SOUTHWESTERN MEDICAL CENTER

# Perfect Storm Part II: Is a Tsunami Brewing?

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## Conflict of Interest + Why am I qualified to do this??

- I have no conflicts except:
  (1) I have a long standing interest in the economics of academic anesthesia practice dating back to collaborations which began with Amr Abouleish and others in the late 1990's.
  (2) We continue to perform collaborative research utilizing national databases.
- At UTSW we are currently undergoing over $2 billion of health care construction on Harry Hines Blvd. in Dallas, TX. Our hours of operation/sites of service will increase by 40-50% in the next seven months. Case volume in 2013 was 140,000 OR Anesthetics.

William P. Clements, Jr. University Hospital
November 15, 2014

Parkland Hospital
May 5, 2015

## Perfect Storm Overview: Part I

**This has been presented from 2000-2011 and leaves a wonderful legacy for us in Academic Anesthesiology.**

- **Kevin Tremper, MD, deserves special recognition for his dedicated efforts on behalf of Perfect Storm Part I.**

## The Etiology of Perfect Storm Part I

**Match Day 1994**

## Wall Street Journal
## March 17, 1995 – *G. Anders*
## "Once a hot specialty, Anesthesiology cools as insurers scale back"

- 1994 Grads-1,863 Residents graduate from Anesthesia Residencies
- 1995 Start – 892 Residents, consisting of 348 IMG's and 544 AMG's
- "This was the start of the lost generation." The specialty is now feeling this loss at another level, as individuals from this "lost generation" should be morphing into significant leadership positions.

## Size of Residency Training Programs

- In 2013, 1,585 Senior Residents graduated (**34% women**). A total of 5,848 Anesthesiology Residents are enrolled in 132 Core Residency Programs.
- American training programs are hovering around 1536 graduates per year over the last five years.

**Residency Production: Confounding Factors**

- In 2013, we know that the following pursued ACGME fellowships:

| Number of Programs | N= | Positions Filled | Positions Approved | % Women |
|---|---|---|---|---|
| Critical Care Medicine | 55 | 153 | 201 | 33% |
| Pain Medicine | 98 | 343 | 371 | 22% |
| Pediatrics | 52 | 218 | 236 | 54% |
| Cardiac | 61 | 177 | 191 | 25% |
| OB | 49 | 29 | 49 | 53% |

## Understanding Clinical Productivity for Anesthesiology Departments

- Not simple
- Key Point: Organizational factors that determine a facility type impact clinical productivity.
- To best understand, compare to similar types of facilities
  - ASC to ASC
  - Community hospital to Community hospital
  - AMC/Trauma to AMC/Trauma

## Clinical Productivity by Facility Type

- 2003 Survey
  Anesth Analg 2003:96:802-12
- 2013 Survey


2013 Survey of Clinical Productivity of Academic Anesthesiology Departments

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

SAAA

AAAC
ASSOCIATION OF ACADEMIC ANESTHESIOLOGY CHAIRS


Organizational Factors Affect Comparisons of the Clinical Productivity of Academic Anesthesiology Departments

## Understanding Anesthesia Clinical Productivity and Survey Results

Utilize the following:

- Figure from 2003 Paper
- Median Data by Facility Type, 2013 Survey

## Benchmarks by Facility Type, SAAA 2013

| | | | Facility Type | | | |
|---|---|---|---|---|---|---|
| MEDIAN VALUES (50%) | All Groups (n=143) | All non ASC (n=111) | ASC (n=32) | AMC/ Indigent* (n=80) | Children (n=11) | Community (n=20) |
| Sites | | | | | | |
| tASA/OR | | | | | | |
| H/OR/d | | | | | | |
| tASA/h | | | | | | |
| Base/case | | | | | | |
| H/case | | | | | | |
| Staffing Ratio | | | | | | |

tASA = Total ASA units billed, OR = Anesthetizing Site

H = 4 time units, d = 250 weekdays/year

Hourly productivity

* Includes 1 Heart Hospital

2013 Survey of Clinical Productivity of Academic Anesthesiology Departments, ww2.SAAAhq.org

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| MEDIAN VALUES (50%) | 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 |
| tASA/OR | | | | | | |
| H/OR/d | | | | | | |
| tASA/h | | | | | | |
| Base/case | | | | | | |
| H/case | | | | | | |
| Staffing Ratio | | | | | | |

What is Overall Clinical Productivity?

* Includes 1 Heart Hospital
2013 Survey of Clinical Productivity of Academic Anesthesiology Departments, www.SAAAhq.org

## Benchmarks by Facility Type, SAAA 2013

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|---|---|---|---|---|---|---|
| Sites | 21.0 | 26.0 | 4.0 | 31.4 | 18.0 | 14.5 |
| tASA/OR | 11,215 | 11,632 | 8,912 | 11,982 | 10,839 | 10,630 |
| H/OR/d | | | | | | |
| tASA/h | | | | | | |
| Base/case | | | | | | |
| H/case | | | | | | |
| Staffing Ratio | | | | | | |

What determines tASA/OR?

* Includes 1 Heart Hospital
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## Anesthesia Clinical Productivity

- $/OR Site (Revenue Productivity)
  - tASA/OR Site (Clinical Productivity)
    - tASA/h (Hourly Productivity)
    - H/OR/day (Billed Hours)
  - Ave Conversion Factor (Payer Mix)

$$tASA/h = \frac{(base\ unit + time\ unit)}{(time\ unit/4)}$$

## Benchmarks by Facility Type, SAAA 2013

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|---|---|---|---|---|---|---|
| Sites | 21.0 | 26.0 | 4.0 | 31.4 | 18.0 | 14.5 |
| tASA/OR | 11,215 | 11,632 | 8,912 | 11,982 | 10,839 | 10,630 |
| H/OR/d | | | | | | |
| tASA/h | 6.7 | 6.7 | 7.4 | 6.5 | 7.3 | 7.1 |
| 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 |
| Staffing Ratio | | | | | | |

* Includes 1 Heart Hospital
2013 Survey of Clinical Productivity of Academic Anesthesiology Departments, www.SAAAhq.org

## Benchmarks by Facility Type, SAAA 2013

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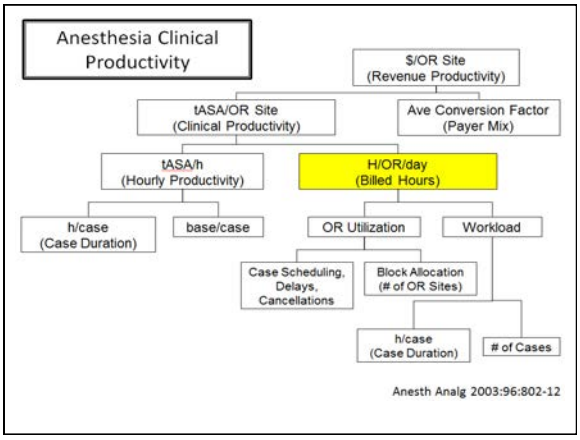
## Anesthesia Clinical Productivity

- $/OR Site (Revenue Productivity)
  - tASA/OR Site (Clinical Productivity)
    - tASA/h (Hourly Productivity)
      - h/case (Case Duration)
      - base/case
    - H/OR/day (Billed Hours)
  - Ave Conversion Factor (Payer Mix)

Anesth Analg 2003:96:802-12

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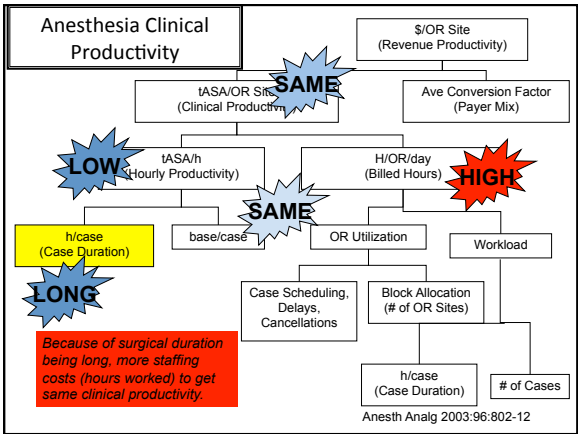
| Sites | 21.0 | 26.0 | 4.0 | 31.4 | 18.0 | 14.5 |
| tASA/OR | 11,215 | 11,632 | 8,912 | 11,982 | 10,839 | 10,630 |
| H/OR/d | 6.5 | 6.9 | 4.3 | 7.3 | 6.0 | 6.0 |
| tASA/h | 6.7 | 6.7 | 7.4 | 6.5 | 7.3 | 7.1 |
| Base/case | 5.8 | 6.0 | 4.5 | 6.2 | 5.8 | 5.4 |
| H/case | 2.2 | 2.3 | 1.2 | 2.5 | 1.7 | 1.6 |
| Staffing Ratio | | | | | | |

*Includes 1 Heart Hospital

*2013 Survey of Clinical Productivity of Academic Anesthesiology Departments, www.SAAAhq.org*

## How to use the benchmark data?

- Compare similar facilities
- Use to identify where to investigate more
- Use to confirm your understanding
- Example: Similar overall productivity (tASA/OR), but Long surgical cases (High H/case)

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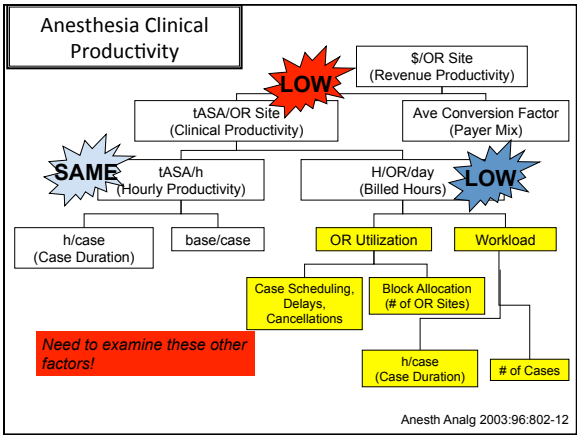
| tASA/OR | 11,215 | 11,632 | 8,912 | 11,982 | 10,839 | 10,630 |
| H/OR/d | 6.5 | 6.9 | 4.3 | 7.3 | 6.0 | 6.0 |
| tASA/h | 6.7 | 6.7 | 7.4 | 6.5 | 7.3 | 7.1 |
| Base/case | 5.8 | 6.0 | 4.5 | 6.2 | 5.8 | 5.4 |
| H/case | 2.2 | 2.3 | 1.2 | 2.5 | 1.7 | 1.6 |
| Staffing Ratio | | | | | | |

*2013 Survey of Clinical Productivity of Academic Anesthesiology Departments, www.SAAAhq.org*

**Includes 1 Heart Hospital*

## How to use the benchmark data?

- Compare similar facilities
- Use to identify where to investigate more
- Use to confirm your understanding
- Example: Similar overall productivity (tASA/OR), but Long surgical cases (High H/case)
- Example: Low tASA/OR but similar tASA/h




## Other Findings

- Breakdown by number of sites, type of surgical staff (academic or mixed private/academic)
- Staffing ratio

## Benchmarks by Facility Type, SAAA 2013

| | | | Facility Type | | | |
|---|---|---|---|---|---|---|
| MEDIAN VALUES (50%) | All Groups (n=143 | All non ASC (n=111) | 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 |
| 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 |
| tASA/h | 6.7 | 6.7 | 7.4 | 6.5 | 7.3 | 7.1 |
| 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 |
| Staffing Ratio | 1.8 | 1.7 | 2.8 | 1.8 | 1.7 | 1.8 |

*Includes 1 Heart Hospital

2013 Survey of Clinical Productivity of Academic Anesthesiology Departments, www.SAAAhq.org

## Benchmarks 2013

| | | | Facility Type | | | | Type of Surgical Staff | |
|---|---|---|---|---|---|---|---|---|
| MEDIAN VALUES (50%) | All Groups (n=143) | All non ASC (n=111) | ASC (n=32) | AMC/ Indigent* (n=80) | Children (n=11) | Community (n=20) | Academic Only (n=57) | Mixed/ Private Practice** (n=54) |
| Sites | 21.0 | 26.0 | 4.0 | 31.4 | 18.0 | 14.5 | 29.0 | 25.0 |
| FTE | 12.0 | 15.0 | 2.0 | 17.0 | 13.0 | 6.0 | 16.0 | 13.0 |
| Staffing Ratio | 1.8 | 1.7 | 2.8 | 1.8 | 1.7 | 1.8 | 1.8 | 1.7 |
| tASA/case | 14.3 | 15.6 | 9.1 | 16.6 | 12.5 | 12.3 | 16.6 | 14.1 |
| Base/case | 5.8 | 6.0 | 4.5 | 6.2 | 5.8 | 5.4 | 6.2 | 5.8 |
| H/case | 2.2 | 2.3 | 1.2 | 2.5 | 1.7 | 1.6 | 2.5 | 2.1 |
| tASA/h | 6.7 | 6.7 | 7.4 | 6.5 | 7.3 | 7.1 | 6.5 | 6.8 |
| Case/OR/d | 3.1 | 3.0 | 3.6 | 3.0 | 3.5 | 3.2 | 2.9 | 3.3 |
| tASA/OR/d | 11,215 | 11,632 | 8,912 | 11,982 | 10,839 | 10.630 | 12,023 | 11,445 |
| H/OR/d | 6.5 | 6.9 | 4.3 | 7.3 | 6.0 | 6.0 | 7.2 | 6.8 |

# SAAA YEARLY SURVEY 2013

## Average Department

| | Mean | +/- SD | Median |
|---|---|---|---|
| Surgical Anesthesiologist FTE's | 43.9 | 23.61 | 41 |
| Pain | 3.3 | 2.11 | 3 |
| ICU | 3.5 | 4.95 | 2 |
| Residents | | | |
| CA-1 | 14.0 | 6.13 | 13 |
| CA-2 | 13.9 | 6.12 | 13 |
| CA-3 | 16.2 | 16.00 (Max 125??) | 13 |
| CA-4 | 7.9 | 9.86 (Max 61??) | 5 |
| Per ACGME Average sized Program – CAs 1,2 & 3 – 44.3 | | | |
| Internship | | | |
| CA-0 | 8.2 | 6.5 | 8 |
| Interns in home Dept. | 10.5 | 5.43 | 10 |

## Clinical Coverage

| | Mean | +/- SD | Median |
|---|---|---|---|
| How many OR's does your Department cover each day? | | | |
| Sunday | 3.6 | 5.07 | 3 |
| Monday | 37.3 | 16.21 | 37 |
| Tuesday | 37.3 | 16.23 | 36 |
| Wednesday | 37.2 | 16.21 | 36 |
| Thursday | 37.3 | 16.23 | 37 |
| Friday | 37.0 | 16.13 | 37 |
| Saturday | 4.0 | 5.07 | 4 |
| How many Non-OR/Off Site locations does your Department cover each day? | | | |
| Sunday | 0.6 | 1.1 | 0 |
| Monday | 9.1 | 6.63 | 7 |
| Tuesday | 9.2 | .6 | 7 |
| Wednesday | 9.3 | 6.55 | 7 |
| Thursday | 9.2 | 6.58 | 7 |
| Friday | 9.2 | 6.65 | 7 |
| Saturday | 0.7 | 1.15 | 0 |
| How many OB deliveries with anesthesia involvement does your Department have each year? | 2,790 | 2,074 (maximum 12,190) | 2370 |

## Clinical Coverage

| | Mean | +/- SD | Median |
|---|---|---|---|
| How many faculty do you have on each of these services per day on average, Monday thru Friday in the daytime. | | | |
| OB | 1.4 | 0.99 | 1 |
| ICU | 1.5 | 1.4 | 1 |
| Acute Pain | 1.2 | 0.58 | 1 |
| Pain Clinic | 2.1 | 1.44 | 2 |
| Pre-Op Clinic | 0.9 | 0.47 | 1 |
| Other | 0.4 | 1.23 | 0 |
| Total | 7.5 | 3.49 | |

## CRNAs/AAs

| | Mean | +/- SD | Median |
|---|---|---|---|
| Paid for by Dept. | 16.0 | 21.96 | 10.0 |
| Paid for by your Hospital | 22.1 | 27.8 | 14 |
| By other sources | 2.7 | 10.49 | 0 |
| Total CRNAs/AA's | 40.7 | 28.24 | 32 |

## Average Department Clinical Coverage Monday-Friday

| | Mean | +/- SD | Median |
|---|---|---|---|
| ORs | 37.3 | 16 | 37 |
| Off Site | 9.2 | 6.6 | 7 |
| OB | 1.4 | .99 | 1 |
| ICU | 1.5 | 1.4 | 1 |
| APS | 1.2 | 0.58 | 1 |
| Pain | 2.1 | 1.44 | 2 |
| Pre-Op | 0.9 | 0.47 | 1 |
| Other | 0.4 | 1.23 | 0 |
| Total | 54.0 | | |
| Faculty/Sites | **50.7/54.0 = 0.939** | | |
| (Residents + CRNAs + AAs)/Site | **84.7/54.0 = 1.569** | | |

## Average Department Clinical Revenue

| | Mean | +/- SD |
|---|---|---|
| Average Department Clinical Revenue | $ 25,014,382 | $ 14,382,000 |
| Clinical Revenue per FTE | $ 486,000 | $ 153,600 |
| Research Revenue | $ 1,265,000 | $ 1,985,700 (Max $9,027,000) |
| Research Revenue per FTE | $ 20,000 | $ 25,900 |
| Total Institutional Support | $ 8,872,000 | $ 6,069,400 |
| Total Institutional Support per FTE | $ 181,800 | $ 110,800 |
| Support from the Hospital | $ 7,135,000 | $ 5,153,100 |
| Support from Medical School | $ 902,000 | $ 1,149,600 |
| Support from other sources | $ 834,000 | $ 2,201,700 |
| Other income | $ 494 ,000 | $ 1,035,900 |
| Total Department Revenue | $ 35,630,000 | $ 18,093,500 |
| Total Department Revenue per FTE | $ $695,000 | $ 151,200 |

## Billing Production

| | Mean | +/- SD |
|---|---|---|
| Total Anesthesia Units Billed<br>Total Anesthesia Units Billed Per FTE | 614,396<br>11,831 | 282,924<br>3606 |
| Time Units per Case | 15.5 | 21.85 |
| Cases Billed | 37,500 | 17,570 |
| Total Work RVUs for Intraoperative Procedures (Line Placement/TEE/Blocks) (n=52) | 15,000 | 14,670 |
| How many work RVUs did you bill for your ICU Service last year? (n=55) | 16,200 | 16,500 |
| How many work RVUs did you bill for Pain Management last year?<br>In-Patient<br>Outpatient | <br>4,570<br>14,440 | <br>5,670<br>12,124 |

## Billing Data

| | Mean | +/- SD |
|---|---|---|
| What is your gross unit value? | $112.00 | $ 34.18 |
| What is your average $ amount collected per unit? | $ 35.80 | $ 11.83 |
| What unit value do you receive from Medicaid? | $ 16.20 | $ 5.10 |

## Billing – Median Data

| | Median |
|---|---|
| Total Anesthesia units | 537,722 |
| Total Anesthesia units billed per FTE | 11,943 |
| Total Anesthesia time units billed per case | 11 |
| What is the average unit dollar amount you collected? | $35.00 |

## Margin Analysis

| | Mean | +/- SD |
|---|---|---|
| Margin (n=75) | $ -13,000 | $2,722,900 |
| Margin: Those with profit(n=40) | $1,283,000 | $1,223,200 |
| Margin: Those with loss (n=27) | -$1,936,000 | $3,526,100 |

## Compensation

| How much additional compensation do you pay for the following subspecialty? | Mean | +/- SD | Median |
|---|---|---|---|
| For Departments paying additional comp. | | | |
| Cardiac | $18,500 | $11,410 | $ 15,000 |
| ICU | $17,800 | $13,350 | $ 15,000 |
| Pediatrics | $19,300 | $13,070 | $ 15,000 |
| Pain | $19,700 | $26,700 | $ 7,500 |
| OB | $11,300 | $5,890 | $ 7,500 |
| Neurology | $11,600 | $4,810 | $ 8,000 |
| Call – How much do you pay per hour for late/ weekend In-House Coverage | $148.00 | $36.00 | $ 150.00 |

## Compensation

| Compensation includes income plus pension contribution | 25% | Median | 75% |
|---|---|---|---|
| Instructor | 272,344 | 311,487 | 347,762 |
| Assistant Professor | 310,386 | 342,141 | 375,000 |
| Associate Professor | 332,718 | 373,398 | 419,469 |
| Professor | 338,655 | 400,872 | 434,097 |
| Chair | 517,990 | 552,030 | 638,593 |

## Faculty Benefits

| | Mean | +/- SD | Median |
|---|---|---|---|
| What is the average of non-clinical/ academic time for faculty (not counting the day after In-Hospital Call) | 14.3% | 8.4% | 12.0% |
| Number of vacation days | 25 | 6.58 | 24 |
| Number of meeting days | 8.3 | 4.98 | 8 |

## Total Department Support (without CRNA Support) 2013

| | Mean | +/- SD | Median |
|---|---|---|---|
| Support without CRNA Support | $ 7,413,000 | $ 5,105,300 | $ 6,690,000 |
| Support without CRNA Support per FTE | $ 144,000 | $ 99,900 | $ 119,000 |

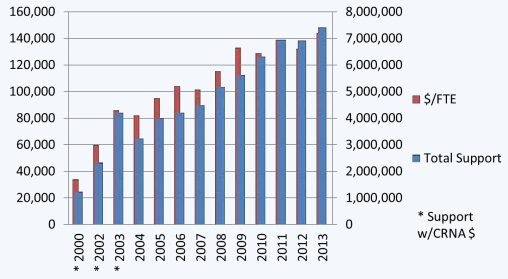
## Total Department Support (without CRNA Support)

| | $ Support | $ Per FTE (Mean) |
|---|---|---|
| 2009 | $ 5,630,386 | $ 133,196 |
| 2010 | $ 6,579,848 | $ 128,619 |
| 2011 | $ 7,008,978 | $ 140,435 |
| 2012 | $ 6,920,575 | $ 132,339 |
| 2013 | $ 7,413,000 | $ 144,000 |

## Institutional Support

| Total Support/FTE | 2013 | $ 181,000 |
|---|---|---|
| (Total support – CRNA Support)/FTE | 2013<br>2012<br>2011 | $ 144,000<br>$ 132,338<br>$ 140,435 |
| (Support without CRNA support)/Site | 2013 | $7,413,000÷ 54= $ 137,277 |
| | 2012 | $ 128,831 |
| | 2011 | $ 134,934 |

## Total Department Support (Without CRNA Support)




## The Tsunami???

## Is this all sustainable???

## Special Recognition

Stephanie Swanson – Department Director

April Jones – Financial Affairs Manager

Sandy Pacholick – Administrative Associate

ECONOMICS, EDUCATION, AND HEALTH SYSTEMS RESEARCH
Section Editor
RONALD D. MILLER

**Organizational Factors Affect Comparisons of the Clinical Productivity of Academic Anesthesiology Departments**

Amr E. Abouleish, MD, MBA*, Donald S. Prough, MD†, Steven J. Barker, MD, PhD‡, Charles W. Whitten, MD§, Tatsuo Uchida, MS§, and Jeffrey L. Apfelbaum, MD‖

*Department of Anesthesiology, University of Texas Medical Branch, Galveston, Texas; †Department of Anesthesiology, University of Arizona, Tucson, Arizona; ‡Department of Anesthesiology and Pain Management, University of Texas Southwestern Medical Center, Dallas; §Office of Biostatistics, University of Texas Medical Branch, Galveston, Texas; and ‖Department of Anesthesia and Critical Care, University of Chicago, Chicago, Illinois

Productivity measurements based on "per operating room (OR) site" and "per case" are not influenced by staffing ratios and have permitted meaningful comparisons among small samples of both academic and private-practice anesthesiology groups. These comparisons have suggested that a larger sample would allow for clinical groups to be compared using a number of different variables (including type of hospital, number of OR sites, type of surgical staff, or other organizational characteristics), which may permit more focused benchmarking. In this study, we used such grouping variables to compare clinical productivity in a broad survey of academic anesthesiology programs. Descriptive, billing, and staffing data were collected for 1 fiscal or calendar year from 57 academic anesthesiology departments representing 58 hospitals. Descriptive data included types of surgical staff (e.g., academic versus private practice) and hospital centers (e.g., academic medical centers and ambulatory surgical centers [ASCs]). Billing and staffing data included total number of cases performed, total American Society of Anesthesiologists units (tASA) billed, total time units billed (15-min units), and daily number of anesthetizing sites staffed (OR sites). Measurements of total productivity (tASA/OR site), billed hours per OR site per day (h/OR/d), surgical duration (h/case), hourly billing productivity (tASA/h), and base units/case were compared. Those comparisons were made according to type of hospital, number of OR sites, and type of surgical staff. The ASCs had significantly less tASA/OR site, fewer h/OR/d, and less h/case than non-ASC hospitals. Community hospitals had significantly less h/OR/d and h/case than academic medical centers and indigent hospitals and a larger percentage of private-practice or mixed surgical staff. Academic staffs had significantly less tASA/h and significantly more h/case. tASA/h correlated highly with h/case ($r = -0.68$). This study showed that the hospitals at which academic anesthesiology groups provide care are not all the same from a clinical productivity perspective. By grouping based on type of hospital, number of OR sites, and type of surgical staff, academic anesthesiology departments (and hospitals) can be better compared by using clinical productivity measurements based on "per OR site" and "per case" measurements (tASA/OR, billed h/OR/d, h/case, tASA/h, and base/case).

(Anesth Analg 2003;96:802–12)

## Benchmarks 2013

| 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 | 15.30 |
| 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/Y | 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 |

## Comparing Apples to Apples: Updated clinical productivity benchmarking survey of academic anesthesiology departments demonstrates importance of benchmarking using data on similar facilities

In order to benchmark anesthesiology clinical productivity of a facility, current and detailed information is needed by organizational characteristics, e.g., type of facility, type of surgical staff, and number of anesthetizing sites (1) Because there has not been a survey since 2003, we performed a follow-up survey of clinical productivity of academic programs.

*Results:* 48% of members responded with 143 facilities accounting for 2.5 million cases, almost 40 million billed ASA units, 3,290 anesthetizing sites, and 1,954 anesthesiologists. Median Values of all and some of the subgroups are shown in Tables 1 & 2.

## Comparing Apples to Apples-Continued

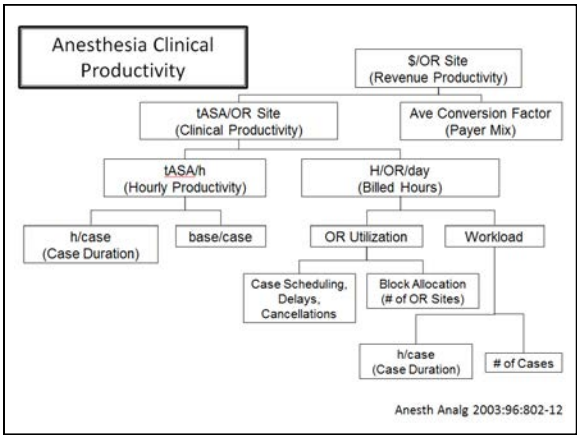
*Discussion:* Academic departments are providing care at more facilities and larger facilities (as compared to 2003 survey). It is even more important to compare productivity of a facility with like facilities. Shorter surgical duration (e.g., ASC, Children's, Community, and smaller facilities) lead to more units billed per hour of care (tASA/h) which results in not having as many billed hours for similar productivity per OR (tASA/OR).

*References. (1) Anesth Analg 2003; 96:802-812*

## 2013 AAAC/SAAA Clinical Productivity Report

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 of 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 hour billing productivity.


Anesthesia Clinical Productivity
$/OR Site (Revenue Productivity)
tASA/OR Site (Clinical Productivity)
Ave Conversion Factor (Payer Mix)
tASA/h (Hourly Productivity)
H/OR/day (Billed Hours)
h/case (Case Duration)
base/case
OR Utilization
Workload
Case Scheduling, Delays, Cancellations
Block Allocation (# of OR Sites)
h/case (Case Duration)
# of Cases
Anesth Analg 2003:96:802-12

# SYLLABUS

# PERFECT STORM (FINANCES AND STATISTICS)


# Charles W. Whitten, MD


**Disclosure:** I have no conflicts except:

(1) I have a long standing interest in the economics of academic anesthesia practice dating back to collaborations which began with Amr Abouleish and others in the late 1990's.

(2) We continue to perform collaborative research utilizing national databases.

**Learning Objectives:**

(1) Understand finances of U.S. Academic Anesthesiology Departments.

(2) Understand funding sources to underwrite Academic Anesthesiology Departments.

(3) Understand financial implications of different types of Academic Anesthesiology practice settings.

**References:**


*(1) Anesth Analg 2003; 96:802-812*

(2) 2013 Survey of Clinical Productivity of Academic Anesthesiology Departments, www.SAAAhq.org