

A photograph of a graduation ceremony. In the upper half, several black graduation caps with tassels are captured mid-air, falling against a clear blue sky. In the lower half, a group of graduates in black gowns with pink stoles are looking upwards with their arms raised in celebration. The overall mood is joyful and celebratory.

US EDUCATION INDUSTRY REPORT

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MANGAL ANALYTICS AND
RESEARCH CONSULTING

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Market Overview

Education is referred to as the method or mode of learning through particular habits, knowledge, values, skills, and beliefs. It is the key tool for growth and robust equipment for minimizing poverty, enhancing health, maintaining peace, acquiring knowledge, and maintaining gender parity. Education in the U.S. is a decentralized one and is based on the federal constitution. Moreover, the latter controls & regulates the education of the many states of the United States of America as well as schools & higher institutes of learning in the U.S. Furthermore, education in the U.S. is mandatory for all students until the age of sixteen or eighteen years of age based on the state. The education system in the country involves a particular pattern with primary school, mid-school, high school, and post-secondary school. Moreover, post-secondary school or education includes non-degree programs resulting in diplomas or certificates along with six-degree levels including associate degree, bachelor's degree, professional degree, master's degree, advanced intermediate degree, and research doctorate degree of education.

The educational services market is projected to decline by 0.5% in 2021 (IBISWorld, 2021).

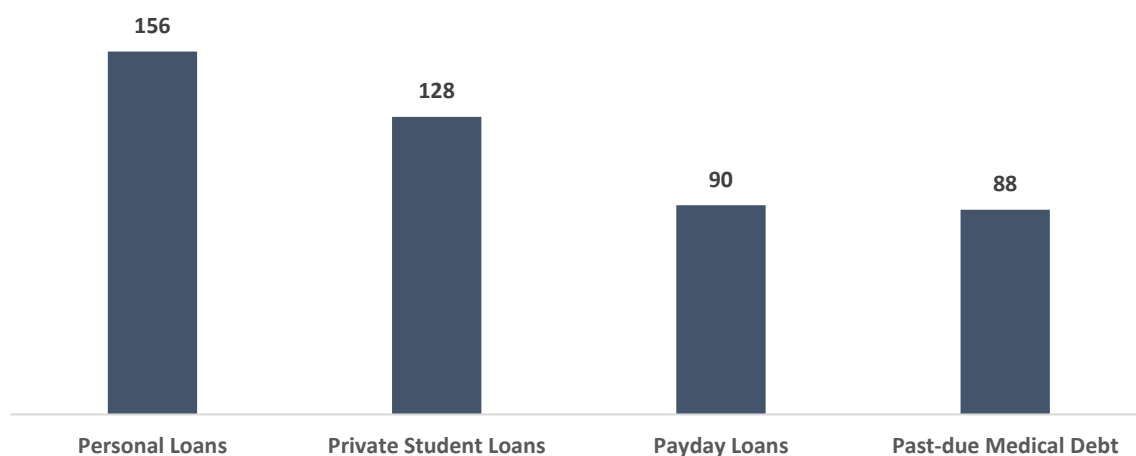
The education services industry in the US has an annual growth rate of 1.3% between 2016 and 2021 (IBISWorld, 2021).

40% of the most expensive public schools in the US are located in Maryland.

New York spends approximately \$23,091 per pupil, making it the most spent per pupil. This is followed closely by Columbia spending \$21,974 per pupil, Connecticut spent \$19,322, New Jersey spent \$18,920 and Vermont spent \$18,290 per pupil in 2017.

Student Loan is a Big Market

Student Loan Market Size (In \$ Billion)



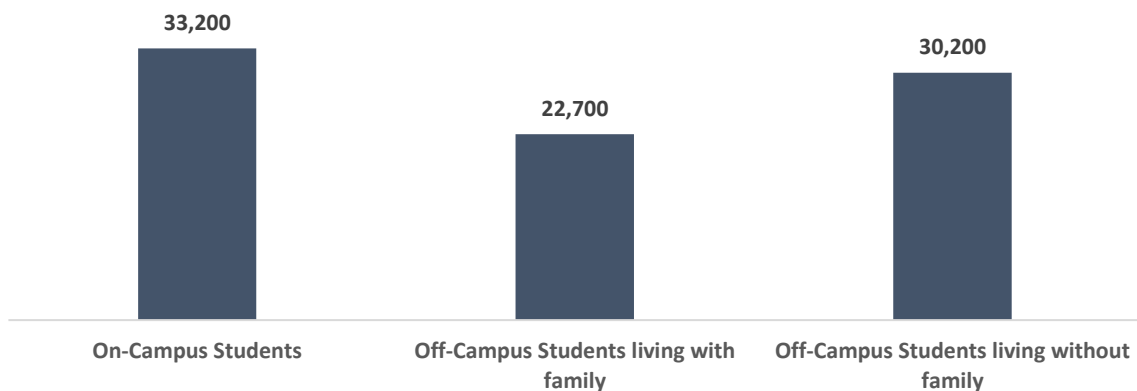
The total student loan debt in the US is \$1.7 trillion (EducationData.org, 2021).

In the US, there are 47.9 million student borrowers (EducationData.org, 2021).

To complete a bachelor's degree, a public university student borrows, on average, \$30,030 (EducationData.org, 2021).

The university that provided the highest average student aid in the 2019-2020 school year is Columbia University, affording aid to around 300 international learners, each receiving an average of \$71,069 (U.S. News, 2020). The costs of attending for-profit four-year private institutions are around \$33,200 for on-campus students, \$22,700 for off-campus students living with their families, and \$30,200 for students who live off-campus but away from family.

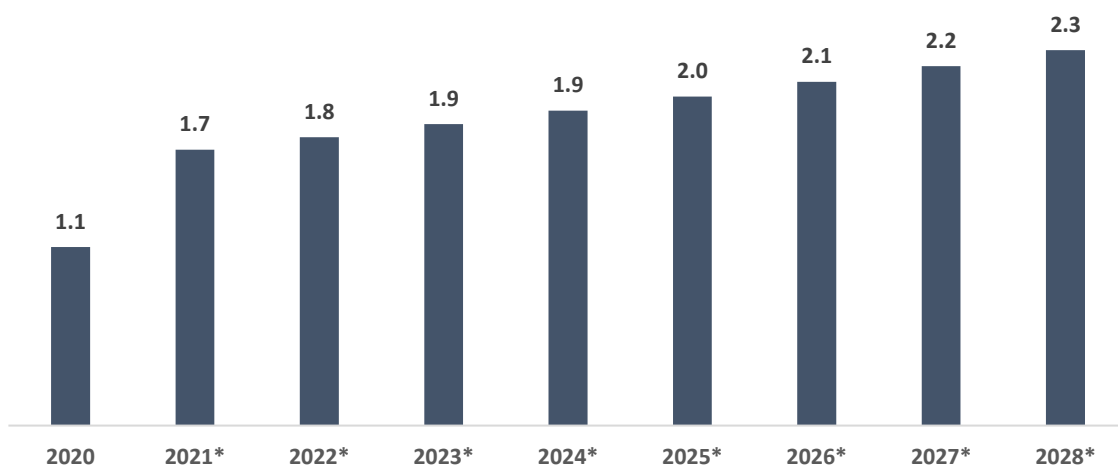
Average Cost of Attending a For-Profit Four-Year Private School (In \$)



- Market Size and Growth

The U.S. Education industry generated a revenue of about US\$ 1.1 trillion in 2020 and is set to earn a revenue of nearly US\$ 2.3 trillion by 2028, growing at a CAGR of nearly 4.5% in 2021-2028.

US Education Market Size (In \$ Trillion)



Source: PRNewswire

Factors such as increasing mergers and acquisitions, rising labour force participation and rising population of children under five in the US supported growth in the US education market.

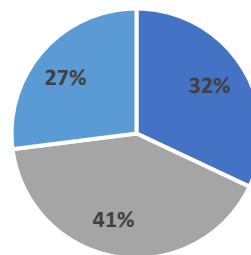
However, growth of the industry is anticipated to be challenged by factors such as labour shortage, increasing competition from foreign universities, rising not-for-profit institutions and legal & regulatory issues. A few notable trends of the US education market include increasing demand for skilled labour, international demand for US education, rising blended learning, increasing education funding and greater use of technology in education sector.

- Market Segments

- The US education market by profitability can be segmented as follows: not-for-profit and for-profit. In 2020, the dominant share of the market was held by not-for-profit segment.
- The US education market by type can be segmented into the following two segments: on-premise and cloud. The larger share of the market was procured by on-premise segment.
- The US education market by sector can be segmented as follows: public sector and private sector. In 2020, public sector segment held a dominant share of the market, followed by private sector.

The US education market can be broadly segmented into the following four types: **K-12, post-secondary, corporate training and child care**. K-12 segment held the largest share in 2020 owing to higher participation in schools along with growing awareness of early education.

US K-12 Education Market Value Share, by School, 2020

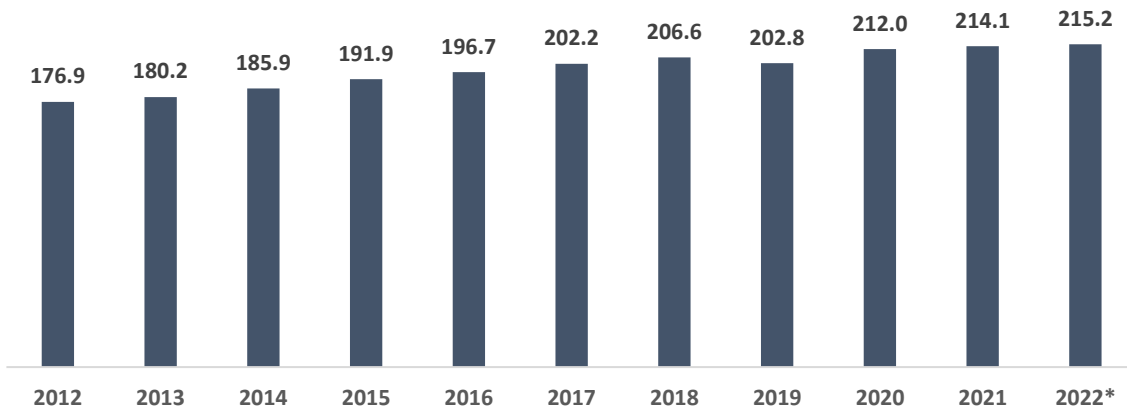


- Public K-12 Education
- Private K-12 Education
- Online K-12 Education

Source: industryarc

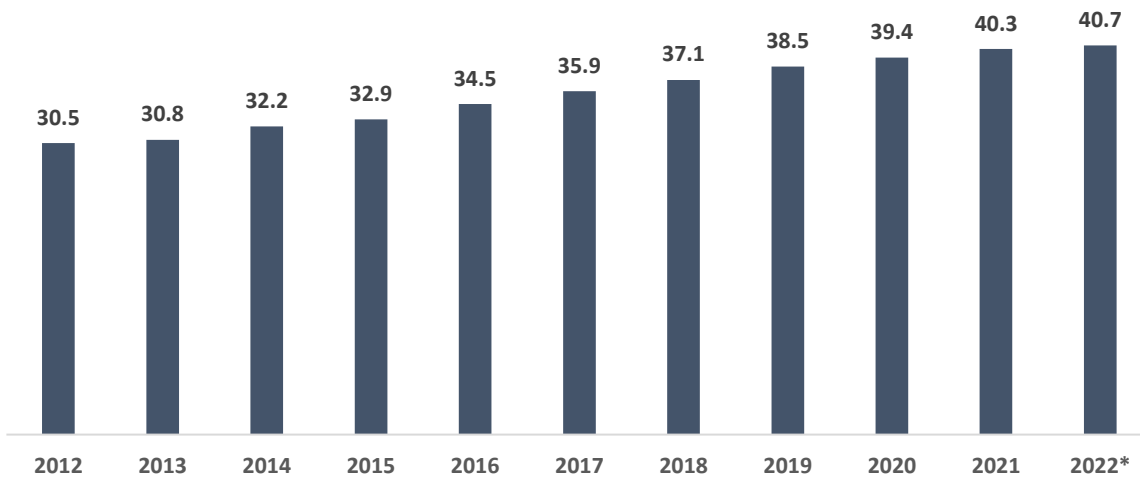
- Educational Industry Wage Statistics

Colleges & Universities in the US - Wage Statistics 2012–2022 (Wages In \$ Billion)



- The Colleges & Universities industry pays total wages of \$215.2bn in 2022.
- Total wages paid by the Colleges & Universities industry is expected to increase 0.6% in 2022, to \$215.2bn.

Private Schools in the US - Wage Statistics 2012–2022



- The Private Schools industry pays total wages of \$40.7bn in 2022.
- Total wages paid by the Private Schools industry is expected to increase 0.9% in 2022, to \$40.7bn.

- Key Players

High Schools

| | Thomas Jefferson High School for Science and Technology | Carnegie Vanguard High School |
|----------------|---|--|
| Location | Alexandria, VA | Houston, Texas |
| Course covered | English, Music, Theatre Arts, Visual Arts, Health & Physical Education, Mathematics, Science, Social Studies, World Languages. | English, Fine arts in Art, dance, Photography, Theatre /tech /production. |
| Profile | <p>School type: Public, Magnet School</p> <p>Founded: 1985</p> <p>Grades: 9–12</p> <p>Enrolment: 1,809 (2020-21)</p> <p>Student to teacher ratio: 17.52</p> <p>USNWR ranking: 1 (2021)</p> | <p>School type: Public, Magnet School</p> <p>Opened: 2002</p> <p>Grades: 9-12</p> <p>Enrolment: 854 (2020-21)</p> <p>Student to teacher ratio: 24.40</p> <p>USNWR ranking: No. 8 (2017)</p> |
| USP | <p>The school provides a comprehensive curriculum, emphasizing the sciences, mathematics, and technology.</p> <p>The following programs are unique to the school:</p> <ul style="list-style-type: none"> IBET (Integrated Biology, English and Technology) Research Program Mentorship Program | <p>Carnegie Vanguard High School's curriculum consists of Advanced Placement and pre-AP courses, as well as honours electives. Carnegie students generally take at least 10 AP courses before they graduate. Students at Carnegie Vanguard High School consistently exceed state and national averages on SAT and ACT exams. Carnegie places a strong emphasis on community involvement and requires every student to complete 100 hours of community service prior to graduation.</p> |

Universities

| | Harvard University | Stanford University |
|----------|--------------------|---------------------|
| Location | Cambridge, MA | Stanford, CA |

| | Harvard University | Stanford University |
|---------|--|---|
| Profile | <p>Type: Private Research University</p> <p>Established: 1636</p> <p>Accreditation: NECHE</p> <p>Academic staff: ~2,400</p> <p>Students: 19,218 (Fall 2020)</p> <p>Ranking:</p> <ul style="list-style-type: none"> • #3: QS World University Ranking • #5 QS WUR Ranking by subject • #2 Graduate Employability Ranking • #2 US UNI | <p>Type: Private Research University</p> <p>Established: November 11, 1885</p> <p>Accreditation: WSCUC</p> <p>Academic staff: ~2,279</p> <p>Students: 17,246 (Fall 2021)</p> <p>Ranking:</p> <ul style="list-style-type: none"> • #5 QS World University Rankings • #3 QS WUR Ranking by Subject • #5 Graduate Employability Ranking • #1 US UNI (universities) |
| Courses | <ul style="list-style-type: none"> • Undergraduate: Aesthetic and Interpretive Understanding, Culture and Belief, Empirical and Mathematical Reasoning, Ethical Reasoning, Science of Living Systems, Science of the Physical Universe, Societies of the World, and United States in the World. • Masters: Arts and Humanities Business & Management, Engineering and Technology, Life Sciences and Medicine, Natural Sciences | <ul style="list-style-type: none"> • Masters: Engineering and Technology, Life Sciences and Medicine, Natural Sciences, Social Sciences and Management |

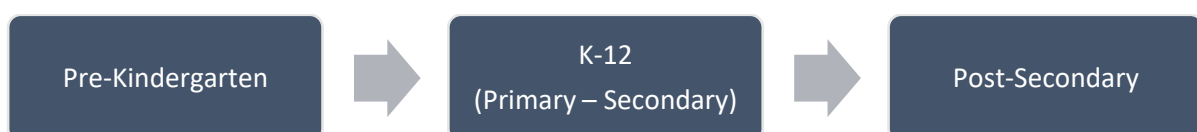
Consumer Analysis

- End-User Segmentation

For most schools, universities and colleges, the primary customers are the students, the secondary customers are the education authorities and employers and the tertiary customers are the validating bodies, ex-students, families, employers, etc.

In higher education, one of the most typical buyers are prospective students. Prospective students can include a diverse range of users: undergraduate and graduate students, part-time students, international students, transfer students, and other audience segments. The education sector also has secondary Buyers such as parents, faculty, staff, alumni, partners, donors, influencers, and members of the community.

B2C Segment:



This mainly includes students who are starting their education in pre-kindergarten, followed by students who study in schools and high schools which are included in K-12 and then under post-secondary we have all users who are further pursuing their education (graduate, post graduate, masters, Ph.D., etc) these users are not only students but consists of working individuals (full/part time), married individual, etc. between the age group of 24-64 years old.

- Buyer Need Analysis

Location: Many students/parents opt for an institution that is convenient to their home. Others are willing to move (or required to move) further afield to find an institution that offers their preferred course. Students may often prefer to study in a regional location over metropolitan, or vice versa.

Affordable education and high quality of education: Parents often prefer affordable schools/colleges, providing excellent quality of education. Parents/students may want to look at the certification, training and professional development obligations of teacher's schools/colleges.

Specialities: Parents/students often consider what kinds of courses schools offer, particularly in high school, where high-achieving students may want access to a varied selection, including honours and Advanced Placement classes. Parents/students also pay equal importance to the school's average SAT and ACT scores, among other things.

Facilities: Parents/students consider institutions that have good-quality services that meet their needs such as, peer mentoring programs, academic assistance, careers and accommodation services, clubs and societies, child care, counselling and medical services.

International experiences: Parents/students also look for international experiences in a school/college. Some institutions offer international exchange, study abroad and study tour opportunities or has an overseas campus, availability of travel grants and scholarships.

COVID-19 Impact

Due to the recent Covid pandemic, every school had to adapt to teaching and learning in a way, which involved online learning. Covid-related school closures affected children unequally, as not all children had the opportunities, tools, or access needed to keep on learning during the pandemic.

The damage to many children's education is built on pre-existing issues: one in five children were out of school even before Covid-19 began to spread, according to UN Data. Covid-induced school closures particularly harmed students from groups facing discrimination and exclusion from education even before the pandemic.

Opportunities and Challenges

Opportunities:

- 1. Massive popularity of online education:** The market growth in the U.S. is credited to the massive demand for digital learning tools like e-learning or online learning in the country. Moreover, large-scale acceptance of online courses to impart education to all types of learners will further steer the industry growth in the U.S. Additionally, online digital learning is a user-friendly, convenient,

and flexible mode of learning as compared to the conventional way of learning. Use of Online textbooks will also set to steer the expansion of the education industry in the country.

- 2. Increasing approach to improving the educational outcomes of students:** The demand for U.S. K-12 Education is led by schools moving to a learning atmosphere from the conventional blackboard approach to integration with smart technologies. A wide variety of programs, resources, and services aimed at improving student academic outcomes are covered in the learning trend. STEM training demand has been boosted by increased career possibilities in the areas of science, technology, engineering, and mathematics. Students who have successfully obtained a high degree of competition are qualified to join higher schools. This makes parents, students, and different partners in schools around the world more focused on STEM basic education.
- 3. Emergence and integration of technologies in the U.S. Education market:** The introduction of technology in education enables schools and universities to deliver creative solutions, such as e-books, Augmented Reality (AR)/Virtual Reality (VR) interactive content, and recognized university approved online courses are expected to drive the growth of the U.S. education market size. Both students and teachers have access to various innovative devices introduced by vendors for learning and progress evaluation. A number of institutions have also begun provisioning teacher and students with iPads and tablets. Apart from these, document cameras, IWBs, projectors, and 3D printers assist in learning.

AI incorporation in schools in order to automate tasks, such as grading subjects and providing input, is expected to propel the education market size. Further AI focusses on the creation of intelligent machines that can perform functions like speech recognition, learning, and problem solving. In the US education sector, AI is increasingly used to enhance student learning; intelligent interactive programs using various technologies such as machine learning, natural language processing, and deep learning help in overall learning of students.

Challenges:

- 1. Falling enrolments and completion rates:** Universities and Colleges have been unable to meet their new student enrolment targets. This is mainly because of the following reasons:
 - The portrayal of higher education in the United States is that of being out of touch with the public and a bias to certain cohorts of society (white and Asian students). This has implication for enrolment patterns which is particularly problematic for liberal arts colleges.
 - Some institutions are now checking the social media activity of applicants, rejecting and revoking applications if posts are deemed unacceptable to the ethos of the college or university.

The U.S. has the highest college dropout rate. The US is number one in terms of the number of people who start college, but is number 20 in terms of the number of people who finish.

The clear fact about completion rates is that it leaves a gap in the economy. Not only do people owe money for education they didn't finish, but it means there is a shortage of skilled workers with fewer low-income families getting the opportunity to lift themselves out of poverty.

- 2. School Shooting Mainly in the K-12 education segment:** There have been 114 school shootings since 2018, when Education Week began tracking such incidents. There were 10 shootings in 2020,

and 24 each in 2019 and 2018. Most of these shooting happen because of the easily available firearm which many students have in their possession.

- 3. Student Debt:** Four in ten college goers have taken out loans to pay for education with nearly two-thirds of all student debt in the U.S. being held by women. This debt is now the second highest consumer category behind mortgages with 44 million U.S. graduates owing \$1.4 trillion.

States that represent the highest borrowers are California, Texas, Florida and New York making up 20% of all loans. And this debt is growing as each age category sees loan debt balances increase, with the largest increase for 30-39-year-olds who hold over \$461 billion in loans.

This huge level of debt and rising tuition fees is discouraging people from higher education, particularly long-term programs such as degrees and postgraduate programs that are classroom-based and full-time.