Productivity Improvement:

The Three-Path Approach

Productivity commands constant attention because labor is the largest single expense in a service enterprise like health care. However, there are fundamental problems that must be resolved before productivity can be managed effectively. These include overly complex measurement systems that confound understanding, no clear accountability, lack of authority at the right management level, short review cycles that emphasize statistical variation, no incentives to improve, and no disincentives to prevent decline.

To address these issues, the plan presented here establishes a solid foundation of director accountability to productivity standards for every department, straightforward reporting that everyone can understand, new rules and procedures governing productivity management, and the establishment of incentives and consequences.

We employ a three-layered approach to productivity analysis and management:

1. Internal (historical) benchmarking
2. Benchmarking within the system
3. External benchmarking (outside the system)

Internal benchmarking is the analysis of best-demonstrated historical performance for every department. It compares current performance against past performance, using a measure of work, or unit of service. The results show what productivity levels could be achieved at current workload volumes. Since this performance had already been achieved in the past, it is highly realistic.

If a healthcare system is of sufficient size, **benchmarking within the system** compares the performance of like departments within the system. For example, the best Emergency department performers within the system are compared to all other Emergency departments within the system. The results show what could be achieved if all Emergency departments operated at the same productivity as the best of them. Being within the same system offers convenient and cooperative benchmarking partners for further study.

External benchmarking, available through commercial vendors, shows where each department stands in relation to a comparison of like departments on narrowly defined metrics, almost all of which are financially-oriented. Since there is no real consideration for operational differences or service goals, external benchmarking must go beyond these surveys, requiring rigorous analysis to account for different patients, different operational and medical practices, scopes of service, clinical and service quality, and unique tasks. Financial performance and productivity is the *outcome* of all the tasks and activities performed for a given patient load and medical complexity. External benchmarking requires due time and the involvement of many people, as it touches many areas and may cross department boundaries. The results must be interpreted carefully for application to operations.

These three measurements not only tell us what is possible and realistic, they also guide how best to implement the opportunities presented.

Implementation

Internal benchmarking doesn't present nearly the same concerns that must be addressed in intra-system and external benchmarking. Operational issues— departments splitting into two, departments combining, a change in workload measures, startup departments, departments winding down, grant-funded programs to be excluded—need to be understood so that the analyses can be adjusted to reflect current operations.

Meeting with individual directors to evaluate any operational changes to be considered, we would adjust the analyses and get agreement on a labor standard for each department. In almost all cases, the new labor standards would incorporate current operational practice. For example, if operating hours have been extended, or new functions added to a department, labor standards would preserve those operational changes. No reengineering would be required.

Benchmarking within the system presents much the same issues as benchmarking outside the system, although those issues may be of lesser magnitude. The working assumption is that a healthcare system's departments are more like each other in organization and scope than to hospitals and departments in different systems in different states.

As intra-system and external benchmarking involves analysis that is more rigorous and possibly reengineering department operations, we implement labor standards based on internal benchmarking for all departments *first*. This establishes a foundation of accountability to standards based on existing operations for every department throughout the organization.
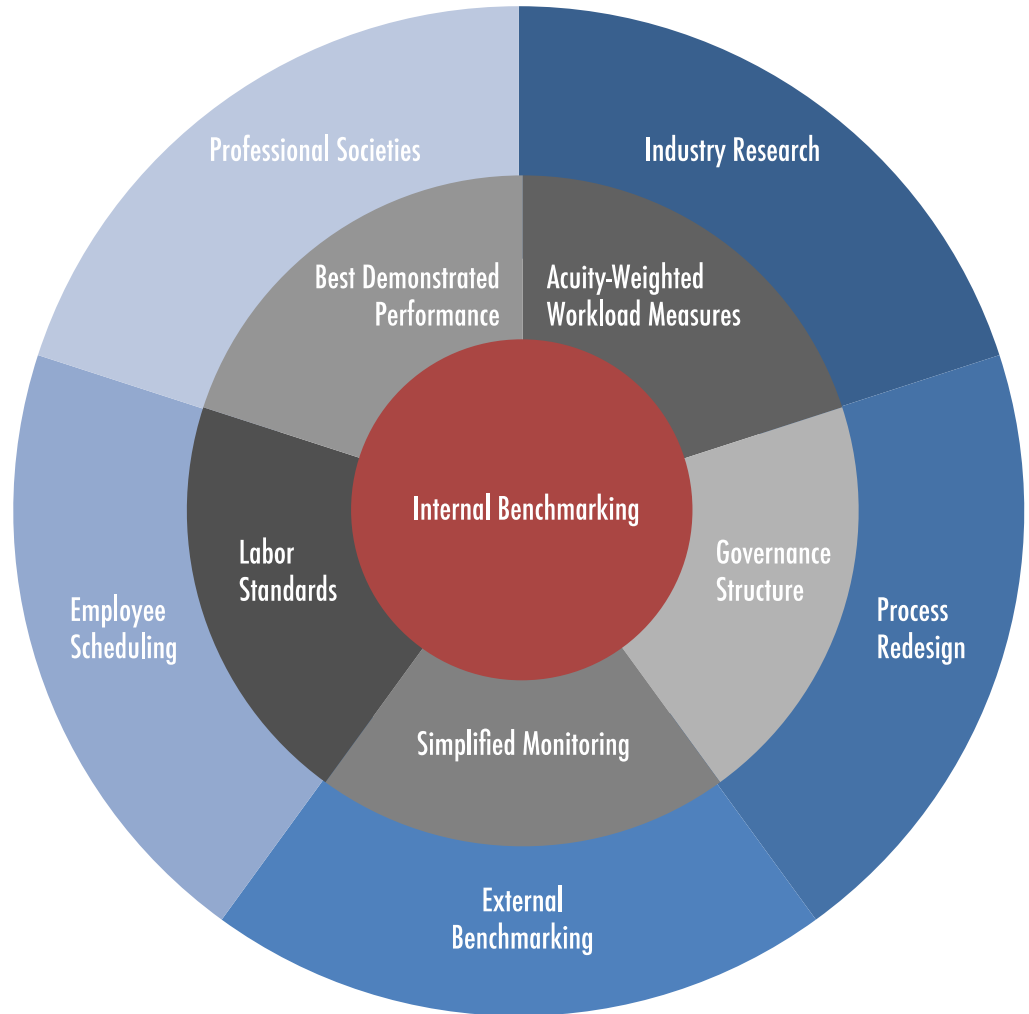
1. Internal Benchmarking

The foundation of the three-layered approach is internal, or historical benchmarking, explored at length in *Superior Productivity in Healthcare Organizations, 2nd Edition*. The hallmarks of a sound management system are appropriate metrics for each department built around the concepts of accountability, simplicity, fairness, and understanding. The management framework is represented by the diagram below.

Each component is part of a system, the purpose of which is to reinforce every other component. While some healthcare systems may have some of these components in place, all of them need to stand together for long term performance improvement.

Accountability

Director accountability is at the heart of the new productivity management system. Each element of the new management system is designed to increase accountability. Anything that presents an obstacle to director accountability is to be eliminated, while anything that enhances accountability is to be actively promoted. Accountability is a necessary building block for any effective organization. The alternative is micro-management from the top. Such a system depends on those at the top having a comprehensive knowledge of all employees, patients, and information concerning every aspect of the business, at every moment. As a practical matter, these conditions cannot be met, and any management system depending on all-inclusive knowledge by a few at the top cannot be sustained in a dynamic business environment.

Productivity management is ultimately not about hardware or software technology, flash reports or detailed budgets; it is about management. No amount of budget police can compensate for a lack of individual accountability. Managers need the ability to act, but they also must accept ultimate responsibility for their department's performance. Anything less creates excuses and blame and destroys accountability. A complete management system structured around greater autonomy, accountability, and focus on outcomes is fairer and more effective than micro-management from the top.

Standards

Productivity standards are established for each department. A standard is a productivity measure that relates workload to staffing. Realistic labor standards form the foundation of superior productivity. Effective standards define what the organization expects of its managers. Drawing from each department's history, standards are the result of careful negotiation disciplined with data. This method employs managers, history, and operational facts in its calculation—not external benchmarks from unknown hospitals with dissimilar patients, clinical and service quality, and operational practices. This ensures that the outcome is fair and realistic. A working knowledge of the department, its operations, and its goals are essential to arrive at a practical, mutually agreeable productivity standard that will work for both managers and the organization. A sample productivity analysis appears below:

0.19 more hours worked per patient day in 2015

6030 Intermediate Care	Volume	Productive Labor		Per Unit		Productivity Change	
		Hours	Wages	Hours	Wages	Hours	Wages
2012 Patient Days	3,367	40,743	1,247,131	12.10	370.40	0	0
2013 Patient Days	3,530	42,012	1,281,182	11.90	362.94	703	21,451
2014 Patient Days	3,618	46,310	1,490,383	12.80	411.94	(3,251)	(104,616)
2015 Patient Days	3,840	49,882	1,653,472	12.99	430.59	(730)	(24,212)
Four Year Performance	14,355	178,947	5,672,168	12.47	395.14	(3,278)	(107,377)
2016 Standard (Proposed)	3,840	45,701	1,514,896	11.90	394.50	4,181	138,576

730 hours at 2015 salary rates

Standard of 11.90 hours per patient day saves 4,181 productiuve hours at current volumes

0.19 more hours worked per patient day in 2015 applied to 2015 patient days

Workload measures, or units of service, are developed or refined for every department. The unit of service best describes a department's mission, its patients, or its purpose. Examples in common use include patient days, visits, procedures, treatments, and cases. Where possible, EIS and managers will agree to refine or change the existing unit of service to better capture *both* volume and intensity or patient acuity, a fair and accurate measure that clinical managers have been seeking all their careers.

Simple volume counts treat all patients as if they are all the same labor intensity. If patients are not all the same, why should we count them the same? The following pages show some examples of what can be done to go beyond unweighted visits, procedures, and patient days. These are illustrations only; each case tends to be unique to account for unique department operations. It is a collaborative exploration to find the best and most practical measure, and it greatly enhances building acceptance and real accountability.

In the examples below, the ER goes from Visits to Weighted Visits; the birthing center from Patient Days to Direct Care Hours; and surgery from Cases or Hours to Direct Care Hours. This type of thinking is applicable to many departments. In most situations, these measures are set up through the chargemaster for automated collection and reporting.

Emergency		Visits				Weighted Visits			
	Wt	2012	2013	2014	2015	2012	2013	2014	2015
Level 1 CPT 99281	1.00	7,671	6,762	6,547	5,572	7,671	6,762	6,547	5,572
Level 2 CPT 99282	1.44	15,748	13,827	15,340	15,409	22,677	19,911	22,089	22,189
Level 3 CPT 99283	1.97	9,785	11,507	10,206	10,261	19,276	22,668	20,106	20,215
Level 4 CPT 99284	2.95	4,997	4,763	5,653	6,281	14,740	14,052	16,677	18,530
Level 5 CPT 99285	3.44	4,453	5,240	5,001	5,068	15,320	18,026	17,203	17,436
Level 6 CPT 99291	2.65	4,453	5,240	5,001	5,068	11,802	13,887	13,252	13,431
ED Holds	1.97	125	182	161	192	246	358	318	378
Total Visits		47,232	47,521	47,909	47,853	91,731	95,664	96,192	97,752
Average Level per Visit						1.94	2.01	2.01	2.04

Visits

Average Weight

Weighted Visits
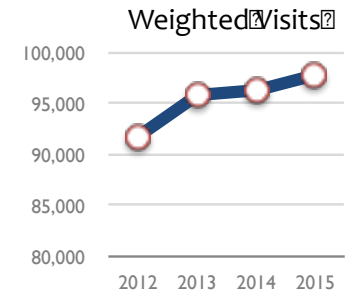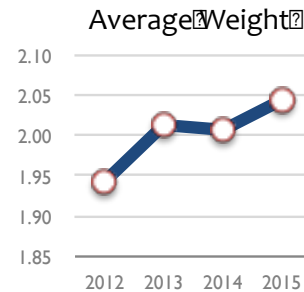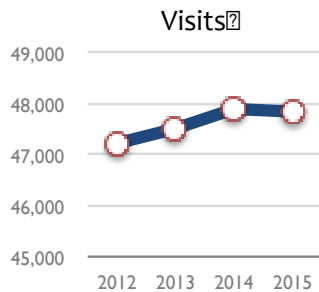
Birthing Center	Hours per Charge			Quantity			Direct Care Hours		
	RN	LPN	Total	2014	2015	2016	2014	2015	2016
Antepartum									
634006500 TRIAGE LEVEL 1	1.00	0.25	1.25	786	1,651	907	983	2,064	1,134
634006505 TRIAGE LEVEL 2	2.00	0.25	2.25	1,126	880	2,034	2,534	1,980	4,577
634006515 TRIAGE LEVEL 3	3.00	0.50	3.50	306	261	404	1,071	914	1,414
634006520 TRIAGE LEVEL 4	4.00	0.50	4.50	161	173	237	725	779	1,067
Delivery									
634010022 DELIVERY VAGINAL	2.00	0.50	2.50	143	168	24	358	420	60
634010027 DELIVERY VAGINAL COMPLEX	3.00	1.00	4.00	987	1,102	1,158	3,948	4,408	4,632
634010032 C-SECTION <= 90 MIN	2.00	1.50	3.50	457	488	472	1,600	1,708	1,652
Postpartum									
634006005 C-SECTION RECOVERY 60M	1.00	0.50	1.50	211	248	221	317	372	332
634006010 C-SECTION RECOVERY 90M	1.50	1.00	2.50	172	231	241	430	578	603
634006600 VAGINAL DELIVERY RECOV 60 M	1.00	1.00	2.00	511	487	464	1,022	974	928
634006605 VAGINAL DELIVERY RECOV 90 M	1.50	1.50	3.00	689	622	677	2,067	1,866	2,031
634006610 VAGINAL DELIVERY RECOV 120	2.00	2.00	4.00	165	157	197	660	628	788
634030030 BC OBSERVATION CHARGE	12.00	0.00	12.00	97	111	88	1,164	1,332	1,056
Room									
634010031 BC SEMI-PRIVATE ROOM	4.00	4.00	8.00	192	190	187	1,536	1,520	1,496
634050030 BC NEWBORN	12.00	12.00	24.00	165	179	174	3,960	4,296	4,176
634020030 BC ROOM CHARGE	12.00	12.00	24.00	769	789	799	18,456	18,936	19,176
Total				6,937	7,737	8,284	40,828	42,773	45,120

Patient Days

Direct Care Hours per Patient Day

Surgery Workload Template	Staffing			Surgery Hours				Direct Care Hours			
Procedure	RN	Tech	Total	2012	2013	2014	2015	2012	2013	2014	2015
TOTAL KNEE ARTHROPLASTY	1.0	2.0	3.0	591	858	1,176	1,237	1,773	2,574	3,528	3,711
TOTAL SHOULDER ARTHROPLASTY	1.0	2.0	3.0	62	74	102	199	186	222	306	597
TOTAL HIP ARTHROPLASTY	1.0	2.0	3.0	111	197	234	191	333	591	702	573
HYSTERECTOMY VAGINAL	2.0	2.0	4.0	114	76	93	105	456	304	372	420
CYSTOCELE	1.0	2.0	3.0	29	43	49	71	87	129	147	213
HYSTERECTOMY ABDOMINAL WITH BS	1.0	2.0	3.0	80	93	104	67	240	279	312	201
UNI KNEE ARTHROPLASTY	2.0	2.0	4.0	136	94	66	63	544	376	264	252
PERCUTANEOUS ULTRASONIC NEPHRO	1.0	2.0	3.0	51	18	36	53	153	54	108	159
BOWEL RESECTION	2.0	2.0	4.0	12	31	58	52	48	124	232	208
1ST METATARSAL OSTEOTOMY (CHEV	1.0	2.0	3.0	79	74	80	51	237	222	240	153
PROSTATECTOMY RETRO PUBIC	1.0	2.0	3.0	81	30	29	48	243	90	87	144
MONARC SLING	1.0	2.0	3.0	50	24	44	47	150	72	132	141
LAPAROTOMY EXPLORATORY GENERAL	2.0	2.0	4.0	160	45	64	45	640	180	256	180
URINARY ARTIFICIAL SPHINCTER	2.0	2.0	4.0	18	-	27	39	72	-	108	156
LAPAROSCOPIC NEPHRECTOMY/HAND	1.0	2.0	3.0	67	47	30	38	201	141	90	114
THYROID LOBECTOMY	1.0	2.0	3.0	13	46	7	38	39	138	21	114
MASTECTOMY	1.0	2.0	3.0	3	7	9	30	9	21	27	90
TOTAL KNEE REVISION	2.0	2.0	4.0	22	38	19	29	88	152	76	116
LAPAROSCOPIC ASSISTED VAGINAL	1.0	2.0	3.0	8	7	7	24	24	21	21	72
PENILE IMPLANT	1.0	2.0	3.0	-	8	-	23	-	24	-	69
LAPAROSCOPIC BOWEL RESECTION	1.0	2.0	3.0	39	54	57	22	117	162	171	66
VAGINAL SLING SUSPENSION	2.0	2.0	4.0	21	16	25	21	84	64	100	84
URETERAL REIMPLANT	1.0	2.0	3.0	-	9	11	18	-	27	33	54
MALE BLADDER SLING	1.0	2.0	3.0	5	26	19	17	15	78	57	51
TOTAL REVERSE SHOULDER ARTHROP	1.0	2.0	3.0	-	-	-	16	-	-	-	48
BREAST AUGMENTATION REVISION/P	1.0	2.0	3.0	-	-	25	15	-	-	75	45
LAPAROSCOPIC SACRAL COLPOPEXY	1.0	2.0	3.0	18	-	10	14	54	-	30	42
HEMIARTHROPLASTY OF SHOULDER	1.0	2.0	3.0	-	11	25	14	-	33	75	42
BUNIONECTOMY, TAYLOR'S/FIFTH M	2.0	2.0	4.0	4	12	-	13	16	48	-	52
HYSTERECTOMY VAGINAL WITH BSO	1.0	2.0	3.0	-	-	13	13	-	-	39	39
RADICAL PERINEAL PROSTATECTOMY	1.0	2.0	3.0	88	84	23	13	264	252	69	39
URETERAL EXPLORATION OPEN	1.0	2.0	3.0	-	-	-	12	-	-	-	36
HEMIARTHROPLASTY	1.0	2.0	3.0	9	25	13	12	27	75	39	36
OPEN NEPHRECTOMY	1.0	2.0	3.0	-	10	17	11	-	30	51	33
THYROIDECTOMY	1.0	2.0	3.0	8	29	7	11	24	87	21	33
POSTERIOR REPAIR GYN	1.0	2.0	3.0	29	20	-	10	87	60	-	30
LAPAROSCOPIC NISSEN FUNDOPLICA	1.0	2.0	3.0	10	23	21	10	30	69	63	30
HYSTERECTOMY VAGINAL WITH A&P	1.0	2.0	3.0	-	-	19	8	-	-	57	24
PAROTIDECTOMY	1.0	2.0	3.0	-	30	30	5	-	90	90	15
MASTECTOMY SIMPLE	1.0	2.0	3.0	17	-	4	3	51	-	12	9
Total Procedures At Higher Weight				1,935	2,159	2,553	2,708	6,292	6,789	8,011	8,491
All Other Procedures	1.0	1.0	2.0	16,807	16,467	13,311	16,108	33,614	32,934	26,622	32,216
Total				18,742	18,626	15,864	18,816	39,906	39,723	34,633	40,707

Implementation   Implementation strategy requires careful consideration for long-term success. Since any financial problems take time to develop, solutions should be allowed the time to succeed. A transition period allows managers to adjust and plan accordingly, and avoids the costs of severance, outplacement, and extended benefits that would ensue without a transition period. This also practically eliminates the unquantifiable, but considerable, costs of lowered morale and unscheduled absences when haste is the absolute priority.

The first (informal) transition period occurs when EIS prepares the analysis, meets directors, and presents to the executive team. During this time, standards would be formally enacted, monitoring put in place, and a written productivity policy adopted. A formal transition period would then begin. This "grace" period gives managers the time to make any changes without being penalized from day one. After the transition period, enforcement would begin. That said, monitoring against standard would indeed begin on day one. Only enforcement would be put on hold.

A decent transition period is about three months. Any longer and the sense of urgency and momentum is lost. A deadline way into the future is not much of a deadline. Managers may delay acting until their time looms short. On the other hand, any shorter than three months is probably too quick. The goal is to have all managers in full compliance by the time the grace period ends. A reasonable interval is considerate and an indication of thoughtful order and systematic process.

Reporting

Reporting and monitoring is critical to enhance accountability. As people will not support what they do not understand, acceptance of a complex productivity monitoring system will always be found wanting. Control is a management issue, not a technical or systems problem. The real management issue revolves around not setting clear, realistic objectives for directors, compounded by giving them little authority to follow through. What is needed is a simplified, sensible system that managers can easily understand and accept. Executives will then be in a far better position to monitor the results and ensure superior outcomes.
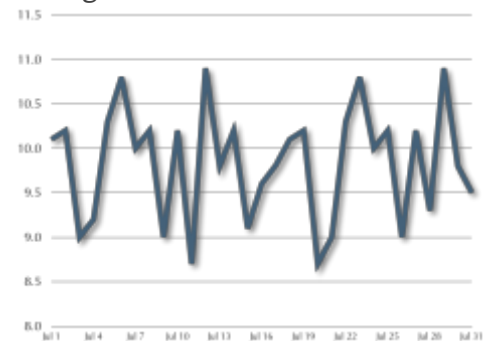
Daily productivity monitoring: on track—or off?

A related topic concerns formal executive reviews. When workload volume is suddenly high, directors cannot react immediately to what might turn out to be temporary episodes of greater activity, nor can they react instantly to slower activity. The time lag means brief periods of above-average and below-average productivity. Short time spans highlight timing differences and unexpected staffing and workload fluctuations, emphasizing factors that are out of the director's control. This shifts the focus away from management responsibility and directs it toward the measurement system.

Realistically, a quarter's worth of data is needed to evaluate a trend or problem that requires corrective action. Over a quarter, temporary timing issues and statistical aberration that obscure reality are virtually eliminated. The recommendation is therefore that the executive team reviews each month's productivity results and present the findings to a monthly leadership meeting for

public discussion–but quarterly results define the point at which the executive review committee would commence corrective action, should any be called for. This would be spelled out in the general rules that would guide the review committee in its deliberations.

For some department managers, more frequent monitoring may be desirable so that they know if they are on track. To that end, if the organization lacks a daily productivity monitoring system, EIS can help managers generate user-friendly custom reports, designed to their own specifications, as they desire. With a simplified productivity system, this is relatively easy to accomplish, and free. For managers to be truly accountable, the organization must put them in charge of their own productivity monitoring while it checks the monthly and quarterly outcomes for variances. Reporting should not be permitted to become an excuse for a lack of accountability.

Incentives

Incentives and consequences are an integral part of a balanced strategy to encourage superior performance and assure adherence to the new system. If directors have no compelling reason to observe their standards, let alone exceed them, they probably will not. Without the effect of incentives to motivate people to exceed expectations, or of consequences for not delivering, implementation will fall short of the potential. Any system of cost controls, however clever in its design, will be overwhelmed when the organization unintentionally punishes initiative and rewards inaction by having no (or worse, misaligned) incentives or consequences.

Productivity Change
Department by Department
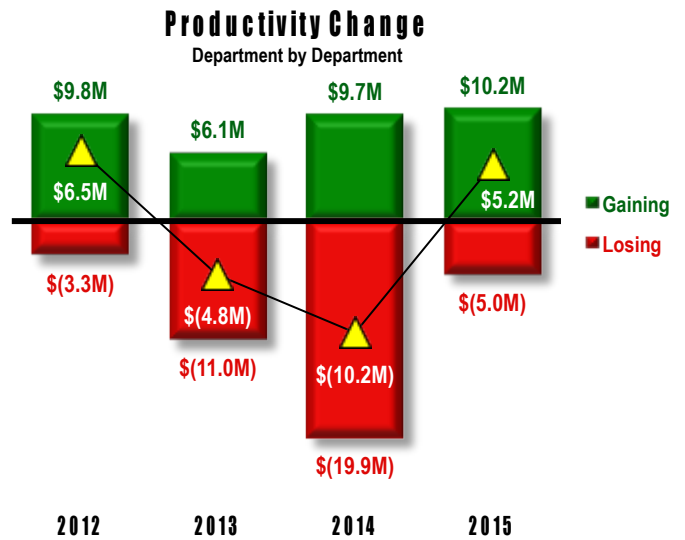
Internal benchmarking reveals hidden subsidies; productivity gains subsidize productivity losses. Triangles show the net change.

A chart like the one above demonstrates the hidden subsidy present in every organization. The triangles represent the net change or the average, but averages obscure the true picture. In this example, while some departments improved their productivity, others lost ground. Project plan goals are to maintain the gains, reverse the losses, and create stability, predictability, and accountability. A system of standards that will form the basis for future budgets and to which managers are truly held accountable should prevent these losses and hidden subsidies from recurring.

We need to work closely with an experienced and respected member of the finance staff throughout the project. At a minimum, this individual (or individuals) would attend all preliminary meetings and most follow-up meetings with managers, as well as preparing any additional analysis and data gathering needed during investigation. Working closely with such an individual facilitates cross-training and fills in the gaps that any outsider will have about the inner workings of the organization. It would be highly desirable as well to have the responsible VPs in these meetings. This greatly enhances understanding, reinforcement, and commitment.

Milestones and Project Plan

The following timeline takes three to four months for an average-sized hospital to complete for the departments under study.

1. Preliminary analysis
The preliminary analysis of departments' four year histories would be adjusted as appropriate upon review by the department heads in their individual meetings.

2. Review goals and milestones with senior management
A meeting with the executive team would precede the group presentation for department heads.

3. Group presentation for department heads
A group meeting lasting about two hours would be held just before individual interviews. In this meeting, we would review the project objectives and milestones and give managers a chance to ask questions.

4. Individual meetings with department heads
Working with a hospital analyst, the department director, and preferably the Vice President responsible for the department present, EIS would review the analysis, discuss department operations, and arrive at a practical, mutually agreeable productivity standard that will work long term for managers and the organization. Each meeting will normally be scheduled for one hour for the first department, plus 30 minutes for each additional department under common management. Further meetings would be scheduled as needed—to gather supplemental data or to revise the analysis in any way. We focus on four main things in these meetings:

- Establish an appropriate workload measure, or unit of service.
- Patient or service mix changes during the period of the analysis.
- Functional changes within the department—responsibilities altered or transferred to other departments during the period.
- Any service improvement initiatives underway or already completed.

5. Develop standards
"Variable" departments, having developed good measures of workload demand through this process (as needed), would have specific hours per unit and cost per unit developed as their labor standards.

6. Interim progress reports to senior management
Documentation showing the substance of negotiations and consultations with department heads to date, and the analysis used to arrive at a mutually agreeable productivity standard for each department, would be provided at regular intervals throughout the project.

7. **Establish productivity management protocols**
   These include timing of reviews, reporting frequency, and accountabilities, to be agreed-upon by senior management.

8. **Develop a written productivity policy**
   This policy, inserted into the administrative manual, would explain the system of productivity management—who, what, when, where, how, and why.

9. **Design a performance incentive plan**
   EIS would work with the executive team to design an appropriate incentive plan for department heads to reward and encourage better than standard performance over the long term.

10. **Final presentation to senior management**
    The final presentation would include complete documentation for every department, as well as a written report quantifying the project's impact on the whole organization. The VPs would share department reports with their managers.

11. **Final presentation to department heads**
    Like the above, but without individual department documentation.

Monitoring Systems

As discussed in *Superior Productivity: How to Get It, How to Keep It,* conventional, detailed productivity reports are poorly understood and often ignored. The more complex and detailed the system, the more confusion. Over-engineered standards and minute, detailed monitoring harms, rather than helps, accountability.

Careful attention should be paid to the underlying management philosophy of such systems, since what is measured, and how often, carries with it an inherent management method. If the emphasis is on exacting, precise measurements available real-time, on the hour, the organization will be led to adopt intense top-down micro-management as its working model. This would deemphasize individual accountability in favor of centralized control, leaving the organization unlikely to achieve the results it is pursuing. If, on the other hand, the monitoring system is simple and understandable, acceptance and accountability will be enhanced. Greater management understanding generates better management results.

A productivity report can be created using the report writer feature built in to existing cost center reports. The data needed is already there. Working with EIS, the organization can then design its own productivity report, attach it to the back of each cost center summary, and deliver to each manager a single report, eliminating the discrepancy and reconciliation problems attendant with biweekly reports. It does away with the misunderstanding caused when the productivity report leads managers to one conclusion and the cost center report leads them in the opposite direction (in which case managers will pick the most favorable or ignore both). It provides a unified message and reduces unnecessary mailings,

distributions, and questions. Since it is part of a tested and reliable system already in place, there is little or no maintenance involved once it is set up. Advantages over commercial systems include no licensing fees, multiple year contracts, high-powered computers, or dedicated analysts required to maintain the system.

To avoid spotlighting timing differences and normal staffing and workload fluctuations, the timing of productivity reviews needs serious consideration. The rule is, the shorter the period, the greater the statistical volatility. Underlying trends that may require management intervention can best be revealed by lengthening the timing of reviews–monthly and quarterly rather than biweekly. Productivity reports should be rolled up each quarter for presentation, discussion, and corrective action by senior management in a formal group review.

Managers who desire more frequent reports can build reports custom-tailored to their individual needs. Since the measurement system is relatively simple, department templates can be easily created for those departments that request them. These reports are then "owned" and maintained by the departments, putting control in their hands. They can choose to generate weekly, daily, or even shift-by-shift reports.

On the next page is a sample template. Since it's custom-designed, clients choose what to add, subtract or modify. We use an Excel template so that the calculations can be readily understood and reproduced within the general ledger system. This monitoring report exhibit appeared in HFMA's *The Business of Caring*:

Sample Productivity Report

A productivity report is not productive if you can't make sense of it—or if you need to spend hours wading through paper to figure out whether you are meeting your labor targets or not. By working together, nursing and finance can create tracking reports that work for nurse leaders. Here is an example of a monthly report. Visit www.hfma.org/boc for an example of a six-month productivity trend report.

Productivity Monthly Report

	Current Month			Better/(Worse) Than		Year to Date			Better/(Worse) Than	
	Actual	Budget	Standard	Budget	Standard	Actual	Budget	Standard	Budget	Standard
Total										
ICU Patient Days	270	283	270	(13)	0	2,768	3,146	2,768	(378)	0
Productive (Worked) Hours	5,805	6,860	5,972	1,055	167	66,442	72,590	61,237	6,148	(5,205)
Nonproductive Hours	960	1,019	887	59	(73)	10,813	11,326	9,095	512	(1,719)
Total Paid Hours	**6,765**	**7,879**	**6,859**	**1,114**	**94**	**77,255**	**83,915**	**70,332**	**6,660**	**(6,923)**
Productive Salaries	198,450	204,029	191,795	5,579	(6,656)	2,146,064	2,221,841	1,911,165	75,777	(234,899)
Nonproductive Salaries	32,819	31,280	29,843	(1,539)	(2,976)	349,269	347,727	305,991	(1,542)	(43,278)
Total Paid Salaries	**231,269**	**235,309**	**221,638**	**4,040**	**(9,631)**	**2,495,333**	**2,569,568**	**2,217,156**	**74,236**	**(278,176)**
Average Hourly Wage	34.19	29.87	32.31	(4.32)	(1.87)	32.30	30.62	31.52	(1.68)	(0.78)
Benefits	21,722	25,453	23,974	3,732	2,253	243,951	282,951	244,145	39,000	194
Supplies	18,374	15,214	14,515	(3,159)	(3,858)	145,618	169,129	148,829	23,511	3,211
Other (Fixed) Expenses	7,914	7,981	7,981	67	67	92,741	93,908	93,908	1,167	1,167
Total Expenses	**279,277**	**283,957**	**268,108**	**4,679**	**(11,170)**	**2,977,643**	**3,115,557**	**2,704,038**	**137,913**	**(273,605)**
Per Unit										
Productive (Worked) Hours	21.50	24.24	22.12	2.74	0.62	24.00	23.07	22.12	(0.93)	(1.88)
Nonproductive Hours	3.56	3.60	3.29	0.04	(0.27)	3.01	3.60	3.29	(0.31)	(0.62)
Total Paid Hours	**25.06**	**27.84**	**27.84**	**2.78**	**0.35**	**27.91**	**26.67**	**26.67**	**(1.23)**	**(2.50)**
Productive Salaries	735.00	720.95	710.35	(14.05)	(24.65)	775.20	706.24	690.35	(68.96)	(84.85)
Nonproductive Salaries	121.55	110.53	108.90	(11.02)	(12.65)	126.16	110.53	108.04	(15.63)	(18.12)
Total Paid Salaries	**856.55**	**831.48**	**831.48**	**(25.07)**	**(37.30)**	**901.36**	**816.77**	**816.77**	**(84.59)**	**(102.97)**
Benefits	80.45	89.94	88.79	9.49	8.34	88.12	89.94	88.19	1.82	0.07
Supplies	68.05	53.76	53.76	(14.29)	(14.29)	52.60	53.76	53.76	1.16	1.16
Other (Fixed) Expenses	29.31	28.20	28.20	(1.11)	(1.11)	33.50	29.85	29.85	(3.65)	(3.65)
Total Expenses	**1,034.36**	**1,003.38**	**1,002.23**	**(30.98)**	**(44.35)**	**1,075.58**	**990.32**	**988.57**	**(85.26)**	**(105.39)**

Source: Executive Information Systems, Inc. Reprinted with permission.

This monthly productivity report is short (just one side of one page). And it shows ICU managers where they are in terms of hours and cost per unit compared to where they should be.

Hospitals translate the logic of this report into their own general ledger systems and modify it to their needs.

Our Product

Not just a pile of reports, EIS leaves behind a productivity management system of standards, policies, procedures, reports, incentives, and consequences. All of these elements are coordinated and work together as a complete approach to support and enforce the concept of manager accountability to standard. Anything less represents a critical weak link in the chain that destroys accountability. The new management system addresses productivity throughout the organization, stressing concepts of accountability, measurement, fairness, and simplicity.

- Each department will have a realistic and mutually agreeable labor standard that best captures its mission, patients, or purpose; a standard that managers will be able to maintain over the long term.

- Each department's analysis will have thorough documentation to be reviewed by managers and senior managers for a clear and common understanding of the operational elements incorporated in each department's labor standard.

- The organization will have new policies and procedures to govern productivity management to preserve the gains achieved and, equally important, to prevent undesirable losses and subsidies from recurring.

- An incentive plan to encourage managers to outperform their labor standards; and a policy to provide reasonable consequences for coming up short.

2. Intra-System Benchmarking

The foregoing program provides productivity savings, creates budget discipline, eliminates productivity losses, and prevents their recurrence. It does this by constructing realistic productivity standards for every department, reforming internal policies and procedures, developing reporting and monitoring protocols that everyone can understand and accept, establishing incentives to outperform and consequences for coming up short. Can even further improvement be built on this foundation? Yes.

If the healthcare system is of sufficient size, this next level of analysis would involve the major clinical departments across the healthcare system—nursing, surgery, emergency, laboratory, radiology, and pharmacy. These capture the highest paid contingent of a hospital's labor force, and they represent its core business. The analysis would compare the performance of like departments within the system. We would coordinate our work and facilitate learning from each other by collaborating together in a group environment. Focusing on the major clinical departments avoids the time and cost of analysis for small, fixed departments, particularly those without standard measures of work output.

Collaboration within one's own healthcare system offers a great pathway for implementation. Differences in size, scope, patient or service mix, and clinical or service quality can be significant, even for similar departments in the same healthcare system. As each operation would be somewhat different, such variables would be evaluated carefully to avoid a one-size-fits-all approach.

Each clinical study group would proceed in a direction that would make sense to its members, its executive sponsors, and to EIS facilitators. These directions could include:

- Lean process improvement: flowcharting current operations and designing future operations to increase efficiency, enhance service and clinical quality, and reduce cycle (turnaround) times. As there is likely to be a great deal of difference in performance among members, a Lean-type analysis—walking through an inefficient operation to discover its bottlenecks and delays, contrasted with walking through a best-performer operation—would be especially useful to learn exactly what to change, and how.
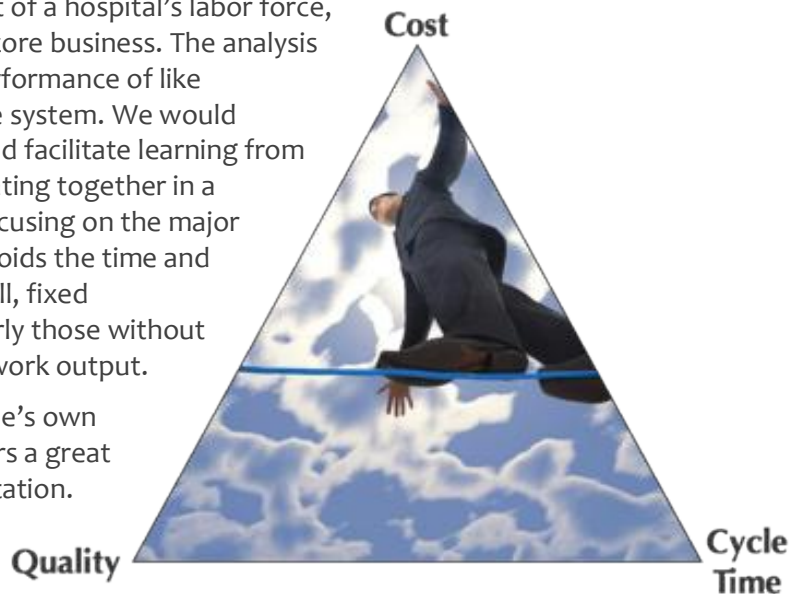
- Research into industry best practices and alternative business models.

- Aligning employee schedules with patient demand, as in the following analysis for a radiology department:
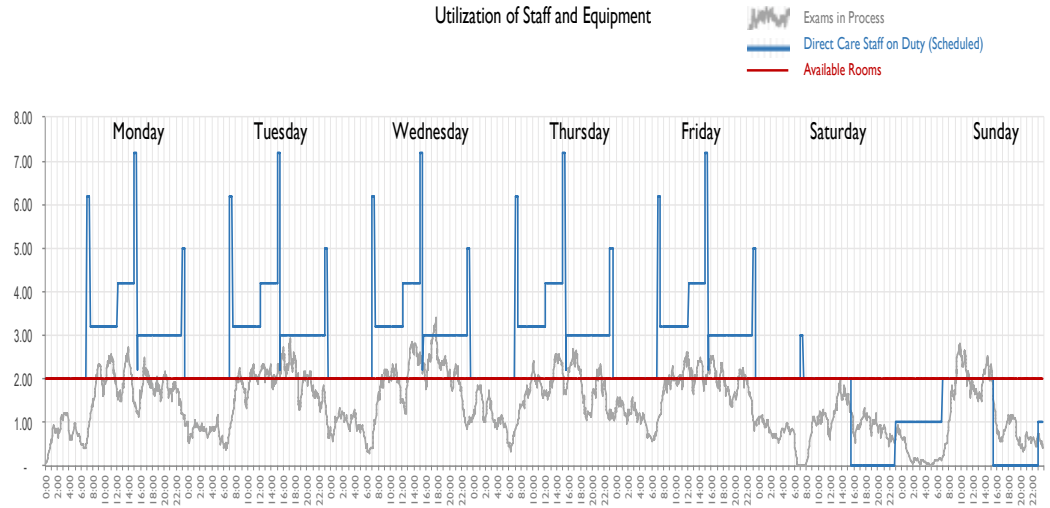
These staffing analyses can be used as management tools to help model patient demand and staff schedules by evaluating multiple scenarios and management interventions. These could include modified start times, the use of part-time and full-time employees, "floats" who can be assigned to different work areas or departments, examining flexibility in work rules to facilitate canceling staff before their shift starts, sending staff home early, changing appointment scheduling, and improving patient access.

3. External Benchmarking

External benchmarking—comparing hospital and clinic departments to similar departments and functions in the industry—would be done for the same departments discussed above. The process of external benchmarking requires purchasing external comparison data and mapping departments by type, with the data normalized and compare groups customized as appropriate.

General Hospital F-2667

Department: **6010 Critical Care Unit**
Profile: **01013 Medical/Surgical/Cardiac ICU Inpatient Unit**
Peer Group Size: **42**
Data for Group: **>=12/31/2015**

Peer Group Criteria:
Patient Days < 5000
Monitor Technician = Y
General Acute
Non-Teaching

NR = Not Reported

Performance Metrics	Your Hosp F-2667	Host Rank	Top 5 Peer Group Performers A-6175	A-5919	F-3886	F-8891	A-2119	Group Percentile Rankings 25th	50th	75th	Performance Gap Worked Hrs	Dollars
VOLUME												
Patient Days	2814.40	58.18%	4541.00	1228.00	2336.00	4663.00	1361.00	1826.00	2469.00	3781.00	NA	NA
Discharges	395.20	80.67%	387.00	48.00	204.00	283.00	181.00	192.00	244.00	309.00	NA	NA
Transfers Out	530.40	39.48%	978.00	266.00	456.00	839.00	366.00	473.25	677.00	945.50	NA	NA
Admissions	771.20	73.32%	1058.00	NR	210.00	404.00	355.00	409.24	486.99	775.74	NA	NA
Transfers In	217.60	20.14%	315.00	143.00	296.00	797.00	214.00	242.00	315.00	574.00	NA	NA
SKILL MIX %												
Management	5.12	4.20	5.51	5.70	0.10	NR	7.07	2.21	3.01	4.63	NA	NA
RN	87.21	92.68	60.86	87.41	70.47	NR	68.61	68.21	74.86	82.90	NA	NA
LPN/LVN	1.29	1.30	6.73	6.89	NR	NR	9.53	0.60	1.60	7.43	NA	NA
Oth Patient Care	6.39	1.82	26.90	NR	29.42	NR	14.78	4.72	9.62	13.33	NA	NA
Hours Worked: Hours Paid	87.08	0.30	91.57	93.61	85.69	80.91	92.26	86.54	88.67	90.70	NA	NA
PRODUCTIVITY												
Hours Worked/Patient Day	**21.86**	**71.09**	**13.51**	**13.55**	**16.76**	**16.82**	**17.59**	**18.75**	**19.66**	**22.52**	**8757.41**	**225896.64**
Hours Worked/Equivalent Patient Day	21.86	74.36	13.50	13.55	16.47	16.75	17.59	18.47	19.61	22.14	9522.37	245628.55
Hours Worked/Discharge	66.46	74.89	44.96	NR	59.33	69.89	43.78	49.88	55.54	66.85	15343.35	395780.16
Hours Worked/Equiv Discharge	66.46	74.91	44.60	NR	53.86	68.18	NR	48.12	54.32	66.51	16981.48	438035.48
DEPARTMENT COST												
Medical Supply Exp/Patient Day	63.23	92.86	2.58	0.29	53.88	5.25	35.33	10.25	28.43	50.68	NA	149102.41
Total Cost/Patient Day Region Adj Labor	702.69	48.78	453.44	444.37	725.11	576.24	741.32	607.33	720.87	805.62	NA	268381.35
Medical Supply Exp/Patient Discharge	192.24	96.67	8.57	NR	190.72	21.83	87.91	30.45	91.56	134.00	NA	149759.67
Total Cost/Patient Discharge Region Adj Labor	2136.62	56.83	1508.47	NR	2566.44	2394.83	1844.50	1632.25	2008.62	2419.65	NA	466845.56

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A typical commercial benchmarking report comparing the subscriber or host facility with a select group of similar outside departments or functions.

External comparatives offer another source of benchmarks, but commercial databases such as Truven or Premier are not the only sources. Research into industry best practices and alternative business models that go beyond the commercial comparative databases would be investigated. The Advisory Board, HFMA, ACHE, and numerous professional societies provide such research.

Paul Fogel, MBA, is the President of Executive Information Systems, Inc. The firm produces a financial reporting and forecasting system for hospitals and offers services in productivity improvement, benchmarking, operations analysis, feasibility studies, forecasting, and business planning. Mr. Fogel offers a unique perspective gained from working in more than 70 hospitals, presenting to numerous executive groups and committees, and working in depth with health care managers.

Mr. Fogel is the author of *Superior Productivity in Health Care Organizations: How to Get It, How to Keep It*, 2nd *Edition*, by Health Professions Press, 2016, and wrote an article by the same name for the April 2004 issue of the *Journal of the International Society for Performance Improvement* (ISPI). He also wrote the feature article for the August 2000 issue of *Healthcare Financial Management Association* (HFMA) magazine entitled *Achieving Superior Productivity*. He was featured in HFMA's *Managing the Margin* and *The Business of Caring* newsletters, and wrote *Five Tactics for Productivity Management* and *Benchmarking: A Process, Not a Number*.

He presents *Superior Productivity in Health Care Organizations* and *Constructing Financial Forecasting Models* to executive audiences around the country for the American College of Healthcare Executives (ACHE) and the Healthcare Financial Management Association (HFMA).