2014 TSDA Pre-In Training Exam Residents Survey

1. Please indicate the type of training program in which you are enrolled.

	Response Percent	Response Count
Standard 2-year CT surgery residency	**34.1%**	**108**
Standard 3-year CT surgery residency (including 2.5-year programs)	29.0%	92
Combined 4 plus 3-year general surgery/thoracic surgery residency	7.6%	24
Integrated 6-year residency	27.8%	88
Accredited congenital fellowship	0.0%	0
Non-accredited fellowship	0.9%	3
Other, please specify	0.6%	2
	answered question	**317**
	skipped question	**0**

2. Please indicate your current year of postgraduate training.

		Response Percent	Response Count
PGY 1		5.4%	17
PGY 2		6.6%	21
PGY 3		5.7%	18
PGY 4		7.3%	23
PGY 5		3.5%	11
PGY 6		**25.6%**	**81**
PGY 7		23.0%	73
PGY 8		13.6%	43
PGY 9		6.0%	19
PGY 10+		3.2%	10
I completed my CT surgery residency training		0.3%	1
		answered question	**317**
		skipped question	**0**

3. Please indicate your primary career interest.

		Response Percent	Response Count
Adult cardiac		**38.8%**	**123**
General thoracic		23.3%	74
Mixed cardiac/thoracic		16.1%	51
Aortic surgery		4.7%	15
Congenital		13.2%	42
Heart failure/lung transplant		3.5%	11
Other, please specify		0.3%	1
		answered question	**317**
		skipped question	**0**

4. If you plan on additional training at the completion of your current program, please indicate your plans.

		Response Percent	Response Count
I am not planning any additional training at this time		**55.5%**	**176**
Aortic surgery		7.3%	23
Minimally invasive cardiac surgery		4.7%	15
Minimally invasive thoracic surgery		4.1%	13
Congenital surgery		13.6%	43
Transplant/assist devices		6.3%	20
Endovascular/TAVR		4.1%	13
Other, please specify		4.4%	14
		answered question	**317**
		skipped question	**0**

5. If you plan on additional training at the completion of your current program, please indicate the primary reason for this decision.

		Response Percent	Response Count
I am not planning any additional training at this time.		**54.3%**	**172**
To further refine/develop new skills learned at my current program.		12.3%	39
To allow me to have a specialized/niche practice.		14.5%	46
To attain advanced skills not taught at my current program (e.g., transplant, congenital, critical care).		9.8%	31
I do not feel I have been adequately trained at my current program.		1.3%	4
I feel I need additional training to be competitive for the type of job I desire.		6.0%	19
I have been unable to secure a job.		0.3%	1
I have decided to pursue a career in a field other than cardiothoracic surgery.		0.0%	0
Other, please specify.		1.6%	5
		answered question	**317**
		skipped question	**0**

6. Please indicate what percentage of your knowledge acquisition is gained from each of the following teaching modalities.

	0%	1-20%	21-40%	41-60%	61-80%	81-100%	Rating Average	Rating Count
Hard copy textbooks	2.8% (9)	**44.8% (142)**	30.0% (95)	12.9% (41)	7.9% (25)	1.6% (5)	2.83	317
Online textbooks	10.1% (32)	**42.9% (136)**	24.6% (78)	13.9% (44)	6.6% (21)	1.9% (6)	2.70	317
Downloaded e-books	29.3% (93)	**34.4% (109)**	19.2% (61)	10.1% (32)	5.7% (18)	1.3% (4)	2.32	317
Journal articles	2.8% (9)	**52.7% (167)**	31.5% (100)	7.3% (23)	5.4% (17)	0.3% (1)	2.61	317
Web-based content	12.9% (41)	**48.6% (154)**	21.5% (68)	9.8% (31)	6.6% (21)	0.6% (2)	2.50	317
TSDA/JCTSE Thoracic Surgical Curriculum	9.8% (31)	**42.6% (135)**	23.0% (73)	12.6% (40)	9.8% (31)	2.2% (7)	2.77	317
Lectures	10.4% (33)	**56.5% (179)**	21.5% (68)	8.5% (27)	3.2% (10)	0.0% (0)	2.38	317
Other	**64.4% (204)**	24.6% (78)	5.4% (17)	3.5% (11)	1.3% (4)	0.9% (3)	1.56	317
						answered question		**317**
						skipped question		**0**

7. Please indicate what percentage of self-directed study takes place in each of the following environments.

	0%	1-20%	21-40%	41-60%	61-80%	81-100%	Rating Average	Rating Count
Home	0.9% (3)	18.0% (57)	26.8% (85)	**28.1% (89)**	21.1% (67)	5.0% (16)	3.66	317
Hospital	3.8% (12)	32.8% (104)	**33.8% (107)**	21.5% (68)	7.3% (23)	0.9% (3)	2.98	317
Library	**67.8% (215)**	21.1% (67)	8.2% (26)	1.3% (4)	1.6% (5)	0.0% (0)	1.48	317
Coffee shop/other public location	**65.0% (206)**	19.6% (62)	7.3% (23)	5.4% (17)	2.5% (8)	0.3% (1)	1.62	317
During commute	**80.4% (255)**	16.7% (53)	1.3% (4)	1.6% (5)	0.0% (0)	0.0% (0)	1.24	317
Other	**84.2% (267)**	10.4% (33)	2.8% (9)	1.9% (6)	0.3% (1)	0.3% (1)	1.25	317
						answered question		**317**
						skipped question		**0**

8. How much time do you devote to each study session?

	Response Percent	Response Count
Less than 15 minutes	2.8%	9
15-29 minutes	24.9%	79
30-44 minutes	28.7%	91
45-60 minutes	**30.9%**	**98**
More than 60 minutes	12.6%	40
answered question		**317**
skipped question		**0**

9. Please indicate which of the following devices you own. Check all that apply.

	Response Percent	Response Count
Desktop computer	40.7%	129
Laptop computer	89.6%	284
Smart phone	**92.1%**	**292**
Tablet	76.3%	242
eReader (e.g., Amazon Kindle)	15.5%	49
	answered question	**317**
	skipped question	**0**

10. Which is your preferred device for each of the following online educational activities?

	Desktop computer	Laptop computer	Smart phone	Tablet	eReader	Rating Average	Rating Count
Reading online	17.7% (56)	37.9% (120)	2.8% (9)	**39.7% (126)**	1.9% (6)	2.70	317
Accessing non-text resources (e.g., videos)	21.1% (67)	**44.2% (140)**	5.0% (16)	29.0% (92)	0.6% (2)	2.44	317
Accessing CTSNet	23.7% (75)	**51.7% (164)**	4.4% (14)	20.2% (64)	0.0% (0)	2.21	317
Practicing SESATS questions	15.5% (49)	**43.8% (139)**	15.8% (50)	24.0% (76)	0.9% (3)	2.51	317
Performing literature searches (e.g., PubMed)	30.0% (95)	**58.0% (184)**	0.9% (3)	10.4% (33)	0.6% (2)	1.94	317
Viewing websites	23.7% (75)	**51.1% (162)**	4.1% (13)	20.5% (65)	0.6% (2)	2.23	317
					answered question		**317**
					skipped question		**0**

11. Please indicate how you use the online educational activities referenced in question #10. Check all that apply.

	Response Percent	Response Count
Access for study while online (via internet connection or wifi).	**88.0%**	**279**
Download to a computer or other device for offline use at a later time.	49.2%	156
Print materials for use at a later time.	38.2%	121
I do not use these resources.	1.3%	4
	answered question	**317**
	skipped question	**0**

12. Should more TSDA resources be put into the development of online educational tools?

	Response Percent	Response Count
Yes, freestanding curriculum accessed by the user as a complete course of study	**51.7%**	**164**
Yes, reference text (e.g., online version of a traditional textbook)	20.5%	65
Yes, video/lecture materials	18.6%	59
No	9.1%	29
	answered question	**317**
	skipped question	**0**

13. In the next five years, how do you anticipate your use of online educational resources changing?

	Response Percent	Response Count
Minimal use of online education	2.2%	7
Less frequent use of online education	3.8%	12
More frequent use of online education	**85.8%**	**272**
I anticipate using current format exclusively	8.2%	26
	answered question	**317**
	skipped question	**0**

14. Please indicate what percentage of your total study time utilizes each of the following formats.

	1-20%	21-40%	41-60%	61-80%	81-100%	Rating Average	Rating Count
Short and focused presentations (e.g., PowerPoint)	**54.6% (173)**	33.1% (105)	7.9% (25)	3.8% (12)	0.6% (2)	1.63	317
Cliff Notes-like executive summaries	**64.7% (205)**	24.6% (78)	8.2% (26)	2.2% (7)	0.3% (1)	1.49	317
Focused questions based on assigned readings	**40.4% (128)**	38.8% (123)	15.8% (50)	4.7% (15)	0.3% (1)	1.86	317
Individual internet searches	35.0% (111)	**40.1% (127)**	18.9% (60)	5.7% (18)	0.3% (1)	1.96	317
Lectures	**48.3% (153)**	35.3% (112)	12.3% (39)	3.5% (11)	0.6% (2)	1.73	317
Textbook reading	16.7% (53)	**35.3% (112)**	27.4% (87)	16.4% (52)	4.1% (13)	2.56	317
Podcast or other audio format	**75.4% (239)**	17.7% (56)	6.0% (19)	0.6% (2)	0.3% (1)	1.33	317
Other	**85.5% (271)**	9.1% (29)	3.8% (12)	0.9% (3)	0.6% (2)	1.22	317
					answered question		**317**
					skipped question		**0**

15. Please indicate your level of agreement with the following statements (reminder: all responses will remain anonymous):

	Strongly agree	Agree	Neutral	Disagree	Strongly disagree	Rating Average	Rating Count
I will be adequately trained at the completion of my program.	**47.9% (152)**	41.3% (131)	7.3% (23)	3.2% (10)	0.3% (1)	1.67	317
My program will adequately prepare me for the ABTS board exams.	32.5% (103)	**47.3% (150)**	18.0% (57)	1.9% (6)	0.3% (1)	1.90	317
I will have to pursue further educational activities (i.e., review courses) to prepare for the ABTS board exams.	13.9% (44)	**36.0% (114)**	28.1% (89)	15.5% (49)	6.6% (21)	2.65	317
I will have adequate technical training upon completion of my program.	**52.4% (166)**	36.9% (117)	8.5% (27)	1.9% (6)	0.3% (1)	1.61	317
My surgical experience will provide me with tools required to enter independent practice upon completion of my training.	**48.3% (153)**	37.2% (118)	11.4% (36)	2.8% (9)	0.3% (1)	1.70	317
					answered question		**317**
					skipped question		**0**

16. Please indicate what prompted your responses to question #15. Check all that apply. (Reminder: all responses will remain anonymous.)

	Response Percent	Response Count
My program does not offer residents sufficient opportunities to operate.	8.8%	28
Cases are not diverse and do not offer training in various surgical techniques and procedures.	2.5%	8
Cases are too complex for my level of training.	5.7%	18
My program focuses too much on simulation training and not enough on real cases.	0.9%	3
I miss out on surgical opportunities due to my program's adherence to the 80-hour work week requirement.	3.8%	12
My program does not know how to work around the 80-hour work week requirement in order to maximize cases.	4.7%	15
I am not familiar with my program's surgical decision-making process.	1.3%	4
My training environment (i.e., personality dynamics) make it difficult to gain hands-on surgical experience.	12.6%	40
NA	**76.0%**	**241**
	answered question	**317**
	skipped question	**0**

17. Please indicate the length of time using simulation models you feel is equivalent to a hands-on learning experience for each of the following procedures.

	1-2 hours	3-10 hours	11-20 hours	More than 20 hours	Simulation does not provide equivalent hands-on experience	Rating Average	Rating Count
Coronary artery bypass grafting (CABG)	13.9% (44)	29.4% (93)	12.7% (40)	11.7% (37)	**32.3% (102)**	3.19	316
Mitral valve repair	11.1% (35)	20.6% (65)	13.9% (44)	10.1% (32)	**44.3% (140)**	3.56	316
Aortic valve replacement	14.3% (45)	29.9% (94)	14.0% (44)	8.9% (28)	**32.8% (103)**	3.16	314
Mediastinoscopy	23.2% (72)	21.2% (66)	7.1% (22)	2.9% (9)	**45.7% (142)**	3.27	311
Lobectomy	12.5% (39)	27.0% (84)	11.9% (37)	7.7% (24)	**40.8% (127)**	3.37	311
Esophagectomy	9.0% (28)	19.6% (61)	13.5% (42)	7.4% (23)	**50.5% (157)**	3.71	311
Nissen fundoplication	15.4% (48)	23.1% (72)	8.3% (26)	8.7% (27)	**44.6% (139)**	3.44	312
					answered question		**317**
					skipped question		**0**

18. The American Board of Thoracic Surgery (ABTS) provides surgeon credit for operative experience when the resident performs "those technical manipulations that constituted the essential parts of the procedure itself" and substantial involvement in pre- and post-operative care. What percentage of cases you currently claim as "surgeon" meet the above requirements?

	Response Percent	Response Count
0%	1.6%	5
1-24%	6.3%	20
25-49%	7.6%	24
50-74%	18.3%	58
75-99%	**39.1%**	**124**
100%	27.1%	86
	answered question	**317**
	skipped question	**0**

19. Does your "surgeon" operative log adequately reflect that you performed the "technical manipulations that constituted the essential parts of the procedure? (Reminder: results will be remain anonymous.)

	Response Percent	Response Count
Yes	**84.2%**	**267**
No	11.0%	35
NA	4.7%	15
	answered question	**317**
	skipped question	**0**

20. If you correctly log your cases based on the requirements listed in question #18, will you meet your case requirements by the completion of your program? (Reminder: results will be remain anonymous.)

		Response Percent	Response Count
Yes		**84.5%**	**268**
No		9.5%	30
NA		6.0%	19
		answered question	**317**
		skipped question	**0**

21. Please indicate what percentage of time you typically perform as surgeon for each of the following:

	1-24%	25-49%	50-74%	75-100%	NA	Rating Average	Rating Count
On-pump CABG	13.2% (42)	12.0% (38)	17.4% (55)	**44.2% (140)**	13.2% (42)	3.32	317
Off-pump CABG	29.6% (93)	11.5% (36)	10.5% (33)	9.2% (29)	**39.2% (123)**	3.17	314
Aortic valve replacement	19.3% (61)	13.3% (42)	15.8% (50)	**37.7% (119)**	13.9% (44)	3.14	316
Mitral valve replacement	**34.4% (109)**	15.1% (48)	16.4% (52)	16.1% (51)	18.0% (57)	2.68	317
Tricuspid valve repair	**25.9% (82)**	15.2% (48)	13.6% (43)	23.4% (74)	21.8% (69)	3.00	316
Ascending aortic aneurysm repair	**27.2% (86)**	12.7% (40)	17.7% (56)	24.1% (76)	18.4% (58)	2.94	316
Thoracic aortic dissection	**31.0% (97)**	13.7% (43)	14.4% (45)	17.6% (55)	23.3% (73)	2.88	313
Open lobectomy	9.1% (29)	8.8% (28)	16.7% (53)	**53.3% (169)**	12.0% (38)	3.50	317
VATS lobectomy	12.1% (38)	12.7% (40)	21.7% (68)	**40.4% (127)**	13.1% (41)	3.30	314
Open esophagectomy	11.1% (35)	8.9% (28)	17.8% (56)	**45.4% (143)**	16.8% (53)	3.48	315
Minimally invasive esophagectomy	18.4% (58)	15.5% (49)	19.6% (62)	15.2% (48)	**31.3% (99)**	3.26	316
Mediastinoscopy	8.2% (26)	5.4% (17)	12.9% (41)	**62.8% (199)**	10.7% (34)	3.62	317
Diagnostic VATS (i.e., wedge resection, pleural biopsy)	6.0% (19)	4.1% (13)	8.8% (28)	**71.9% (228)**	9.1% (29)	3.74	317
Thymic resection	10.8% (34)	7.9% (25)	14.2% (45)	**48.1% (152)**	19.0% (60)	3.57	316
					answered question		**317**

skipped question	**0**

22. Please indicate your level of agreement with the following statements (reminder: results will remain anonymous):*

	Strongly agree	Agree	Neutral	Disagree	Strongly disagree	Rating Average	Rating Count
The proportion of cases I do as first assistant are more than those as surgeon.	13.6% (43)	18.6% (59)	13.9% (44)	**30.0% (95)**	24.0% (76)	3.32	317
Most of my cases done at my program are first surgeon cases and do not meet the ABTS requirements for operative credit.	3.2% (10)	7.3% (23)	19.3% (61)	**38.9% (123)**	31.3% (99)	3.88	316
If I am clearly a first assistant on a case, I will log it as surgeon to make sure that I meet my case requirements.	1.9% (6)	9.8% (31)	9.5% (30)	37.1% (117)	**41.6% (131)**	4.07	315
I am provided the opportunity to move a case along until I need assistance, and then the attending takes over.	14.5% (46)	**45.4% (144)**	23.7% (75)	11.4% (36)	5.0% (16)	2.47	317
I am rarely provided the opportunity to move a case along to the maximum of my abilities.	6.0% (19)	9.5% (30)	19.3% (61)	**42.4% (134)**	22.8% (72)	3.66	316
My training includes an appropriate hand-over of cases.	17.9% (56)	**50.2% (157)**	22.0% (69)	5.4% (17)	4.5% (14)	2.28	313
I rely on my technical skills learned in general surgery to feel confident that I can perform my cardiac cases.	7.4% (23)	26.9% (84)	**29.8% (93)**	18.3% (57)	17.6% (55)	3.12	312

answered question	**317**
skipped question	**0**

23. Please indicate the primary source you used to study for this year's In-Training Exam.

	Response Percent	Response Count
TSRA Review of Cardiothoracic Surgery	**27.4%**	**87**
TSRA Clinical Scenarios in Cardiothoracic Surgery	6.0%	19
TSDA/JCTSE Thoracic Surgical Curriculum	11.7%	37
SESATS	**27.4%**	**87**
CTSNet WikiNotes	1.3%	4
Hard copy textbooks	17.0%	54
Online textbooks	5.4%	17
Other (please specify)	3.8%	12
	answered question	**317**
	skipped question	**0**

24. If you took the In-Training Exam in 2013, what was your approximate percentile ranking? (Reminder: results will remain anonymous.)*

	Response Percent	Response Count
0-33%	10.4%	33
34-66%	27.8%	88
67-80%	15.1%	48
81-100%	9.8%	31
NA	**36.9%**	**117**
	answered question	**317**
	skipped question	**0**

25. Please estimate the level of debt you expect to have at the completion of your training.

	Response Percent	Response Count
$0-$24,999	23.3%	74
$25,000-$49,999	4.4%	14
$50,000-$99,999	7.9%	25
$100,000-$199,999	21.8%	69
$200,000-$299,999	**24.9%**	**79**
$300,000-$399,999	14.8%	47
$400,000-$499,999	2.2%	7
$500,000+	0.6%	2
	answered question	**317**
	skipped question	**0**

26. Please indicate the type of practice you are primarily interested in entering at the completion of your training.

		Response Percent	Response Count
Academic practice		**48.9%**	**155**
Private/community practice		22.1%	70
Undecided		29.0%	92
		answered question	**317**
		skipped question	**0**

27. Please indicate the level of importance the following factors have on your choice of practice upon completion of your training.

	Very important	Somewhat important	Not very important	Not at all important	Rating Average	Rating Count
Operative case variety and volume	**71.0% (225)**	26.2% (83)	2.5% (8)	0.3% (1)	1.32	317
Financial compensation	30.6% (97)	**55.2% (175)**	12.3% (39)	1.9% (6)	1.85	317
Lifestyle considerations (call schedule, etc.)	38.0% (120)	**47.8% (151)**	13.3% (42)	0.9% (3)	1.77	316
Geographic location	**44.2% (140)**	41.0% (130)	12.6% (40)	2.2% (7)	1.73	317
Opportunity to teach	27.8% (88)	**47.0% (149)**	21.1% (67)	4.1% (13)	2.02	317
Opportunity to conduct research	19.3% (61)	**33.2% (105)**	32.6% (103)	14.9% (47)	2.43	316
				answered question		**317**
				skipped question		**0**

28. Please indicate your level of agreement with the following statement: My decision to attend my current training program was influenced by the type of practice I wish to enter at the completion of my training:

		Response Percent	Response Count
Strongly agree		**33.8%**	**107**
Agree		32.2%	102
Neutral		16.7%	53
Disagree		12.9%	41
Strongly disagree		4.4%	14
		answered question	**317**
		skipped question	**0**

29. If you expect to graduate from a CT surgery residency training program in 2014 and are seeking employment, please indicate how many job interviews you have had to date.

	NA	0	1	2	More than 3	Rating Average	Rating Count
Private practice – mixed cardiac and general thoracic	**80.8% (253)**	8.0% (25)	5.4% (17)	2.2% (7)	3.5% (11)	1.40	313
Private practice – general thoracic	**85.9% (267)**	8.7% (27)	2.6% (8)	1.9% (6)	1.0% (3)	1.23	311
Private practice – adult cardiac	**84.2% (261)**	8.7% (27)	4.8% (15)	1.6% (5)	0.6% (2)	1.26	310
Academic practice – mixed cardiac and general thoracic	**85.5% (265)**	11.0% (34)	1.9% (6)	1.6% (5)	0.0% (0)	1.20	310
Academic practice – general thoracic	**84.9% (264)**	7.1% (22)	4.8% (15)	1.3% (4)	1.9% (6)	1.28	311
Academic practice – adult cardiac	**83.9% (260)**	9.4% (29)	3.5% (11)	2.3% (7)	1.0% (3)	1.27	310
Academic practice – congenital heart surgery	**88.0% (272)**	9.7% (30)	1.0% (3)	0.6% (2)	0.6% (2)	1.16	309
Additional training – fellowship	**85.5% (265)**	7.1% (22)	4.8% (15)	1.9% (6)	0.6% (2)	1.25	310
Still looking for employment	**89.5% (272)**	4.6% (14)	2.6% (8)	1.6% (5)	1.6% (5)	1.21	304
					answered question		**317**
					skipped question		**0**

30. If you expect to graduate from a CT surgery residency training program in 2014 and are seeking employment, please indicate how many job offers you have had to date.

	NA	0	1	2	More than 3	Rating Average	Rating Count
Private practice - mixed cardiac and general thoracic	**82.6% (257)**	8.7% (27)	4.8% (15)	2.6% (8)	1.3% (4)	1.31	311
Private practice – general thoracic	**87.1% (269)**	10.0% (31)	1.6% (5)	0.6% (2)	0.6% (2)	1.18	309
Private practice – adult cardiac	**85.8% (265)**	9.7% (30)	2.6% (8)	1.9% (6)	0.0% (0)	1.21	309
Academic practice – mixed cardiac and general thoracic	**86.7% (267)**	10.4% (32)	1.6% (5)	1.3% (4)	0.0% (0)	1.18	308
Academic practice – general thoracic	**87.0% (268)**	7.8% (24)	2.9% (9)	1.9% (6)	0.3% (1)	1.21	308
Academic practice – adult cardiac	**84.5% (261)**	10.4% (32)	2.6% (8)	1.9% (6)	0.6% (2)	1.24	309
Academic practice – congenital heart surgery	**89.2% (272)**	9.2% (28)	1.0% (3)	0.3% (1)	0.3% (1)	1.13	305
Additional training – fellowship	**87.3% (268)**	7.8% (24)	3.3% (10)	1.0% (3)	0.7% (2)	1.20	307
Still looking for employment	**90.4% (273)**	6.6% (20)	1.7% (5)	0.3% (1)	1.0% (3)	1.15	302
					answered question		**317**
					skipped question		**0**