

## Labor Productivity Benchmarking

### *Best Practice Performance and How to Get There*



March 24, 2011

### Who We Are

- HFS is an Oakland, California based Healthcare Consulting Firm established in 1991
- Approximately 100 Professionals based in 5 offices in California
- Management & Operations Practice established in 2003 focusing on:
  - Hospital Turnarounds
  - Productivity Management and Benchmarking
  - Cost Benchmarking and Cost Control Systems Development and Implementation
  - Operational Improvement and Workflow Redesign
  - Clinical Integration & ACO Development
  - Physician Contracting
  - Post-Acute Strategies
  - Clinical Laboratory Management

## What We Will Talk About Today

---

- Hospital operating margins have been stable for the past five years, but reimbursement decline to Medicare levels along with increased investments in facilities and technology are expected to erode margins in the next three years
  
- Progressive hospital executives will do what they can to improve Revenue Capture, but greater opportunities exist in cost reduction, both non-labor and labor
  
- Hospital executives naturally want to understand how much they can reduce costs while maintaining quality – benchmarking their cost performance to similar comparators and measuring quality relative to labor and non-labor performance can help leaders build a cost reduction Business Case with their boards, senior executive team, staff and community
  
- Hospital Finance Departments and strategists have other priorities than conducting benchmarking studies – this is a task that lends itself to hiring out to a specialist that has economies and expertise of scale – as a result, HFS has developed a proprietary tool that uses OSHPD data to benchmark our clients' labor productivity and cost performance vs. similar comparators

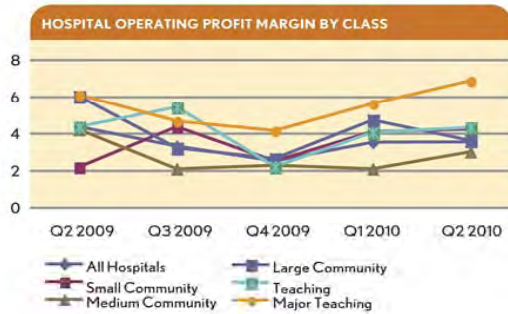
## What We Will Talk About Today - *Continued*

---

- Hospital executives should consider reducing non-labor costs before or concurrently with labor costs – improving each to Top Quartile performance levels, while maintaining quality, can drive sustainable 1-3% margin improvement within six months – since many hospitals have already addressed non-labor improvement, we will focus on labor productivity today
  
- Case Mix and Quality cannot be used as excuses for not addressing productivity, which we have found to be independent of one another; high-quality and high case mix hospitals often have better productivity than lower-quality, average case mix hospitals
  
- Key levers for improving productivity include: Staffing to Demand, Patient Flow Optimization, Skill Mix and Cross Training, Span of Control, Process Redesign, Staff Scheduling, Compensation Practices, and Quality Improvement to Eliminate Waste

## Hospital Operating Margin Trends

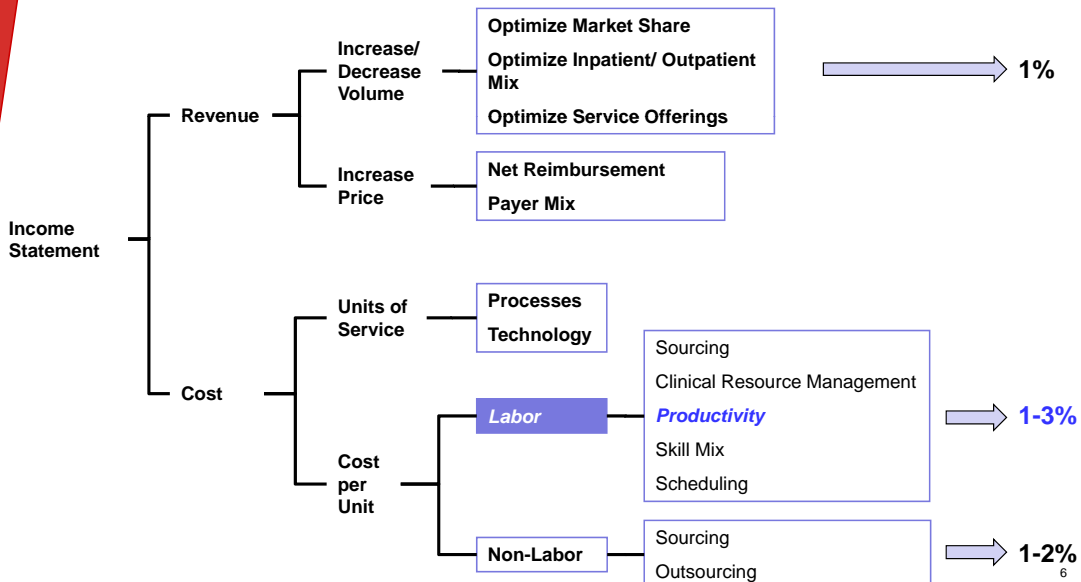
- Operating Margins have followed a consistent trend for past five years
- They have bounced up and down but generally between 2 – 4%
- At the end of Q2, 2010, average margin = 3.5% with major teaching hospitals having the highest margins



Source: Thompson Reuters

## Hospital Key Performance Levers

HFS's experience has found that improving productivity as part of an overall labor cost management program, can generate cost savings that can contribute a 1 – 3% improvement in operating margins.

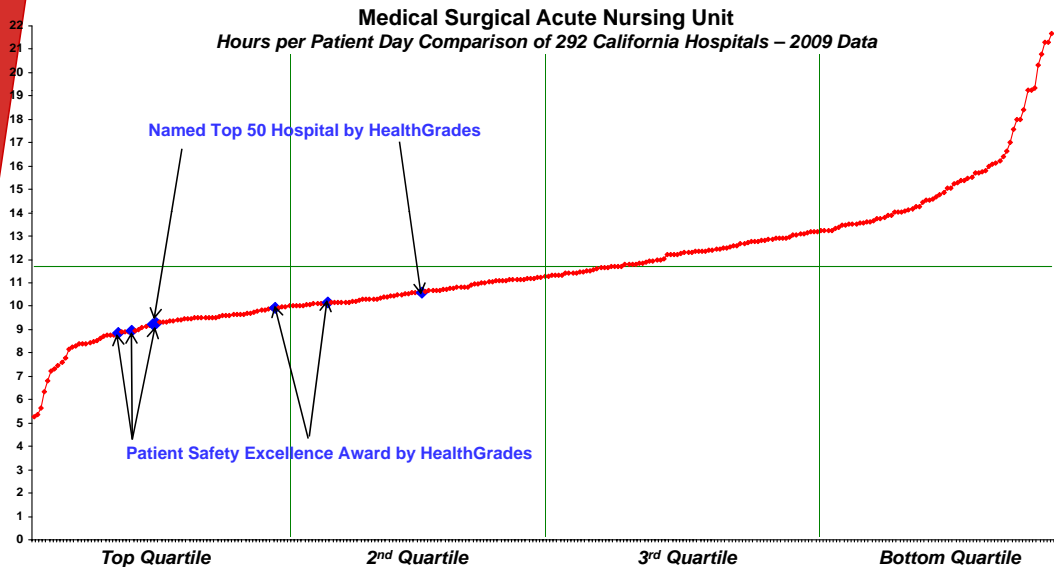


## Client Examples

<p><b>Client 1: County Hospital</b></p> <ul style="list-style-type: none"> <li>□ Identified 34 – 120 FTEs of opportunity, when compared to 2<sup>nd</sup> and Top quartile benchmarks</li> <li>□ Potentially save \$2.9M - \$10.2M annually</li> <li>□ Currently prioritizing areas of focus to realize productivity improvements</li> </ul>	<p><b>Client 2: District Hospital</b></p> <ul style="list-style-type: none"> <li>□ Identified over 120 FTEs of opportunity</li> <li>□ Potentially save over \$17M annually</li> <li>□ Hospital is currently undergoing major performance improvement initiative using benchmarking data to identify areas for improvement</li> </ul>
<p><b>Client 3: District Hospital</b></p> <ul style="list-style-type: none"> <li>□ Identified 35 – 130 FTEs of opportunity</li> <li>□ Potentially save \$4M - \$13M annually</li> <li>□ Diagnostic work recently completed and next steps being evaluated</li> </ul>	<p><b>Client 4: Urban Hospital</b></p> <ul style="list-style-type: none"> <li>□ Identified over 35 – 90 FTEs of opportunity</li> <li>□ Potentially save over \$2M – \$6M annually</li> <li>□ Hospital is overall very efficient but competes in a very competitive environment</li> </ul>

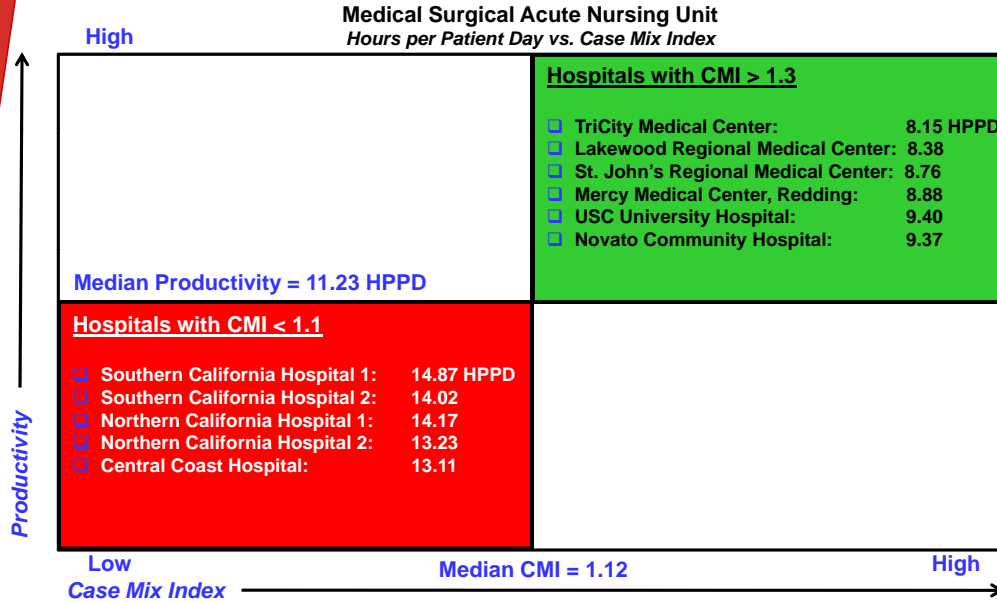
## Quality vs. Cost

***The issue of sacrificing Quality is a consistent reason we hear why hospitals shouldn't focus on costs or productivity. HFS' experience has been that Quality and Cost are independent of each other and that there are several examples of high-quality, highly productive hospitals in California.***



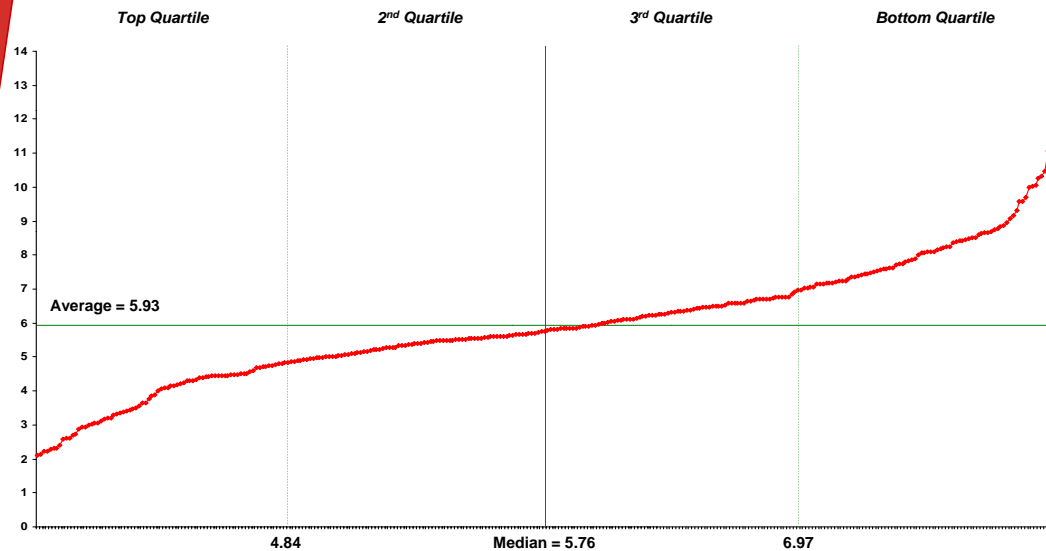
## Patient Acuity vs. Productivity

*The other issue used to justify lower productivity is patient acuity – “our patients are sicker”. Again, HFS’ experience and the data show that hospitals with high patient acuity can also be highly productive.*



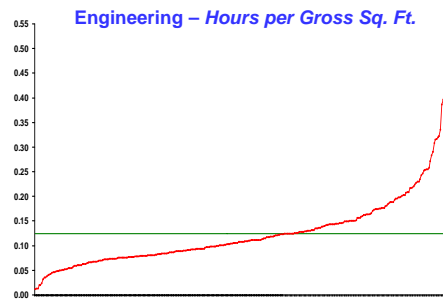
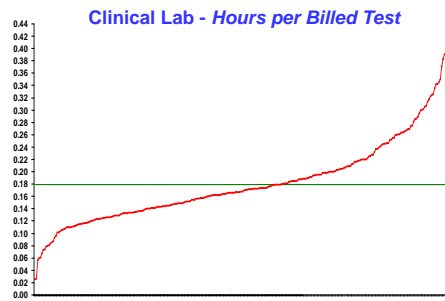
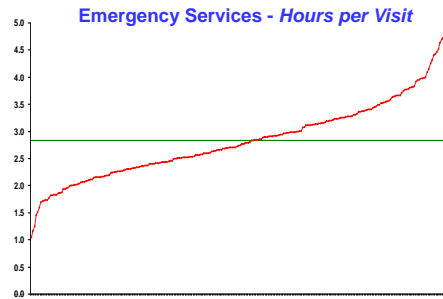
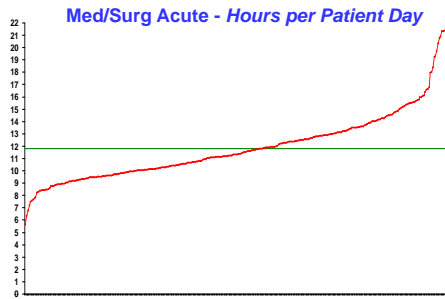
## Macro Productivity: Paid FTE per Adjusted Occupied Bed

*The OSHPD data allows us to compare hospital productivity at a macro, facility-level point of view. Comparing 322 Adult General Acute Care Hospitals in California, Top quartile performance for Paid FTE per AOB is at 4.84 or better.*



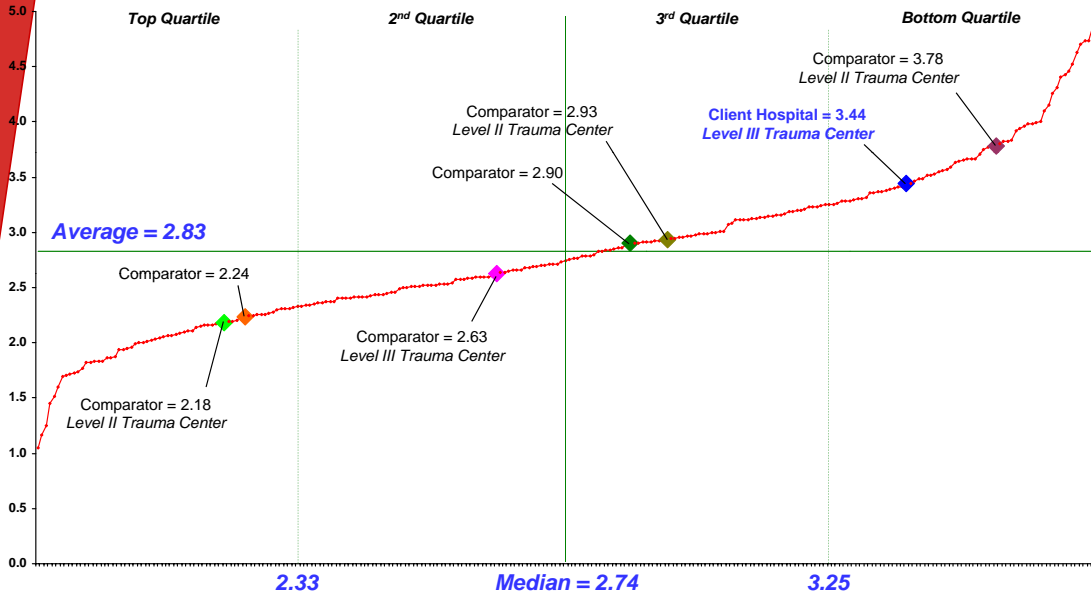
## Departmental Productivity Comparison

The data also allows us to look at productivity at a departmental level.

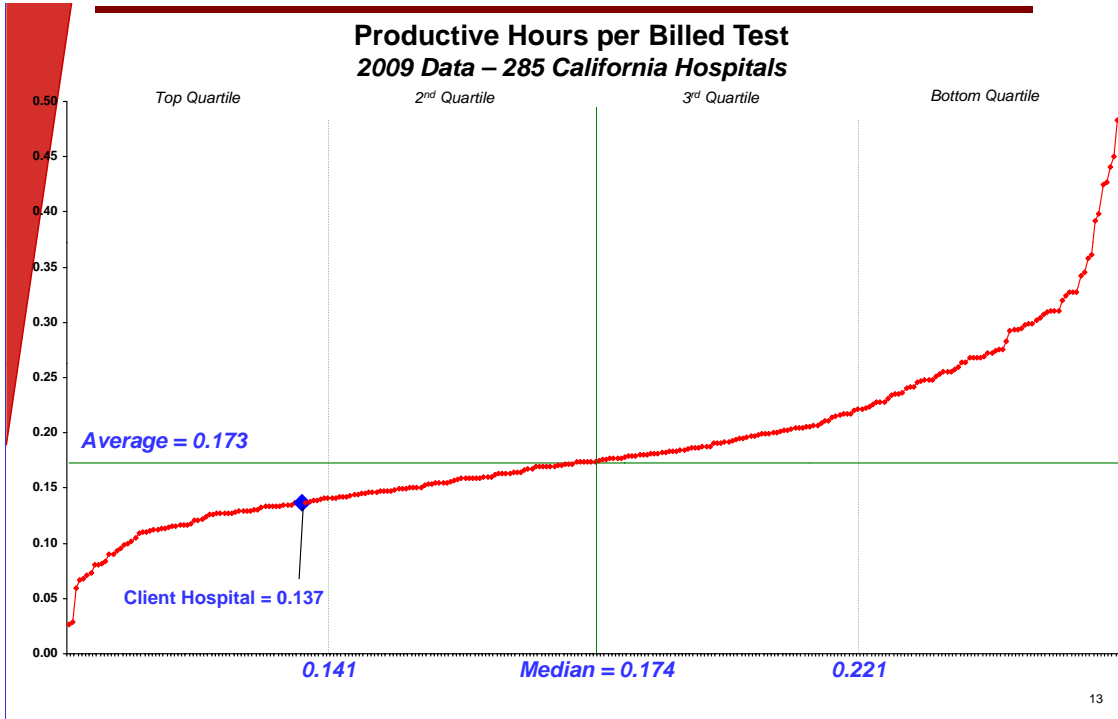


## Emergency Services Productivity Comparison

### Productive Hours per Patient Day 2009 Data – 262 California Hospitals



## Clinical Lab Productivity Comparison



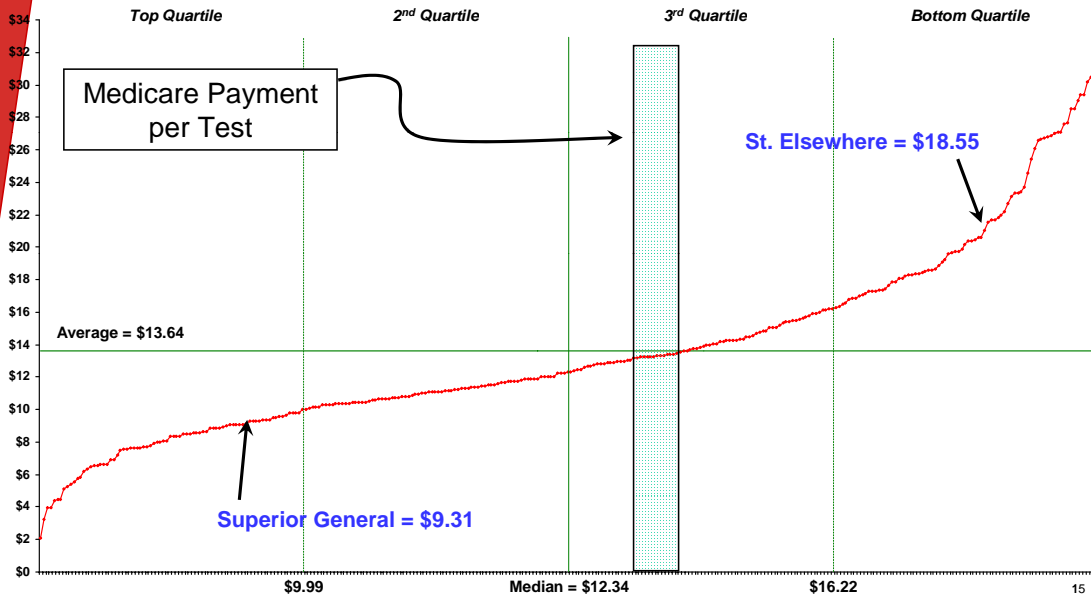
## Client Case Study: Laboratory Productivity & Cost Comparison

*HPS looked at 2 similar client hospitals' laboratory performance and found significantly different levels of performance in productivity and cost.*

	St. Elsewhere Hospital	Superior General
Operating Beds	281	408
Total Hospital Operating Expense	\$251M	\$253M
Total Adjusted Patient Days	97,399	106,020
Laboratory Billed Tests	657,395	839,605
Laboratory Productive FTEs	86	48.9
Laboratory Productive Hours per Billed Test	0.252	0.121
Laboratory Annual Direct Expenses	\$12.2M	\$7.8M
Laboratory Direct Expenses per Billed Test	\$18.55	\$9.31
Laboratory Staff Average Hourly Rate	\$29.03	\$31.42

## Laboratory Cost Comparison – California Hospitals

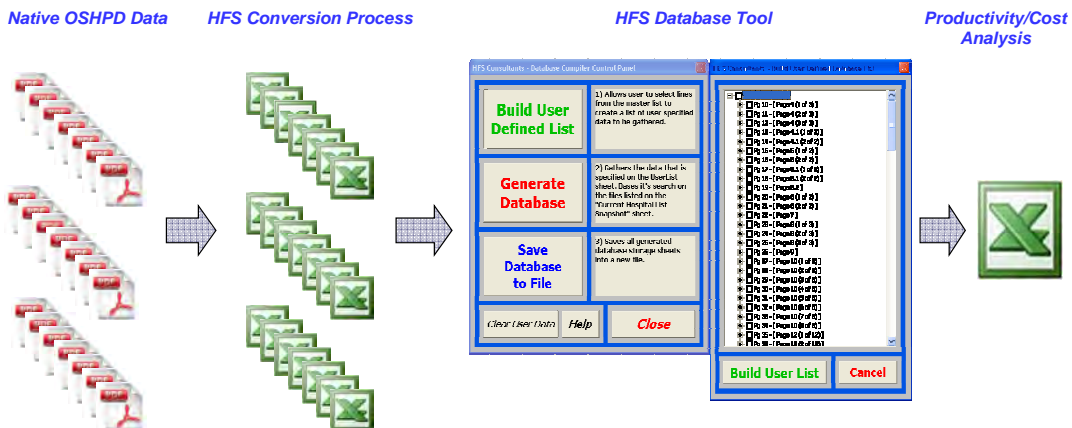
### Total Direct Cost per Billed Test FY09 OSHPD Data



## Looks Easy, Why Can't We Do This?

*The benchmarking data HFS uses is publicly available OSHPD data and, theoretically, anyone could use this data for benchmarking purposes. However, compiling all 400+ hospitals' data from a 135 page OSHPD report is too difficult and time consuming for most facilities.*

*HFS has developed a proprietary tool to extract OSHPD data from PDF format to Excel format to create "On Demand" cost and productivity reports.*



## HFS Productivity & Cost Database Tool

***HFS' productivity and cost benchmarking database is a comprehensive tool covering all California hospitals and is highly customizable depending on client needs.***

- Uses latest OSHPD data available – HFS downloads updated data each month
- Can be used for multiple purposes
  - Labor productivity
  - Cost benchmarking
  - Revenue vs. cost analysis
  - Utilization analysis
- Comparator set can be customized based on client request
  - Bed Size
  - Hospital Type: County, District, CAH, Rural, Teaching
  - By Zip Code/ Location
  - By Similar Volumes: Patient Days/Adjusted Patient Days, Discharges/ Adjusted Discharges
  - Case Mix
  - Wage Index

17

## How Can Hospitals Use Benchmarking Data to Improve Productivity?

***Identifying opportunity is relatively simple. However, actually realizing that opportunity by implementing the necessary process and staffing changes can be very difficult.***

- Unionized labor force makes staffing changes difficult
- Lack of political will across the organization – productivity is never a “fun” topic
- Lack of data and management reports
- Even if they have the data, Managers lack the appropriate tools and/or experience to make effective decisions
- Everyone is too busy with their regular jobs
- It's just really, really hard to make sustainable changes

***It sounds really difficult, so how do we do it?***

18

## HFS Experience in Labor Productivity Management

- **Hospitals devote 55% - 60% of Total Operating Expenses on Labor Costs**
  - During “good times” labor costs tends to increase at a rate higher than revenues and non-labor spending
  - During “challenging times” hospitals are often reluctant to address labor spending due to political, union, or community issues
  - Increasingly, however, hospital leadership teams are examining labor spend to achieve normal margins when reimbursement is expected to decline and non-labor reductions have already been taken
  
- **Due to sensitivity of reducing staff, leadership teams must devote appropriate level of attention to managing change and communicating with affected stakeholders**
  - In our experience, it is important to start with the Board
  - Leadership team from CEO down to VP/Director level must be united, visible and accountable
  - HR department and internal/external communications resources need to be involved in planning the process
  - Outside change management expertise may be helpful for design and early implementation periods
  - Need to emphasize change based on data and successful practices used by similar-type facilities and that quality and patient satisfaction will not be sacrificed for cost reduction are important messages to share

19

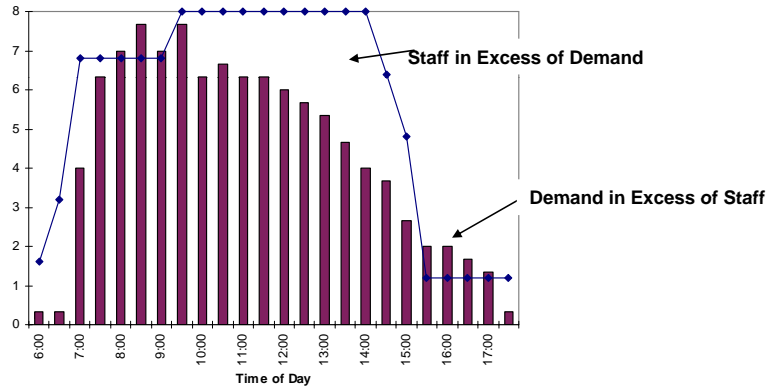
## HFS Experience in Labor Productivity Management

- **Rigorous benchmarking is a critical step – comparing a hospital’s FTE and labor cost performance with others in the same regulatory environment is just a first step**
  - Quality must be taken into account
  - Department leaders should be interviewed to understand organizational and historical factors that may skew the results and adjustments must be made
  - Targets should be set based on organizational need but also for realistic chance of achievement
  
- **The highest performing hospitals for managing labor tend to adopt successful practices that include:**
  - Setting challenging productivity targets for FTEs and Labor Cost per Unit of Service
  - Staffing to demand
  - Managing patient flow
  - Skill mix and cross-training of staff
  - Extending the span of management control
  - Redesigning inefficient processes
  - Reducing re-work by improving quality
  - Scheduling staff more effectively to avoid overtime, double time, on-call/call-backs, registry and per diem spending

20

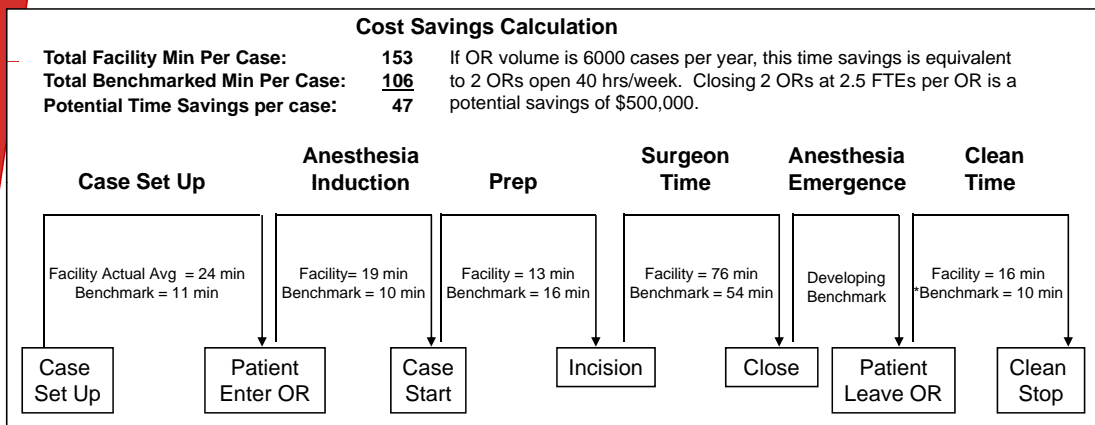
## Key Levers: Staffing to Demand

- Staffing to demand reduces costs by matching departmental staffing schedules to daily peaks and valleys in volume
  - Staffing to demand increases the ability to respond to schedule changes
  - Staffing to demand reduces idle staff time
- Staffing to demand can be used to analyze schedule variations by time of day, day of week and/or time of year
- It can be monitored on a daily basis as well as analyzed for trends over time, i.e., quarterly



## Key Levers: Patient Flow – Operating Room Example

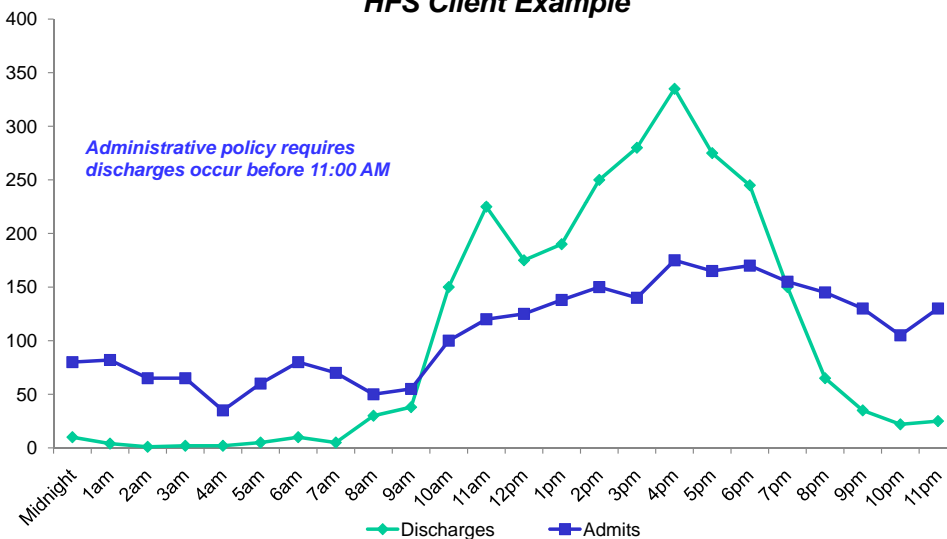
- Each OR case can be divided into its component processes. These can be analyzed separately or in combination
- Any strategy to improve efficiency must also maintain or improve the quality of care
- Shown below is an example of a process flow chart and cost savings calculation



## Key Levers: Managing Patient Flow – Discharge & Admissions

*Managing timely discharges can be a major issue impacting hospitals' ability to manage patient flow effectively as it can impact multiple areas. This issue also impacts departments ability to manage productivity.*

**HFS Client Example**



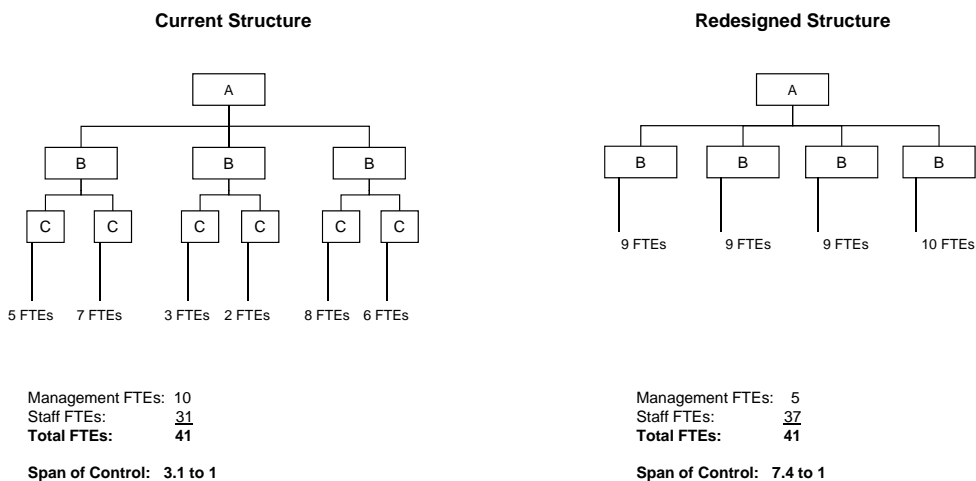
## Key Levers: Skill Mix & Cross Training – Operating Room Example

- Skill mix analysis looks at the percentage of direct caregiver RNs as compared to non-RN caregivers, e.g., OR Techs
- It calculates the cost savings associated with the difference in wages between RNs and non-RNs
- In this example, a shift of 1.00 FTE from RNs to Techs in the Operating Room results in yearly cost savings of about \$47,000

Starting Data Needed	Calculations	Description of Calculation
RN Actual Ratio	72%	
RN Proposed Ratio	65%	
	Percent Reduction in RNs	7% RN Actual Ratio - RN Proposed Ratio
Total FTEs Needed	16	
	Reduction in RN FTEs	1.00 Percent RN Reduction x FTEs Needed
OR Tech Hourly Wage	\$28	
RN Hourly Wage	\$48	
	Wage Differential	\$20 RN Hourly Wage - OR Tech Hourly Wage
	Hourly Cost Reduction	\$22 Wage Differential x RN FTE Reduction
	Yearly Cost Reduction	\$46,592 Hourly Cost Reduction x 2,080 Hours per year

## Key Levers: Span of Control

**Span of Control analysis looks at each level of the organization or department to identify opportunities to eliminate layers of management and/or rebalance staff amongst managers as appropriate.**



## Key Levers: Scheduling – On Call Client Example

**A recent HFS client utilized a significant amount of On Call hours for multiple departments. However, the actual Call Back percentage for most of those areas was below 15%.**

Department	On Call Hours	Average Hours per Day	Call Back Hours	Call Back %
CVOR	32,941	90	865	2.6%
Cardiac Cath Lab	16,248	45	1,992	12.3%
Radiology	13,105	36	2,550	19.5%
Recovery	12,078	33	892	7.4%
Surgery	11,879	33	3,466	29.2%
Emergency Department	9,358	26	182	1.9%
Delivery Room	8,992	25	2,658	29.6%
Nursery	8,612	24	2,183	25.3%
Cardiology	8,587	24	960	11.2%
Endoscopy	5,580	15	1,489	26.7%
Plant Maintenance	5,279	14	446	8.4%
CT Scan	4,339	12	339	7.8%
Information Services	4,305	12	2,035	47.3%
MRI	2,842	8	619	21.8%
Drug Services	2,804	8	6	0.2%
Pharmacy	2,752	8	363	13.2%
Sterile Process	2,427	7	43	1.8%
Other	15,027	41	3,191	21.2%
<b>Total</b>	<b>167,155</b>	<b>461</b>	<b>24,279</b>	<b>14.5%</b>

## Final Thoughts

---

- ❑ **Operating Margins will trend downward over the next 3 years**
- ❑ **Improving labor productivity to Median or Top Quartile levels while maintaining quality can drive sustainable 1-3% operating margin improvement in six months**
- ❑ **After looking at Revenue Cycle and Supply Chain improvements, if your organization hasn't looked at improving Labor Productivity, you may be leaving significant cost savings on the table**
- ❑ **Benchmarking, if applied correctly, can be a powerful tool in identifying priority areas for productivity and cost improvements**