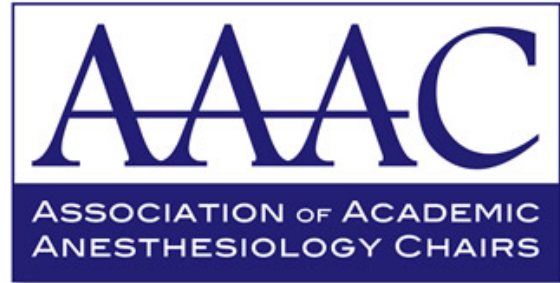


2013 Survey of Clinical Productivity of Academic Anesthesiology Departments

Association of Academic Anesthesiology Chairs (AAAC) of
Society of Academic Anesthesiology Associations (SAAA)



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2013 AAAC/SAAA Clinical Productivity Report

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Abbreviations Used

Abbreviation	Term	Calculation/Definition
AMC, ASC, Indigent, Children's, Community	Types of Facility	See Survey
Sites	Anesthetizing Sites	See Survey
FTE	Number of Faculty Anesthesiologists needed to cover sites each day	See Survey
Staffing Ratio		=sites/FTE
Case	Patient case billed (anesthesia charges only)	See Survey, excludes obstetric cases
tASA	Total ASA units	See Survey, excludes obstetric cases
TU	ASA Time units	15-minute time unit
Base	ASA Basic units	=tASA - TU
tASA/case	Total ASA units per case	=tASA/case
Base/case	ASA Basic units per case	=base/case
TU/case	ASA Time units per case	=TU/case
H/case	Billed hour per case	=(TU/4)/case
tASA/h	Total ASA units per billed hour	=tASA/(TU/4)
Case/d	Cases per day	= Cases/250
Case/OR/d	Cases per site per weekday	=Case/site/250
tASA/OR	Total ASA units per site per year	=tASA/site
TU/OR	ASA Time units per site per year	=TU/site
H/OR/d	Billed hour per site per weekday	=(TU/4)/site/250

Executive Summary

Introduction

The 2013 SAAA Survey of Clinical Productivity is a follow-up to the previous survey published in 2003 (Anesth Analg 2003;96:802-812).

Summary

The response rate of this survey was approximately 48% of all departments, which is significantly higher than the 2003 SAAA survey and about twice that of MGMA surveys. There does not appear to be any regional differences between all departments and responders.

This survey included 143 facilities (almost 3 times the number of facilities more than 2003), over 2.5 million anesthetic cases, almost 40 million ASA units, 3,290 anesthetizing sites, and almost 2,000 faculty anesthesiologists.

The number of facilities per department was higher than in 2003, and many departments identified more than one facility as an academic medical center (AMC) (defined as a primary teaching hospital). Both of these findings are consistent with academic departments being responsible for more than one facility. In contrast to the 2003 report with < 5 facilities with more than 40 sites, the current report includes 26 facilities with 40 or more anesthetizing sites. These findings are consistent with academic anesthesiology departments are covering more sites within a facility and are covering more distinct facilities.

Despite these differences in coverage, the median values for tASA/OR still range from 10,800 to 12,300 units for full service facilities and in the 8,800 units for ASC and 9,400 units for small facilities. These numbers differ slightly from 2003.

Benchmarking Disclaimer

Using national survey data for benchmarking allows one to compare one's facility and activities, but should not be use the data in isolation. The benchmarking can be used to identify areas that one might want to look more closely as well as identify potential areas of improvement. Further, benchmarking can help in confirming local impressions of activities. Finally, comparing similar facilities will provide better comparisons than simply looking at the overall numbers. Therefore, the report breaks the data into sub-groups that allows a group to compare a facility in several different ways: Type of facility, surgical staff, anesthesiology staff, and size of facility (anesthetizing sites).

Key Findings

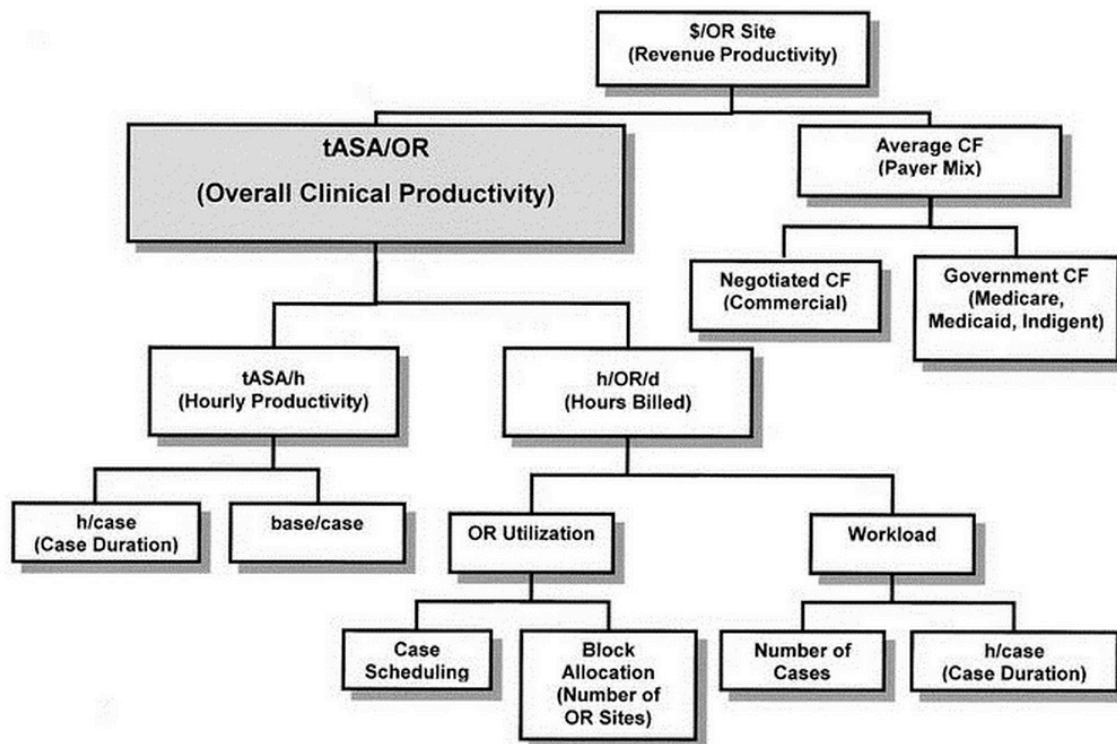
1. Similar to previous reports, ambulatory surgical centers (ASC) have different clinical productivity measurements than full-service facilities. This finding is consistent with the fact that ASC are smaller, do less complex cases, do shorter procedures, and do not function 24/7.
2. Smaller facilities (1-9 sites, 10-19 sites) were associated with shorter cases that leads to higher tASA/h productivity. The number billed hours worked per day (H/OR/d) was less that may be consistent with less after hour cases and weekend cases.
3. Compared to AMC's, Children's Hospitals (not reported in 2003 report) showed lower case duration cases that leads to higher tASA/h numbers. But the overall tASA/OR was not much less despite lower H/OR/d due to this higher hourly billing productivity.
4. Surgical duration affects anesthesiology billing productivity as noted in the points above and can be seen when comparing facilities by Surgical Staff type. The private-practice and mixed surgical staff had shorter durations as compared to academic only surgeons. Again, this leads to higher tASA/h and can lead to similar tASA/OR but in less time. This is consistent with previous reports.
5. There did not appear to be any difference based on type of anesthesiology staffing. Unlike previous report, this survey includes groupings based on anesthesiology staff – academic, mixed, or private practice.
6. Facilities with 20-39 or more than 40 sites had very similar productivity measurements when looking at per case or per OR numbers.

Clinical Productivity Measurement Algorithm

From Abouleish, Amr E.; Prough, Donald S.; Barker, Steven J.; Whitten, Charles W.; Uchida, Tatsuo; Apfelbaum, and Jeffrey L. Organizational Factors Affect Comparisons of the Clinical Productivity of Academic Anesthesiology Departments. *Anesth Analg* 2003;96(3):802-812

An algorithm of clinical productivity was developed and published in 2003. The following is from the discussion section (pp. 807-8) and the figure is Figure 3 from this publication.

“Overall productivity is measured by using tASA/OR. Two major factors determine tASA/h—the number of units billed per billed hour (hourly productivity, or tASA/h) and the number of billed hours per OR site (hours per OR per day, or h/OR/d). Hourly productivity is most strongly influenced by surgical duration (h/case) and base units per case (base/case). Billed hours per OR site are determined by workload (numbers of cases and case duration) and utilization of resource hours (case scheduling, delays, cancellations, block time allocation, number of OR sites).



In addition to comparing overall clinical productivity, an anesthesiology department chair or group leader can use comparisons based on the algorithm to help in evaluating the operations of the group and the hospital's OR. Although clinical benchmarking is often used to help determine personnel requirements, the staffing needs of anesthesiology groups cannot be directly determined by productivity benchmarking because of the confounding influences of number of

clinical sites, staffing ratios, and second-shift needs (including call and post-call) on the numbers of personnel required. However, productivity measurements can help support or refute internal evaluations of the number of OR sites. If h/OR/d is large in comparison to other similar hospitals, then there are more surgeries being performed on evenings, nights, or weekends. In this case, increasing the number of OR sites would reduce h/OR/d if the late or weekend surgeries could be done during the day. In contrast, small h/OR/d is not as easy to interpret. A small h/OR/d may indicate small actual hours worked, but it might also reflect inefficient OR scheduling with prolonged intervals in which rooms are not used, but during which anesthesia personnel must be available. The relationship between billed hours and actual hours worked (or available) is similar to the raw utilization of OR time (i.e., the time that the patient is in the OR divided by available OR time). Thus, in instances in which h/OR/d is small, factors that may influence utilization (e.g., allocation of block time, number of OR sites, case scheduling, delays, and cancellations) must be evaluated to determine why this is the case.

The algorithm also illustrates the negative effect of surgical duration on hourly billing productivity. When surgical duration is short, more short cases than long cases can be done per TU, which results in more base units that can be billed in a set time period, which in turn increases tASA/h. As seen in this study and a previous study, for academic groups that provide anesthetic care for academic surgical programs, surgical durations are longer than average and tASA/h is smaller. Therefore, to have the same overall productivity (tASA/OR), longer hours must be worked (i.e., larger h/OR/d), resulting in increased staffing costs. If, at a relatively small tASA/h, insufficient numbers of hours are worked to offset the small hourly productivity, both tASA/OR and revenue would be smaller. In either situation, the data provide evidence that academic anesthesiology departments require subsidization to offset the increased expense to those departments supporting surgical residency programs.”

DEMOGRAPHIC TABLES

Table 1: Regional Distribution of Departments

Table 2: Regional Distribution of Facilities

Table 3: Type of Facility

Table 4: Type of Surgical Staff

Table 5: Type of Anesthesiology Staff

Table 6: Number of Anesthetizing Sites

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Table 1: Regional Distribution of Departments

	Responding Departments	All Departments
Midwest	17 (27%)	32 (24%)
Northeast	23 (36%)	47 (35%)
South	10 (16%)	27 (20%)
West	14 (22%)	27 (20%)
Total	64	133

Table 2: Regional Distribution of Facilities

	Responding Departments	Facility per Department
Midwest	43 (30%)	2.5
Northeast	51 (36%)	2.2
South	26 (18%)	2.6
West	23 (16%)	1.6
Total	143	2.2

Table 3: Type of Facility

Type of Facility	N	% of total
AMC	71	49.7%
ASC	32	22.4%
Children	11	7.7%
Community	20	14.0%
Heart	1	0.7%
Indigent	8	5.6%
Total	143	

Table 4: Type of Surgical Staff

	All Facilities, Type of Surgical Staff		Non-ASC Facilities, Type of Surgical Staff	
	N	% of total	N	% of total
Academic Only	69	48.3%	57	51.4%
Mixed	66	46.2%	51	45.9%
Private-Practice Only	8	5.6%	3	2.7%
Total	143		111	

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Table 5: Type of Anesthesiology Staff

	All Facilities, Type of Anesthesiology Staff		Non-ASC Facilities, Type of Anesthesiology Staff	
	N	% of total	N	% of total
Academic Only	109	76.2%	85	76.6%
Mixed	17	11.9%	14	12.6%
Private-Practice Only	17	11.9%	12	10.8%
Total	143		111	

Table 6: Number of Anesthetizing Sites

		N	% of total	Comment
ASC	All 1-9 sites	32	22%	All ASC had 1-9 sites
Non-ASC	1-9 sites	16	11%	Includes one Heart facility
	10-19 sites	20	14%	12 are AMC/Indigent, 8 are Community/Children's
	20-39 sites	49	34%	
	40 or more sites	26	18%	
Total		143		

SUMMARY TABLES

MEDIAN AND MEAN VALUES OF CLINICAL PRODUCTIVITY

Table 7: All and Facility Type

Table 8: Type of Surgical Staff, Type of Anesthesiology Staff, NON-ASC Facilities

Table 9: Number of Anesthetizing Sites (non-Obstetric)

Table 7.1: Median Values, All and Facility Type

MEDIAN VALUES	All Groups (n=143)	All non ASC (n=111)	Facility Type			
			ASC (n=32)	AMC/ Indigent* (n=80)	Children (n=11)	Community (n=20)
Sites	21.0	26.0	4.0	31.4	18.0	14.5
FTE	12.0	15.0	2.0	17.0	13.0	6.0
Staffing ratio	1.8	1.7	2.8	1.8	1.7	1.8
tASA/ case	14.3	15.6	9.1	16.6	12.5	12.3
Base/ case	5.8	6.0	4.5	6.2	5.8	5.4
H/case	2.2	2.3	1.2	2.5	1.7	1.6
tASA/h	6.7	6.7	7.4	6.5	7.3	7.1
Case/OR/d	3.1	3.0	3.6	3.0	3.5	3.2
tASA/OR	11,215	11,632	8,912	11,982	10,839	10,630
H/OR/d	6.5	6.9	4.3	7.3	6.0	6.0

*includes one Heart Facility

Table 7.2: Mean Values, All and Facility Type

MEAN VALUES	All Groups (n=143)	All non ASC (n=111)	Facility Type			
			ASC (n=32)	AMC/ Indigent* (n=80)	Children (n=11)	Community (n=20)
Sites	23.0	28.3	4.5	33.1	17.2	15.3
FTE	13.7	17.0	2.2	19.9	11.1	8.5
Staffing ratio	1.9	1.8	2.3	1.8	1.6	1.8
tASA/ case	14.3	15.6	9.8	16.6	13.6	12.8
Base/ case	5.7	6.0	4.7	6.2	5.9	5.4
H/case	2.1	2.4	1.3	2.6	1.9	1.9
tASA/h	7.1	6.7	8.4	6.5	7.2	7.2
Case/OR/d	3.3	3.2	3.7	3.1	3.3	3.5
tASA/OR	11,210	11,900	8,816	12,320	10,717	10,871
H/OR/d	6.6	7.2	4.4	7.7	5.9	6.2

*includes one Heart Facility

Table 8.1 Median Values, Type of Surgical Staff, Type of Anesthesiology Staff, NON-ASC Facilities

MEDIAN VALUES	Non-ASC Facilities				
	Surgical Staff (Non-ASC facilities)		Anesthesiology Staff (Non-ASC facilities)		
	Academic only (n=57)	Mixed/ Private Practice* (n=54)	Academic only (n=85)	Mixed (n=14)	Private Practice (n=12)
Sites	29.0	25.0	26.0	30.0	16.5
FTE	16.0	13.0	15.0	13.0	13.0
Staffing ratio	1.8	1.7	1.7	1.8	1.8
tASA/ case	16.6	14.1	16.1	15.6	15.6
Base/ case	6.2	5.8	6.0	6.6	6.6
H/case	2.5	2.1	2.5	2.3	2.3
tASA/h	6.5	6.8	6.6	6.9	6.9
Case/OR/d	2.9	3.3	3.0	3.0	3.0
tASA/OR	12,023	11,445	11,782	11,519	11,519
H/OR/d	7.2	6.8	7.0	6.7	6.7

*Surgical staff private practice only n= 3

Table 8.2 Mean Values, Type of Surgical Staff, Type of Anesthesiology Staff, NON-ASC Facilities

MEAN VALUES	Non-ASC Facilities				
	Surgical Staff (Non-ASC facilities)		Anesthesiology Staff (Non-ASC facilities)		
	Academic only (n=57)	Mixed/ Private Practice* (n=54)	Academic only (n=85)	Mixed (n=14)	Private Practice (n=12)
Sites	31.2	25.3	29.1	32.3	18.3
FTE	18.0	15.9	17.2	21.4	21.4
Staffing ratio	1.8	1.7	1.8	1.8	1.8
tASA/ case	16.7	14.4	16.0	15.8	15.8
Base/ case	6.3	5.7	6.1	6.2	6.2
H/case	2.6	2.2	2.5	2.4	2.4
tASA/h	6.6	6.8	6.6	6.8	6.8
Case/OR/d	3.0	3.4	3.2	3.0	3.0
tASA/OR	11,976	11,820	12,117	11,508	11,508
H/OR/d	7.4	7.1	7.4	6.9	6.9

*Surgical staff private practice only n= 3

Table 9.1 Median Values, Number of Anesthetizing Sites (non-Obstetric)

MEDIAN VALUES	ASC (All <10 sites) (n=32)	Non-ASC Facilities				
		<10 sites* (n=15)	10-19 sites ALL (n=20)	10-19 sites AMC/Indigent only (n=12)	20-39 sites (n=49)	40 or more sites (n=26)
Sites	4.0	5.0	15.0	15.0	27.0	51.0
FTE	2.0	2.0	8.5	8.5	15.0	18.0
Staffing ratio	2.8	1.9	1.8	1.8	1.7	1.7
tASA/ case	9.1	13.4	12.0	13.5	16.4	16.6
Base/ case	4.5	5.2	5.4	5.4	6.2	6.2
H/case	1.2	1.9	1.6	2.0	2.5	2.5
tASA/h	7.4	6.8	7.4	6.7	6.5	6.5
Case/OR/d	3.6	2.8	3.8	3.6	3.0	3.0
tASA/OR	8,912	9,112	11,685	11,457	11,632	11,978
H/OR/d	4.3	5.9	6.3	6.6	7.0	7.3

*excludes 1 Heart Facility

Table 9.2 Mean Values, Number of Anesthetizing Sites (non-Obstetric)

MEAN VALUES	ASC (All <10 sites) (n=32)	Non-ASC Facilities				
		<10 sites*** (n=15)	10-19 sites ALL (n=20)	10-19 sites AMC/Indigent only (n=12)	20-39 sites (n=49)	40 or more sites (n=26)
Sites	4.5	5.1	14.5	14.1	28.1	53.8
FTE	2.2	3.1	9.2	8.7	16.1	22.0
Staffing ratio	2.3	1.8	1.8	1.9	1.8	1.8
tASA/ case	9.8	14.0	12.8	13.5	16.3	16.7
Base/ case	4.7	5.5	5.4	5.2	6.2	6.3
H/case	1.3	2.1	1.9	2.1	2.5	2.6
tASA/h	8.4	6.7	7.2	6.9	6.6	6.6
Case/OR/d	3.7	2.9	3.9	3.8	3.1	3.1
tASA/OR	8,816	9,338	12,008	12,523	12,124	12,418
H/OR/d	4.4	5.6	6.9	7.6	7.4	7.7

DETAILED PERCENTILE TABLES

Table 10.1: All Facilities (n=143)

Table 10.2: All NON-ASC Facilities (n=111)

Table 11.1: Type of Facility: ASC (n=32)

Table 11.2: Type of Facility: AMC/Indigent/Heart (n=80)

Table 11.3: Type of Facility, Children's (n=11)

Table 11.4: Type of Facility, Community (n=20)

Table 12.1: NON-ASC Facilities: Type of Surgical Staff, Academic Surgeons (n=57)

Table 12.2: NON-ASC Facilities: Type of Surgical Staff, Mixed or Private Practice Surgeons (n=54)

Table 13.1: NON-ASC Facilities, Type of Anesthesiology Staff, Academic Anesthesiologists (n=85)

Table 13.2: NON-ASC Facilities, Type of Anesthesiology Staff, Mixed Anesthesiologists (n=14)

Table 13.3: NON-ASC Facilities, Type of Anesthesiology Staff, Private Practice Anesthesiologists (n=12)

Table 14.1: Number of Sites, ASC, All 1-9 Sites (n=32)

Table 14.2: Number of Sites, NON-ASC, 1-9 Sites* (n=15)

Table 14.3: Number of Sites, NON-ASC, 10-19 Sites (n=20)

Table 14.4: Number of Sites, NON-ASC, 10-19 Sites: AMC/Indigent ONLY (n=12)

Table 14.5: Number of Sites, NON-ASC, 20-39 Sites (n=49)

Table 14.6: Number of Sites, NON-ASC, 40 or more Sites (n=26)

Table 10.1: All Facilities (n=143)

	mean		10th	25th	median	75th	90th
Sites	23.0		3.0	6.0	21.0	33.0	50.0
FTE	13.7		1.6	3.4	12.0	19.5	27.8
Staffing ratio	1.9		1.1	1.5	1.8	2.2	3.0
tASA/ case	14.3		8.6	10.8	14.3	16.9	19.5
Base/ case	5.7		4.2	4.7	5.8	6.5	7.3
TU/ case	8.6		4.5	5.9	8.7	10.6	13.5
H/case	2.1		1.1	1.5	2.2	2.6	3.4
tASA/h	7.1		6.0	6.3	6.7	7.3	8.4
Case/d	71.9		10.1	21.9	62.4	103.9	161.2
Case/OR/d	3.3		2.3	2.7	3.1	3.9	4.6
tASA/OR	11,210		6,891	9,602	11,215	12,619	14,648
TU/or	6,606		3,711	5,169	6,492	7,441	9,821
H/OR/d	6.6		3.7	5.2	6.5	7.4	9.8

Table 10.2: All NON-ASC Facilities (n=111)

	mean		10th	25th	median	75th	90th
Sites	28.3		8.0	16.0	26.0	38.0	52.0
FTE	17.0		4.0	9.5	15.0	22.5	32.0
Staffing ratio	1.8		1.2	1.5	1.7	2.0	2.6
tASA/ case	15.6		10.7	12.8	15.6	17.6	20.5
Base/ case	6.0		4.4	5.3	6.0	6.7	7.6
TU/ case	9.6		5.7	6.9	9.3	11.2	14.3
H/case	2.4		1.4	1.7	2.3	2.8	3.6
tASA/h	6.7		6.0	6.3	6.7	7.1	7.7
Case/d	88.0		20.7	53.4	80.5	115.8	164.3
Case/OR/d	3.2		2.3	2.5	3.0	3.6	4.4
tASA/OR	11,900		8,769	10,323	11,632	13,132	15,097
TU/or	7,232		4,812	5,972	6,870	8,471	10,033
H/OR/d	7.2		4.8	6.0	6.9	8.5	10.0

Table 11.1: Type of Facility: ASC (n=32)

	mean		10th	25th	median	75th	90th
Sites	4.5		2.1	3.0	4.0	6.0	8.7
FTE	2.2		1.0	1.0	2.0	3.0	3.7
Staffing ratio	2.3		1.0	1.5	2.8	3.0	3.0
tASA/ case	9.8		7.6	8.2	9.1	11.3	12.6
Base/ case	4.7		3.9	4.2	4.5	5.1	6.0
TU/ case	5.1		2.9	3.4	4.9	6.2	7.5
H/case	1.3		0.7	0.8	1.2	1.5	1.9
tASA/h	8.4		6.4	6.8	7.4	9.8	11.2
Case/d	16.0		5.6	9.8	16.4	23.7	27.0
Case/OR/d	3.7		2.6	2.9	3.6	4.4	4.8
tASA/OR	8,816		5,442	6,627	8,912	10,883	11,932
TU/or	4,436		2,439	3,079	4,308	6,114	6,590
H/OR/d	4.4		2.4	3.1	4.3	6.1	6.6

Table 11.2: Type of Facility: AMC/Indigent/Heart (n=80)

	mean		10th	25th	median	75th	90th
Sites	33.1		11.0	21.8	31.4	44.5	55.2
FTE	19.9		5.9	11.8	17.0	25.0	37.1
Staffing ratio	1.8		1.2	1.5	1.8	2.0	2.5
tASA/ case	16.6		11.0	14.3	16.6	18.3	22.5
Base/ case	6.2		4.4	5.5	6.2	6.8	7.8
TU/ case	10.4		6.4	8.7	10.1	11.9	14.6
H/case	2.6		1.6	2.2	2.5	3.0	3.7
tASA/h	6.5		5.9	6.2	6.5	6.8	7.2
Case/d	100.1		42.5	59.4	93.0	142.6	171.1
Case/OR/d	3.1		2.3	2.5	3.0	3.4	4.1
tASA/OR	12,320		9,058	10,752	11,982	13,752	15,813
TU/or	7,680		5,442	6,483	7,263	8,708	10,197
H/OR/d	7.7		5.4	6.5	7.3	8.7	10.2

Table 11.3: Type of Facility, Children's (n=11)

	mean		10th	25th	median	75th	90th
Sites	17.2		5.0	12.5	18.0	24.0	26.0
FTE	11.1		3.0	7.0	13.0	14.5	18.0
Staffing ratio	1.6		1.3	1.4	1.7	1.8	2.0
tASA/ case	13.6		11.3	11.6	12.5	15.3	17.4
Base/ case	5.9		5.2	5.4	5.8	6.3	6.9
TU/ case	7.7		6.0	6.2	6.6	8.5	9.5
H/case	1.9		1.5	1.5	1.7	2.1	2.4
tASA/h	7.2		6.8	7.0	7.3	7.6	7.7
Case/d	61.6		16.3	37.6	73.8	85.9	94.7
Case/OR/d	3.3		2.4	3.2	3.5	3.8	4.1
tASA/OR	10,717		8,887	10,319	10,839	11,973	12,967
TU/or	5,885		4,842	5,579	6,044	6,421	6,859
H/OR/d	5.9		4.8	5.6	6.0	6.4	6.9

Table 11.4: Type of Facility, Community (n=20)

	mean		10th	25th	median	75th	90th
Sites	15.3		3.0	4.8	14.5	23.3	27.6
FTE	8.5		2.0	2.8	6.0	12.3	16.3
Staffing ratio	1.8		1.0	1.5	1.8	2.0	2.7
tASA/ case	12.8		9.7	10.8	12.3	14.0	16.6
Base/ case	5.4		4.4	4.6	5.4	6.0	6.4
TU/ case	7.4		5.4	5.7	6.2	9.0	10.1
H/case	1.9		1.3	1.4	1.6	2.2	2.5
tASA/h	7.2		6.0	6.5	7.1	8.0	8.3
Case/d	54.2		9.7	15.7	55.5	84.9	100.2
Case/OR/d	3.5		2.5	2.8	3.2	4.1	4.9
tASA/OR	10,871		7,138	9,098	10,630	12,389	14,551
TU/or	6,182		4,146	4,915	6,040	6,623	8,612
H/OR/d	6.2		4.1	4.9	6.0	6.6	8.6

Table 12.1: NON-ASC Facilities: Type of Surgical Staff, Academic Surgeons (n=57)

	mean		10th	25th	median	75th	90th
Sites	31.2		8.0	18.0	29.0	42.1	55.8
FTE	18.0		4.6	11.0	16.0	23.0	36.4
Staffing ratio	1.8		1.3	1.5	1.8	2.0	2.4
tASA/ case	16.7		11.1	14.5	16.6	18.0	23.5
Base/ case	6.3		4.6	5.5	6.2	6.9	8.0
TU/ case	10.4		6.2	8.9	10.1	11.6	14.9
H/case	2.6		1.6	2.2	2.5	2.9	3.7
tASA/h	6.6		5.9	6.2	6.5	6.9	7.3
Case/d	90.2		21.1	53.6	79.2	126.4	166.0
Case/OR/d	3.0		2.1	2.4	2.9	3.3	3.9
tASA/OR	11,976		8,818	10,210	12,023	13,809	15,043
TU/or	7,382		5,211	6,047	7,230	8,700	9,978
H/OR/d	7.4		5.2	6.0	7.2	8.7	10.0

Table 12.2: NON-ASC Facilities: Type of Surgical Staff, Mixed or Private Practice Surgeons (n=54)

	mean		10th	25th	median	75th	90th
Sites	25.3		6.6	15.0	25.0	33.8	48.1
FTE	15.9		3.3	8.3	13.0	21.8	27.7
Staffing ratio	1.7		1.0	1.3	1.7	2.0	2.7
tASA/ case	14.4		10.6	11.7	14.1	16.6	19.1
Base/ case	5.7		4.3	5.2	5.8	6.2	6.9
TU/ case	8.7		5.5	6.2	8.5	10.2	12.7
H/case	2.2		1.4	1.5	2.1	2.6	3.2
tASA/h	6.8		6.1	6.4	6.8	7.4	8.0
Case/d	85.8		17.9	44.7	81.0	112.8	157.2
Case/OR/d	3.4		2.5	2.8	3.3	4.1	4.7
tASA/OR	11,820		8,685	10,426	11,445	12,361	15,764
TU/or	7,073		4,211	5,901	6,790	7,639	10,227
H/OR/d	7.1		4.2	5.9	6.8	7.6	10.2

Table 13.1: NON-ASC Facilities, Type of Anesthesiology Staff, Academic Anesthesiologists (n=85)

	mean		10th	25th	median	75th	90th
Sites	29.1		8.4	17.0	26.0	38.0	52.2
FTE	17.2		4.4	10.5	15.0	23.0	30.0
Staffing ratio	1.8		1.3	1.5	1.7	2.0	2.4
tASA/ case	16.0		10.7	13.6	16.1	17.8	21.2
Base/ case	6.1		4.5	5.4	6.0	6.6	7.7
TU/ case	9.9		5.9	7.9	9.9	11.4	14.5
H/case	2.5		1.5	2.0	2.5	2.9	3.6
tASA/h	6.6		5.9	6.3	6.6	6.9	7.5
Case/d	89.3		23.6	53.6	78.2	126.4	163.0
Case/OR/d	3.2		2.3	2.5	3.0	3.5	4.3
tASA/OR	12,117		9,066	10,424	11,782	13,340	15,061
TU/or	7,434		5,340	6,208	7,020	8,487	10,125
H/OR/d	7.4		5.3	6.2	7.0	8.5	10.1

Table 13.2: NON-ASC Facilities, Type of Anesthesiology Staff, Mixed Anesthesiologists (n=14)

	mean		10th	25th	median	75th	90th
Sites	32.3		12.9	17.8	30.0	42.8	59.7
FTE	21.4		7.9	11.0	13.0	29.5	47.5
Staffing ratio	1.8		1.0	1.3	1.8	2.0	2.7
tASA/ case	15.8		10.7	13.4	15.6	17.6	20.1
Base/ case	6.2		4.3	4.9	6.6	6.9	7.7
TU/ case	9.5		5.7	7.3	9.0	12.0	13.2
H/case	2.4		1.4	1.8	2.3	3.0	3.3
tASA/h	6.8		6.0	6.3	6.9	7.3	7.6
Case/d	94.5		34.1	66.8	94.7	103.7	172.0
Case/OR/d	3.0		2.3	2.5	3.0	3.2	3.6
tASA/OR	11,508		7,283	10,449	11,519	12,238	14,684
TU/or	6,891		4,486	5,319	6,668	7,582	9,151
H/OR/d	6.9		4.5	5.3	6.7	7.6	9.2

Table 13.3: NON-ASC Facilities, Type of Anesthesiology Staff, Private Practice Anesthesiologists (n=12)

	mean		10th	25th	median	75th	90th
Sites	18.3		2.1	5.3	16.5	29.0	33.8
FTE	21.4		7.9	11.0	13.0	29.5	25.6
Staffing ratio	1.8		1.0	1.3	1.8	2.0	2.6
tASA/ case	15.8		10.7	13.4	15.6	17.6	14.3
Base/ case	6.2		4.3	4.9	6.6	6.9	6.0
TU/ case	9.5		5.7	7.3	9.0	12.0	8.9
H/case	2.4		1.4	1.8	2.3	3.0	2.2
tASA/h	6.8		6.0	6.3	6.9	7.3	8.2
Case/d	94.5		34.1	66.8	94.7	103.7	161.1
Case/OR/d	3.0		2.3	2.5	3.0	3.2	4.7
tASA/OR	11,508		7,283	10,449	11,519	12,238	14,198
TU/or	6,891		4,486	5,319	6,668	7,582	8,895
H/OR/d	6.9		4.5	5.3	6.7	7.6	8.9

Table 14.1: Number of Sites, ASC, All 1-9 Sites (n=32)

	mean		10th	25th	median	75th	90th
Sites	4.5		2.1	3.0	4.0	6.0	8.7
FTE	2.2		1.0	1.0	2.0	3.0	3.7
Staffing ratio	2.3		1.0	1.5	2.8	3.0	3.0
tASA/ case	9.8		7.6	8.2	9.1	11.3	12.6
Base/ case	4.7		3.9	4.2	4.5	5.1	6.0
TU/ case	5.1		2.9	3.4	4.9	6.2	7.5
H/case	1.3		0.7	0.8	1.2	1.5	1.9
tASA/h	8.4		6.4	6.8	7.4	9.8	11.2
Case/d	16.0		5.6	9.8	16.4	23.7	27.0
Case/OR/d	3.7		2.6	2.9	3.6	4.4	4.8
tASA/OR	8,816		5,442	6,627	8,912	10,883	11,932
TU/or	4,436		2,439	3,079	4,308	6,114	6,590
H/OR/d	4.4		2.4	3.1	4.3	6.1	6.6

Table 14.2: Number of Sites, NON-ASC, 1-9 Sites* (n=15)

	mean		10th	25th	median	75th	90th
Sites	4.9		2.0	3.0	5.0	7.0	8.0
FTE	3.1		1.0	2.0	2.0	4.0	6.0
Staffing ratio	1.8		1.0	1.4	1.9	2.0	2.4
tASA/ case	13.2		10.4	10.8	13.4	14.6	16.8
Base/ case	5.2		4.4	4.6	5.2	5.7	6.2
TU/ case	8.0		5.7	6.1	7.8	9.0	11.2
H/case	2.0		1.4	1.5	1.9	2.2	2.8
tASA/h	6.7		6.0	6.3	6.8	7.1	7.2
Case/d	15.1		3.3	8.8	14.8	21.0	22.8
Case/OR/d	3.0		2.1	2.5	2.8	3.3	4.2
tASA/OR	9,371		6,581	7,126	9,112	10,992	12,472
TU/or	5,591		3,886	4,158	5,884	6,434	7,874
H/OR/d	5.6		3.9	4.2	5.9	6.4	7.9

*excludes 1 Heart Facility

Table 14.3: Number of Sites, NON-ASC, 10-19 Sites (n=20)

	mean		10th	25th	median	75th	90th
Sites	14.5		10.9	11.8	15.0	17.0	17.8
FTE	9.2		5.0	6.0	8.5	11.3	13.5
Staffing ratio	1.8		1.0	1.3	1.8	2.2	2.7
tASA/ case	12.8		9.7	10.7	12.0	15.0	16.6
Base/ case	5.4		4.3	5.0	5.4	6.0	6.7
TU/ case	7.5		5.0	5.6	6.3	9.0	10.6
H/case	1.9		1.3	1.4	1.6	2.3	2.7
tASA/h	7.2		6.2	6.5	7.4	7.8	8.4
Case/d	56.9		31.1	43.6	51.4	68.7	85.2
Case/OR/d	3.9		2.5	2.9	3.8	4.4	5.4
tASA/OR	12,008		9,039	10,082	11,685	12,726	16,245
TU/or	6,901		4,764	5,755	6,350	6,870	10,387
H/OR/d	6.9		4.8	5.8	6.3	6.9	10.4

Table 14.4: Number of Sites, NON-ASC, 10-19 Sites: AMC/Indigent ONLY (n=12)

	mean		10th	25th	median	75th	90th
Sites	14.1		10.1	11.0	15.0	17.1	17.8
FTE	8.7		5.0	5.0	8.5	10.6	12.8
Staffing ratio	1.9		1.0	1.3	1.8	2.3	2.7
tASA/ case	13.5		10.5	10.9	13.5	16.4	16.8
Base/ case	5.2		4.3	5.0	5.4	5.8	6.1
TU/ case	8.3		5.5	5.9	7.9	10.5	10.9
H/case	2.1		1.4	1.5	2.0	2.6	2.7
tASA/h	6.9		6.2	6.2	6.7	7.5	7.9
Case/d	54.0		32.1	41.8	46.8	59.5	82.0
Case/OR/d	3.8		2.5	2.8	3.6	4.4	5.3
tASA/OR	12,523		9,605	10,082	11,457	13,714	17,961
TU/or	7,594		4,910	6,010	6,626	8,108	10,495
H/OR/d	7.6		4.9	6.0	6.6	8.1	10.5

Table 14.5: Number of Sites, NON-ASC, 20-39 Sites (n=49)

	mean		10th	25th	median	75th	90th
Sites	28.1		22.0	23.0	27.0	32.4	35.4
FTE	16.1		11.0	13.0	15.0	18.0	22.0
Staffing ratio	1.8		1.3	1.5	1.7	2.0	2.6
tASA/ case	16.3		11.6	14.0	16.4	18.0	22.7
Base/ case	6.2		4.9	5.8	6.2	6.8	7.8
TU/ case	10.1		6.4	8.3	9.9	11.5	14.9
H/case	2.5		1.6	2.1	2.5	2.9	3.7
tASA/h	6.6		5.9	6.3	6.5	6.9	7.6
Case/d	86.4		57.0	63.8	81.0	98.6	113.6
Case/OR/d	3.1		2.3	2.5	3.0	3.5	4.1
tASA/OR	12,124		10,034	10,645	11,632	13,809	14,917
TU/or	7,440		5,533	6,344	7,020	8,514	9,978
H/OR/d	7.4		5.5	6.3	7.0	8.5	10.0

Table 14.6: Number of Sites, NON-ASC, 40 or more Sites (n=26)

	mean		10th	25th	median	75th	90th
Sites	53.8		42.5	47.0	51.0	57.0	67.5
FTE	22.0		12.0	14.0	18.0	26.0	48.0
Staffing ratio	1.8		1.3	1.5	1.7	2.0	2.2
tASA/ case	16.7		12.3	14.3	16.6	18.3	21.1
Base/ case	6.3		4.8	5.8	6.2	6.9	7.9
TU/ case	10.4		6.4	8.6	10.0	11.7	14.4
H/case	2.6		1.6	2.2	2.5	2.9	3.6
tASA/h	6.6		5.8	6.3	6.5	6.9	6.9
Case/d	112.0		60.8	76.2	98.6	148.1	201.8
Case/OR/d	3.1		2.3	2.5	3.0	3.4	3.5
tASA/OR	12,418		10,120	11,004	11,978	13,824	18,122
TU/or	7,676		5,528	6,476	7,295	8,715	11,113
H/OR/d	7.7		5.5	6.5	7.3	8.7	11.1

SAAA 2013 CLINICAL PRODUCTIVITY SURVEY FOR 2012

SAAA 2013 CLINICAL PRODUCTIVITY SURVEY FOR 2012 DATA

The goal of this survey is to provide updated clinical productivity benchmarks for different facilities for academic departments. The initial survey was reported at Anesth Analg 96: 802-812; 2003

Please note that participation is voluntary and this survey will be used by SAAA members and as a research project.

If you have any questions, please contact Dr. Amr Abouleish at 281-352-6592 or aaboulei@utmb.edu

INSTRUCTIONS/DEFINITIONS

Inclusion/Exclusion: (see number 11 below). Data should be for operating room and remote sites, but exclude ICU, pain management, obstetric services, and consults.

1. Dates of Data: Please complete the attached survey for 2012 data. If you fiscal year ends before December 31, then you may use your 2012 fiscal year data.
2. Hospital Identifier when an anesthesia group provides care at more than one hospital:
 - a. If your department/group provides care at more than one hospital, please complete one survey for each hospital if possible. These separate reporting is important if you provide care at hospital OR and ambulatory surgicenter.
 - b. Hospital Identifier – please identify each Hospital separately on the survey, e.g., Hosp-A, Hosp-B
3. Type of Facility:
 - a. Ambulatory Surgical Center (ASC)
 - b. County/City Indigent Hospital (Indigent) – Hospital is primary hospital for indigent care in the area. Can be the primary teaching hospital for the medical school
 - c. Academic Medical Center (AMC)– not primary indigent care hospital, but is primary teaching hospital for the medical school
 - d. Children’s – Hospital is exclusively pediatric hospital. (Only children are patients that come to the OR)
 - e. Heart – Hospital specializes in cardiothoracic services exclusively.
 - f. Community – All others
4. Surgical Staff:
 - a. Academic Only: all surgeons are either residents or faculty
 - b. Mixed: Some surgeons are Academic and some are private-practice
 - c. Private-Practice Only: All surgeons are in private-practice.
5. Anesthesiology Group:
 - a. Academic Only: all anesthesiologists are either residents or faculty
 - b. Mixed: Some anesthesiologists are Academic and some are private-practice
 - c. Private-Practice Only: All anesthesiologists (no residents) are in private-practice.
6. Staffing Ratio: The usually staffing ratio for providing care
 - a. Physician-only: Anesthesiologists provide personally performed cases
 - b. Mixed: Both medical direction and personally performed cases are represented by the data
 - c. Medical-Direction: Medical direction care model is used by the group

- i. 1:2 or less: staffing ratio is usually 1:2 with some 1:1
 - ii. greater than 1:2: anesthesiologist regularly medically direct 2, 3 or 4 cases
- 7. Total ASA units billed
 - a. All care billed using ASA units should be included, EXCEPT obstetric care, e.g., epidural for labor, anesthesia for cesarean section
 - b. Do not include RVU procedures done in the OR, e.g., line placement
 - c. Do not include modifiers
- 8. Time units billed: 15-minute time units should be used.
- 9. Charge per ASA unit: Dollar value charge for each ASA unit. (NOT Revenue)
- 10. Total Charges billed: Not revenue.
- 11. Average number anesthetizing sites staffed daily:
 - a. To estimate the number of anesthetizing sites staffed daily, count the number of sites that needed to be covered at the beginning of the day for the 10th of each month. (If the 10th fell on a weekend or holiday, then choose the 20th for that month.)
 - b. Remote sites should be included. Count as one if only one team covering the sites. Count as two, if two different teams had to cover the sites. Etc.
 - c. Do not include OB anesthesia, pain clinic, ICU or preoperative clinic in this estimate.
- 12. Average number of anesthesiologists. Number 11 above. Count the number of anesthesiologists needed to staff the anesthetizing sites at the beginning of the day.
 - a. Exclude staff that are not available first thing in the morning. Examples, call faculty coming in late, late shift faculty.

QUESTIONS: Dr. Amr Abouleish at 281-352-6592 or aaboulei@utmb.edu

SAAA 2013 Survey for Clinical Productivity for 2012 Data

Questions: Dr. Amr Abouleish at 281-352-6592 or aaboulei@utmb.edu

IDENTIFICATION INFORMATION: COMPLETE ONCE

Dates of the data ¹ (e.g., Jan-Dec 2012)	
Name of Group/Dept	
Contact Person	
Address	
City, State, Zip Code	
Phone	
Email	

FACILITY INFORMATION: COMPLETE FOR EACH FACILITY

Hospital Identifier (Use if more than hospital be reported) ²				
Type of Facility (Circle One) ³	ASC	Indigent Heart	AMC Community	Children's
Surgical Staff (Circle One) ⁴	Academic Only	Mixed	Private-Practice Only	
Anesthesiology Group (Circle One) ⁵	Academic Only	Mixed	Private-Practice Only	
Staffing Ratio (Circle One) ⁶	Physician-only	Mixed	Medical Direction	
	Medical Direction (if applicable) (Circle One)	1:2 or less	Greater than 1:2	

PRODUCTIVITY DATA

Total ASA units billed ⁷	
Time units billed (15-Minute Unit) ⁸	
Total Cases billed	
Charge per ASA unit ⁹	
Total charges billed ¹⁰	
Average number of Anesthetizing sites staffed daily ¹¹	
Average number of Anesthesiologists daily	

Footnotes refer to instructions on previous page.

Notes
