



AMERICAN COLLEGE OF SURGEONS • DIVISION OF EDUCATION<sup>®</sup>  
**ACCREDITED EDUCATION INSTITUTES**  
ENHANCING PATIENT SAFETY THROUGH SIMULATION

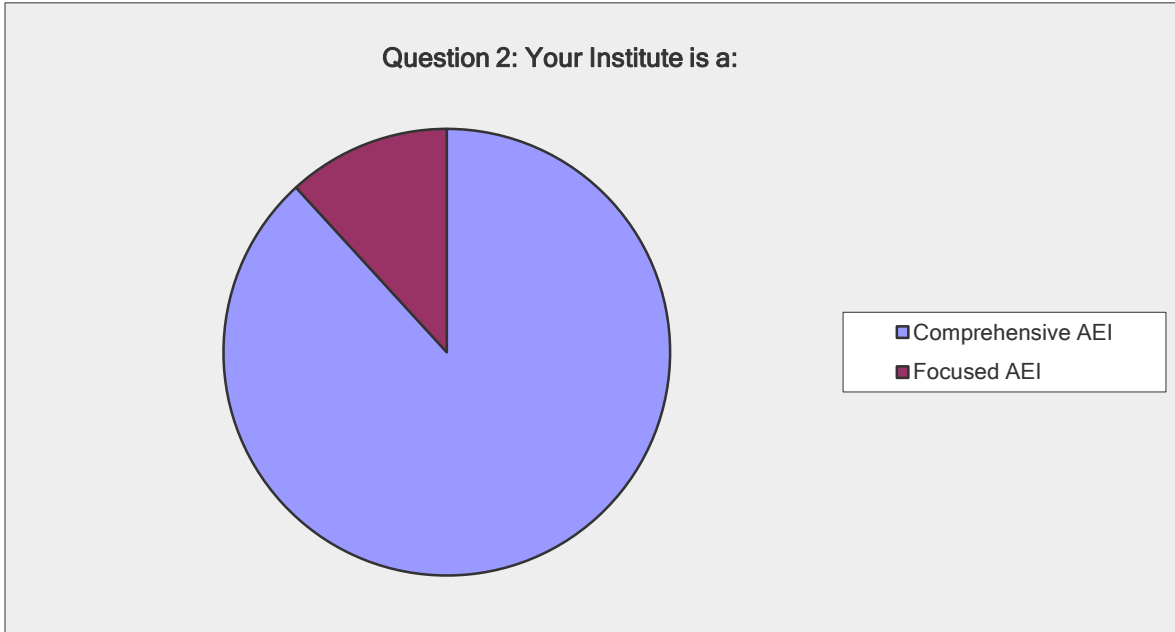
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# 2015 ACS AEI Annual Report Data Results

*Description:*

We are happy to present the findings from our 2015 Annual Report survey, which were unveiled at our 2016 Annual Consortium Meeting. Eighty-nine institutes accredited as of the June 2015 cycle were asked to complete the report and we received a 95% response rate for the survey. We used Survey Monkey as the tool to collect the data. All questions required a response. Data provided reflects both responses from Comprehensive and Focused AEs unless noted.

# 2015 ACS AEI Annual Report



Your Institute is a:		
Answer Options	Response Percent	Response Count
Comprehensive AEI	88.2%	75
Focused AEI	11.8%	10
<i>answered question</i>		<b>85</b>

## 2015 ACS AEI Annual Report

**Question 3: Please complete the following demographics information about your AEI:  
% FTE for AEI Director protected time:**

Answer Options	Response Percent	Response Count
1 - 25%	47.0%	40
26 - 50%	27.0%	23
51 - 75%	7.0%	6
76 - 100%	19.0%	16
<i>answered question</i>		<b>85</b>

**Question 4: Please complete the following demographics information about your AEI:  
% FTE for AEI Surgical Director protected time:**

Answer Options	Response Percent	Response Count
1 - 10%	58.0%	49
11 - 20%	16.5%	14
21 - 30%	15.3%	13
31 - 40%	4.7%	4
41 - 50%	2.3%	2
51 - 60%	1.0%	1
61 - 70%	0.0%	0
71 - 80%	1.0%	1
100%	1.0%	1
<i>answered question</i>		<b>85</b>

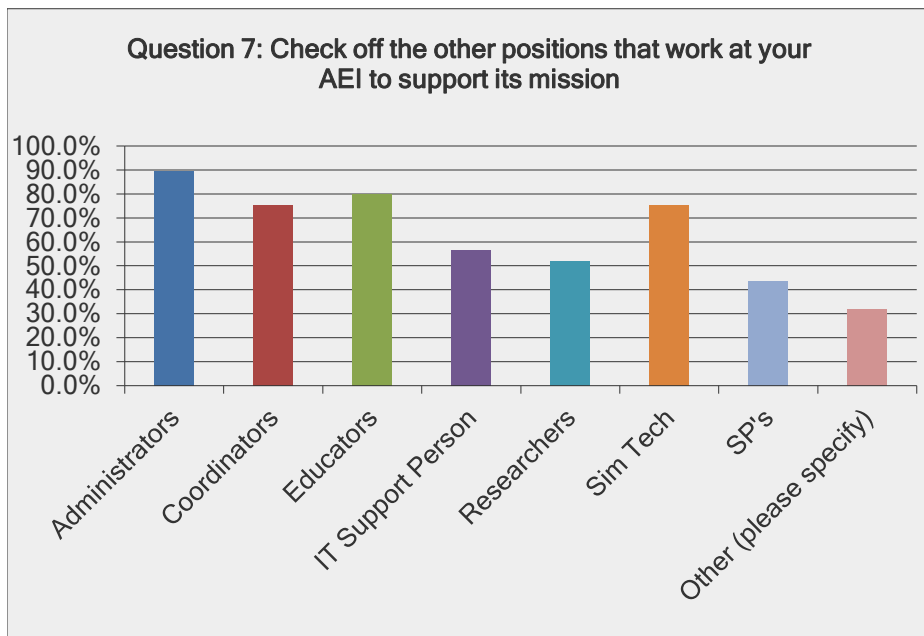
**Question 5: Indicate the total number of FTEs at your AEI, excluding AEI Director and Surgical Director?**

Answer Options	Response Count	
1 - 5	44	
6 - 10	22	
11 - 15	10	
16 - 20	1	
21 - 25	3	
26 - 30	1	
More than 30 FTEs	4	
<i>answered question</i>		<b>85</b>

**Question 6: How many individuals employees at your AEI are paid by your cost center which is factored into your total number of FTEs?**

Answer Options	Response Count	
Less than 1	3	
1 - 10	61	
11 - 20	9	
21 - 30	7	
31 - 40	1	
41 - 50	1	
Greater than 50 FTEs	1	
NA	2	
<i>answered question</i>		<b>85</b>

## 2015 ACS AEI Annual Report



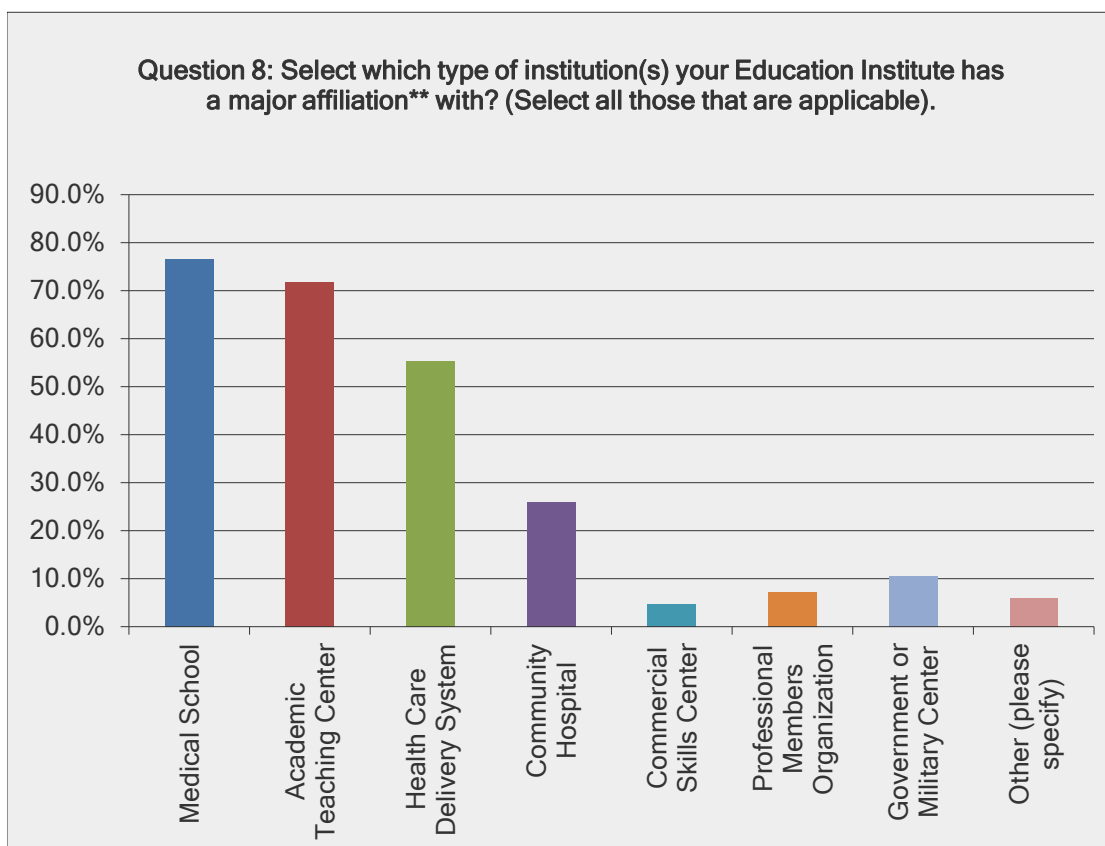
### Check off the other positions that work at your AEI to support its mission

Answer Options	Response Percent	Response Count
Administrators	89.4%	76
Coordinators	75.3%	64
Educators	80.0%	68
IT Support Person	56.5%	48
Researchers	51.8%	44
Sim Tech	75.3%	64
SP's	43.5%	37
Other (please specify)	31.8%	27
<i>answered question</i>		<b>85</b>

#### *Other (please specify):*

Liasons, Surgical Technicians, Quality Specialist, Learning Measurement and Assessment Consultant, Learning Consultants, 3D VIR Specialist, Director of Educational Technology, OR Techs, Instructional Design, Psychomatrician, Full-time Senior Video Specialist, Volunteers, Pre Health Students, Developers, Tissue Modelers, Lab Techs, Two Mobile Personnel, One-year Term Fellow, RN Simulation Specilaists, Training Center Educators, Administrative Assistants, System (data) Consultant, Medical Student Coordinator, Operations Manager, Graduate Assistants, Bioskills Lab Technician, Vet Tech Support, Research Assistant, Two Full-time FTEs, Publications Office, Program Managers, Department Analyst, Auxiliary Healthcare Staff, Graphic Artist/Animator, Radiology Techs and Co-Op Students.

## 2015 ACS AEI Annual Report



Select which type of institution(s) your Education Institute has a major affiliation\*\* with? (Select all those that are applicable).\*\*By affiliation we mean which of the groups listed above does your AEI most associated itself with due to any of the following relationships, sharing of physical space, sharing of a common governance structure or being financially underwritten.

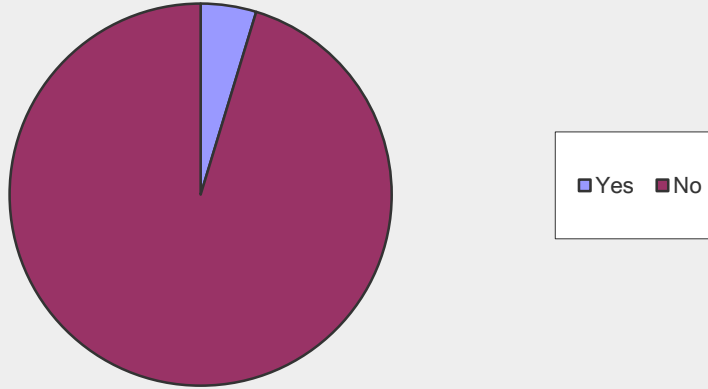
Answer Options	Response Percent	Response Count
Medical School	76.5%	65
Academic Teaching Center	71.8%	61
Health Care Delivery System	55.3%	47
Community Hospital	25.9%	22
Commercial Skills Center	4.7%	4
Professional Members	7.1%	6
Government or Military Center	10.6%	9
Other (please specify)	5.9%	5
<i>answered question</i>		<b>85</b>

*Other (\*please specify):*

*Independent Academic Medical Center, Dept of Anesthesia,  
Dept of General Surgery, Dept of Radiology, EHP High School  
Student Program-Pre Health Undergrad Program, University  
Health Sciences Center and Nursing School*

## 2015 ACS AEI Annual Report

Question 9: Has your AEI's physical footprint changed since last year's annual report?



Has your AEI's physical footprint changed since last year's annual report?

Answer Options	Response Percent	Response Count
Yes	4.7%	4
No	95.3%	81
<i>answered question</i>		85

## 2015 ACS AEI Annual Report

Question 10: What is the total amount of Contiguous Space under the direct control of the AEI:

Answer Options	Response Count
Less than 1,000	3
1,000 - 2,000	11
2,001 - 3,000	7
3,001 - 4,000	4
4,001 - 5,000	4
5,001 - 6,000	5
6,001 - 7,000	8
7,001 - 8,000	4
8,001 - 9,000	3
9,001 - 10,000	5
10,001 - 11,000	3
11,001 - 12,000	2
12,001 - 13,000	0
13,001 - 14,000	3
14,001 - 15,000	4
15,001 - 16,000	1
16,001 - 17,000	0
17,001 - 18,000	2
18,001 - 19,000	0
19,001 - 20,000	1
20,001 - 21,000	1
21,001 - 22,000	2
22,001 - 23,000	1
Greater than 26,000	11
<i>answered question</i>	85

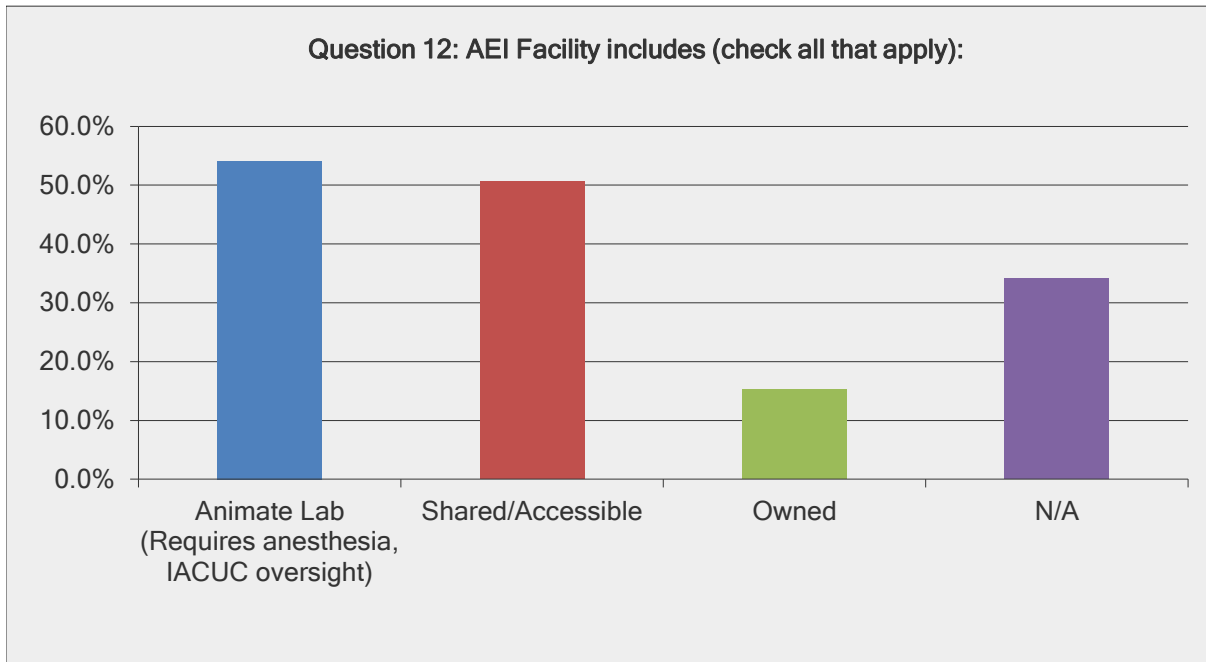


## 2015 ACS AEI Annual Report

Question 11: What is the total amount of Additional and or (Shared) Space that is counted towards your overall square footage?

Answer Options	Response Count
0	20
1 - 500	6
501 - 1,000	3
1,001 - 1,500	6
1,501 - 2,000	4
2,001 - 2,500	3
2,501 - 3,000	5
3,001 - 3,500	3
3,501 - 4,000	6
4,001 - 4,500	2
4,501 - 5,000	3
5,001 - 5,500	0
5,501 - 6,000	0
6,001 - 6,500	1
6,501 - 7,000	2
7,001 - 7,500	0
7,501 - 8,000	1
8,001 - 8,500	2
8,501 - 9,000	0
9,001 - 9,500	0
9,501 - 10,000	3
10,001 - 10,500	0
10,501 - 11,000	0
11,001 - 11,500	0
11,501 - 12,000	2
12,001 - 12,500	0
12,501 - 13,000	0
13,001 - 13,500	0
13,501 - 14,000	1
14,001 - 14,500	0
14,501 - 15,000	2
15,001 - 15,500	0
15,501 - 16,000	3
16,001 or Greater	7
<i>answered question</i>	85

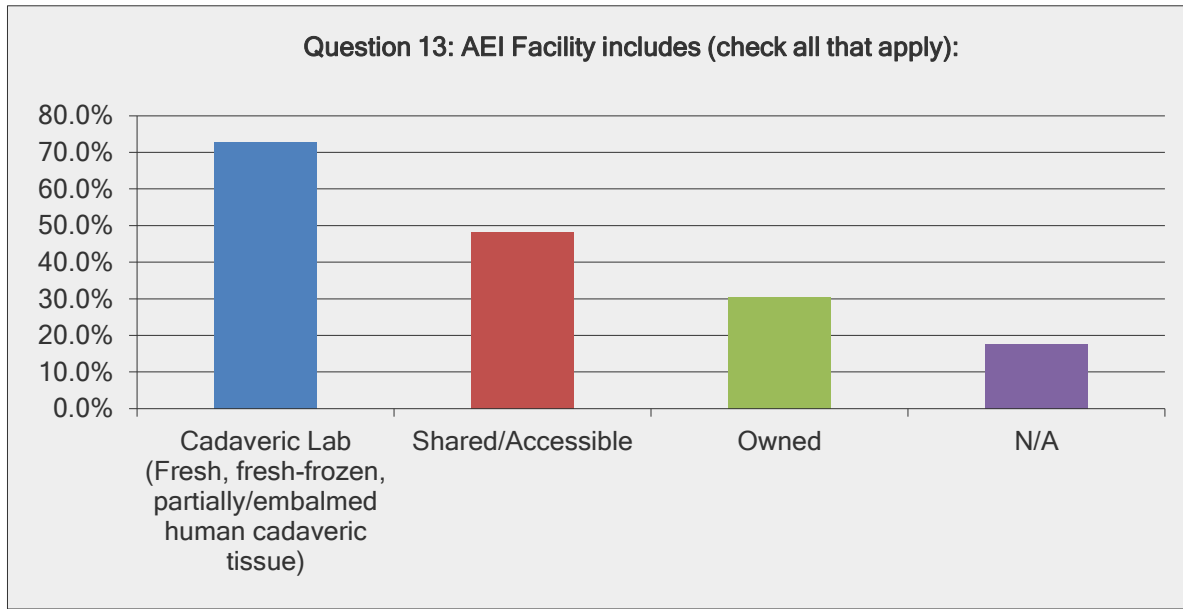
## 2015 ACS AEI Annual Report



### AEI Facility includes (check all that apply):

Answer Options	Response Percent	Response Count
Animate Lab (Requires anesthesia, IACUC oversight)	54.1%	46
Shared/Accessible	50.6%	43
Owned	15.3%	13
N/A	34.1%	29
<i>answered question</i>		<b>85</b>

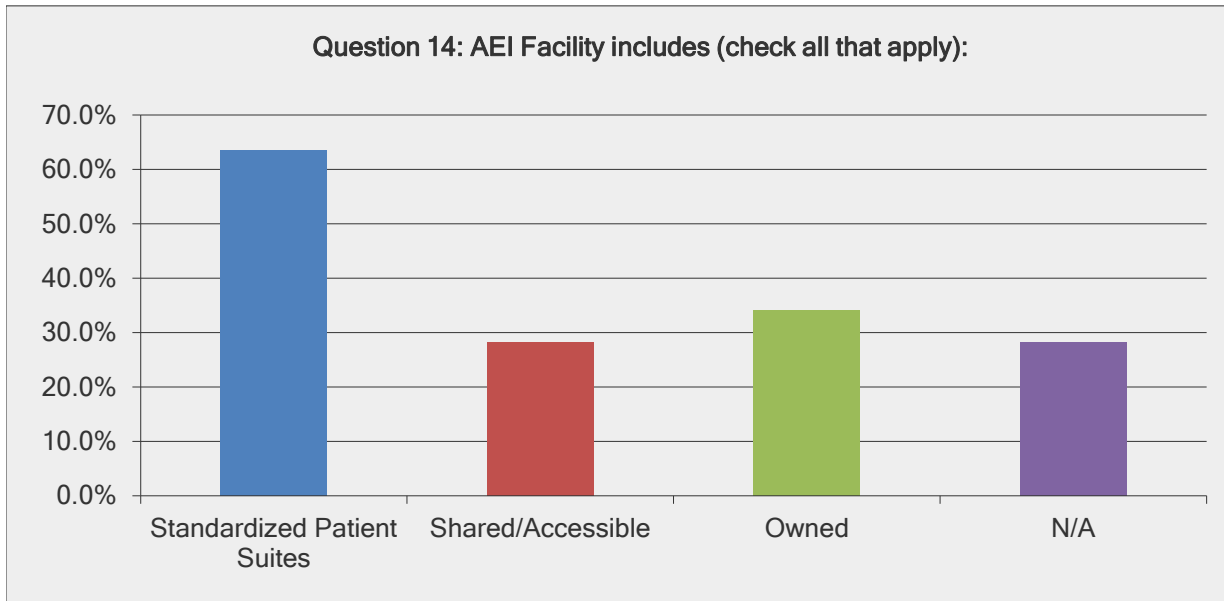
## 2015 ACS AEI Annual Report



### AEI Facility includes (check all that apply):

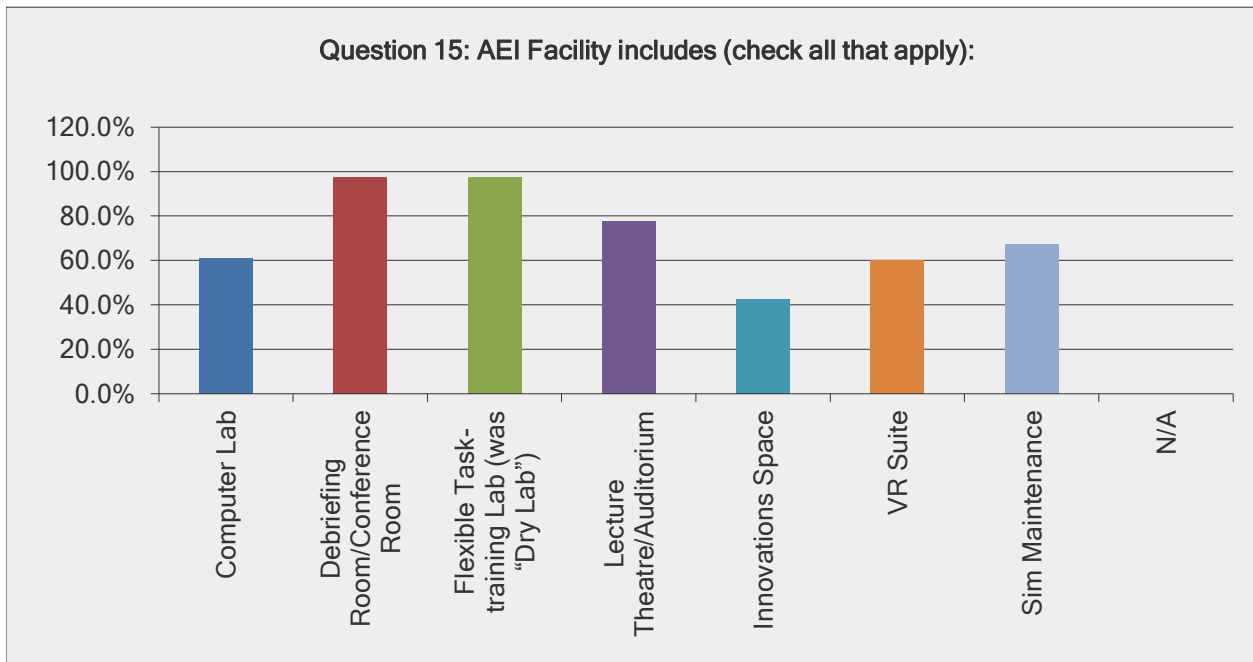
Answer Options	Response Percent	Response Count
Cadaveric Lab (Fresh, fresh-frozen, partially/embalmed human cadaveric tissue)	72.9%	62
Shared/Accessible	48.2%	41
Owned	30.6%	26
N/A	17.6%	15
<i>answered question</i>		<b>85</b>

## 2015 ACS AEI Annual Report



AEI Facility includes (check all that apply):		
Answer Options	Response Percent	Response Count
Standardized Patient Suites	63.5%	54
Shared/Accessible	28.2%	24
Owned	34.1%	29
N/A	28.2%	24
<b><i>answered question</i></b>		<b>85</b>

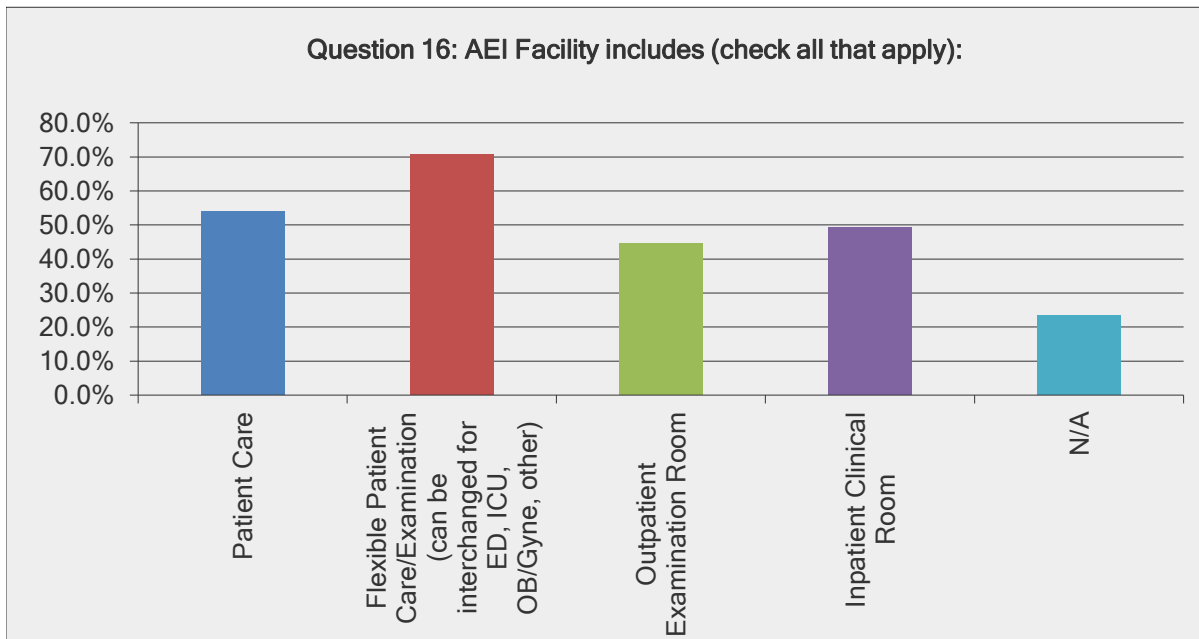
## 2015 ACS AEI Annual Report



### AEI Facility includes (check all that apply):

Answer Options	Response Percent	Response Count
Computer Lab	61.2%	52
Debriefing Room/Conference Room	97.6%	83
Flexible Task-training Lab (was "Dry Lab")	97.6%	83
Lecture Theatre/Auditorium	77.6%	66
Innovations Space	42.4%	36
VR Suite	60.0%	51
Sim Maintenance	67.1%	57
N/A	0.0%	0
<b><i>answered question</i></b>		<b>85</b>

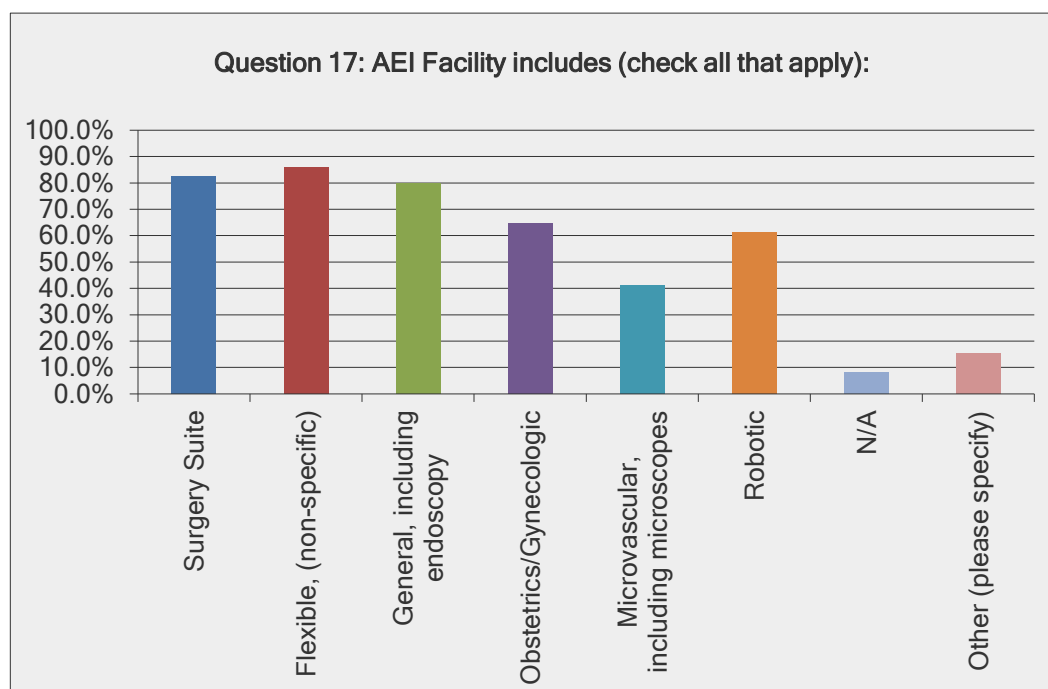
## 2015 ACS AEI Annual Report



### AEI Facility includes (check all that apply):

Answer Options	Response Percent	Response Count
Patient Care	54.1%	46
Flexible Patient Care/Examination (can be interchanged for ED,	70.6%	60
Outpatient Examination Room	44.7%	38
Inpatient Clinical Room	49.4%	42
N/A	23.5%	20
<i>answered question</i>		<b>85</b>

## 2015 ACS AEI Annual Report



### AEI Facility includes (check all that apply):

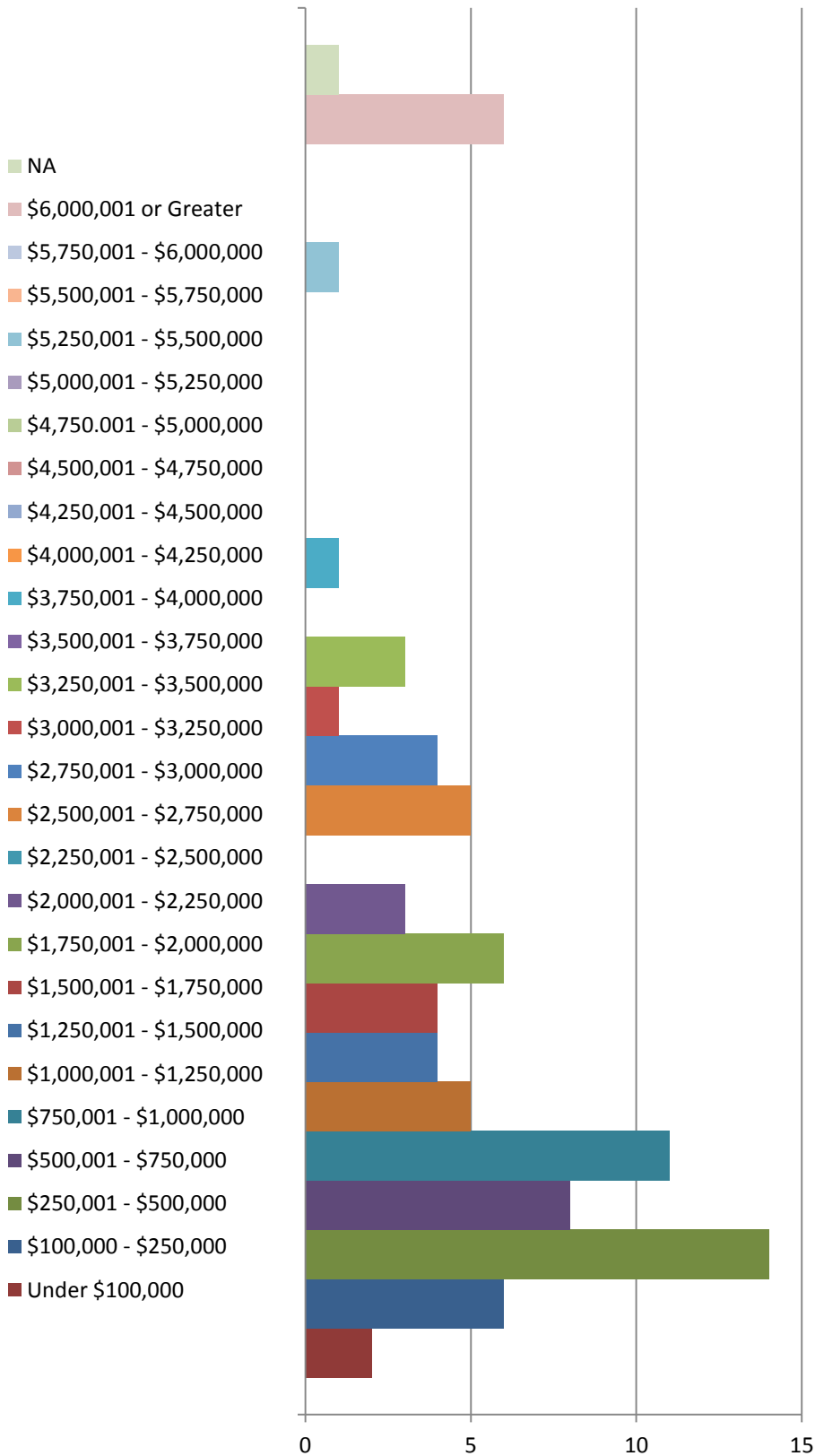
Answer Options	Response Percent	Response Count
Surgery Suite	82.4%	70
Flexible, (non-specific)	85.9%	73
General, including endoscopy	80.0%	68
Obstetrics/Gynecologic	64.7%	55
Microvascular, including	41.2%	35
Robotic	61.2%	52
N/A	8.2%	7
Other (please specify)	15.3%	13
<b>answered question</b>		<b>85</b>

#### *Other (please specify):*

*Operational Medicine-Trauma Lanes, Deployed Medical Unit Simulation, Dedicated Training Tent for Deployed Medical Training, Othoepaedic Urology, Vascular, Usability Lab, Simulation Lab Located in the Primary Space, Including GI-Bronch Mentor Simulator, Multiple Laparoscopic Trainers, Laparoscopic Training Center, Home Health Aprtment, Dental Room, In-situ L&D OR Suite, Peds Level 1 Trauma, C Arm, Orthopedics, Hybrid Intervention Suites (Animal and Clinical), Accommodations for Robotic Conferences and Human Patient Simulator Rooms.*

# 2015 ACS AEI Annual Report

**Question 18: What is your Annual Budget (income and expenses) for your AEI? For international AEIs please express your annual budget in US \$ equivalent**



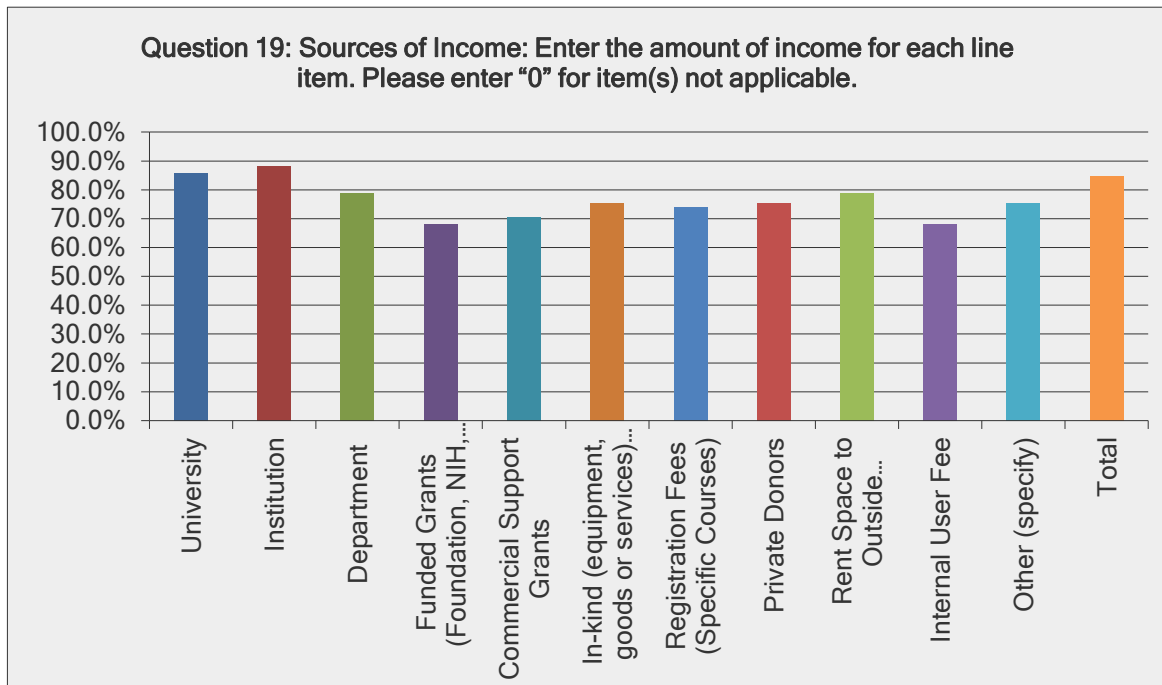


## 2015 ACS AEI Annual Report

Question 18 cont.: What is your Annual Budget (income and expenses) for your AEI? For international AEIs please express your annual budget in US \$ equivalent.

Answer Options	Response Count
Under \$100,000	2
\$100,000 - \$250,000	6
\$250,001 - \$500,000	14
\$500,001 - \$750,000	8
\$750,001 - \$1,000,000	11
\$1,000,001 - \$1,250,000	5
\$1,250,001 - \$1,500,000	4
\$1,500,001 - \$1,750,000	4
\$1,750,001 - \$2,000,000	6
\$2,000,001 - \$2,250,000	3
\$2,250,001 - \$2,500,000	0
\$2,500,001 - \$2,750,000	5
\$2,750,001 - \$3,000,000	4
\$3,000,001 - \$3,250,000	1
\$3,250,001 - \$3,500,000	3
\$3,500,001 - \$3,750,000	0
\$3,750,001 - \$4,000,000	1
\$4,000,001 - \$4,250,000	0
\$4,250,001 - \$4,500,000	0
\$4,500,001 - \$4,750,000	0
\$4,750,001 - \$5,000,000	0
\$5,000,001 - \$5,250,000	0
\$5,250,001 - \$5,500,000	1
\$5,500,001 - \$5,750,000	0
\$5,750,001 - \$6,000,000	0
\$6,000,001 or Greater	6
NA	1
<i>answered question</i>	85

## 2015 ACS AEI Annual Report



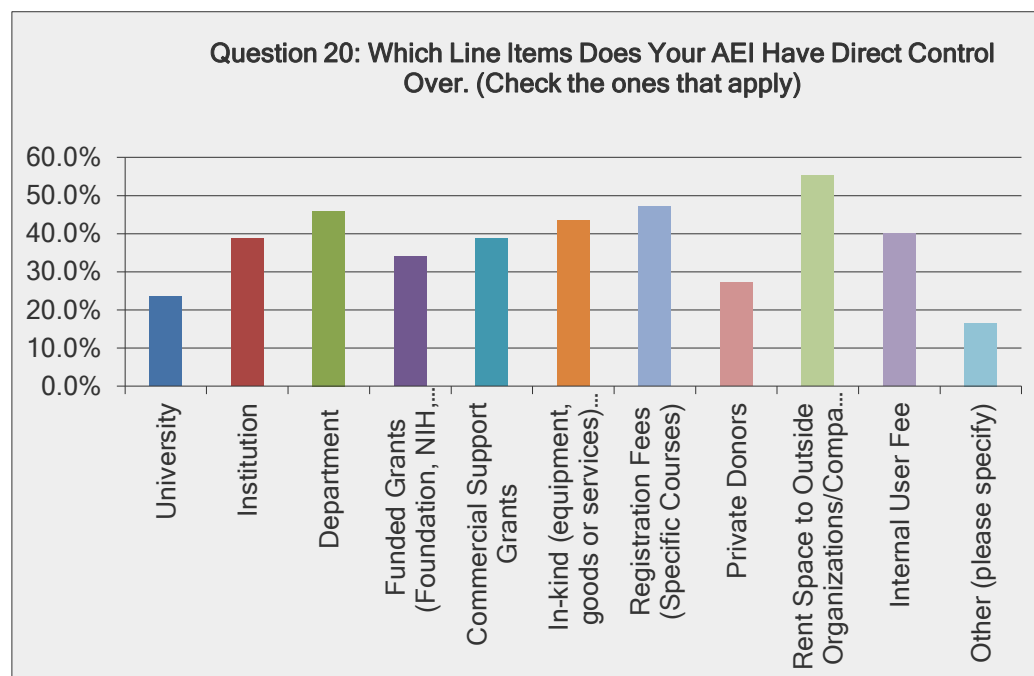
Sources of Income: Enter the amount of income for each line item. Please enter "0" for item(s) not applicable.

Answer Options	Response Percent	Response Count
University	85.9%	73
Institution	88.2%	75
Department	78.8%	67
Funded Grants (Foundation, NIH, AHRQ, etc.)	68.2%	58
Commercial Support Grants	70.6%	60
In-kind (equipment, goods or services) Grants	75.3%	64
Registration Fees (Specific Courses)	74.1%	63
Private Donors	75.3%	64
Rent Space to Outside Organizations/Companies	78.8%	67
Internal User Fee	68.2%	58
Other (specify)	75.3%	64
Total	84.7%	72
<i>answered question</i>		<b>85</b>

*Other (specify):*

*Industry, Hospital, Private Foundation Endowment, Capital Request from the Hospital, Rebates, Rent, Parking, Investment Return, Interventional Radiology, Contracts for Services, Endowment, Tuition, Industry-sponsored Courses, Chair Endowment, Research Special Fund, Interest, Paid Outside Courses, Budgeted Income, Second Tranche of Funding for FRS Study, CSC, Other Users within Health System, Internal Research Grant, Consulting, Royalties and Other Income.*

## 2015 ACS AEI Annual Report



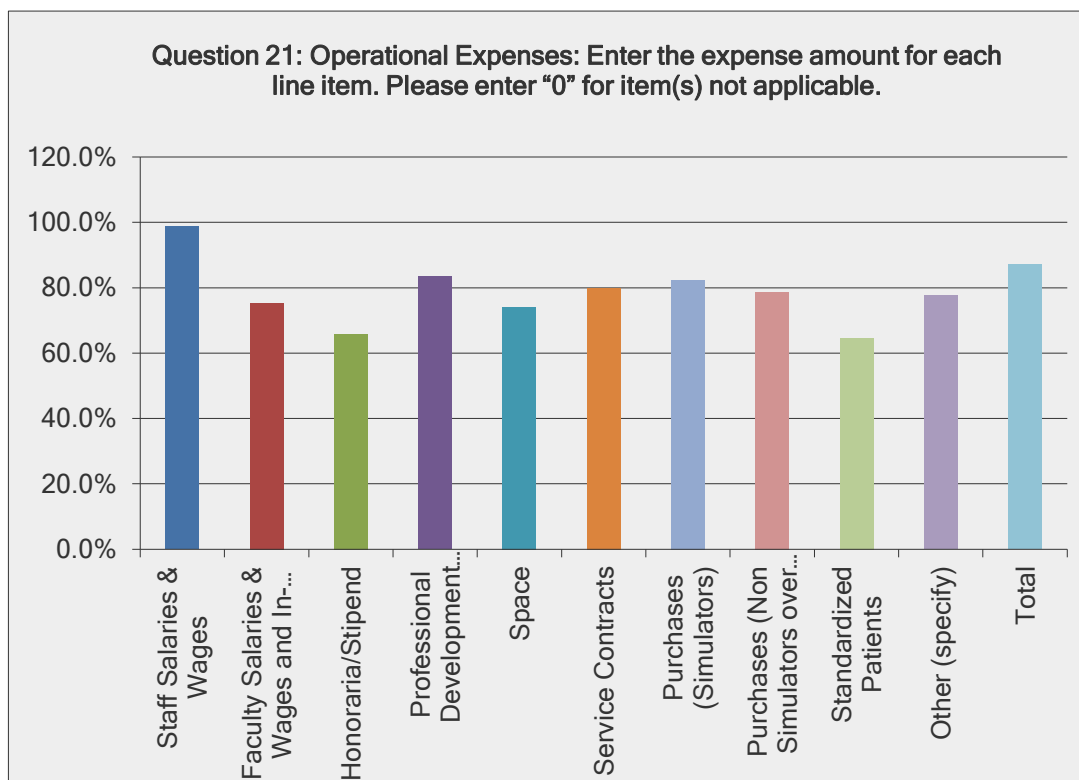
### Which Line Items Does Your AEI Have Direct Control Over. (Check the ones that apply)

Answer Options	Response Percent	Response Count
University	23.5%	20
Institution	38.8%	33
Department	45.9%	39
Funded Grants (Foundation, NIH, AHRQ, etc.)	34.1%	29
Commercial Support Grants	38.8%	33
In-kind (equipment, goods or services) Grants	43.5%	37
Registration Fees (Specific Courses)	47.1%	40
Private Donors	27.1%	23
Rent Space to Outside Organizations/Companies	55.3%	47
Internal User Fee	40.0%	34
Other (please specify)	16.5%	14
<i>answered question</i>		<b>85</b>

#### *Other (please specify):*

*Industry Courses, Army Unit Training Funding, Hospital, Private Foundation Endowment, Each Center within the AEI is Managed by Department within the School of Medicine that Manages the Finances for the AEI, Rebates, Rent, Parking, Investment Return, Additional Department Partners, Endowment, Sales of Liver Anatomy App, Medical Education Controls our Budget with our Input, Research Grant and CMS has Full Control over its Budget, Revenues and Expenses.*

## 2015 ACS AEI Annual Report



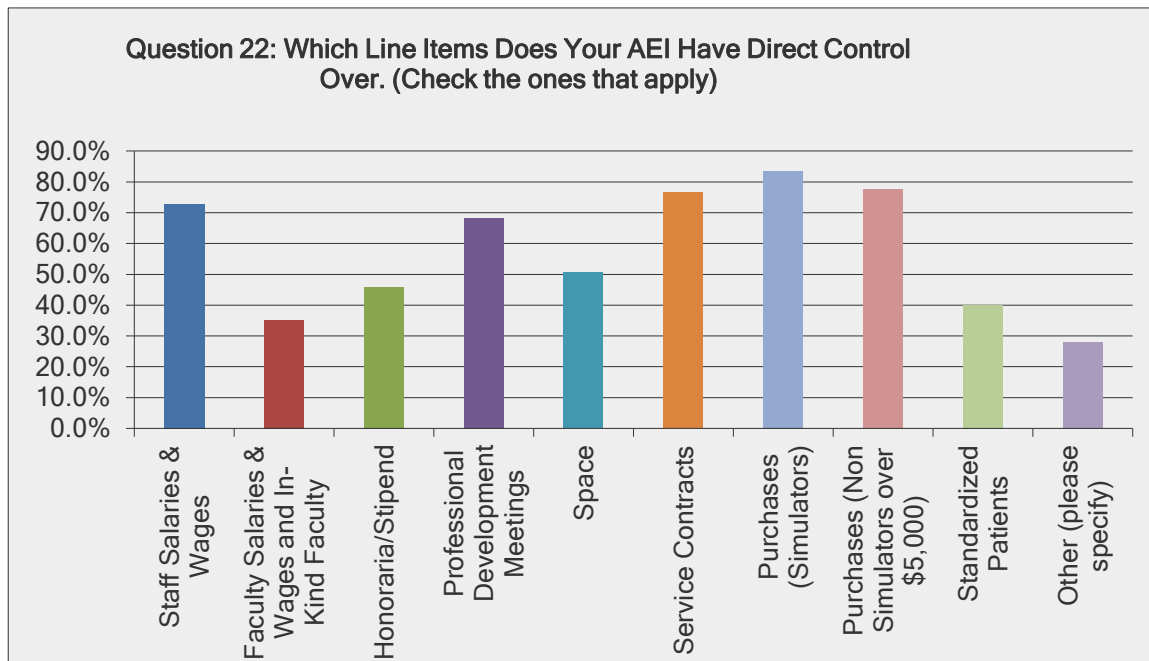
Operational Expenses: Enter the expense amount for each line item. Please enter "0" for item(s) not applicable.

Answer Options	Response Percent	Response Count
Staff Salaries & Wages	98.8%	84
Faculty Salaries & Wages and In-Kind Faculty	75.3%	64
Honoraria/Stipend	65.9%	56
Professional Development Meetings	83.5%	71
Space	74.1%	63
Service Contracts	80.0%	68
Purchases (Simulators)	82.4%	70
Purchases (Non Simulators over \$5,000)	78.8%	67
Standardized Patients	64.7%	55
Other (specify)	77.6%	66
Total	87.1%	74
<i>answered question</i>		<b>85</b>

*Other (please specify):*

*Travels for Faculty and Foreign Faculty, Grant, Supplies, Simulators, Capital, Purchases under \$5,000, Maintenance/Repair, Catering, Memberships/Subscriptions, Special Events, Gifts, Utilities, Consulting Fees, Accreditation and Fees, Operating Costs, Discretionary Spending, Rent, Computers, Equipment, AV and Licensure, Developmental Training, Education Costs, Tax, ACS Annual Fee, Construction, Skills Supplies, Income Earning, Freight, FCCS Expenses, Fringes, Cleaning, Phones, Food, Sales and Marketing.*

## 2015 ACS AEI Annual Report



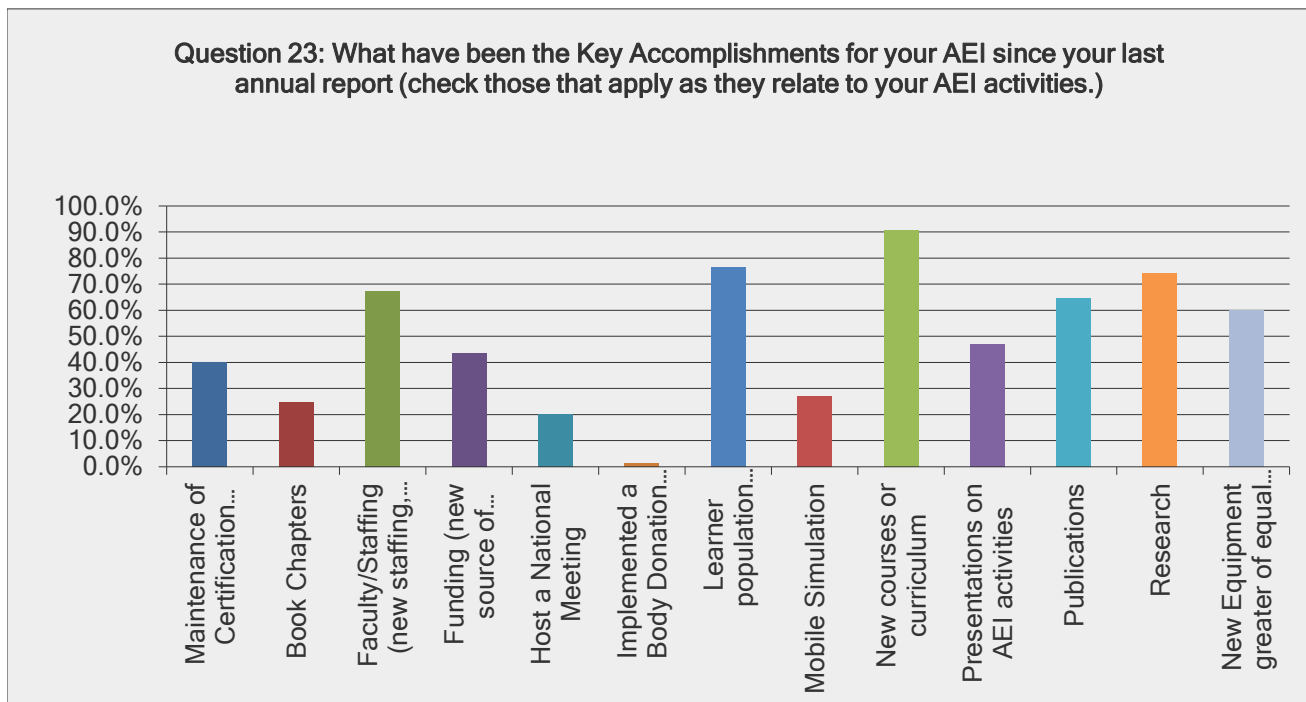
### Which Line Items Does Your AEI Have Direct Control Over. (Check the ones that apply)

Answer Options	Response Percent	Response Count
Staff Salaries & Wages	72.9%	62
Faculty Salaries & Wages and In-Kind Faculty	35.3%	30
Honoraria/Stipend	45.9%	39
Professional Development Meetings	68.2%	58
Space	50.6%	43
Service Contracts	76.5%	65
Purchases (Simulators)	83.5%	71
Purchases (Non Simulators over \$5,000)	77.6%	66
Standardized Patients	40.0%	34
Other (please specify)	28.2%	24
<i>answered question</i>		<b>85</b>

*Other (please specify):*

*Foreign Faculty Travel, Army Unit Training Funding, 3D Development Simulation Expenses, Travel, Direct Control over Discretionary Spending, Each Center within the AEI is Managed by Department within the School of Medicine that Manages the Finances for AEI, Supplies, Operational Expenses, Operational Supplies, AV, Shipping, Uniform Service, Marketing, Secure Server, Recruitment Expenses, Printing, Supply Budget, Operational Expenditures, Operational Services, Skills Supplies, Ancillary Equipment, Purchases under \$5,000, Medical Education Controls our budget with our Input and Have Full Control over our Budget, Revenues and Expenses,*

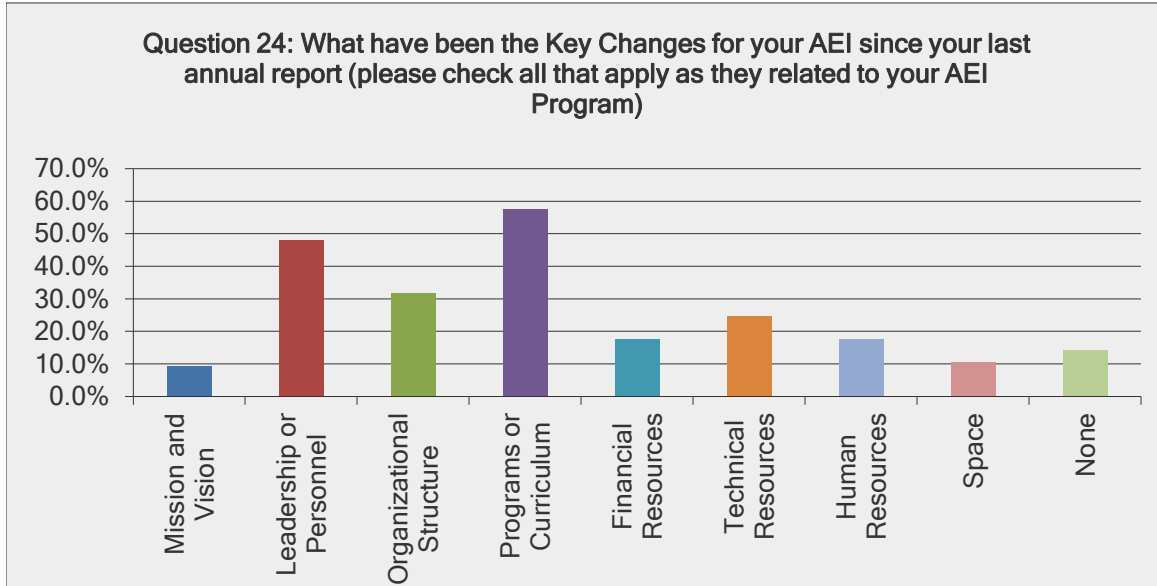
## 2015 ACS AEI Annual Report



What have been the Key Accomplishments for your AEI since your last annual report (check those that apply as they relate to your AEI activities.)

Answer Options	Response Percent	Response Count
Maintenance of Certification Course	40.0%	34
Book Chapters	24.7%	21
Faculty/Staffing (new staffing, faculty, etc)	67.1%	57
Funding (new source of funding/grants)	43.5%	37
Host a National Meeting	20.0%	17
Implemented a Body Donation Program	1.2%	1
Learner population (increased, diversified or new learner)	76.5%	65
Mobile Simulation	27.1%	23
New courses or curriculum	90.6%	77
Presentations on AEI activities	47.1%	40
Publications	64.7%	55
Research	74.1%	63
New Equipment greater of equal to \$25,000	60.0%	51
<b>answered question</b>		<b>85</b>

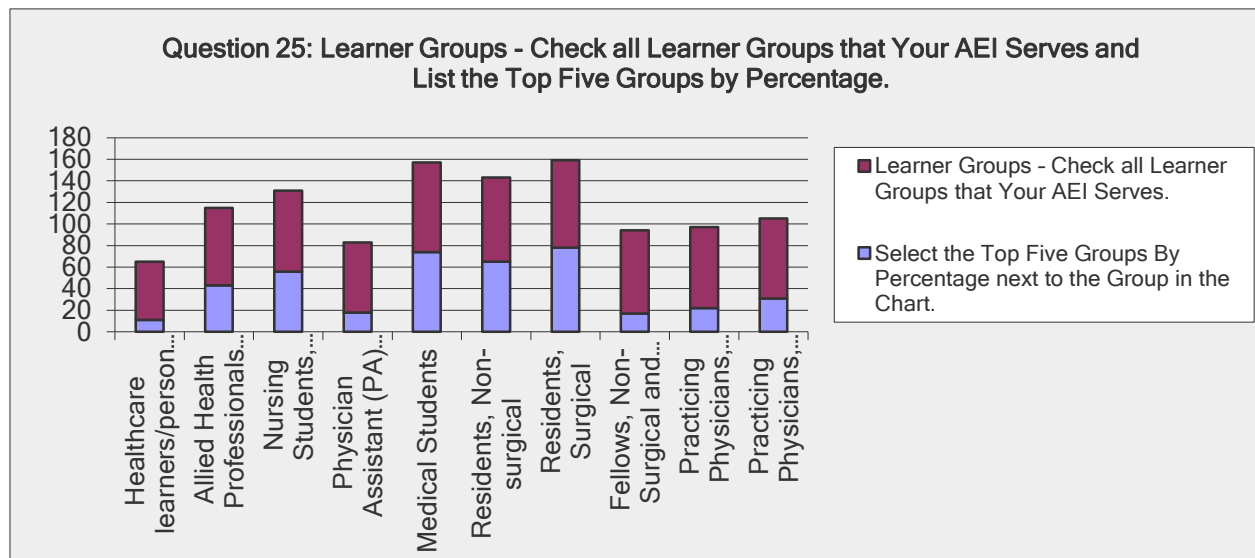
## 2015 ACS AEI Annual Report



**What have been the Key Changes for your AEI since your last annual report (please check all that apply as they related to your AEI Program)**

Answer Options	Response Percent	Response Count
Mission and Vision	9.4%	8
Leadership or Personnel	48.2%	41
Organizational Structure	31.8%	27
Programs or Curriculum	57.6%	49
Financial Resources	17.6%	15
Technical Resources	24.7%	21
Human Resources	17.6%	15
Space	10.6%	9
None	14.1%	12
<b><i>answered question</i></b>		<b>85</b>

## 2015 ACS AEI Annual Report



### Learner Groups - Check all Learner Groups that Your AEI Serves and List the Top Five Groups by Percentage.

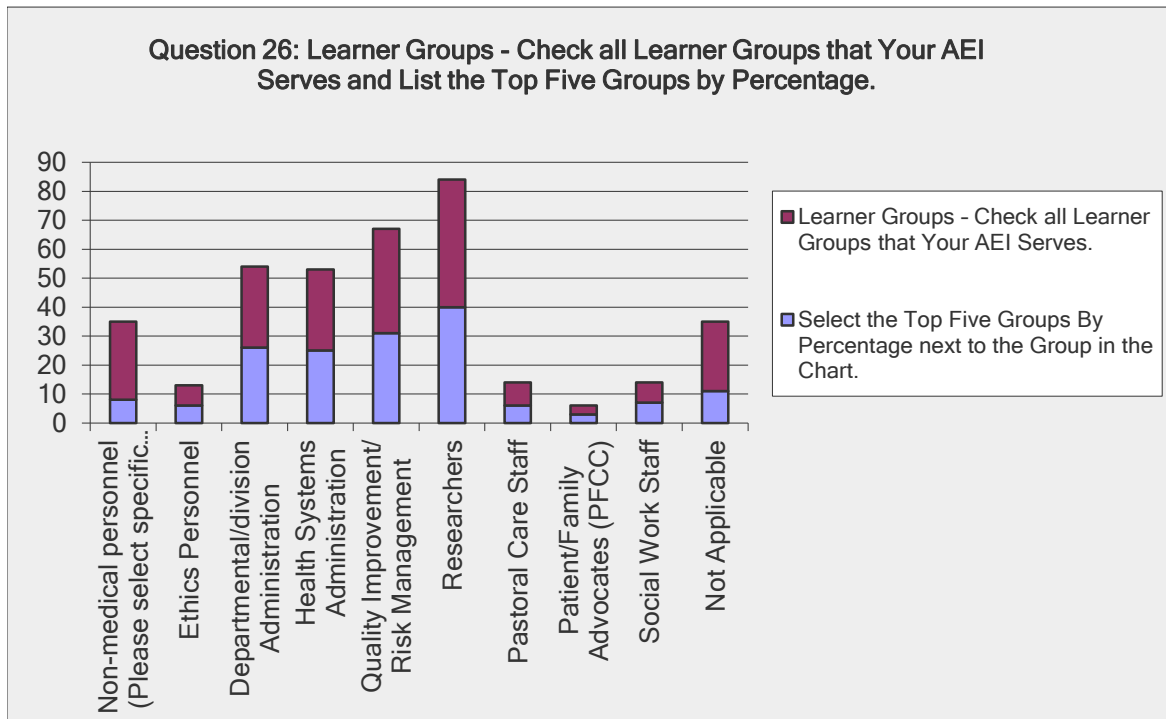
Answer Options	Learner Groups - Check all Learner Groups that Your AEI Serves.	Select the Top Five Groups By Percentage next to the Group in the Chart.	Response Count
Healthcare learners/personnel (Please select specific)	54	11	54
Allied Health Professionals (Students and Professionals)	72	43	73
Nursing Students, Professionals, Practitioners	75	56	75
Physician Assistant (PA) Students and Professionals	65	18	65
Medical Students	83	74	83
Residents, Non-surgical	78	65	78
Residents, Surgical	81	78	84
Fellows, Non-Surgical and Surgical	77	17	78
Practicing Physicians, Non-surgical	75	22	75
Practicing Physicians, Surgical	74	31	75
Others			10
<i>answered question</i>			<b>85</b>

*Other (please specify):*

*Army Medical Personnel (Medics and Veterinarians), Paramedics, Nursing Assistants (One of the Top Five Groups by Percentage), EMS, National Guard, High School Students, All Hospital Employees Have Access to the Simulation Center, EMT, Pharmacy, Podiatric Medicine, Techs, Medical Assistants, Midwives, Student Interns, Military and Dental Residents.*



## 2015 ACS AEI Annual Report



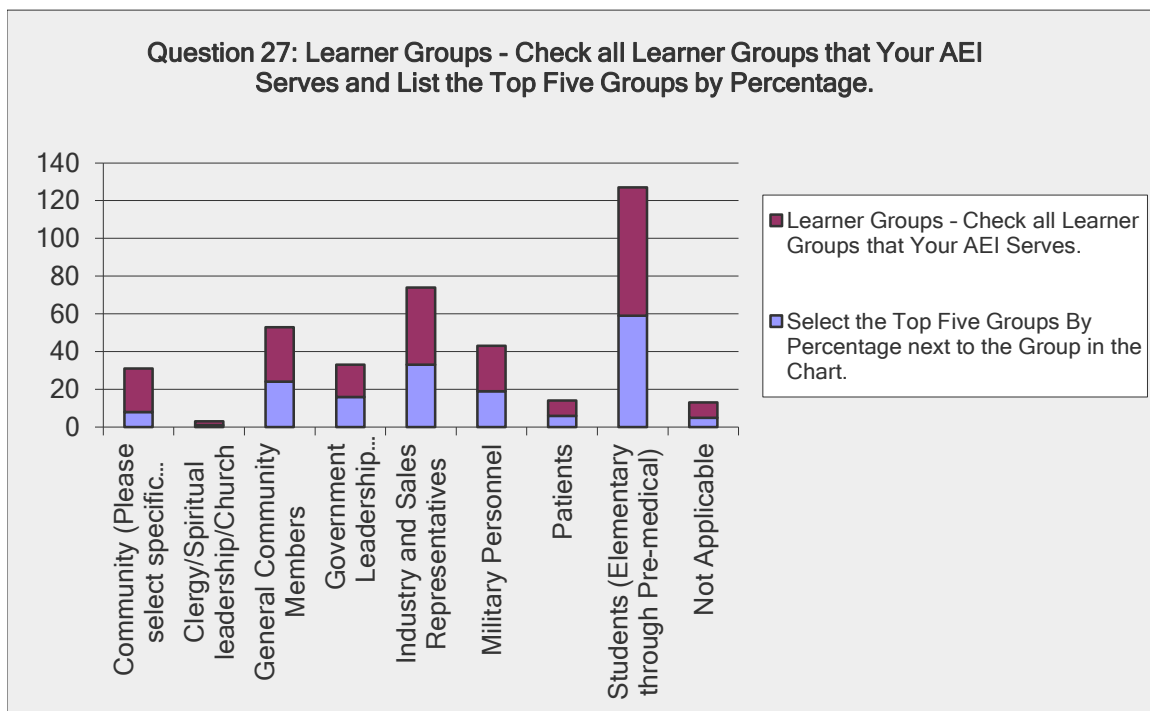
**Question 26: Learner Groups - Check all Learner Groups that Your AEI Serves and List the Top Five Groups by Percentage.**

Answer Options	Learner Groups - Check all Learner Groups that Your AEI Serves.	Select the Top Five Groups By Percentage next to the Group in the Chart.	Response Count
Non-medical personnel (Please select specific personnel)	27	8	27
Ethics Personnel	7	6	7
Departmental/division Administration	28	26	28
Health Systems Administration	28	25	28
Quality Improvement/ Risk Management	36	31	36
Researchers	44	40	44
Pastoral Care Staff	8	6	8
Patient/Family Advocates (PFCC)	3	3	3
Social Work Staff	7	7	7
Not Applicable	24	11	24
Other, please explain:			3
<b>answered question</b>			<b>85</b>

*Other (please specify):*

***We Focus on Healthcare, Human Factors Professionals, Usability, Industry Training and Clinical Dieticians.***

## 2015 ACS AEI Annual Report



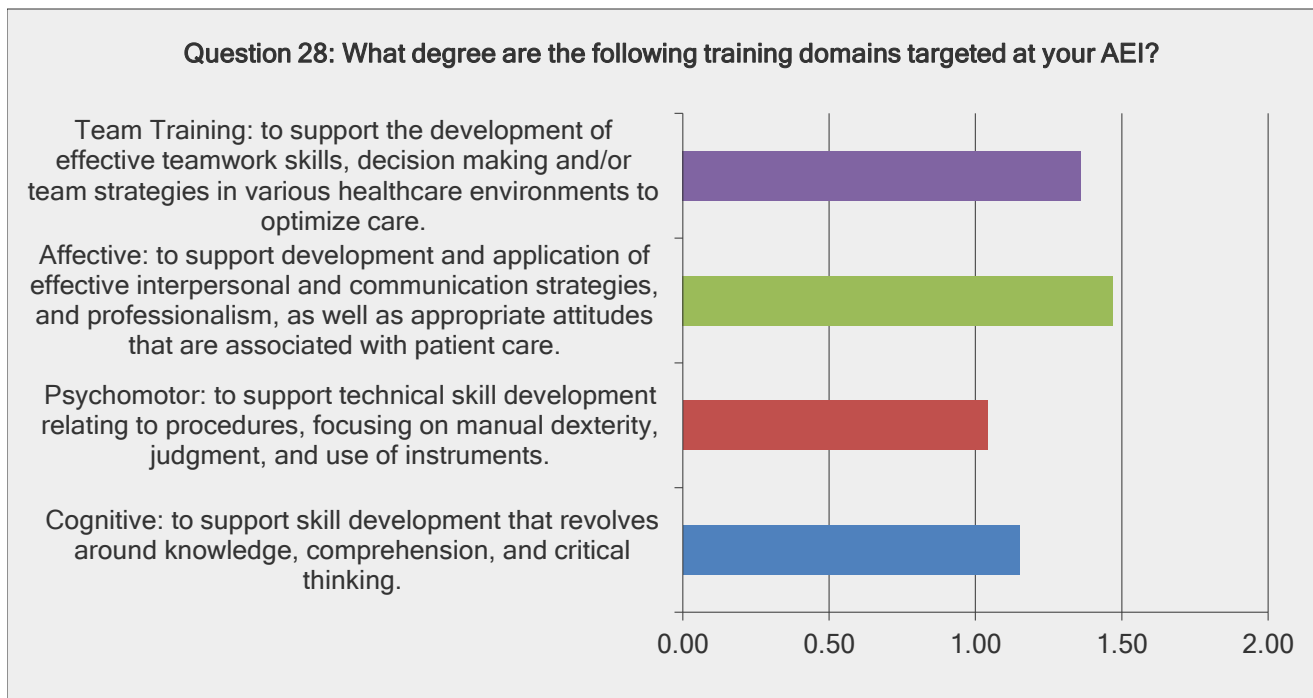
### Learner Groups - Check all Learner Groups that Your AEI Serves and List the Top Five Groups by Percentage.

Answer Options	Learner Groups - Check all Learner Groups that Your AEI Serves.	Select the Top Five Groups By Percentage next to the Group in the Chart.	Response Count
Community (Please select specific community members)	23	8	23
Clergy/Spiritual leadership/Church	2	1	2
General Community Members	29	24	29
Government Leadership (local=Mayor, regional=State)	17	16	18
Industry and Sales Representatives	41	33	41
Military Personnel	24	19	24
Patients	8	6	8
Students (Elementary through Pre-medical)	68	59	68
Not Applicable	8	5	8
Other, please explain:			2
<b>answered question</b>			<b>85</b>

*Other (please specify):*

*Paramedic Program, TFD and Occasional Student Tours.*

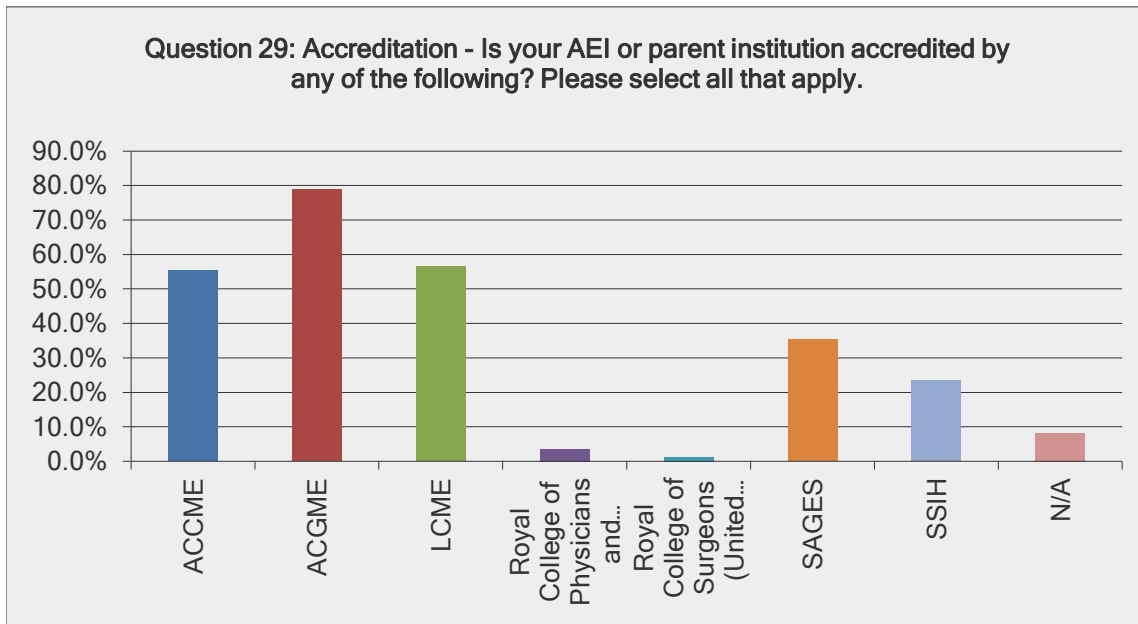
## 2015 ACS AEI Annual Report



### What degree are the following training domains targeted at your AEI?

Answer Options	1=Very Significant Target	2=Moderately Significant Target	3=Minimally Significant Target	4=Not Offered	Rating Average	Response Count
Cognitive: to	72	13	0	0	1.15	85
Psychomotor: to	82	3	0	0	1.04	85
Affective: to	54	23	7	1	1.47	85
Team Training: to	58	23	4	0	1.36	85
<i>answered question</i>						<b>85</b>

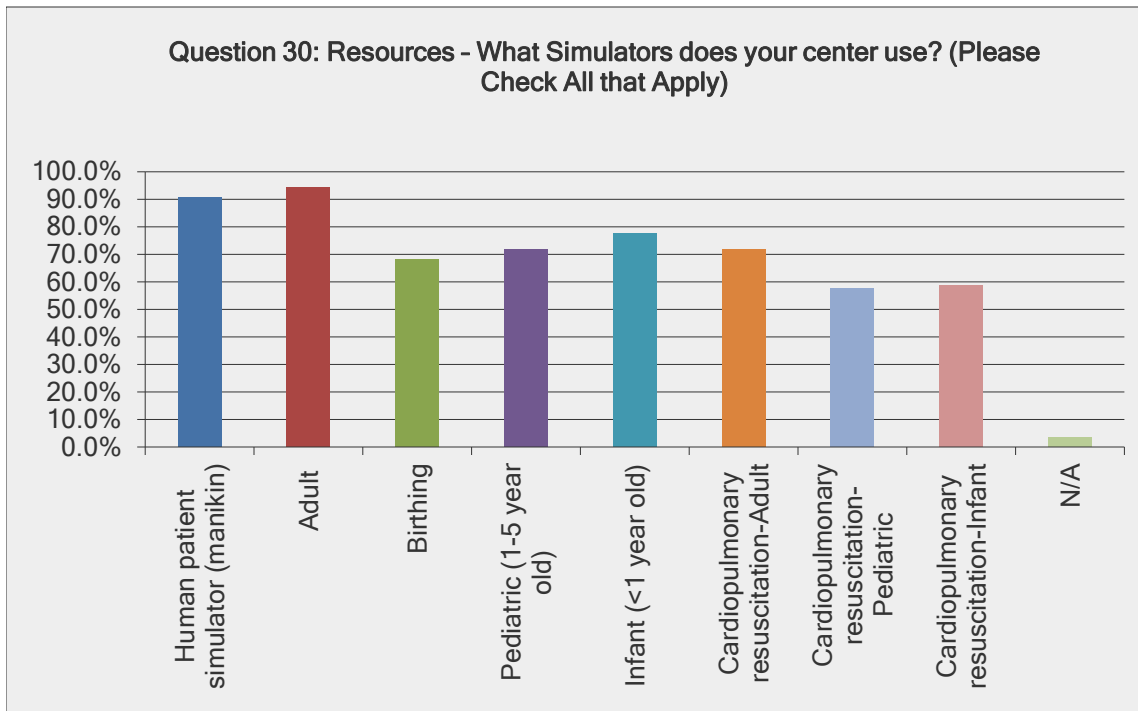
## 2015 ACS AEI Annual Report



**Accreditation - Is your AEI or parent institution accredited by any of the following? Please select all that apply.**

Answer Options	Response Percent	Response Count
ACCME	55.3%	47
ACGME	78.8%	67
LCME	56.5%	48
Royal College of Physicians and Surgeons of Canada	3.5%	3
Royal College of Surgeons (United Kingdom)	1.2%	1
SAGES	35.3%	30
SSIH	23.5%	20
N/A	8.2%	7
<b><i>answered question</i></b>		<b>85</b>

## 2015 ACS AEI Annual Report



### Resources - What Simulators does your center use? (Please Check All that Apply)

Answer Options	Response Percent	Response Count
Human patient simulator (manikin)	90.6%	77
Adult	94.1%	80
Birthing	68.2%	58
Pediatric (1-5 year old)	71.8%	61
Infant (<1 year old)	77.6%	66
Cardiopulmonary resuscitation-Adult	71.8%	61
Cardiopulmonary resuscitation-Pediatric	57.6%	49
Cardiopulmonary resuscitation-Infant	58.8%	50
N/A	3.5%	3
<b>answered question</b>		<b>85</b>

## 2015 ACS AEI Annual Report

**Question 31: Simulators (task trainers) (If your AEI have task trainer simulators please check the box) If the box is checked above, indicate with a checkmark which specific simulators your AEI has onsite.**

Answer Options	Response Percent	Response Count
Arterial line placement/Arterial Blood Gas (ABG)	71.4%	60
Breast examination	61.9%	52
Breast biopsy, ultrasound-guided	39.3%	33
Cardiopulmonary exam	47.6%	40
Cardiac Rhythm generator	60.7%	51
Chest tube placement-Adult	89.3%	75
Chest tube placement- Pediatric	40.5%	34
Cricothyrotomy	82.1%	69
Dermal biopsy	27.4%	23
Diagnostic peritoneal lavage (DPL)	45.2%	38
Epistaxis	11.9%	10
Genitourinary Exam-Male	54.8%	46
Head trauma	34.5%	29
Injection	72.6%	61
Intraosseous (IO) infusion	71.4%	60
Intubation/airway -Adult	91.7%	77
Intubation/airway - Pediatric	71.4%	60
Intubation/airway - Infant	75.0%	63
Joint Aspiration (knee/shoulder)	47.6%	40
Knot tying	96.4%	81
Nasogastric intubation (NG tube placement)	79.8%	67
Ophthalmic examination	40.5%	34
Ortolani/Barlow (Hip dysplasia exam)	10.7%	9
Pericardiocentesis	41.7%	35
Pelvic Exam-Female	73.8%	62
Pericardiocentesis	48.8%	41
Paracentesis	54.8%	46
Peripheral IV /venipuncture-model	83.3%	70
Peripheral IV /venipuncture-VR	36.9%	31
Phlebotomy	56.0%	47
Physical exam	58.3%	49
Pneumothorax	53.6%	45
Suturing	97.6%	82
Thoracentesis	69.0%	58
Thoracotomy	45.2%	38
Trauma Management-Adult	69.4%	59
Trauma Management-Pediatric	42.9%	36

## 2015 ACS AEI Annual Report

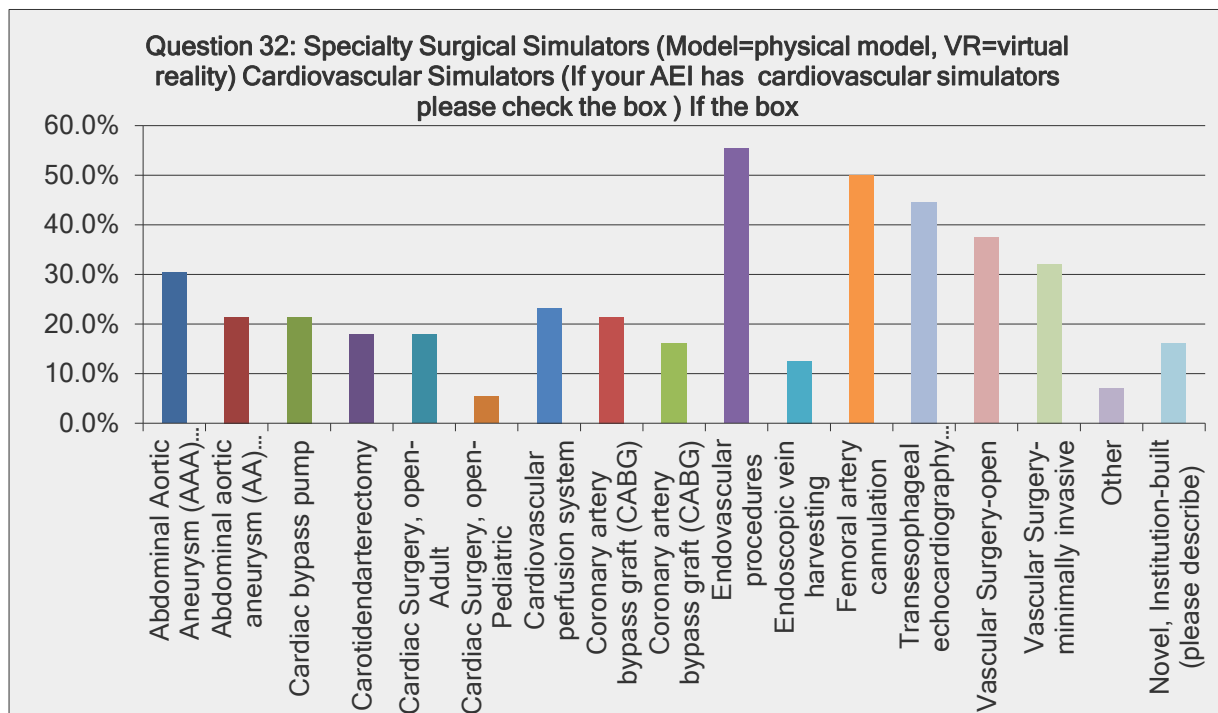
Question 31 cont.: Simulators (task trainers) (If your AEI have task trainer simulators please check the box) If the box is checked above, indicate with a checkmark which specific simulators your AEI has onsite.

Answer Options	Response Percent	Response Count
Ultrasound-VR	64.3%	54
Urinary/urethral catheterization	81.0%	68
Urinary/suprapubic bladder catheterization	36.9%	31
Wound care	47.6%	40
Other	14.3%	12
Novel, Institution-built (please describe)	39.3%	33
<i>answered question</i>		<b>84</b>
<i>skipped question</i>		<b>1</b>

*Novel, Institution-built (please describe):*

*Delivery Model, White Woman-Hybrid Laparoscopic Model, Vaginal Hysterectomy Trainer, Laparoscopic, Cholangiography, Anastomoses Labs, Laparoscopic Hernia Trainer, Vagoma, Cuff Models, Skins, Reboa, Multiple Physical Models, Advanced Suture Trainer, Thoracotomy Simulator, Ultrasound Partial Task Trainers, Immersive Touch Augmented Reality Simulator, Wounds, CVL, Adjunct Trainer, Circumcision, Urethral Stricture, Pericardiocentesis, Breast Biopsy, Beating Heart Simulator, Thyroidectomy Simulator, Humeral IO, Abscess I&D Model, Superficial and Deep Suturing Skin, Vascular Anastomosis, Hybrid Manikin for Trauma Scenarios, Chest Tube Placement Model, PCNL Arm Model, DV Trainer, TURP, Bleeding Vena Cava Model, KUB Physical Models, Ureterscopy Models, GreenLight Simulator, Colles FX Reduction Model, Temporal Bone Simulator, Infant Open-Heart, Adult and Pediatric ECMO, Perimortem C-section, Lypoma Model-Abdominal Clipping Cut Model, Bleeding Tumor, Boxed Trainers, Use for Oral Maxillofacial Surgical Residents for TMJ, FLS Exercises, Chicken/Olive Breast Biopsy Using Ultrasound, Z-track for Thoracentesis, Human Mannequin with Procine Explants, Ventric Task Trainer, In-house Suturing Pads and Wounds, Ventril Hernia, Incision and Drainage, Mass Excision, Bleeding tumor Model, US-based Trainers for POCUS, Appendectomy, Hysterectomy, Cesarian Section, B-Lynch Compression Sutures, Post-partume Hemorrhage, Impacted Fetal Head, Uterine Inversion, Thyroid Hematoma, Femoral Access for Bypass, Tumor with Hemorrhage, Baby Congenital Heart Doll and Cadavers.*

## 2015 ACS AEI Annual Report



**Specialty Surgery Simulators(Model = physical model, VR = virtual reality)Cardiovascular Simulators (If your AEI has cardiovascular simulators please check the box) If the box is checked above, indicate with a checkmark which specific simulators your AEI has onsite.**

Answer Options	Response Percent	Response Count
Abdominal Aortic Aneurysm (AAA) repair-model	30.4%	17
Abdominal aortic aneurysm (AA) repair-VR	21.4%	12
Cardiac bypass pump	21.4%	12
Carotidendarterectomy	17.9%	10
Cardiac Surgery, open-Adult	17.9%	10
Cardiac Surgery, open-Pediatric	5.4%	3
Cardiovascular perfusion system	23.2%	13
Coronary artery bypass graft (CABG)	21.4%	12
Coronary artery bypass graft (CABG)	16.1%	9
Endovascular procedures	55.4%	31
Endoscopic vein harvesting	12.5%	7
Femoral artery cannulation	50.0%	28
Transesophageal echocardiography (TEE)-VR	44.6%	25
Vascular Surgery-open	37.5%	21
Vascular Surgery-minimally invasive	32.1%	18
Other	7.1%	4
Novel, Institution-built (please describe)	16.1%	9
<b>answered question</b>		<b>56</b>
<b>skipped question</b>		<b>29</b>

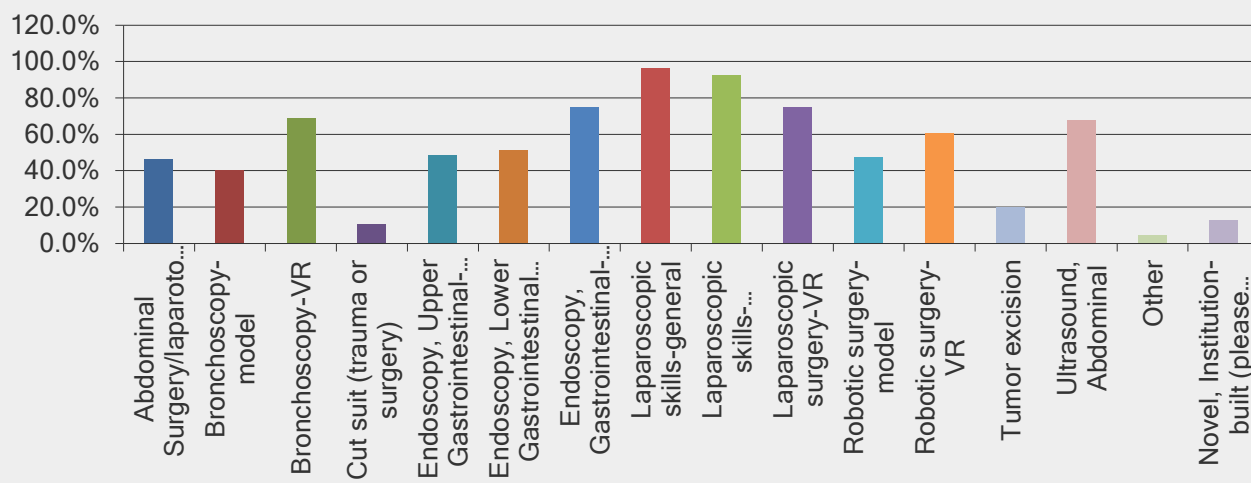
*Novel, Institution-built (please describe):*

*Cardiovascular and Peripheral Vascular VR Simulator, Suture Pads, Vaginal Cuff Model, Femoral Artery Cannulation Model, Thoracotomy, Post Cardiac Surgery Open Chest Resuscitation, Beating Heart Simulator, Bleeding Vena Cava Model, MATT Legs, AAA Repair Model, Cardiac Surgery Model with Beating, Bleeding Heart, Available on our Website and Cadaver.*



## 2015 ACS AEI Annual Report

**Question 33: General Surgery Simulators (If your AEI has General Surgery simulators please check the box). If the box is checked above, indicate with a checkmark which specific simulators your AEI has onsite.**



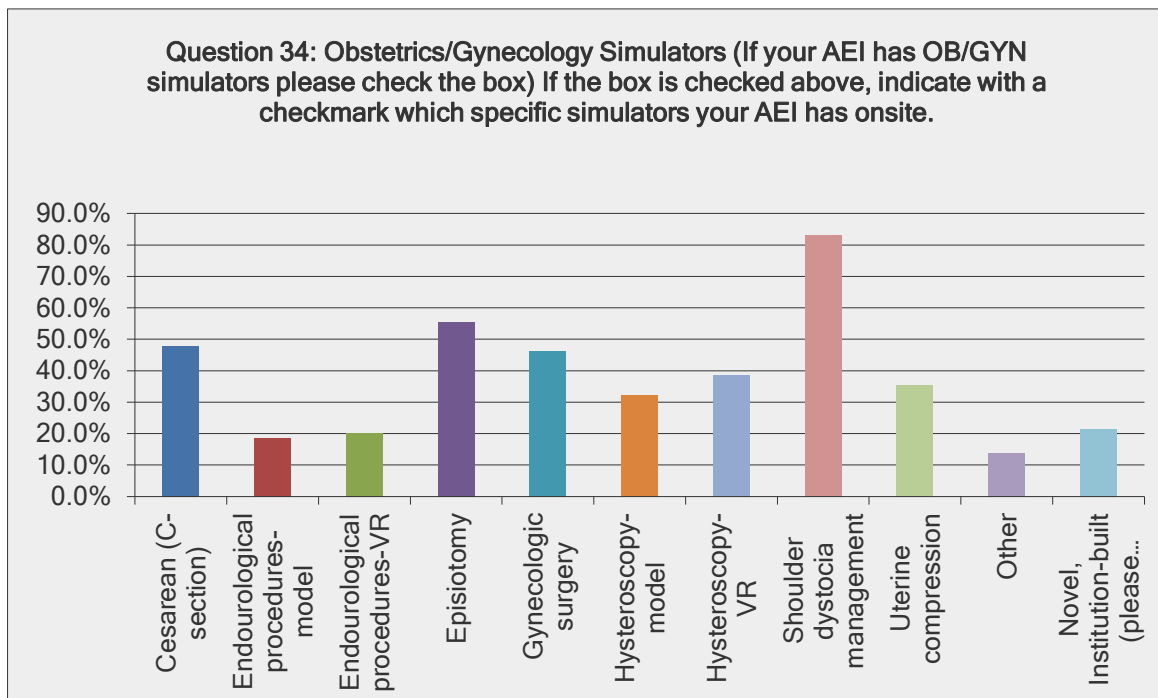
**General Surgery Simulators (If your AEI has General Surgery simulators please check the box). If the box is checked above, indicate with a checkmark which specific simulators your AEI has onsite.**

Answer Options	Response Percent	Response Count
Abdominal Surgery/laparotomy-open	46.4%	39
Bronchoscopy-model	40.5%	34
Bronchoscopy-VR	69.0%	58
Cut suit (trauma or surgery)	10.7%	9
Endoscopy, Upper Gastrointestinal-(Gastroscopy)-model	48.8%	41
Endoscopy, Lower Gastrointestinal (Colonoscopy)-model	51.2%	43
Endoscopy, Gastrointestinal-VR	75.0%	63
Laparoscopic skills-general	96.4%	81
Laparoscopic skills-Fundamental of Laparoscopic Skills (FLS)	92.9%	78
Laparoscopic surgery-VR	75.0%	63
Robotic surgery-model	47.6%	40
Robotic surgery-VR	60.7%	51
Tumor excision	20.2%	17
Ultrasound, Abdominal	67.9%	57
Other	4.8%	4
Novel, Institution-built (please describe)	13.1%	11
<b>answered question</b>		<b>84</b>
<b>skipped question</b>		<b>1</b>

*Novel, Institution-built (please describe):*

*Ventral Hernia Repair Model, Colonoscopy Latex Bowel, Central Line Placement under Ultrasound, Breast Biopsy, FRS Model, Artificial Tissue Models, ECHO/Cardiac Ultrasound VR, Maternal Ultrasound VR, PEG Cubes, Rib Model for Chest Tube Placement, Common Bile Duct Exploration Models, Incision and Drainage, Bleeding Tumor, Vimidex Ob Gynae, Cardiac, FAST and OtoSim.*

## 2015 ACS AEI Annual Report



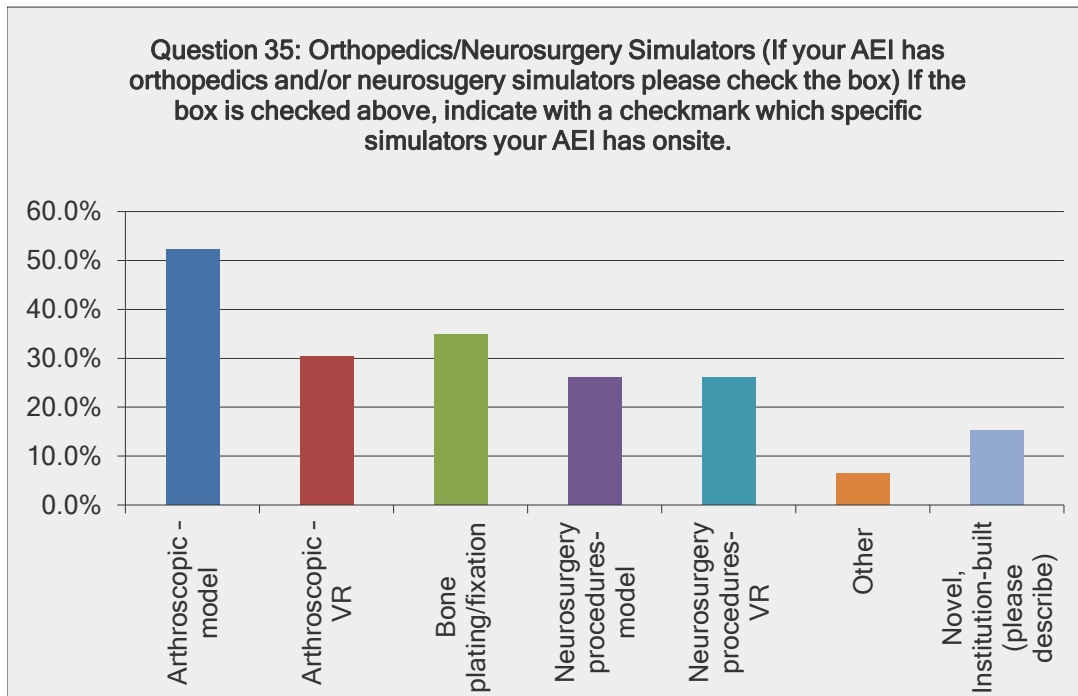
**Obstetrics/Gynecology Simulators (If your AEI has OB/GYN simulators please check the box) If the box is checked above, indicate with a checkmark which specific simulators your AEI has onsite.**

Answer Options	Response Percent	Response Count
Cesarean (C-section)	47.7%	31
Endourological procedures-model	18.5%	12
Endourological procedures-VR	20.0%	13
Episiotomy	55.4%	36
Gynecologic surgery	46.2%	30
Hysteroscopy-model	32.3%	21
Hysteroscopy-VR	38.5%	25
Shoulder dystocia management	83.1%	54
Uterine compression	35.4%	23
Other	13.8%	9
Novel, Institution-built (please describe)	21.5%	14
<b>answered question</b>		<b>65</b>
<b>skipped question</b>		<b>20</b>

***Novel, Institution-built (please describe):***

***Miya Model-Transvaginal Surgery, Mobile Obstetric Emergency Sim and Others, Ectopic Pregnancy, MVA, Colposcopy, Oophorectomy, LEEP, Bleeding Cava Model, 2 Birthing Prompts, Episiotomy Model Using Cow Tongue, Mamma Natalie Birthing Model, Cerclage Model, Cervical Dilatation Model, OB-GYN Simulator-Pelvic Exam, Bi-Manual Exam, IUD Insertion, Mamma Natalie for Use with SPs, Obstetric Cut Suit for Post-mortem C-section Simulation, Cord Blood Transfer Model, Amniocentesis Model, Pelvic Trainers, Impacted Fetal Head, Inverted Uterus, Pelvic Exam and Available on Website.***

## 2015 ACS AEI Annual Report



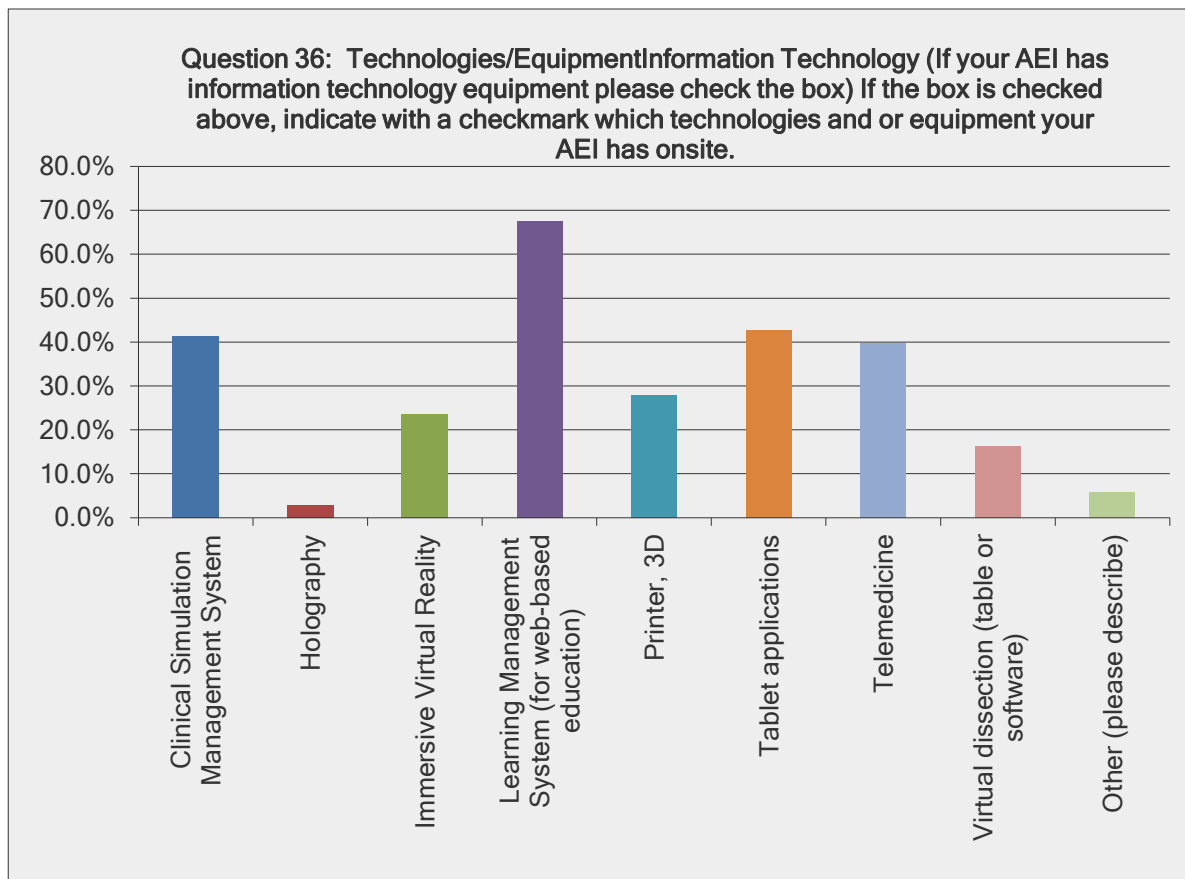
**Orthopedics/Neurosurgery Simulators (If your AEI has orthopedics and/or neurosurgery simulators please check the box) If the box is checked above, indicate with a checkmark which specific simulators your AEI has onsite.**

Answer Options	Response Percent	Response Count
Arthroscopic -model	52.2%	24
Arthroscopic -VR	30.4%	14
Bone plating/fixation	34.8%	16
Neurosurgery procedures-model	26.1%	12
Neurosurgery procedures-VR	26.1%	12
Other	6.5%	3
Novel, Institution-built (please describe)	15.2%	7
<i>answered question</i>		<b>46</b>
<i>skipped question</i>		<b>39</b>

*Novel, Institution-built (please describe):*

*Preserved Donor Head Perfusion Model, Casting and Splinting, Humeral IO, Ortho Box Simulator, Neurosurgery Brain Model, Cadaveric and Available on Website.*

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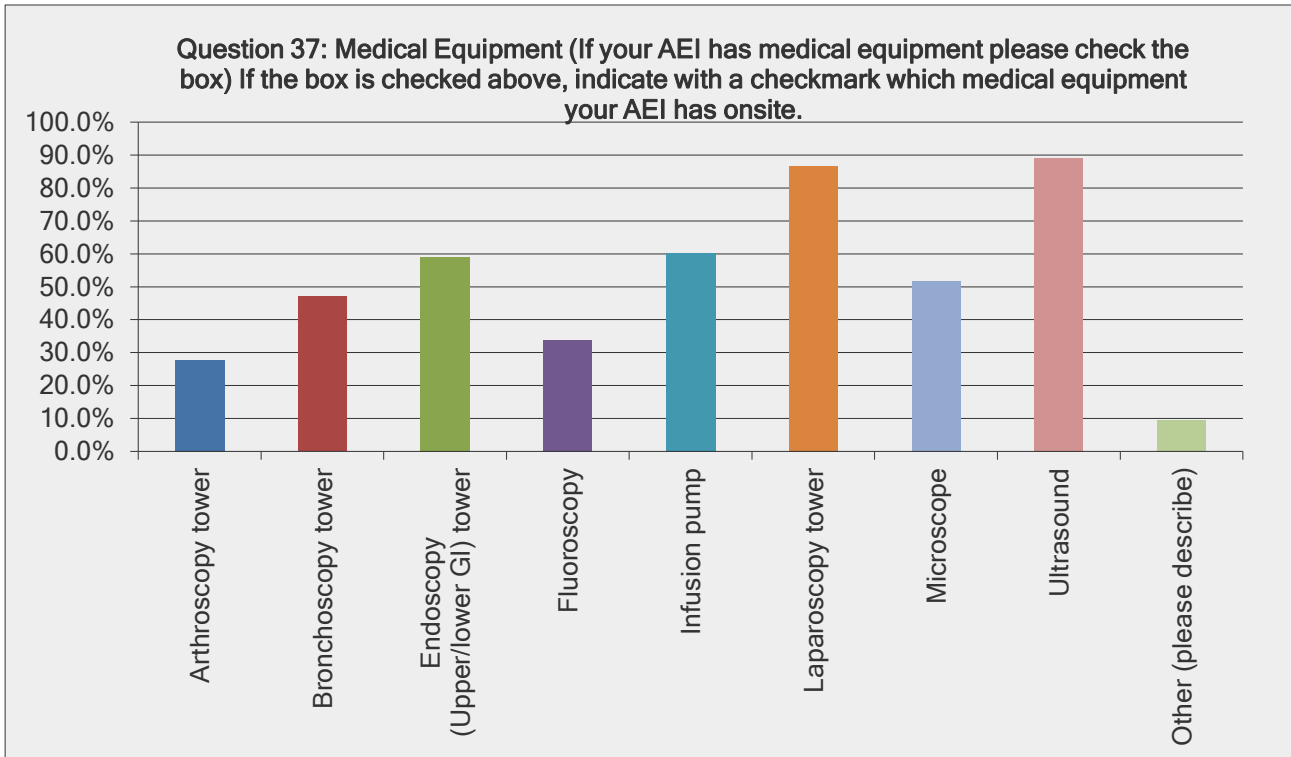
**Technologies/Equipment Information Technology (If your AEI has information technology equipment please check the box) If the box is checked above, indicate with a checkmark which technologies and or equipment your AEI has onsite.**

Answer Options	Response Percent	Response Count
Clinical Simulation Management System	41.2%	28
Holography	2.9%	2
Immersive Virtual Reality	23.5%	16
Learning Management System (for web-based education)	67.6%	46
Printer, 3D	27.9%	19
Tablet applications	42.6%	29
Telemedicine	39.7%	27
Virtual dissection (table or software)	16.2%	11
Other (please describe)	5.9%	4
<i>answered question</i>		<b>68</b>
<i>skipped question</i>		<b>17</b>

*Other (please describe):*

*DxR, Night Vision, Interactive Touch Displays, Research and Development, Google Glass, CPR Feedback, Course/Learner Tracking Database and Studio Code.*

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Medical Equipment (If your AEI has medical equipment please check the box) If the box is checked above, indicate with a checkmark which medical equipment your AEI has onsite.

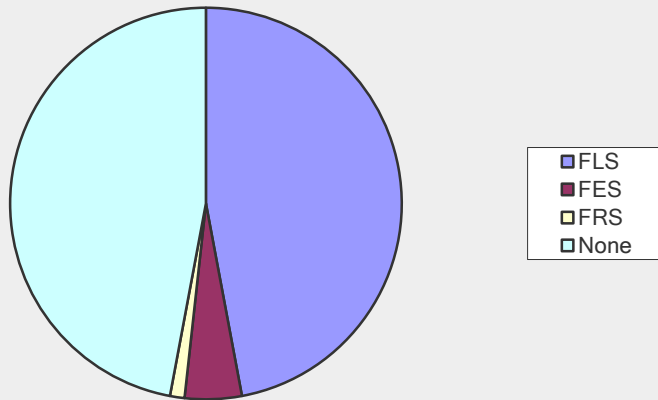
Answer Options	Response Percent	Response Count
Arthroscopy tower	27.7%	23
Bronchoscopy tower	47.0%	39
Endoscopy (Upper/lower GI) tower	59.0%	49
Fluoroscopy	33.7%	28
Infusion pump	60.2%	50
Laparoscopy tower	86.7%	72
Microscope	51.8%	43
Ultrasound	89.2%	74
Other (please describe)	9.6%	8
<i>answered question</i>		<b>83</b>
<i>skipped question</i>		<b>2</b>

*Other (please describe):*

*Video Laryngoscope, Ventilator with Mechanical Lung, Microscopes, C-Arms, Orthopedic Saws/Drills, Hybrid OR, CT Scanner, Robots, Anesthesia Machine, Baby Warmer, Isolette, Defibrillators, Ventilators, Surgical Energy (Covidien Triad), Artis Zeego, MRI, Surgical Instruments, Trays and Sets.*

## 2015 ACS AEI Annual Report

Question 38: Are you an FLS/FES/FRS Test site? Please check the boxes below.



Are you an FLS/FES/FRS Test site? Please check the boxes below.

Answer Options	Response Percent	Response Count
FLS	47.1%	40
FES	4.7%	4
FRS	1.2%	1
None	47.1%	40
Other (please specify or write in all your choices)		23
<i>answered question</i>		<b>85</b>

*Other (please specify or write in all your choices):*

**We Are an Accredited FLS Test Center, Awaiting Institutional Approval for FES Testing (GI Mentor Installed, Proctors Trained), Madigan is a Pilot Site for FRS Study, We Are Too Small of a Program However FLS Testing is Performed On-site and Preparing on Making FES Testing Site, FLS and FES Testing Center, FLS/FES and RTN Test Site, FLS/FES and Fuse, FLS/FES and FRS, FLS/FES and FES Test Site Pending GI Mentor Purchase.**

## 2015 ACS AEI Annual Report

Question 39: Total number of educational events \*\*, in center. Note:  
\*\*Educational event=Discreet instructor-led interaction with 1 or more learner(s)

Answer Options	Response Count
0 - 100	12
101 - 200	7
201 - 300	14
301 - 400	9
401 - 500	6
501 - 600	6
601 - 700	5
701 - 800	4
801 - 900	4
901 - 1,000	2
Greater than 1,000	16
<i>answered question</i>	85

Question 40: Total number of educational events \*\*, in-situ

Answer Options	Response Count
0 - 100	66
101 - 200	6
201 - 300	2
301 - 400	4
401 - 500	3
501 - 600	2
NA	2
<i>answered question</i>	85

## 2015 ACS AEI Annual Report

### Question 41: Total educational event hours

Answer Options	Response Count
0 - 2,000	40
2,001 - 4,000	18
4,001 - 6,000	5
6,001 - 8,000	3
8,001 - 10,000	2
10,001 - 12,000	1
Greater than 12,000	16
<i>answered question</i>	85

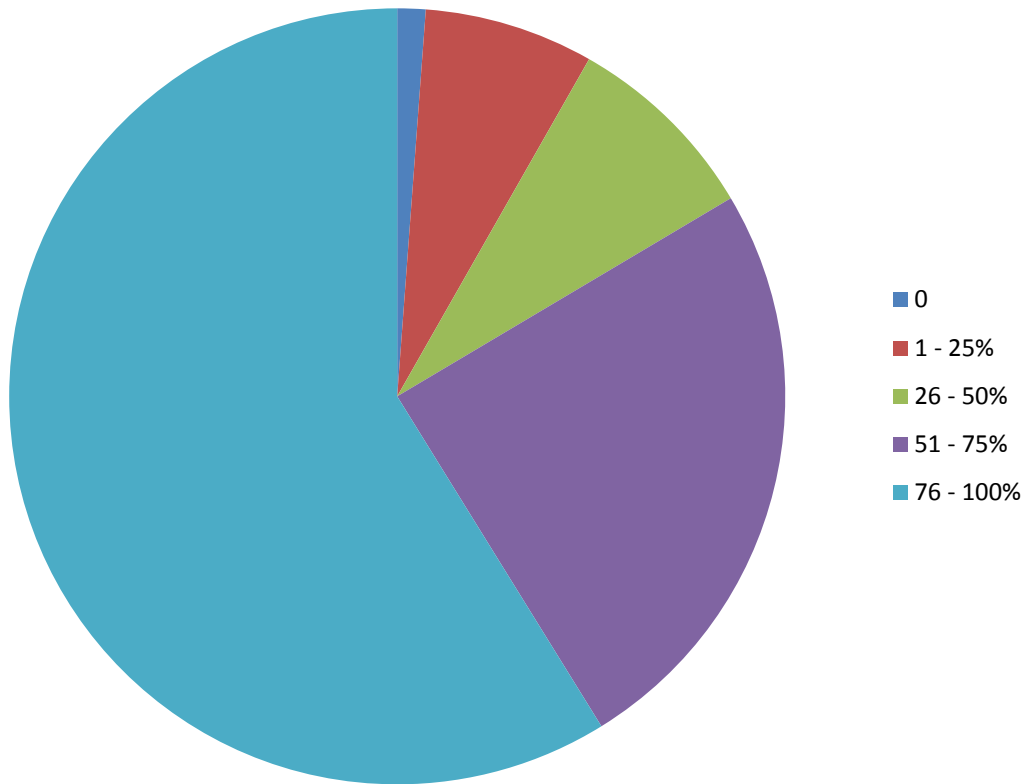
### Question 42: Total number of learners

Answer Options	Response Count
0 - 2,000	21
2,001 - 4,000	13
4,001 - 6,000	12
6,001 - 8,000	9
8,001 - 10,000	5
10,001 - 12,000	7
12,001 - 14,000	2
14,001 - 16,000	0
16,001 - 18,000	4
18,001 - 20,000	3
20,001 - 22,000	2
22,001 - 24,000	1
24,001 - 26,000	1
26,001 - 28,000	1
Greater than 28,000	4
<i>answered question</i>	85



2015 ACS AEI Annual Report

Question 43: What percentage of time is your AEI space utilized for educational events?



What percentage of time is your AEI space utilized for educational events?

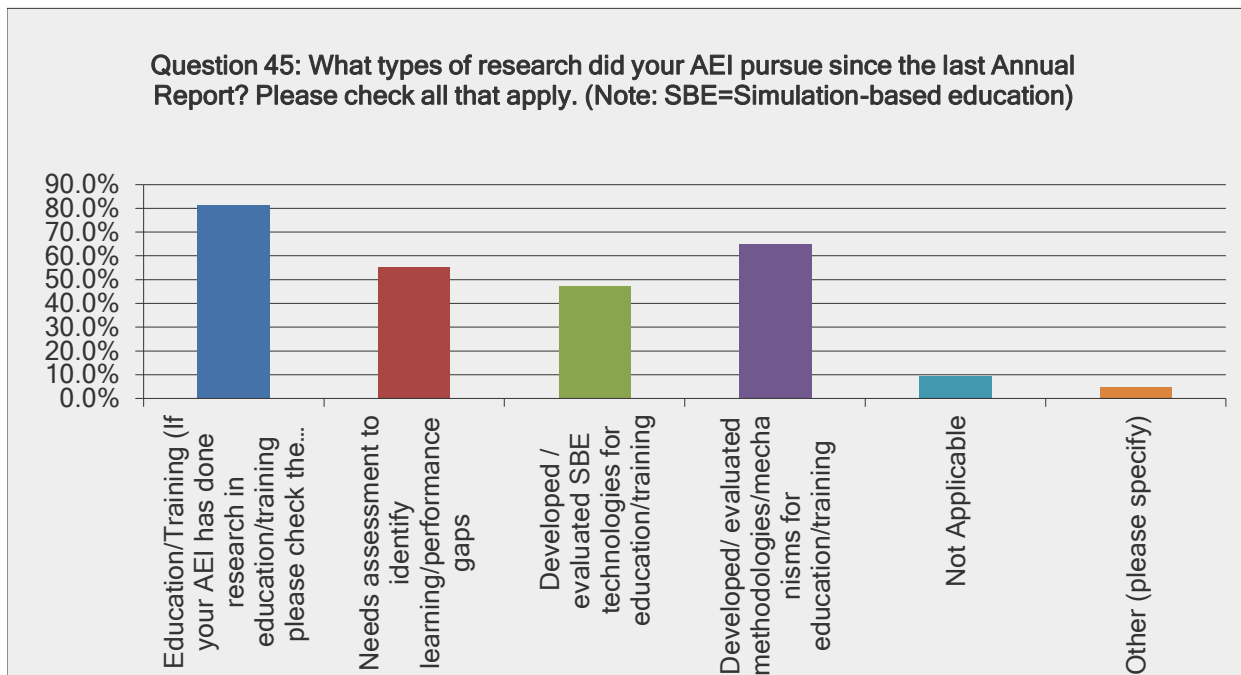
Answer Options	Response Count
0	1
1 - 25%	6
26 - 50%	7
51 - 75%	21
76 - 100%	50
<i>answered question</i>	<b>85</b>

## 2015 ACS AEI Annual Report

### Question 44: Total number of self-directed learning curricula offered by your AEI

Answer Options	Response Count
0	17
1 - 10	45
11 - 20	7
21 - 30	4
31 - 40	1
41 - 50	1
51 - 60	3
Greater than 60	5
Unknown	2
<i>answered question</i>	<b>85</b>

## 2015 ACS AEI Annual Report



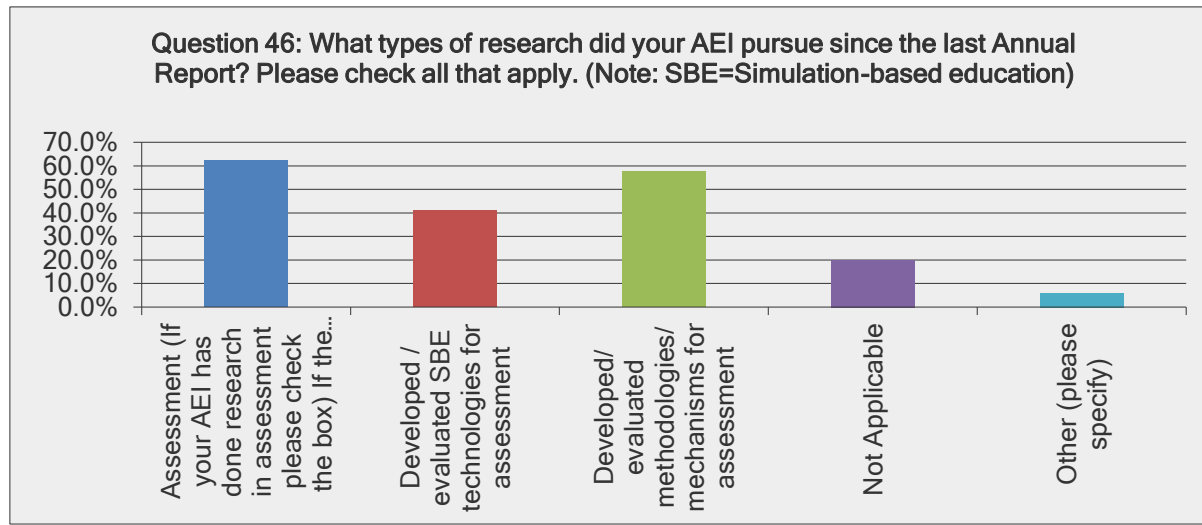
**What types of research did your AEI pursue since the last Annual Report? Please check all that apply. (Note: SBE=Simulation-based education)**

Answer Options	Response Percent	Response Count
Education/Training (If your AEI has done research in education/training please check the...)	81.2%	69
Needs assessment to identify learning/performance gaps	55.3%	47
Developed / evaluated SBE technologies for education/training	47.1%	40
Developed/ evaluated methodologies/mechanisms for education/training	64.7%	55
Not Applicable	9.4%	8
Other (please specify)	4.7%	4
<i>answered question</i>		<b>85</b>

*Other (please specify):*

*Database for Onboarding Skills and Simulations, Literature Review of Professionalism Training and Simulation and Developing an Educational Needs Assessment for 4th Year Medical Students.*

## 2015 ACS AEI Annual Report



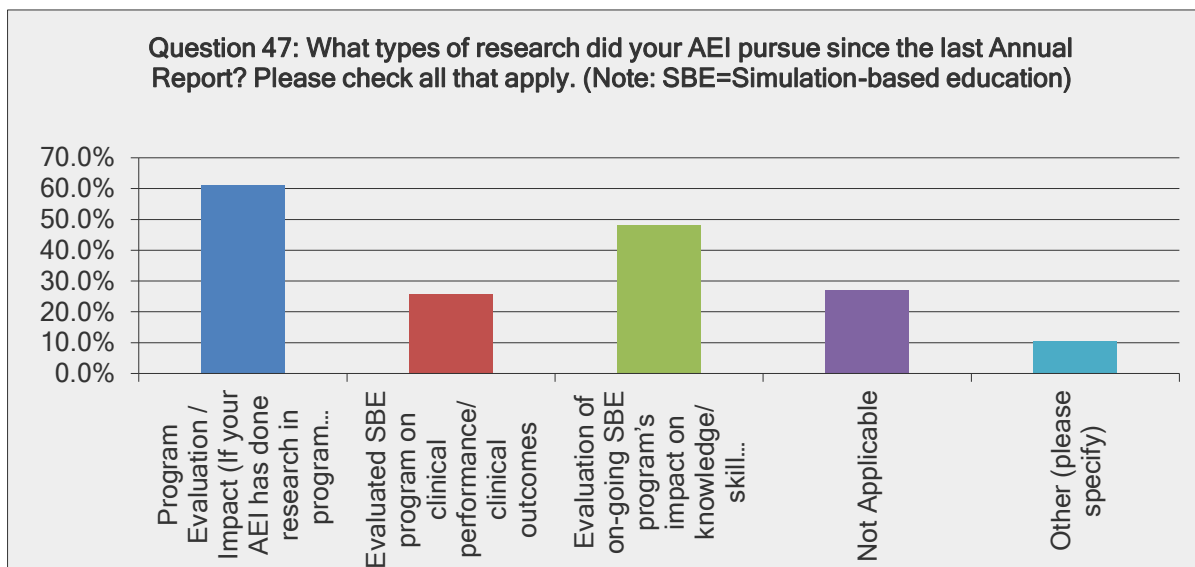
**What types of research did your AEI pursue since the last Annual Report? Please check all that apply. (Note: SBE=Simulation-based education)**

Answer Options	Response Percent	Response Count
Assessment (If your AEI has done research in	62.4%	53
Developed / evaluated SBE technologies for assessment	41.2%	35
Developed/ evaluated methodologies/mechanisms for	57.6%	49
Not Applicable	20.0%	17
Other (please specify)	5.9%	5
<i>answered question</i>		<b>85</b>

*Other (please specify):*

*Used Database to Drive Simulation  
Methodologies/Mechanisms for Assessment.*

## 2015 ACS AEI Annual Report



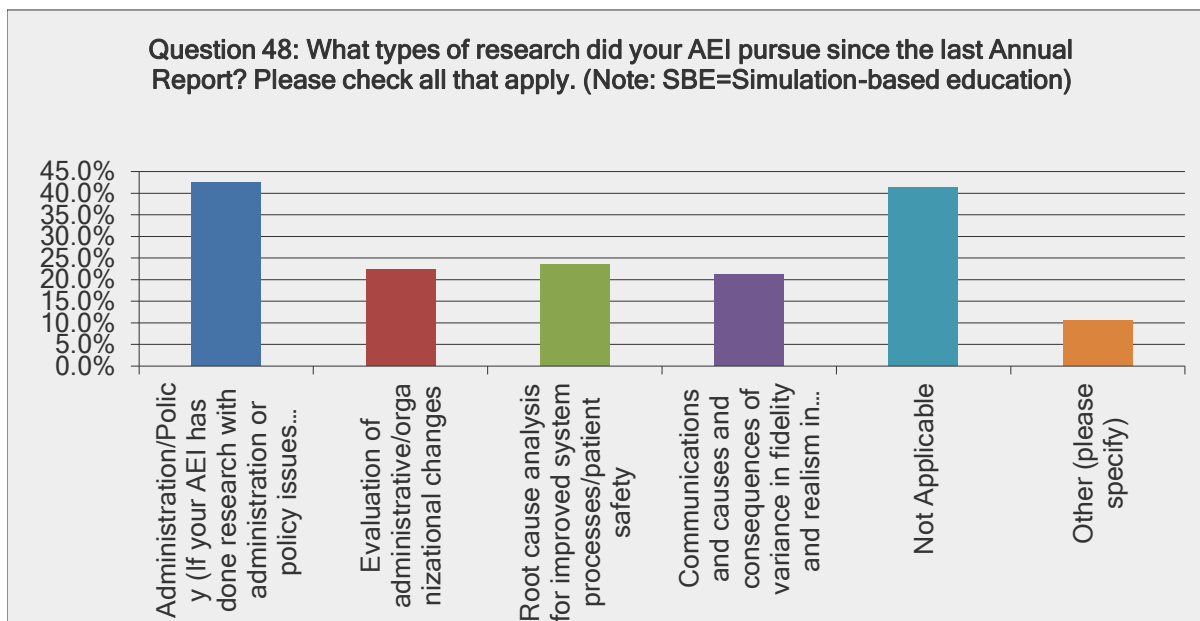
**What types of research did your AEI pursue since the last Annual Report? Please check all that apply. (Note: SBE=Simulation-based education)**

Answer Options	Response Percent	Response Count
Program Evaluation / Impact (If your AEI has done research in program...)	61.2%	52
Evaluated SBE program on clinical performance/ clinical outcomes	25.9%	22
Evaluation of on-going SBE program's impact on knowledge/skill...	48.2%	41
Not Applicable	27.1%	23
Other (please specify)	10.6%	9
<i>answered question</i>		<b>85</b>

*Other (please specify):*

*Descriptive Study on Perception and Satisfaction of Student on Clinical Skills, CVL Testing and Practice Post-course Survey Review, Database for Onboarding Skills and Simulations, Recommended Revised Instructional Approaches and Evaluation of FRS Program.*

## 2015 ACS AEI Annual Report



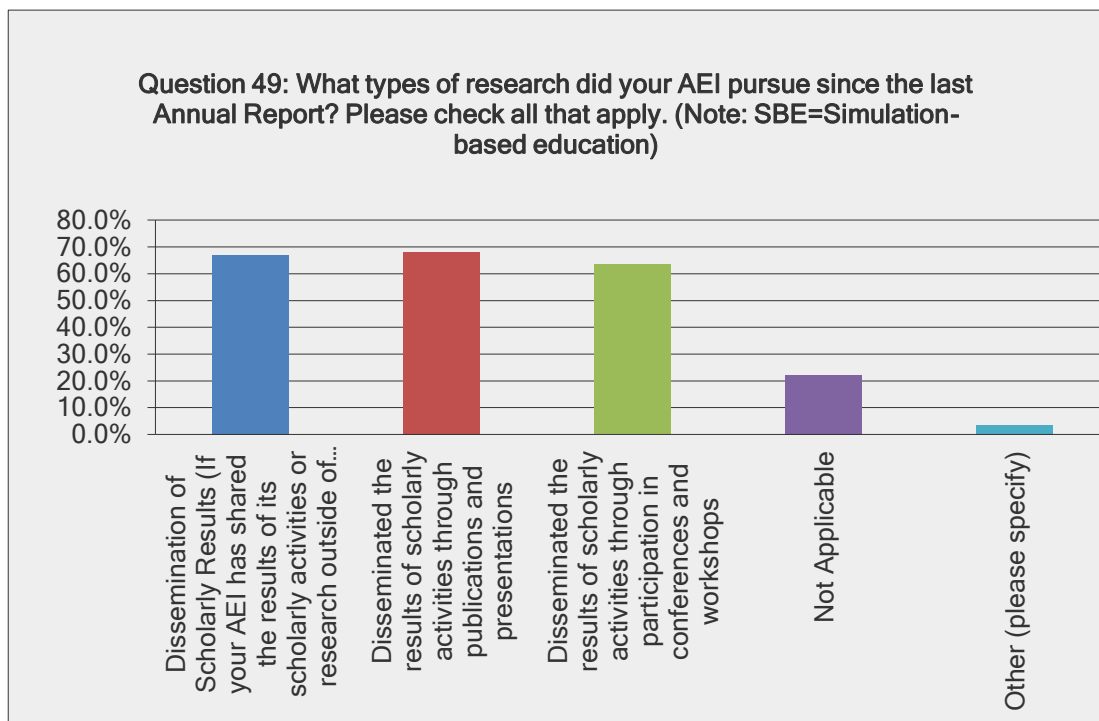
**What types of research did your AEI pursue since the last Annual Report? Please check all that apply. (Note: SBE=Simulation-based education)**

Answer Options	Response Percent	Response Count
Administration/Policy (If your AEI has done research with	42.4%	36
Evaluation of administrative/organizational changes	22.4%	19
Root cause analysis for improved system	23.5%	20
Communications and causes and consequences of	21.2%	18
Not Applicable	41.2%	35
Other (please specify)	10.6%	9
<i>answered question</i>		<b>85</b>

*Other (please specify):*

**No Formal Research but in Working with Risk and Quality Leaders Assessment and Critical Thinking were Identified as Fallouts, Descriptive Study on Employee Satisfaction and Credentialing/Privileges Requirements.**

## 2015 ACS AEI Annual Report



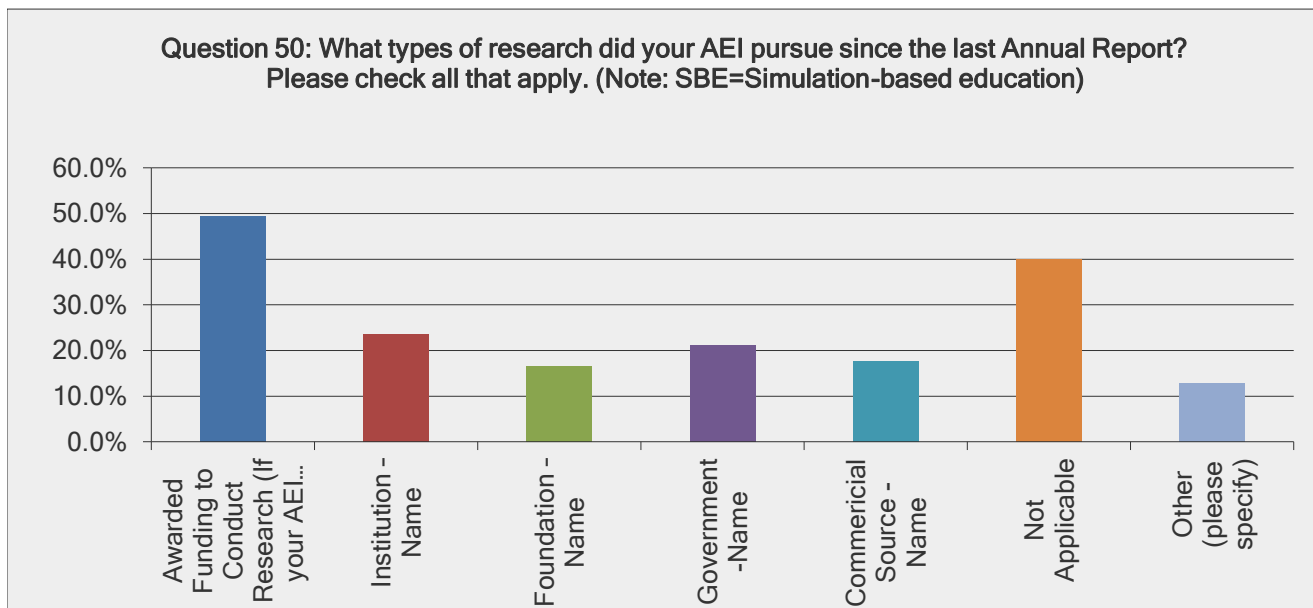
**What types of research did your AEI pursue since the last Annual Report? Please check all that apply. (Note: SBE=Simulation-based education)**

Answer Options	Response Percent	Response Count
Dissemination of Scholarly Results (If your AEI	67.1%	57
Disseminated the results of scholarly activities	68.2%	58
Disseminated the results of scholarly activities	63.5%	54
Not Applicable	22.4%	19
Other (please specify)	3.5%	3
<b><i>answered question</i></b>		<b>85</b>

***Other (please specify):***

***Pending and We Have Not Done Any Publications or Sharing Outside of our Institution.***

## 2015 ACS AEI Annual Report



**What types of research did your AEI pursue since the last Annual Report? Please check all that apply. (Note: SBE=Simulation-based education)**

Answer Options	Response Percent	Response Count
Awarded Funding to Conduct Research (If your AEI was awarded grant	49.4%	42
Institution - Name	23.5%	20
Foundation - Name	16.5%	14
Government -Name	21.2%	18
Commercial Source -Name	17.6%	15
Not Applicable	40.0%	34
Other (please specify)	12.9%	11
<i>answered question</i>		<b>85</b>

*Other (please specify):*

Swedish Research Council, Marcus and Amalia Wallenberg Foundation, Stockholm County Council, Donoghue Foundation, Government AHRQ, National Institute of Child Health & Human Development, Guamard (Commercial), Duke Innovation Grant, Institute for Surgical Excellence, Tufts University of Medicine Innovations Grant, Zoll Corporation, AHRQ-TEAM STEPPS CONSORTIUM, Government TATRC Grant through Principal Investigator, AOFAS, INSPIRE and Joint Committee-1 for Osprey-related Human Factors Simulation.