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Belk: Towards Exceptional Scheduling

I think I've got a pretty good feel for what a store manager does and what a store manager should do. . . . The store manager's number-one job is managing the people. That includes managing who they are, their skill sets, qualifications, and the allocation of them around customer demand.

— Eric Bass, Senior Vice President for Staffing and Productivity, Belk, Inc.

In 2013, Belk, Inc. (Belk), was a study in contrasts: it employed almost 24,000 people and operated over 300 stores, yet the largest family-owned and -operated department store retailer in the United States also boasted an almost entirely manual scheduling system. The Senior Vice President for Staffing and Productivity, Eric Bass, sought to resolve that problem. Bass, a retail veteran “who went to a mall every day for work from [age] 15 to 43,” understood the perspectives of store managers and the challenges associated with retail operations at the store level. He was all too aware that managers sometimes saw change emanating from the corporate office as more trouble than it was worth and ignorant of local realities. He also knew that the existing scheduling system was complicated, could lead to needless duplication of effort, and was driving substantial misallocation of Belk’s resources, even by the best store managers.

To address the staffing challenge, Bass, Scott Delmar, Director of Workforce Management Implementation, and their team partnered with Reflexis Systems, Inc. (Reflexis), an IT systems provider focused on the retail market. Reflexis provided Belk with an automated scheduling platform that used complex algorithms, based on historical sales, to generate optimal schedules at the department level. Belk commenced piloting the solution in May 2013 and subsequently expanded the number of stores running the software to 50 over the course of 2013. Despite signs of initial success, Bass quickly began to notice a significant issue with the implementation: over 60% of shifts generated by the system were receiving manual overrides (“edits”) by the store managers.

This forced Bass to consider the best way to manage the continuing implementation in 2014. Store managers and schedulers saw edits as necessary to correct system bugs; top leadership questioned whether edits were an indication of resistance to change. Having deliberately allowed store managers

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and lead schedulers to override the system, Belk now needed to understand how and why they were doing so, and to make sure that those edits were being made constructively. In a disagreement between human and machine, Belk allowed humans to win by design by giving them the right to edit the “optimized” schedules. Was the result a more or less effective implementation?

From Paris with Discounts: The Rise of the Department Store

The department store first emerged in mid-19th-century France, where several multistory establishments handsomely adorned the freshly crafted boulevards of Baron Haussmann’s redesigned Paris. Le Bon Marché, which originated in the 1820s, had assumed the recognizable character of the department store by 1852.¹ The earliest department stores established a pattern that would endure for a century. The stores were large and often multilevel, were located in the downtown neighborhoods of urban centers, and carried a wide array of goods aimed at middle-class consumers.² Stores were marked by the separation of different categories of goods into the eponymous departments, each of which was operated separately and with considerable autonomy in management and marketing. The store’s general management could then focus on administering shared back-room services and arranging spatial and business relations between departments to take advantage of consumer behavior.³ In the United States, other long-standing attributes of the department store developed early on. For example, stores varied their composition of wares depending on the location, with stores in more developed urban markets catering to a higher-end, fashion-conscious customer, while those in smaller regional centers embraced their role as a general store for surrounding rural communities.⁴

During the middle third of the 20th century, department stores found themselves buffeted by several new challenges. New competition emerged in the form of discount chains such as Walmart. Population flight from cities to the suburbs hurt the profitability of operating expensive large stores downtown.⁵ As the suburban mall rose to challenge the urban shopping district, department stores increasingly abandoned their stand-alone independence to serve as the anchor stores for larger shopping complexes. Simultaneously, a tide of merger and acquisition (M&A) activity swept the sector, as smaller firms sold to leading companies. For example, by the end of the 1950s, Macy’s had acquired regional chains in Georgia, California, and New Jersey, in a process indicative of the sector at large.⁶

Competition in the Age of Walmart and Amazon

Department stores entered the third millennium cautiously, and quickly found themselves facing headwinds. In an industry whose performance was closely tied to the financial health of the median consumer, declining employment, consumer confidence, and disposable income led to negative annual growth of 1.2% during the period from 2008–2013.⁷ Traditional department stores also faced an ongoing secular threat from big-box discount retailers, such as Walmart, as well as growing online commerce platforms.⁸ Successful firms in the industry primarily competed based on price, sales and promotions, product selection, store placement, customer service, and cost management.⁹ Wages accounted for 13% of industry revenue in 2013, second only to the cost of goods sold as a source of costs in the industry.¹⁰ This number was only expected to increase, reaching 13.6% by 2018, as firms sought to leverage the value of in-person customer service in the face of competition from online retailers.¹¹

Big City Concepts with Regional Flair: The Story of Belk

Rise of the New York Racket

In 1888, William Henry Belk, a 26-year-old store clerk, sought to bring the department store to Monroe, North Carolina. He named his first store “New York Racket,” combining an allusion to the cosmopolitan metropolis with contemporary Southern lingo for the dry-goods retail trade.¹² Following the “One Price” model John Wanamaker had brought to his famous Philadelphia store, Belk sought to take the same approach.¹³ He sold his wares at fixed and clearly marked prices, and generally accepted only cash. Some contemporaries doubted the applicability of such a system, developed for an urban market, in the rural South where many customers were farmers with seasonally fluctuating incomes. Most contemporaries accommodated such customers by allowing them access to long-term credit. However, the store was able to succeed by taking advantage of these practices to secure better terms from its own suppliers. The nascent firm gradually added additional stores in the area, and in 1895, William secured his first urban flagship location in downtown Charlotte. In competing with the city’s established merchants, William focused heavily on price, and his strategies soon met with both success and emulation.¹⁴ Belk became a family company in 1893 when William was able to convince his brother, John, to abandon the medical profession in favor of joining the business.

Expansion and Transformation

William Henry Belk remained head of Belk until his death in 1952, at the age of 89, leaving behind almost 400 stores across 18 states and Puerto Rico.¹⁵ Leadership of the retail empire then passed to his sons, John M. Belk and Thomas M. Belk¹⁶ (see **Exhibit 1** for a summary of the three generations of Belk family leadership). The next generation of management had to carefully guide Belk through the transitions buffeting department stores during the period. In 1970, Belk opened its first major suburban mall anchor store, at SouthPark Mall in suburban Charlotte, a first step in the company’s general pivot away from its downtown flagship stores.¹⁷ In 1998, Belk took another major step with the reorganization of the company’s administrative structure, transforming a sprawling partnership of 112 affiliated companies into a single corporate entity: Belk, Inc.¹⁸ Despite the organizational, administrative, and financial benefits of centralization, the change was not without difficulty. It rubbed up against established company tradition, then a century old, going back to William Henry Belk’s preference for expanding by establishing deals in new markets with knowledgeable local entrepreneurs.

Belk in 2013

By 2013, Belk, Inc., was a company in transition preparing to face evolving challenges. At 125 years old, Belk had only its third generation of leaders and had spent half its existence under the leadership of founder William Henry Belk. After leaving its downtown flagship roots,¹⁹ the majority of Belk’s stores were anchor tenants in major suburban shopping centers.²⁰ Belk was committed to fully exploiting opportunities for growth within its existing footprint of 16 states across the southern United States and was particularly interested in new opportunities in Texas.²¹

As part of its ongoing evolution, Belk had commenced a 36-month initiative, starting in 2012, to improve the selling environment in its stores by curtailing time spent on activities not directly related to sales.²² Among the tasks included in this project were a review of inbound freight procedures and work to improve the skills and capabilities of sales associates. The project’s last phase was implementing a workforce management software solution. Together, Belk believed these steps would enable the company’s brick-and-mortar business model to compete more effectively both within the department store segment and against online retailers.

Retail and Workforce Management Solutions

Workforce management solutions were a subset of human capital management (HCM) solutions. HCM solutions automated portions of the employee's relationship with the firm and were increasingly used to produce dynamic solutions associated with human resources (HR) areas such as employee benefits and compensation.²³ Workforce management solutions in particular were associated with efforts to automate and reorganize the utilization of employees through shift planning, labor tracking, and scheduling.²⁴ Consequently, workforce management solutions had been most popular among firms employing shift workers, particularly in retail and manufacturing. Through their generation of significant quantitative data about employees, workforce management solutions could also be used to develop dynamic training materials, incentive schemes, and performance evaluation tools.²⁵ The market for HCM services, including workforce management solutions, grew 4.2% to \$144.6 billion in 2012, and was generally considered a growing sector.²⁶ Like many IT solutions, workforce management solutions could be controversial where applied, particularly when they were perceived as having a negative impact on local manager autonomy and traditional labor scheduling practices. On the other hand, in many cases, successful implementation significantly increased not only effectiveness but also employee satisfaction.

The market for workforce management solutions was highly volatile. The segment was relatively concentrated, with the top-4 vendors making up 81.5% of the market and the top-12 comprising 96.3%. The segment leader in 2012 was Kronos, Inc., with IT solutions powerhouses SAP, ADP, and Oracle following behind. Kronos established its lead in the segment due to its invention of the electronic time clock in 1979; however, its lead was gradually deteriorating, with the company's 2012 revenues 43.5% higher than second-place SAP, as opposed to 70.3% in 2010.²⁷ With the segment still rapidly growing, the competitive landscape was likely to continue to change significantly over the next few years. Reflexis Systems, Inc., was a newer entrant in the sector, founded only in 2001, 24 years after Kronos, and focused on serving the retail segment. Its software was present in approximately 100,000 stores; clients included Home Depot and Toys "R" Us.²⁸

The Belk Scheduling Project

Conceptualization and Rationale

Belk set out to achieve a number of goals by implementing a workforce management system. The system was a principal component of the company's initiative to reduce time and labor spent on nonsales-related tasks so that employees could spend more time directly serving customers. Scheduling was a time-consuming area for Belk on this front, with every store employing at least one dedicated lead scheduler in 2013. The project also provided an opportunity to leverage technology to improve aspects of the scheduling and customer service experiences. For example, the company's existing manual technology was liable to abuse, with employees being able to punch in early. In addition, other schedule deviations, such as "meal break variances," where an associate punched back in early from a meal, thus working more hours than planned, contributed to considerable misallocation of time. Members of Bass's Staffing and Productivity team also suspected that long-standing scheduling arrangements, negotiated between local store managers and their employees and then maintained over years, might have been resulting in a significant mismatch between customer demand and labor availability. Pointedly, Bass's team did not see the project as automated scheduling:

A previous attempt had been made to implement what was billed to the stores as automated scheduling. It was billed as a deskilling project, even though it did nothing

close to truly automating scheduling. So what we tried to be careful to do in this project was to take a more human-centric approach. Managers still play a very important role. This is a new tool to *help* us all schedule better. This technology will show us much more clearly how to capitalize on our opportunities. It will show us where we need to schedule better.

To be successful, Bass believed that a workforce management solution had to deal with Belk's scheduling problems while also respecting the company's organizational culture and achieving support from potentially skeptical store managers. Belk needed a solution that recognized the importance of store managers without carelessly tolerating unproductive "legacy deals" in local scheduling, essentially creating a level playing field for all employees in all stores with no toleration for favoritism or unproductive deviance. Bass's team also had to prepare for resistance to the results the system might generate. It was expected that the scheduling results might suggest a shift in Belk's employment mix away from full-time work and toward more flexibly schedulable part-time labor. However, senior members of Belk were known to be resistant to changing the ratio of part-time to full-time labor, believing that part-time labor would result in "deterioration in service and deterioration of selling, as well as promoting higher turnover."

Finally, the entire process took place under the baleful shadow of Macy's. The department store giant had 841 stores in 45 states, as well as almost \$28 billion in revenues in 2012.²⁹ Macy's had participated in a six-year implementation project with workforce management leader Kronos, including spending \$8 million on system customizations, only to end up with a final product that still did not fully meet its needs. Belk's decision-making in pursuing a workforce management system was significantly affected by the need to avoid that result.

Planning and Implementation

The process of implementing a workforce management system at Belk began in 2010, with the release of a request for proposal (RFP). Belk received a response from Kronos, among others, which was unable to satisfactorily explain how an implementation for Belk could dodge the problems suffered by Macy's. Bass's team conducted interviews with store managers to get their perspective on the potential solutions and utilized that feedback to generate a list of detailed product requirements for the prospective vendors. The company ultimately decided to contract with Reflexis in March 2012, and configuration of the software began in May. Although Reflexis offered an extensive suite of customization options for its clients, Belk opted not to take advantage of much of this functionality. Instead, the company decided to adopt a relatively simple version of the software. The software utilized several inputs and parameters to generate optimal schedules on a department-by-department and store-by-store basis. These variables included:

- Expected sales, forecasted at 15-minute intervals;
- Rules governing the minimum and maximum lengths of shifts for part-time and full-time workers;
- Whether or not a given worker could be moved between different departments; and
- Historical employee performance and aptitude.

The purpose of the optimized schedule was to match as closely as possible expected sales volumes with the number of employees needed on the floor to support those sales. In addition to the Reflexis-generated output, Belk opted to grant its store managers full edit privileges over the resulting schedules. This decision was made to preserve local managers' sense of clear authority over their own scheduling, supporting local management rather than replacing it. It also ensured that management

could override any accidental bugs in the system. Finally, edit privileges empowered managers to factor into the schedules additional variables that the system did not properly account for, and as such, helped mitigate the need for additional (and costly) customization of the tool by Reflexis.

Belk began rolling out the software in mid-2013. Three stores were chosen to serve as a pilot, commencing in June. The pilot was in large part intended as a proof of concept to help overcome lingering uncertainty and reluctance about the project. For example, among the stores chosen for a pilot was a small store whose manager had been with the company for 40 years and was reluctant to abandon his traditional manual scheduling practices. Following implementation in the original three pilot stores, the project was expanded to an additional 47 stores in July, the subjects chosen as representative of Belk's various sales regions and store sizes. Most of these stores had annual sales in the range of \$10 million, although the group also included some larger stores. Belk had originally considered expanding the software to a further 75 stores in September 2013, but ultimately chose to delay that expansion until 2014 following some initial issues in the first 50 stores. Belk did not want stores to be struggling through the implementation process while also navigating the difficult and busy end-of-year holiday period. As of November 2013, Belk planned to wait until March 2014 to continue implementation in the next group of stores.

Results and Challenges

Early results produced a surprise: managers were making a very high volume of edits to the Reflexis-generated schedules. Over the five-week period starting August 4 and in each of Belk's three regional retail divisions—Northern, Southern, and Western—over 60% of schedules were edited (see **Exhibit 2** for store-by-store detail). This included the editing of 71% of schedules in the northern division that included Belk's North Carolina heartland. In one South Carolina store, 98% of schedules were edited.

One of the key measurements by which Belk evaluated successful scheduling was "Schedule Effectiveness" (see **Exhibit 3** for the calculation procedure). Schedule effectiveness compared the abstract labor required to support the forecasted sales for a particular period to the amount of labor actually scheduled either by the system or by store management. Since store labor was, in fact, not perfectly fungible, the software's own schedules were not 100% effective. For example, Belk did not schedule full-time workers for less than four-hour shifts. Since the software evaluated labor demand at 15-minute intervals, these and similar restrictions prevented the system from perfectly matching supply with demand. Belk's initial goal was for 70% schedule effectiveness over the fourth quarter of 2013. Over the five-week period starting August 4, all three divisions were performing below this goal, with schedule effectiveness at 64%, 63%, and 62%, respectively, in the northern, southern, and western divisions. As measures, the percentage of schedules edited and the schedule effectiveness were not strongly correlated. The Simpsonville, South Carolina, store, where 98% of schedules were edited, actually achieved a schedule effectiveness of 78%. In comparison, in the Spring Hill, Florida, store, only 60% of schedules were edited, and yet schedule effectiveness was 47%.

Despite the high rate of edits and lower-than-hoped-for schedule effectiveness, Belk was seeing clear benefits from the implementation of the system. The software's reallocation of labor had a clear and immediate effect on customer service performance, with Scott Delmar reporting:

We found an immediate correlation even in the initial three pilot stores. The lowest customer service satisfaction scores in our business generally appear between 5:00 and 8:00 p.m. and on Sundays. The schedule system immediately tripled the amount of people

we had working on Sundays and regularly extended evening shifts to 7:15 throughout the week instead of the traditional 8:00 to 5:00.

Furthermore, Belk was not attempting to eliminate edits. Bass understood that edits performed a valuable role in the scheduling process and had made an affirmative decision to include the edit functionality in the software. This included an understanding that, even after full implementation and adjustment, edits would remain. Given the high level of edits, however, the implementation team felt the need to ensure they were being made in the company's best interests and did not indicate a shortcoming of the Reflexis system, before full rollout in 2014. This was a concern especially with larger stores, where managing edits for their large workforces could consume substantial resources.

The Technical Challenges

Instituting the Reflexis system had understandably posed significant technical challenges for Belk. As with any IT implementation of this scale, there were a number of software bugs that Belk and Reflexis were working to resolve as they prepared to move forward with expanding the program in March 2014. The system also was challenged in dealing with shift rotation for workers, designed to prevent any given employee from working too many nights or weekends. The edits to manage this problem could be particularly onerous for larger stores. While smaller locations might only have to perform a moderate number of manual edits to account for rotation, larger stores with hundreds of employees might have to process over 50 pages of system output to make the relevant changes. Bass knew this process would have to be streamlined or the software made more sensitive for Belk's larger stores to be able to utilize the software effectively. Bass worried that rotation may have been "driving 50%, 60% of [Belk's] edits." Rotation-driven edits were a particularly pernicious issue. Bass commented:

The problem is not just changing one shift. If the employee has three nights, and you want to take one of their nights away; that's one edit. But when you take one away from them, you have to give that shift to somebody else. Then, someone's got to fill their former shift. . . . So taking one person from three nights to two nights could be 10 to 15 edits to be able to rebuild that schedule.

Within the software itself, there were some outstanding issues that risked compromising the integrity of the system and its conclusions. One such issue was the symmetrical calculation of schedule effectiveness. The calculation treated the underallocation and overallocation of labor to a particular department and time period as identical. In practice, the outcomes were nonsymmetrical, with an underallocation of labor potentially resulting in lost sales, while an overallocation was simply inefficient but ought not to reduce revenue. This could lead to systematic issues in how the data represented certain store management practices and the managers who led them.

The Edit Survey

To better understand the implementation process, in September, Belk selected 6 of the 50 stores running the software to participate in an additional study, where the data on their edits and edit reasons were carefully monitored for a two-week period to gain additional insights into the process. The six stores included locations in Kentucky, North Carolina, South Carolina, Florida, and Alabama, and ranged in size from a Winston-Salem, North Carolina, location with \$45 million in annual revenue to a St. Augustine, Florida, store with just \$7.5 million annual revenue.

The six-store edit study enabled Bass's team to look more closely at what edits were occurring and why. The percentage of schedules edited across the six stores ranged from 56% in the Winston-Salem

store to 91% in the Viera, Florida, store. Ironically, the Winston-Salem store also recorded the lowest schedule effectiveness of the six, at 57%, and the Viera store the highest, at 77%. The study asked store managers to fill out a survey form explaining each edit they made and its rationale. (Selected results are presented in **Exhibit 4**.) The study found that of 669 edits made across the stores over the two-week period, 208 (31.1%) were recorded by managers as “improving effectiveness.” “Improving effectiveness” was the top-cited edit reason across the large and medium-sized stores included in the study, responsible for 32.7% and 41.6% of edits, respectively. Among the small stores, “improving effectiveness” was second, behind “lunch adjustments,” which did not break the top-five reasons for either the large or medium-sized stores.

Data on system and manager schedule effectiveness from those stores did suggest that the manager’s final schedule sometimes improved on the forecast suggested by the system. However, it remained unclear how directly these incidents of human advantage related to edits labeled “improving effectiveness.” A key question posed by the data was how and under what conditions skilled managers could beat the system. In some cases, managers might be able to exceed the system’s effectiveness by considering factors that the system was not currently configured to take into account. For example, some stores included departments where the vendor contributed to the wages of the staff employed in that department (and therefore the labor could not be removed), a fact not programmed into the machine. Additionally, managers might be able to beat the bugs in the system by correcting schedules where the system had made a mistake as a result of an unintentional software problem.

Moving Forward: Understanding the Edits

With further implementation paused by the 2013 holiday season, Belk considered how to proceed. Bass faced pressure from above to reduce the volume of edits. Although Belk recognized that some edits would always be necessary, there was significant concern that the volume of edits was too high to consider this effort successful.

It was clear that Belk needed to remove the system’s software bugs, as well as make some relevant operational tweaks. The company also likely needed to work with Reflexis to look at adding additional customization to better enable the system to deal with rotation. There was a senior mandate to initiate a decreasing limit to edits (e.g., no more than 50% by mid-2014). However, was that the right number and was a cap even appropriate? Moreover, even if Belk could make the system run perfectly, it would still have to deal with some significant issues.

For example, improving the allocation of labor resources would primarily improve revenue. However, this might prove insufficient to defend the project. Bass observed:

It’s impossible to correlate sales to anything. I mean you’re going to get an R-squared in the 20s, if you’re lucky. So we always do sales benefit as an intangible because it’s next to impossible to prove. . . . It’s very difficult at our company to get a project approved with only a sales lift. So in addition to sales lift, we had to sign up for a payroll savings, which is a hard benefit that basically equals the expense of the system.

Payroll savings were expected to come from reducing time variances related to employee meals and other low-productivity uses of company time. It was still too early for Belk to tell whether the necessary behavior changes to drive these cost savings were occurring or, indeed, how those changes could be observed at all.

Finally, Belk needed to understand whether schedule effectiveness was a holistic measure of value. Many of the ways that the system boosted effectiveness were disruptive to employees. Employees in participating stores had complained about the system replacing their traditional seven-hour shifts with eight-and-a-half-hour shifts, which stretched further into the evening. Bass speculated:

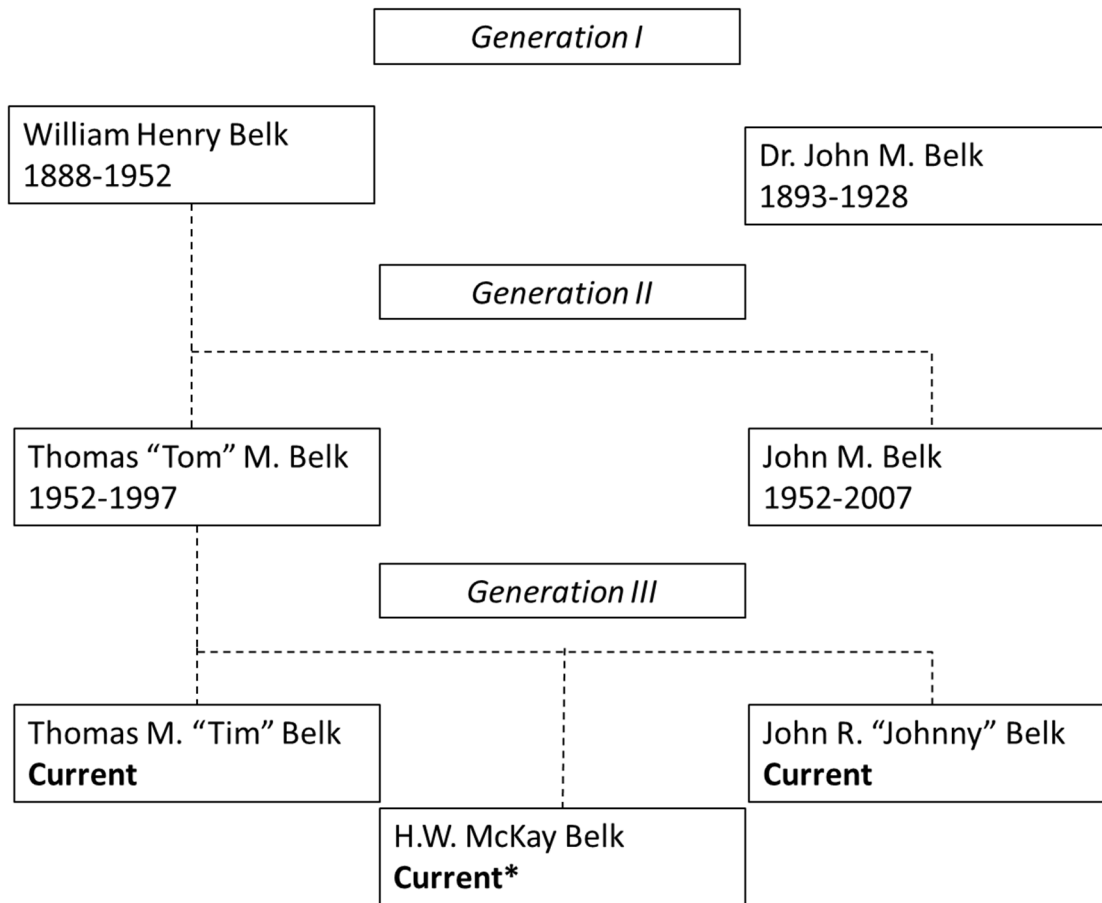
If it's an eight-and-a-half-hour shift or a nine-and-a-half-hour shift, and you bring the employees in at 8:00 and they go home at 5:30, you wouldn't hear much.

But the fact is if we're bringing them in at 10:00 and that pushes them to 7:30. They no longer get dinner with their family. They're complaining about it being a long shift. My hypothesis is it's really about "I'm going home at 7:30 rather than 5:00." It's not the number of hours.

These reactions suggested that practices designed to boost schedule effectiveness might also demotivate employees in a manner that could hurt store performance—an ironic outcome given the workforce planning project's objective of improving associate satisfaction.

Finally, Bass was faced with aggregate data on edit volume and schedule effectiveness as well as test results on edit reasons. But he still had no way of knowing how exactly these results tied together. In what ways were managers using edits to improve effectiveness? Were they in fact improving effectiveness with those edits at all? To proceed, Belk needed to fully understand the gap between centrally developed plans and procedures, and the reality of store-level implementation.

Exhibit 1 Three Generations of Belk Family Leadership



Source: Casewriter, based on information from "Belk, Inc. Fact Sheet & History," http://belk.newslinevine.com/pdfs/belk_fact_sheet_and_history.pdf, accessed February 26, 2014.

Note: Dates refer to period in which a given family member was in a leading position at Belk.

* H. W. McKay Belk transitioned out of executive roles during the period from 2009–2012, but he remained a member of the board.

Exhibit 2 Percent of Schedule Edited by Store (ranked by schedule effectiveness)

Store	% of Schedules Edited	Schedule Effectiveness
Northern Division		
Burlington, NC	57%	76%
Albemarle, NC	73%	73%
Winchester, VA	55%	72%
Richlands, VA	48%	70%
Smithfield, NC	62%	69%
Williamsburg, VA	90%	66%
Cary, NC	60%	66%
Asheville, NC (Biltmore Square)	34%	65%
Southern Pines, NC	96%	63%
Ashland, KY	86%	60%
Wilmington, NC (Mayfaire)	76%	60%
Goldsboro, NC	78%	58%
Winston-Salem, NC	56%	57%
Pineville, NC	72%	55%
Wilmington, NC (Westfield)	57%	53%
<i>Northern Division Average</i>	<i>68%</i>	<i>64%</i>
Southern Division		
Simpsonville, SC	98%	78%
Viera, FL	91%	77%
Centerville, GA	58%	72%
Savannah, GA	67%	70%
Mt. Pleasant, SC	85%	70%
Snellville, GA	51%	67%
Myrtle Beach, SC (Coastal Grand)	90%	65%
McDonough, GA	76%	63%
Conyers, GA	67%	61%
Valdosta, GA	79%	61%
Florence, SC	62%	61%
Jacksonville, FL	48%	60%
Charleston, SC	58%	59%
St. Augustine, FL	85%	58%
Anderson, SC	77%	58%
Dublin, GA	70%	54%
Gainesville, GA	86%	53%
Spring Hill, FL	60%	47%
<i>Southern Division Average</i>	<i>71%</i>	<i>63%</i>
Western Division		
Oxford, MS	62%	74%
Prattville, AL	74%	72%
Fort Worth, TX	41%	63%
Murfreesboro, TN	56%	63%
Guntersville, AL	70%	63%
Ridgeland, MS	75%	62%
Chattanooga, TN (Northgate)	66%	60%
Knoxville, TN (Turkey Creek)	55%	58%
Biloxi, MS	86%	57%
Flower Mound, TX	75%	55%
Decatur, AL	75%	53%
<i>Western Division Average</i>	<i>65%</i>	<i>62%</i>

Source: Company documents.

Exhibit 3 Schedule Effectiveness Calculation Methodology

Schedule effectiveness is a metric for demonstrating the degree to which schedules align with demand as measured at sub-day units. The most granular data available from the system is 15-minute increments.

Effectiveness is calculated according the following formula:

$$100\% - (\Sigma (\text{sub-period variances})) / (\text{Total Hours of Demand})$$

Below is an example calculation, utilizing 1 hour increments. The total coverage for the day matches the hours demand (18 hrs required, 18 hrs scheduled), but there are periods of over scheduling and under scheduling. (Like the Reflexis system, the calculation uses the absolute value of the variances and as such does not account for their direction.)

	<u>10AM</u>	<u>11AM</u>	<u>12PM</u>	<u>1PM</u>	<u>Total</u>
Hours demand	4	4	5	5	18
<u>Scheduled Hrs</u>	<u>2</u>	<u>4</u>	<u>6</u>	<u>6</u>	<u>18</u>
Variance	2	0	1	1	78%

$$\text{Schedule Effectiveness} = 100\% - (2+0+1+1)/18$$

$$\text{Schedule Effectiveness} = 100\% - 22\%$$

$$\text{Schedule Effectiveness} = 78\%$$

Source: Company documents.

Exhibit 4 Reasons for Edits by Store Size (ranked by number of edits)

Reason for Edit	Number of Edits	% of Total Edits
Large Stores		
Improve Effectiveness	70	32%
Associate Accommodation	52	24%
Number of Nights	42	19%
Comfort Level (Coverage)	32	15%
Time Off Request Accommodation	8	4%
Weekend Rotation	8	4%
First In First Out Lunch Adjustment	1	1%
Lunch Adjustment	1	1%
<i>Total Large Stores</i>	<i>214</i>	<i>100%</i>
Medium Stores		
Improve Effectiveness	42	41%
Comfort Level (Coverage)	25	25%
Weekend Rotation	19	19%
Associate Accommodation	12	12%
Time Off Request Accommodation	3	3%
First In First Out Lunch Adjustment	0	0%
Lunch Adjustment	0	0%
Number of Nights	0	0%
<i>Total Medium Stores</i>	<i>101</i>	<i>100%</i>
Small Stores		
Lunch Adjustment	131	37%
Improve Effectiveness	96	27%
Comfort Level (Coverage)	44	13%
Number of Nights	36	10%
Weekend Rotation	32	9%
Time Off Request Accommodation	15	4%
Associate Accommodation	0	0%
First In First Out Lunch Adjustment	0	0%
<i>Total Small Stores</i>	<i>354</i>	<i>100%</i>
All Stores		
Improve Effectiveness	208	31%
Lunch Adjustment	132	20%
Comfort Level (Coverage)	101	15%
Number of Nights	78	12%
Associate Accommodation	64	9%
Weekend Rotation	59	9%
Time Off Request Accommodation	26	4%
First In First Out Lunch Adjustment	1	0%
<i>Total All Stores</i>	<i>669</i>	<i>100%</i>

Source: Company documents.

Exhibit 5 System Edit Effectiveness Output



Reflexis Workforce Scheduler
v3.5.6.20131003.1

08:12 AM | Tuesday, November 19, 2013

Requests → ☒ Staff Schedule

➕ Narrow Results

	Total	10/20(Sun)	10/21(Mon)	10/22(Tue)	10/23(Wed)	10/24(Thu)	10/25(Fri)
Hours Demand	76.5	7.5	11.5	11.5	11.5	11.5	11.5
Total Scheduled Hours	22.5	6.75	3.5	0.0	0.0	3.75	0.0
Overs/Shorts	54.0	0.75	8.0	11.5	11.5	7.75	11.5
Schedule Effectiveness	29	90	30	0	0	33	0

Weekly Schedule Cost: \$175

Weekly Budget Cost: NA

Week Starting 10/20/2013

	Employee	Total	Eff	Min/Max	10/20(Sun)	10/21(Mon)	10/22(Tue)	10/23(Wed)	10/24(Thu)	10/25(Fri)
	Home Combined (1702)	2230	29%	6:45	6:45	3:30	0:00	0:00	3:45	0:00
	PT Emp	20:30(26:15)	17:00/29:00	11:45a - 07:15p	11:45a - 07:15p	04:15p - 07:30p	04:30p - 09:15p	04:30p - 09:15p	06:00p - 09:15p	06:00p - 09:15p
	PT Emp	00:30(13:00)	17:00/29:00	Min/Max Hours	Min/Max Hours					
	PT Emp	01:30(21:15)	17:00/29:00	11:45a - 07:15p	11:45a - 07:15p	02:00p - 09:15p			03:30p - 09:15p	11:00a - 07:00a

➔ The first number indicates the number of hours the employee is working in that department. The second number indicates the number weekly hours worked in all departments



Reflexis Workforce Scheduler
v3.5.6.20131003.1

08:55 AM | Tuesday, November 19, 2013

Line Schedule for 10/24 (Thu)

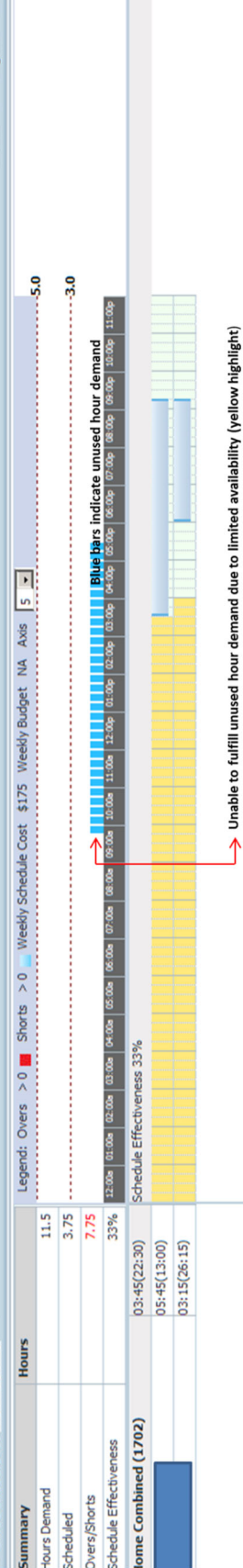
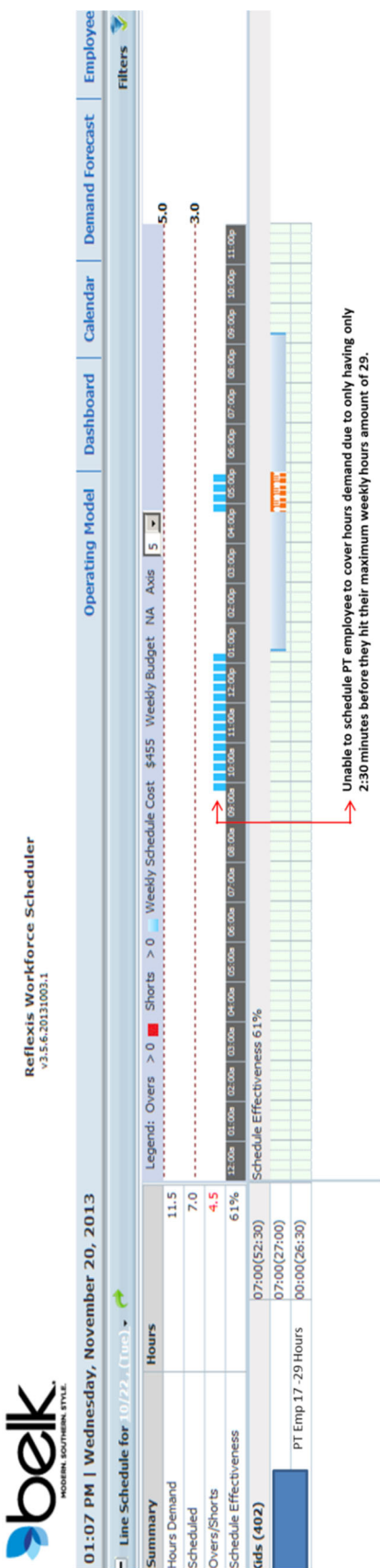
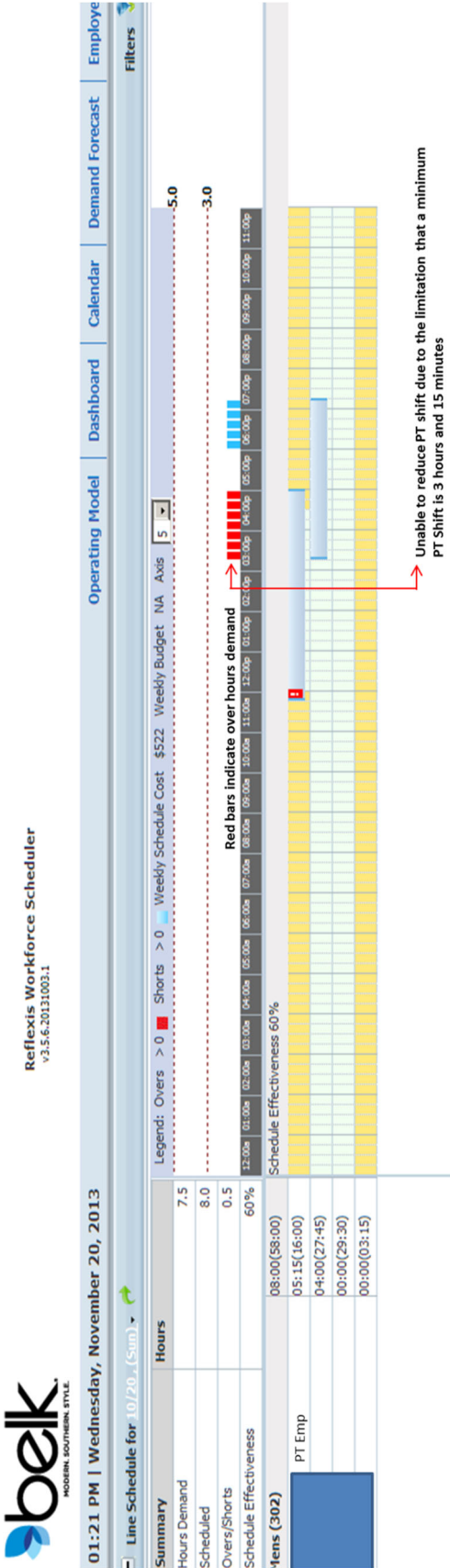


Exhibit 5 (continued)



Source: Company documents.

Endnotes

- ¹ Meredith L. Clausen, "The Department Store: Development of the Type," *Journal of Architectural Education* 39, no. 1 (Autumn 1985): 22.
- ² Clausen, "The Department Store," pp. 20–21.
- ³ Clausen, "The Department Store," p. 21.
- ⁴ Homer H. Johnson and Sung Min Kim, "When strategy pales: Lessons from the department store industry," *Business Horizons* 52 (2009): 584–585.
- ⁵ Jan Whitaker, *Service and Style: How the American Department Store Fashioned the Middle Class* (New York: St. Martin's Press, 2006), p. 8.
- ⁶ Robert M. Grippo, *Macy's: The Store. The Star. The Story* (Garden City Park, NY: Square One Publishers, 2009), p. 142.
- ⁷ IBISWorld, *Department Stores in the US*, August 2013, p. 4.
- ⁸ IBISWorld, *Department Stores in the US*, pp. 4–5.
- ⁹ IBISWorld, *Department Stores in the US*, p. 22.
- ¹⁰ IBISWorld, *Department Stores in the US*, p. 21.
- ¹¹ IBISWorld, *Department Stores in the US*, p. 21.
- ¹² Howard E. Covington, *Belk, Inc.: The Company and the Family That Built It* (Charlotte, NC: Belk, Inc., 2002), p. 7.
- ¹³ Covington, *Belk, Inc.*, p. 10.
- ¹⁴ Covington, *Belk, Inc.*, p. 19.
- ¹⁵ Covington, *Belk, Inc.*, p. xi.
- ¹⁶ Belk, Inc., Fact Sheet & History, p. 3.
- ¹⁷ Covington, *Belk, Inc.*, p. 140.
- ¹⁸ Covington, *Belk, Inc.*, p. xii.
- ¹⁹ Belk's downtown Charlotte flagship and headquarters, dating from 1908, was torn down in 1988 to make room for the 60-floor Bank of America Corporate Center.
- ²⁰ Belk, Inc., 10-K for the fiscal year ended February 2, 2013.
- ²¹ Jordan Speer, "Undergoing a Facelift Inside and Out, Belk Takes its 125th Birthday in Stride," *Apparel*, March 12, 2013, <http://apparel.edgl.com/case-studies/Undergoing-a-Facelift-Inside-and-Out,-Belk-Takes-its-125th-Birthday-in-Stride85255>.
- ²² Belk, Inc., 10-K.
- ²³ IDC, "Competitive Analysis: Worldwide Human Capital Management Applications 2012 Vendor Shares," filed May 2013, p. 1.
- ²⁴ IDC, "Competitive Analysis, p. 2.
- ²⁵ IDC, "Competitive Analysis, p. 2.
- ²⁶ IDC, "Competitive Analysis, p. 1.
- ²⁷ IDC, "Competitive Analysis, p. 9.
- ²⁸ Reflexis, "About Reflexis Systems, Inc.," <http://www.reflexisinc.com/about/>.
- ²⁹ Macy's Inc., 10-K for the fiscal year ended February 2, 2013.