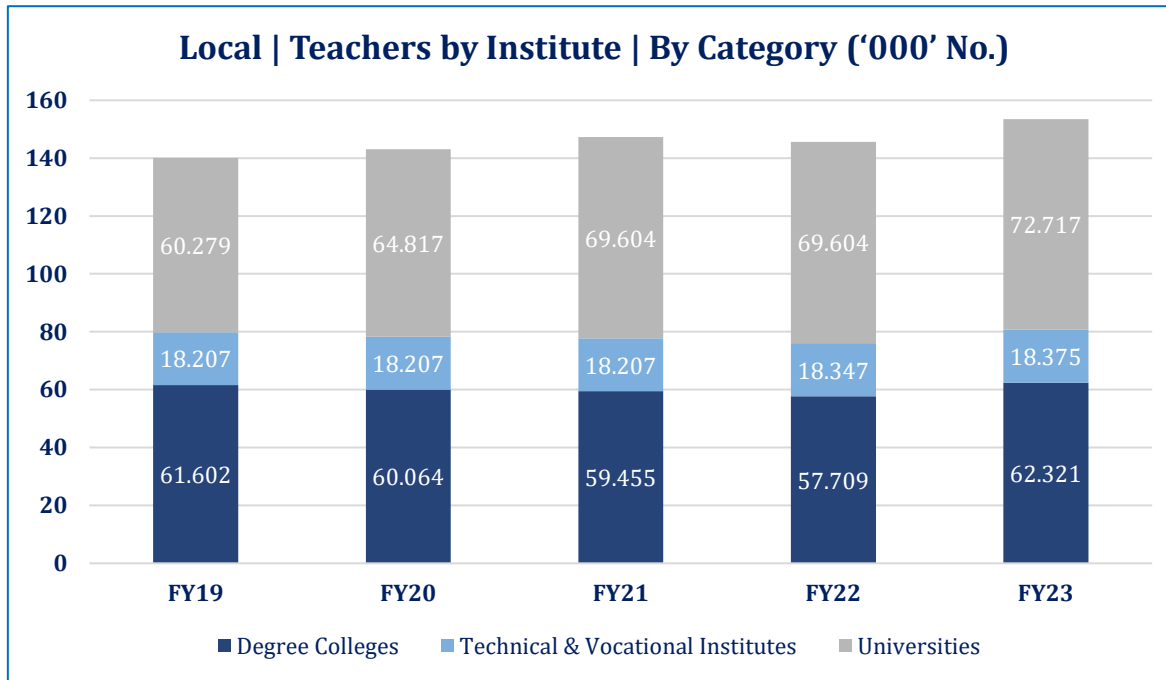
- During FY23, annual tertiary enrollments stood at ~3,037mln (FY22: ~2,850mln), up ~6.5% YoY. Although universities have the lowest proportion in terms of numbers in tertiary institutes, they hold the highest share in annual tertiary enrollments of ~79.3%.
- Meanwhile, degree colleges and technical & vocational institutes held ~20.6% (FY22: ~20.5%) and ~14.4% (FY22:~14.3%) shares in overall tertiary enrollments, respectively.
- Overall tertiary enrollments exhibited 5-year CAGR of ~3.3% during FY19-23, while that for university enrollments recorded at ~5.3% during the same period. Technical & Vocational institutes had CAGR of ~0.3% while degree colleges had the lowest at ~-2.9%.



Education

Local | Tertiary Teachers

- The total number of teachers employed at tertiary level stood at ~153,000 in FY23 (FY22: ~145,000), up ~5.5% YoY. Of these, the share of teachers employed at degree colleges stood at ~40.6% (FY22: ~17.4%), while those employed in universities and vocational institutions formed ~47.3% (FY22: ~47.7%) and ~11.9% (FY22: ~12.5%), respectively.
- The gender distribution among tertiary teachers in universities recorded the females to males ratio of ~39:61 (SPLY: ~44:56). Meanwhile, degree colleges recorded this at ~44:56 (SPLY: ~56:44). In contrast, technical and vocational institutes have the lowest female representation, with females to males ratio of ~26:73 (SPLY: ~24:76).

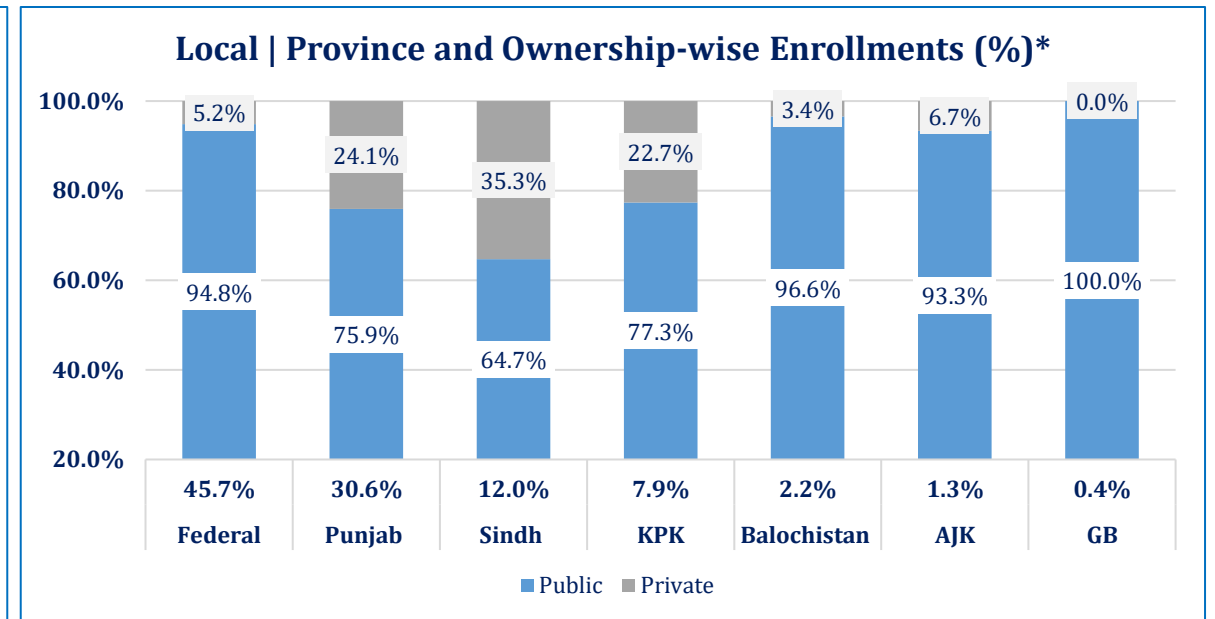
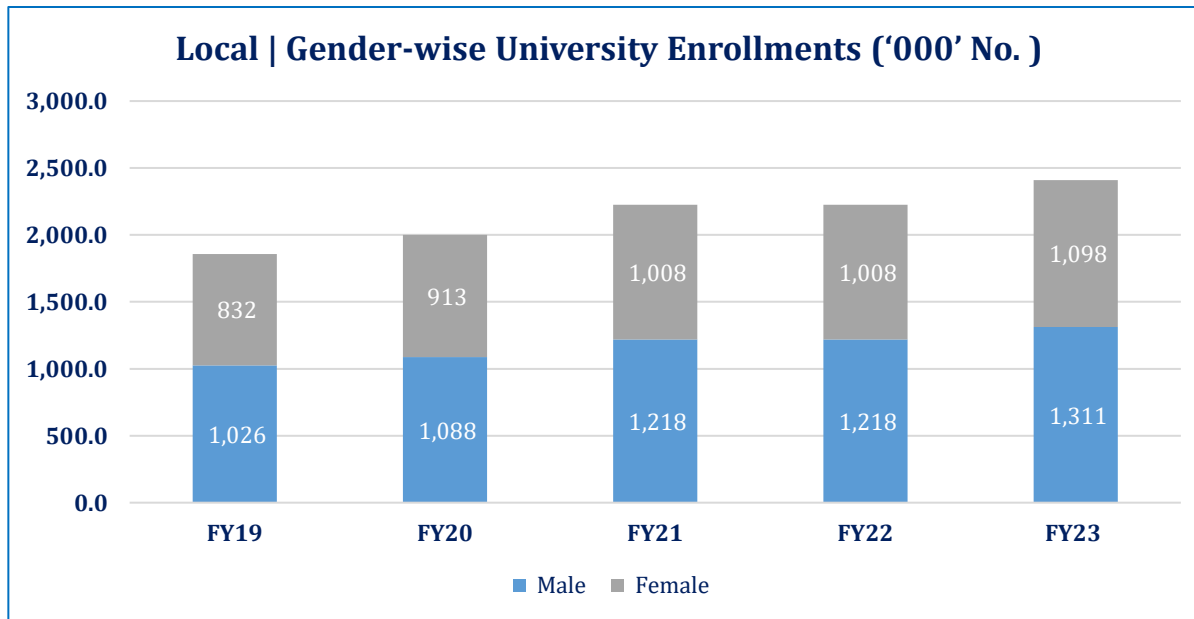


Note: FY23 data is based on 9 months data.. University numbers based on FY21 data, rest on FY23 data.

Education

Local | Annual University Enrollments

- In FY23, ~2.4mln students were enrolled in universities across Pakistan, (FY22: ~2.2mln) up ~8.3% YoY. Of these, ~45.6% (FY22: ~45.3%) were females while ~54.4% (FY22: ~54.7%) comprised male students.
- The 5-year (FY19-23) CAGR for female student enrollments in universities clocked in at ~5.4%, while that for male student enrollments stood at ~4.8% in the same period.
- During the year, public-to-private university enrollments mix stood at ~84:14, while universities affiliated with the Federal government had the highest share in total enrollments at ~45.7%, with second highest public-to-private enrollment mix at ~95:5.
- The highest portion of private enrollments were recorded in Sindh government-affiliated universities which had a public-to-private enrollments mix of ~65:35 while recording ~12.0% share in total enrollments.

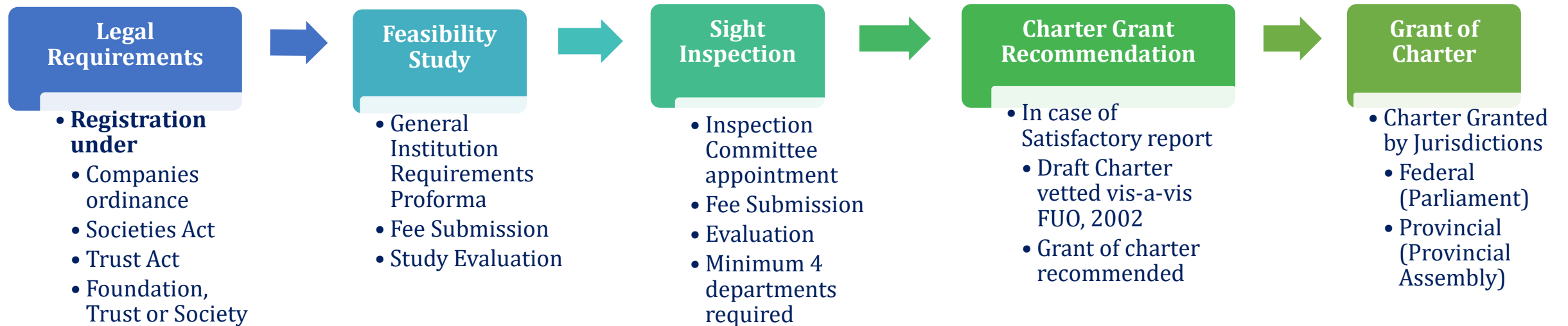


*Note: FY23 data is based on 9 months data.. *As per latest data available for FY21.*

Education

Local | University Setup

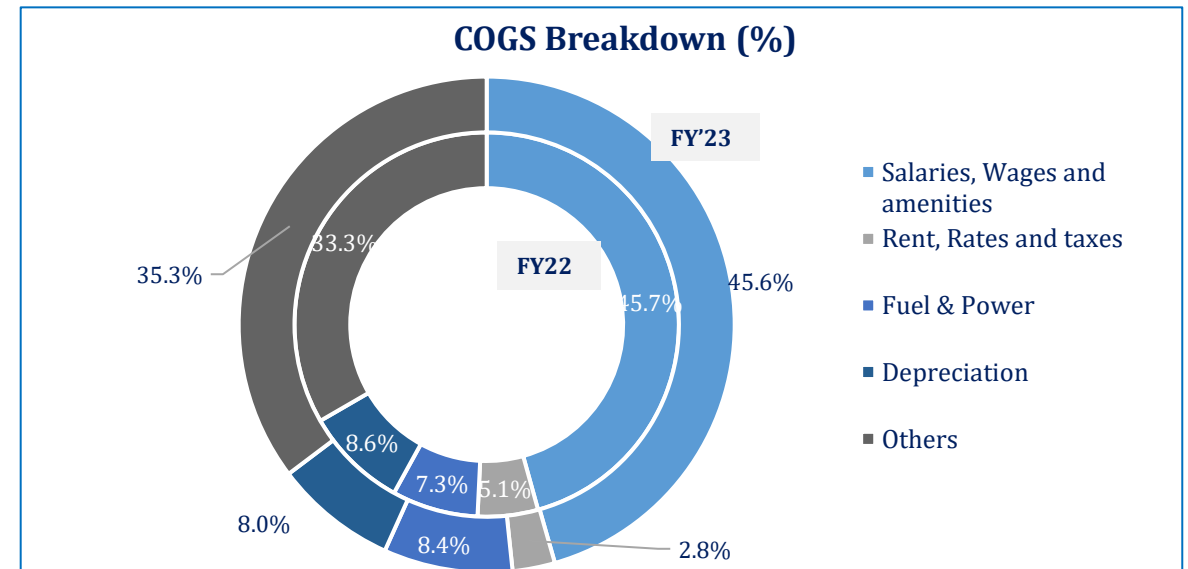
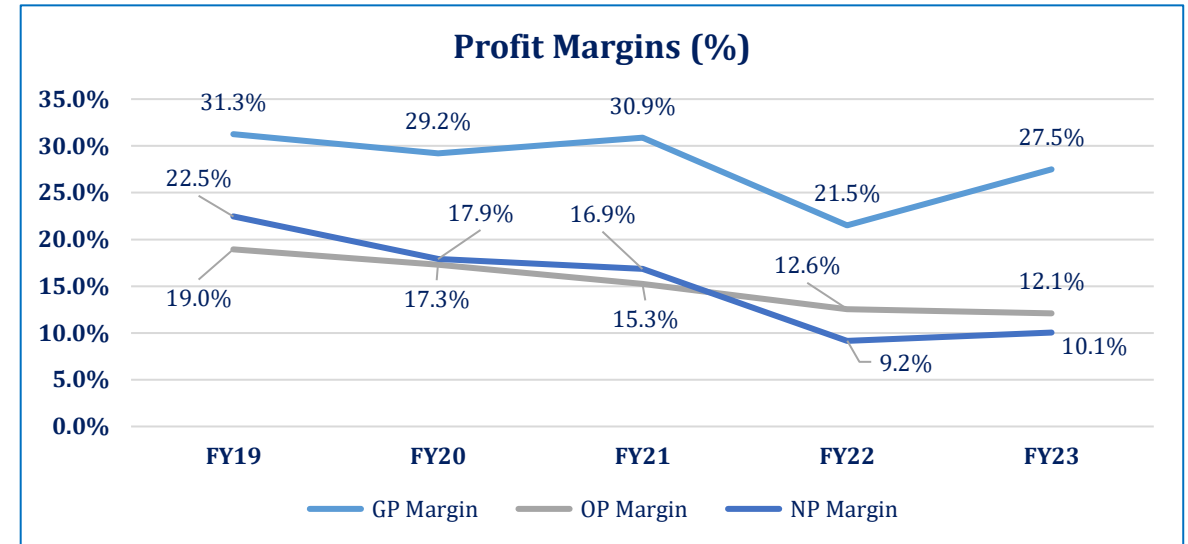
- The Sponsoring body of a University is required to be a Society, Trust or Foundation, registered under the relevant regulations of a Societies registration act, Trust act and/or Companies ordinance.
- Monitoring of Universities under Federal jurisdiction is overseen by HEC and Universities under provincial jurisdictions are monitored by the respective education departments.
- As per HEC’s “Guidelines for the establishment of a new University or an Institution of higher education”, following procedure is followed.



Education

Local | Business Risk

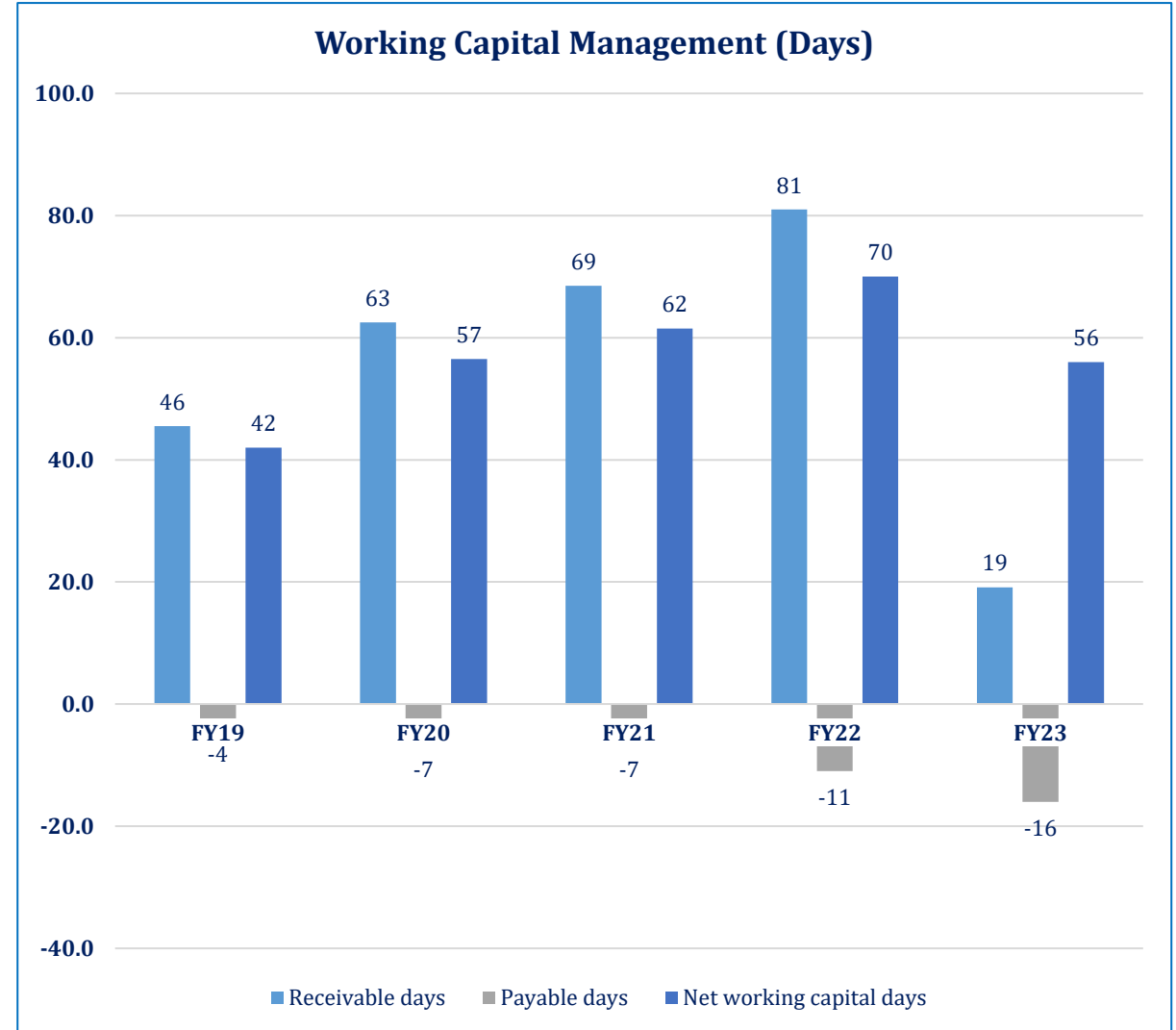
- A university’s revenue is majorly driven by tuition fee, while some portion also comprises hostel and transport fees. Owing to increase in enrolment rates and higher fees charged by sector players, sector’s revenue increased ~18.3% YoY to PKR~8.9bln (SPLY: PKR~7.5bln).
- Average gross margin stood at ~27.5% in FY23, recording an increase from ~21.5% in FY22, while average operating margin stood at ~12.1% in FY23 (FY22: ~12.6%).
- Similarly, an increase has been witnessed in the sector’s average net profit margin in FY23 to ~10.1% (FY22: ~9.2%), owing to trickle-down impact of higher revenue.
- The cost of sales in the education sector primarily includes expenses directly associated with delivering educational services. The salaries and wages component making up the largest share in the cost of sales, increased by ~15.0% YoY, from PKR~2,615mln in FY22 to PKR~3,007mln in FY23.
- “Others”, including Electricity and power generation, Printing and stationary, Research and conference etc., also constituted a huge portion of the cost of sales, increasing ~22.0%. Overall, COGS rose ~15.2% YoY.



Education

Local | Financial Risk

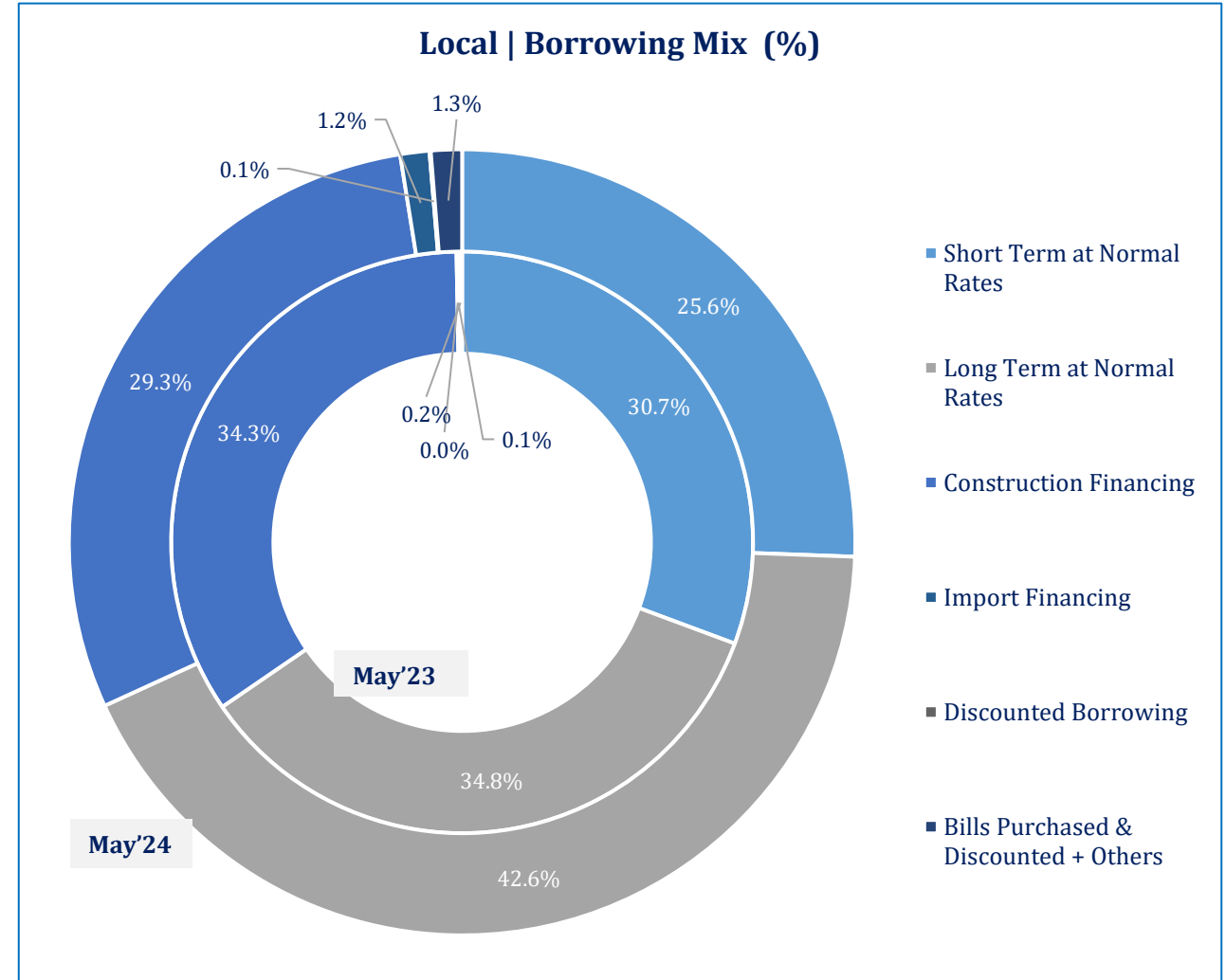
- The working capital requirements of the University are a function of its trade receivables and trade payables. The salaries of the employees and purchases of materials are the trade payables whereas receivables from students and advances to vendors comprise trade receivables, since the nature of the business does not require it to hold any inventories.
- The net working capital days of universities have decreased to ~56 days (SPLY: ~70 days) owing to receivable days declining significantly to ~19 days (SPLY: ~81 days) and average payable days recording at ~16 days in FY23 (SPLY: ~11 days).



Education

Financial Risk | Borrowing Mix

- The total borrowing of the education sector as of May'24, stood at PKR~27,195mln as compared to PKR~31,127mln as of May'23.
- As of May'24, short-term borrowings held ~25.6% share in the education sector and stood at PKR~6,957mln (May'23: PKR~9,544mln).
- Construction financing in the higher education sector's borrowings recorded ~29.3% (May'23: ~34.3%) share in total and amounted to PKR~7,969mln.
- Long-term borrowings at nominal rates as a component of total higher education sector borrowings stood at ~42.6% and amounted to PKR ~11,582mln.
- As most higher education institutes (usually universities) are limited by guarantee (i.e. do not hold any equity on their books), thus leveraging/ gearing measures are not a valid metric for assessing their financial risk.



Education

SWOT Analysis

- Important social tenant.
- Robust higher education demand.
- Government patronage.
- Low regulations.
- Low to no taxes.

- Low specialized Universities.
- Low PhD faculty ratio.
- Low private university enrollments. due to high fees.



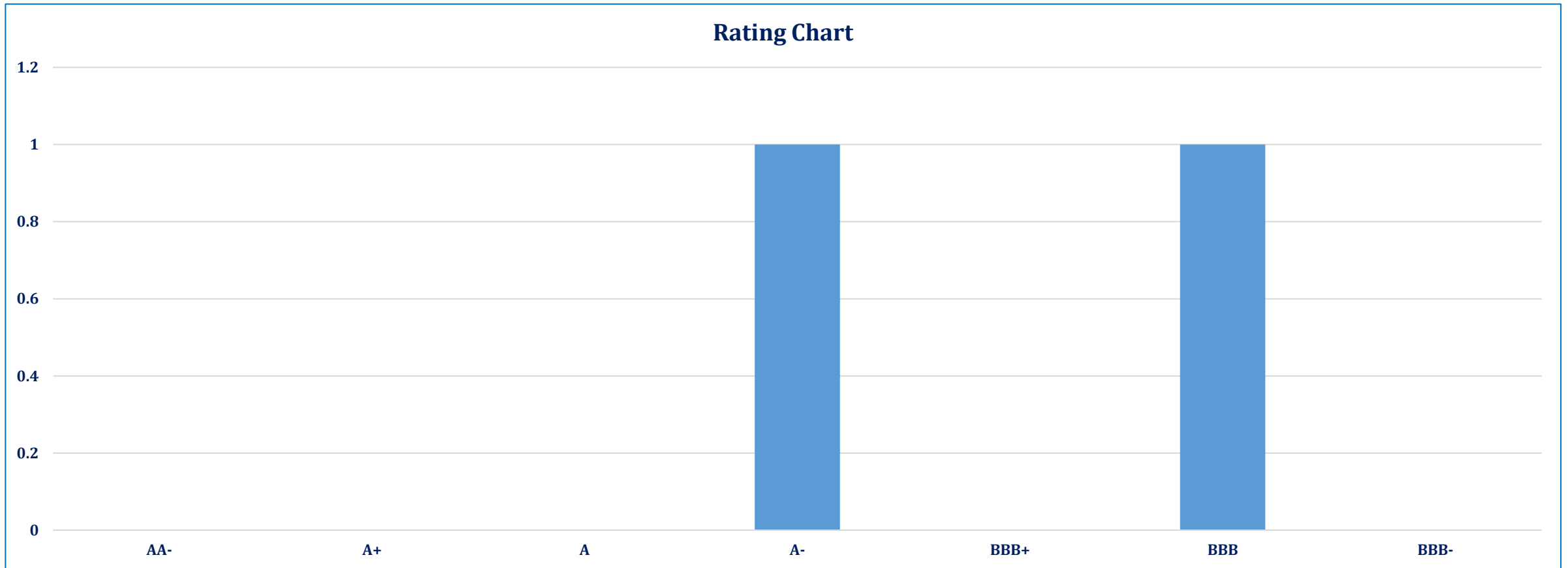
- Growing university-going age group.
- Lower real per capita income.
- Grants from local government and international organizations.
- IT-based teaching solutions to enhance reach.
- Low returns to education.

- Dip in Government expenditure on education.
- Online micro degree programs.
- Rapid technological changes may render some programs and teaching methods obsolete.

Education

Rating Curve

PACRA rates 2 clients in the Education sector, with long-term rating of 'A-' and 'BBB'.



Education

Outlook: Stable

- In FY23, Pakistan's GDP (nominal) stood at PKR~79.7trn (FY22: PKR~63.3trn), contracting, in real terms, by ~0.17% YoY (FY22: ~6.3% growth). However, the provisional data released by National Accounts reveals that Pakistan's GDP during FY24 is projected to clock in at PKR~106.4trn in nominal terms with real GDP growth rate of ~2.4% YoY, depicting an improved economic activity compared with SPLY. The SBP estimates GDP growth at ~2-3% for FY24, while IMF's forecast for the same stands at ~2.0%.
- In FY23, the education sector accounted for ~2.3% of GDP, down from ~2.6% in FY22, and contributed ~4.4% to the overall services segment (SPLY: ~4.7%). During the year, Pakistan recorded ~7,244 tertiary institutes, a ~5.1% YoY increase from ~6,889 in FY22. These include universities, degree colleges, and technical and vocational (T&V) institutes. There were ~228 universities recognized by the Higher Education Commission (HEC) in FY23, making up ~3.1% of total tertiary institutions (SPLY: ~3.2%).
- Federal education expenditure increased by ~7.2% YoY in FY24, reaching PKR~97,098mln, and is budgeted at PKR ~103,781mln for FY25, representing a ~6.9% YoY increase. However, the budgeted education allocation as a percentage of the country's GDP averaged ~0.1% during FY22-24 and ~0.2% during FY19-21.
- Annual tertiary enrollments stood at ~3,037mln, up ~6.5% YoY. Although universities represent the smallest proportion of tertiary institutes by number, they hold the highest share of annual tertiary enrollments (~79.3% in FY23, up from ~78.1% in FY22). Degree colleges and T&V institutes accounted for ~20.6% and ~14.4% of overall tertiary enrollments, respectively.
- The total number of teachers employed at the tertiary level recorded at ~153,000 in FY23, up ~5.5% YoY. Teachers at degree colleges made up ~40.6% (SPLY ~17.4%), while those at universities and vocational institutions comprised ~47.3% (SPLY: ~47.7%) and ~11.9% (SPLY: ~12.5%), respectively.
- The major costs incurred by the universities are salaries and wages to the staff. The gross margin stood at ~27.5% in FY23 witnessing an increase from ~21.5% in FY22. Operating margin stood at ~12.1% in FY23 (FY22:~12.4%). Similarly, an increase has been witnessed in the University's net profit margin in FY23 ~10.1% (FY22: ~9.2%) owing to increase in revenue.
- As multiple stakeholders strive to capture market share, the demand for education is steadily rising, propelled by population growth advancements in literacy rates over time. However, country's literacy rate stood at ~62.8% as of FY23, while government spending on education recorded at meagre ~0.1% during the year, implying the need for improved quality of education being offered by public schools/ universities and to extend the network of schools/education programs to get the out-of-school children access as well.

Education

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- United Nations Children's Fund (UNICEF)
- International Monetary Fund (IMF)
- PACRA Database

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