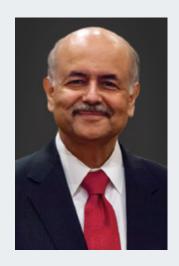


2021 Annual Data Report







Today's surgeons, clinicians, and students have the expectation that simulation centers are part of lifelong healthcare education, and Accredited Education Institutes (AEIs) are at the forefront. We can all agree these have been challenging years that have never been experienced before by AEIs or the medical profession. Our AEIs have demonstrated resilience, creativity, and innovation in ways that were never imagined, delivering quality education and training in a safe manner while still complying with accreditation standards. The American College of Surgeons (ACS) commends your ongoing commitment to your learners and looks forward to supporting your efforts throughout the year.

With best regards,

Ajit K. Sachdeva, MD, FACS, FRCSC, FSACME, MAMSE

Director, Division of Education Chair, ACS Program for Accreditation of Education Institutes American College of Surgeons



Overview

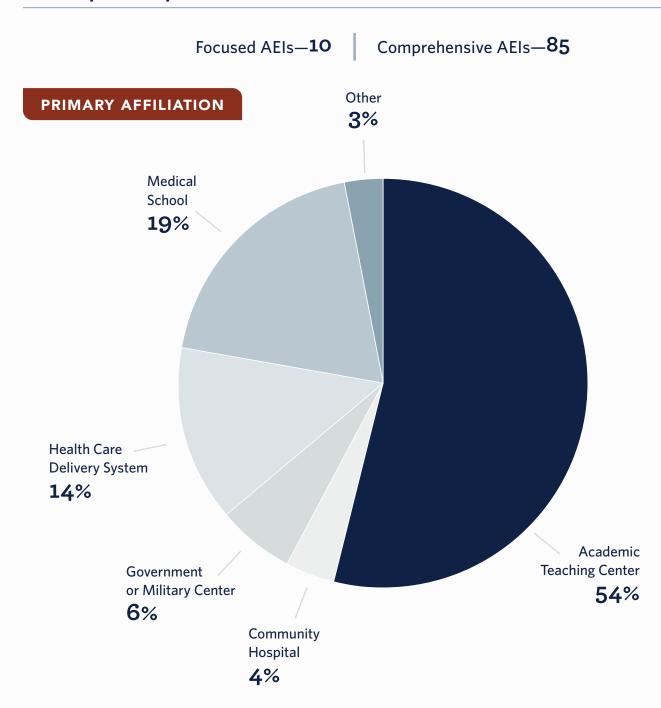
Each year, Accredited Education Institutes submit data to demonstrate their ongoing compliance with the accreditation standards and criteria. After review by the Accreditation Review Committee, select data points are aggregated and published in this report as a service to the AEI Consortium.

From academic teaching centers to healthcare delivery systems, AEIs can be found in a variety of settings. To acknowledge the similarities and differences among our centers, the report includes a series of tables with data broken down by center type, size, and budget, enabling centers to benchmark and gain a better understanding of where they fit in the AEI Consortium.

The aggregated information published in this annual report is based upon self-reporting by AEIs. The ACS does not provide full verification of the accuracy of all reported information but does follow up on outliers or significant changes from previous years. We also investigate if it appears that the data do not conform to the reporting instructions.

2021 Data Points

Makeup of Respondents (91)

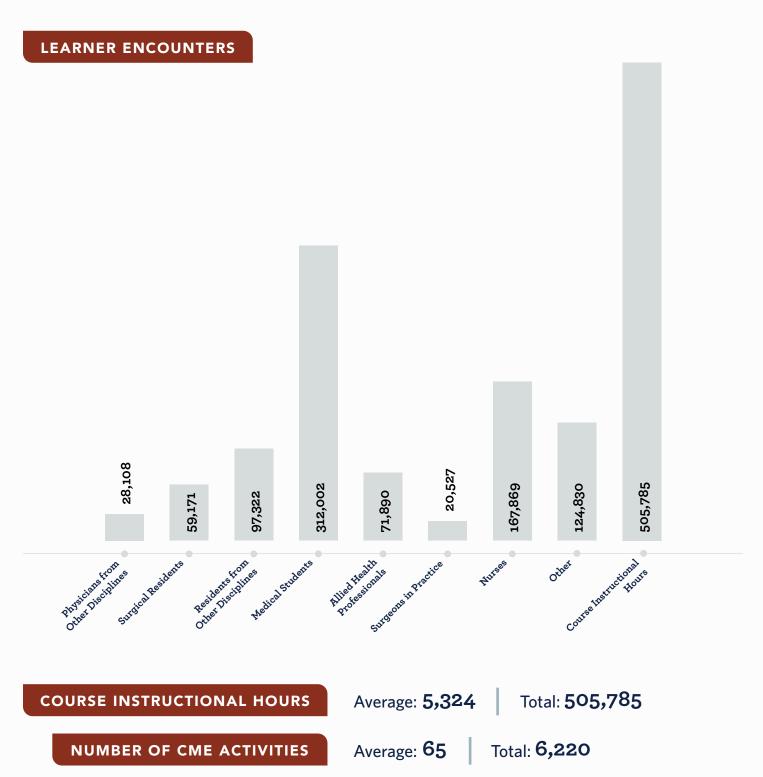




QUICK INSIGHT: Approximately half (51%) of AEIs selected "Academic Teaching Center" as their primary affiliation.

Learner Encounters

AEIs report the number of participants at each activity, referred to as learner encounters. The data represent aggregate numbers of interactions and not the number of unique participants. Participants attending multiple activities are counted multiple times.



Curriculum

Comprehensive AEIs must demonstrate innovation by developing original curricula. Curricula used by Comprehensive and Focused AEIs, whether adopted or original, must have been developed using the steps of curriculum development as outlined in the Standards. For the purpose of this report, both Comprehensive and Focused AEIs were asked to respond to the questions below.

NUMBER OF CURRICULA ADOPTED NUMBER OF ORIGINAL CURRICULA 38 AEIs 16 AEIs 16 AEIs 11 AEIs 12 AEIs 13 AEIs 7 AEIs 7 AEIs 3 3 5 AEIs 9 AEIs 3 AEIs 3 AEIs 8 AEIs 2 AEIs 1 AEI 1 AEI 5 AEIs 5 AEIs 21 AEIs NUMBER OF CURRICULA IMPLEMENTED 12 AEIs 7 AEIs 3 AEIs 8 11 AEIs 4 AEIs 2 AEIs 10 AEIs 9 8 AEIs 23 AEIs 10+



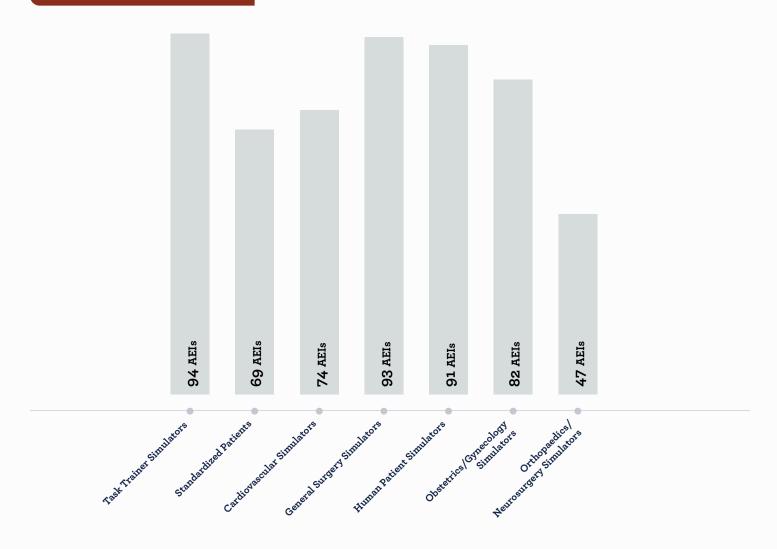
4 AEIs

QUICK INSIGHT: More than 436 curriculua were created and 214 were adopted.

Simulators

AEIs must have devices, and the support to use them effectively, to meet learner and curricular needs.

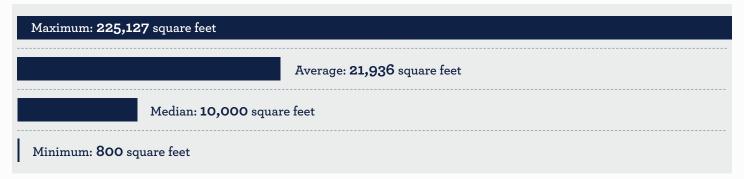
TYPES OF SIMULATORS



Space

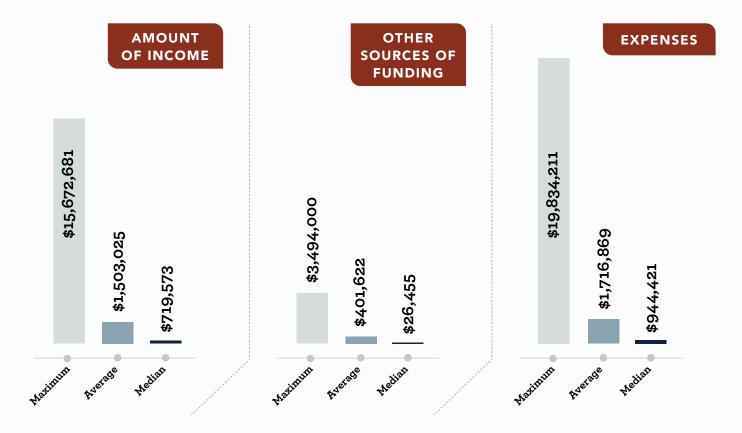
Comprehensive AEIs are required to have no less than 1,200 square feet of contiguous space dedicated to education and training, and under the direct control of the Institute. Focused AEIs are required to have 800 dedicated square feet. The figures below do not include the additional 4,000 square feet of additional space required for Comprehensive AEIs to have to meet the needs of learners and administrative support staff.

Amount of Contiguous Square Footage under the Direct Control of the AEI:



Finances

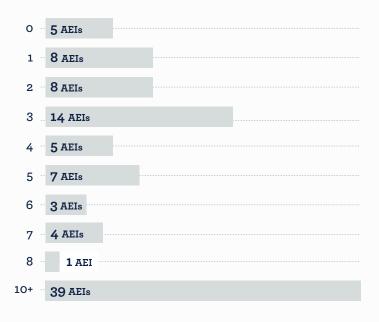
AEIs provide budgetary information to confirm that resources are available to support the Institute.



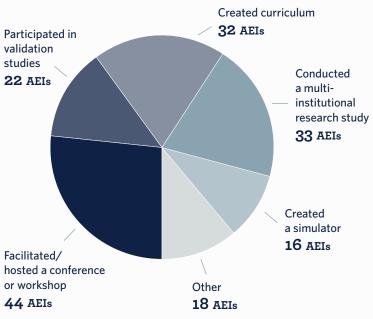
Research, Scholarly Activities, and Collaboration

Comprehensive AEIs are required to pursue research and other scholarly activities. While scholarly activity is not required of Focused AEIs, they were asked to disclose their research activities for the purpose of this report.

NUMBER OF RESEARCH OR SCHOLARLY ACTIVITIES



COLLABORATIVE PROJECTS WITH OTHER AEIS



TYPES OF RESEARCH OR SCHOLARLY ACTIVITIES

Developed Innovative Methodologies

56 AEIs

Developed and Evaluated Technologies

45 AEIs

Developed and Validated Performance Standards

70 AEIs

Disseminated Results through Presentations, Conferences, and Workshops

63 AEIs

Disseminated Results through Publications

38 AEIs

Measured Impacts on Quality and Outcomes

55 AEIs

Conducted Long-Term Follow-Up of Learners and Assessment of Outcomes



QUICK INSIGHT: AEIs were involved in more than 570 research/scholarly activities.

Key Data Points by Type—Comprehensive or Focused

| Values | Comprehensive | Focused |
|--|---------------|-----------|
| Number of AEIs by Type | 85 | 10 |
| Average Square Feet | 23,544 | 8,431 |
| Average Expenses | \$1,855,339 | \$539,882 |
| Average Income | \$1,619,894 | \$509,635 |
| Average of "Other Sources of Funding" | \$441,307 | \$72,242 |
| Average Number of Learners | 10,680 | 1,364 |
| Average Number of Learners—Physicians from other Disciplines | 327 | 33 |
| Average Number of Learners—Surgical Residents | 648 | 411 |
| Average Number of Learners—Residents from other Disciplines | 1,133 | 113 |
| Average Number of Learners—Medical Students | 3,648 | 196 |
| Average Number of Learners—Allied Health | 850 | 62 |
| Average Number of Learners—Surgeons in Practice | 217 | 227 |
| Average Number of Learners—Nurses | 1,962 | 109 |
| Average Number of Learners—Other | 1,501 | 32 |
| Average Number of Course Hours | 5,906 | 377 |
| Average Number of CME Activities | 73 | 3 |
| Average Number of Adopted Curricula | 2 | 1 |
| Average Number of Original Curricula | 3 | 2 |
| Average Number of Curricula Implemented | 3 | 2 |
| Average Number of Research or Scholarly Activities | 3 | 2 |

Key Data Points by Affiliation

| Annual Values | Academic Teaching Center | Community Hospital | Government or Military Center | Heath Care Delivery System | Medical School | Other |
|--|--------------------------------|-----------------------|-------------------------------------|----------------------------------|-------------------|-------------|
| Number of AEIs By Affiliation | 51 | 4 | 6 | 13 | 18 | 3 |
| Average Square Feet | 22,956 | 7,688 | 15,441 | 24,466 | 19,326 | 41,633 |
| Average Expenses | \$1,536,398 | \$342,642 | \$2,569,178 | \$2,335,162 | \$1,710,090 | \$2,273,975 |
| Average Income | \$1,280,531 | \$276,631 | \$1,351,534 | \$1,994,762 | \$2,030,118 | \$1,930,173 |
| Average of Other Sources of Funding | \$329,326 | \$15,864 | \$1,071,326 | \$481,816 | \$362,117 | \$697,758 |
| Average Number of Learners | 9,143 | 1,779 | 6,773 | 11,900 | 15,692 | 11,612 |
| Average Number of Learners— Physicians from other Disciplines | 265 | 28 | 350 | 377 | 285 | 779 |
| Average Number of Learners— Surgical Residents | 604 | 484 | 274 | 689 | 550 | 1,974 |
| Average Number of Learners— Residents from other Disciplines | 837 | 278 | 966 | 1,292 | 1,239 | 3,158 |
| Average Number of Learners— Medical Students | 3,515 | 400 | 1,147 | 918 | 4,582 | 9,952 |
| Average Number of Learners— Allied Health | 690 | 81 | 436 | 912 | 1,140 | 1,305 |
| Average Number of Learners— Surgeons in Practice | 130 | 24 | 181 | 335 | 376 | 583 |
| Average Number of Learners— Nurses | 1,316 | 374 | 1,094 | 5,417 | 753 | 2,916 |
| Average Number of Learners— Other | 1,198 | 18 | 1,496 | 1,557 | 1,330 | 4,701 |
| Average Number of Course Hours | 6,320 | 713 | 10,184 | 4,710 | 2,894 | 2,065 |
| Average Number of CME Activities | 7 | 0 | 17 | 409 | 15 | 54 |
| Average Number of Adopted Curricula | 1 | 1 | 3 | 2 | 2 | 2 |
| Average Number of Original Curricula | 3 | 2 | 4 | 4 | 3 | 2 |
| Average Number of Curricula Implemented | 3 | 2 | 5 | 3 | 3 | 2 |
| Average Number of Research or Scholarly Activities | 3 | 1 | 5 | 4 | 3 | 2 |

Key Data Points by Center Square Footage

| Annual Values | 0 to 999 | 1,000 to 2,999 | 3,000 to 4,999 | 5,000 to 6,999 | 7,000 to 8,999 | 9,000 to 10,999 | 11,000 to 19,999 | 20,000 to 24,999 | 25,000 to 49,999 | 50,000+ |
|---|-------------|-------------------|-------------------|-------------------|-------------------|--------------------|---------------------|---------------------|---------------------|-------------|
| Average Square Feet | 829 | 2,108 | 4,051 | 5,935 | 8,079 | 9,764 | 14,896 | 22,525 | 34,891 | 94,073 |
| Number of AEIs by Square Feet | 3 | 6 | 8 | 15 | 8 | 8 | 17 | 6 | 13 | 10 |
| Average Expenses | \$611,276 | \$275,929 | \$708,712 | \$748,828 | \$997,735 | \$1,276,004 | \$1,665,195 | \$1,552,608 | \$2,188,359 | \$5,783,726 |
| Average Income | \$687,348 | \$206,284 | \$580,027 | \$678,322 | \$861,773 | \$2,258,145 | \$861,263 | \$1,349,473 | \$1,627,967 | \$5,512,401 |
| Average "Other Sources of Funding" | \$72,533 | \$94,043 | \$233,059 | \$142,681 | \$391,921 | \$835,284 | \$617,399 | \$102,958 | \$610,470 | \$362,454 |
| Average Number of Learners | 1,707 | 2,524 | 8,917 | 3,661 | 4,838 | 7,065 | 9,290 | 12,557 | 20,568 | 13,761 |
| Average Number of Learners— Physicians from other Disciplines | 64 | 28 | 271 | 230 | 94 | 341 | 338 | 236 | 603 | 359 |
| Average Number of Learners— Surgical Residents | 459 | 1,107 | 1,178 | 374 | 448 | 711 | 798 | 360 | 500 | 417 |
| Average Number of Learners— Residents from other Disciplines | 344 | 128 | 1,490 | 771 | 686 | 838 | 1,170 | 1,307 | 1,504 | 1,299 |
| Average Number of Learners— Medical Students | 95 | 680 | 3,360 | 821 | 1,696 | 870 | 2,879 | 4,179 | 11,192 | 2,832 |
| Average Number of Learners— Allied Health | 88 | 132 | 209 | 318 | 179 | 668 | 546 | 1,260 | 1,552 | 2,113 |
| Average Number of Learners— Surgeons in Practice | 6 | 68 | 174 | 133 | 97 | 524 | 235 | 98 | 158 | 511 |
| Average Number of Learners— Nurses | 529 | 135 | 647 | 708 | 670 | 2,021 | 1,880 | 2,876 | 1,798 | 5,503 |
| Average Number of Learners— Other | 146 | 296 | 1,846 | 406 | 968 | 1,093 | 1,445 | 2,242 | 3,533 | 726 |
| Average Number of Course Hours | 1,383 | 493 | 1,952 | 4,517 | 5,350 | 13,875 | 3,774 | 3,534 | 9,938 | 4,557 |
| Average Number of CME Activities | 1 | 2 | 8 | 4 | 14 | 10 | 15 | 849 | 9 | 42 |
| Average Number of Adopted Curricula | 1 | 4 | 2 | 1 | 3 | 0 | 2 | 0 | 2 | 2 |
| Average Number of Original Curricula | 3 | 4 | 2 | 3 | 3 | 3 | 5 | 2 | 2 | 2 |
| Average Number of Curricula Implemented | 3 | 4 | 3 | 3 | 4 | 3 | 5 | 2 | 3 | 2 |
| Average Number of Research or Scholarly Activities | 2 | 1 | 2 | 2 | 4 | 7 | 4 | 3 | 4 | 3 |

Membership





AEI CENTERS

Membership current as of January 2022.

| 90 Compreh | ensive | |
|------------|--------|--|
| 10 Focused | | |

Membership Detailed

UNITED STATES



- 1 Phoenix, AZ
- 3 Los Angeles, CA
- 1 Orange, CA
- 1 Pasadena, CA
- 1 Sacramento, CA
- 1 San Diego, CA
- 1 San Francisco, CA
- 1 Stanford, CA
- 1 Parker, CO
- 1 Hartford, CT
- 2 Washington, DC
- 1 Newark, DE
- 1 Celebration, FL
- 1 Tampa, FL

- 1 Atlanta, GA
- 1 Tripler Army Medical Center, HI
- 1 Iowa City, IA
- 4 Chicago, IL
- 1 Evanston, IL
- 1 Peoria, IL
- 1 Indianapolis, IN
- 1 Fort Wayne, IN
- 1 Wichita, KS
- 2 New Orleans, LA
- 1 Shreveport, LA
- 3 Boston, MA
- 1 Burlington, MA

- 1 Springfield, MA
- 1 Annapolis, MD
- 1 Bethesda, MD
- 1 Ann Arbor, MI
- 1 Detroit, MI
- 1 Pontiac, MI
- 1 Royal Oak, MI
- 1 Southfield, MI
- 1 Minneapolis, MN
- 1 Rochester, MN
- 1 St. Louis, MO
- 1 Omaha, NE
- 1 Chapel Hill, NC
- 1 Charlotte, NC
- 1 Durham, NC
- 1 Winston Salem, NC
- 1 Morristown, NJ
- 1 Albuquerque, NM
- 3 New York, NY
- 1 Cleveland, OH
- 2 Columbus, OH
- 1 Toledo, OH

- 1 Oklahoma City, OK
- 2 Portland, OR
- 1 Allentown, PA
- 1 Hershey, PA
- 1 Johnstown, PA
- 3 Philadelphia, PA
- 1 Nashville, TN
- 1 Knoxville, TN
- 2 Dallas, TX
- 1 Galveston, TX
- 1 Houston, TX
- 1 JBSA-Ft Sam Houston, TX
- 1 Temple, TX
- 1 Salt Lake City, UT
- 1 Falls Church, VA
- 1 Norfolk, VA
- 1 Portsmouth, VA
- 1 Richmond, VA
- 1 Burlington, VT
- 1 Seattle, WA
- 1 Tacoma, WA
- 1 Madison, WI

EUROPE

- 1 Plovdiv, Bulgaria
- 1 Strasbourg, France
- 1 Athens, Greece
- 1 Pisa, Italy
- 1 Santander, Spain
- 1 Lund, Sweden
- 1 Stockholm, Sweden
- 1 London, United Kingdom



MIDDLE EAST

- 1 Riyadh, Saudi Arabia
- 1 Dubai, United Arab Emirates



CANADA

- 1 London, Ontario
- 1 Toronto, Ontario
- 1 Montreal, Quebec



SOUTH AMERICA

1 Barretos, Sao Paulo, Brazil





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