

## Manufacturing Operations Improvements At Healthy Baked Goods Company: Implementing Measurement/Tracking/Reporting To Build Cost Discipline And Capture Material And Labor Cost Savings

**The Challenge:** A leading manufacturer of health-conscious baked goods reached a new scale as dietary trends shifted in its favor during the '80s and '90s. In conjunction with this new scale, a recent transition from family- to PE-ownership and increasingly stringent customer demands (Walmart is one of its largest customers) combined to demand a level of cost-consciousness new to the company. The company's traditional focus was on "getting the products out the door," with little attention to cost-effective, disciplined operations and systematic performance monitoring. With many other initiatives already on its plate, the company asked Gotham to help launch a fact-based cost-reduction program.

### The Partnership:

**Analysis:** The joint Gotham/client team conducted a 1-month diagnostic, with a primary focus on material utilization and labor productivity, and a secondary focus on freight cost. The key diagnostic challenge was to fill in the information gaps that had resulted from the company's home-grown, data-poor system. To help close these gaps, the team took a top-down and bottom-up approach. Based on a top-down perspective (e.g., triangulating sales history, purchase history, inventory levels, and BOMs), the team established material loss at 17% (well above the 8-10% benchmark at other like food companies). On the labor side, the top-down approach leveraged machine cycle times to figure out appropriate labor usage for the various groups of baked goods being produced. To gain a bottom-up perspective, the team: sampled/weighed material-in and material-out for various product groups to quantify and understand sources of loss; and, on the labor side, worked with personnel to establish the right targets.

Both methodologies led to the same findings: (1) material losses were high (primarily due to lack of process controls, uneven bake losses, and no tracking of product weights), representing a \$0.6-0.8MM opportunity (principally in ingredients, but also in packaging); (2) labor productivity (54% labor efficiency) was problematic (primarily due to unbalanced lines and over-staffing), representing a \$0.5-0.8MM opportunity; and (3) freight costs could benefit from improved truck utilization. Collectively, these opportunities represented a 6-10% reduction in total COGS.

**Strategy:** Based on the opportunities identified from the diagnostic, the team recommended: establishment of an ingredient measurement and feedback system; implementation of fixed labor standards based on rated line speeds with placement of labor Goal Boards right on the line to ensure visibility to/raise awareness of productivity targets and provide early warning of issues; and implementation of an overall performance measurement and reporting system to ensure greater cost discipline moving forward. The team also recommended that quick-wins be pursued while these systems were being implemented.

**Execution:** Gotham worked in concert with management to turn the recommendations into reality by organizing two HealthyPie teams—one focused on materials and the other on labor—and by helping each team get up and running against detailed road maps. The material team immediately began to implement diagnostic and systematic in-process weight-tracking, including redesigned forms, data entry modules, and system analytics. The labor team set up the Goal Boards on the plant floor; trained line leaders and supervisors; and set up data entry, reporting, and response mechanisms for identifying and addressing issues.

**The Results:** The company rapidly gained a new measurement, tracking, and reporting capacity, in support of the kind of cost discipline needed. Just 3 months later, when management asked Gotham to come back in and assess progress, the company had already captured some 20% of the ~\$1MM in potential savings that had been identified during the diagnostic phase.

	Goal Labor Hours			Actual Labor Hours			Payroll Hrs	Payroll Efficiency (to ideal)
	Ideal Hrs	Goal Hrs	Efficiency	Goal Board Hrs	Goal Board Efficiency	Actual Efficiency (to ideal)		
<b>Station</b>								
Premixing	83	66	90%	73	110%	88%	75	91%
Mixing	171	137	90%	148	108%	87%	152	89%
Depositing	203	162	75%	130	80%	64%	144	71%
Pie Line	186	149	75%	134	90%	72%	134	72%
Baking	90	72	90%	78	108%	86%	78	87%
Decoration	17	14	80%	13	95%	76%	14	79%
Doming	232	186	75%	163	88%	70%	163	70%
Packing	96	77	80%	79	103%	82%	79	83%
<b>Shift</b>								
Shift 1	539	431	80%	393	91%	73%	409	76%
Shift 2	539	431	80%	420	98%	78%	420	78%