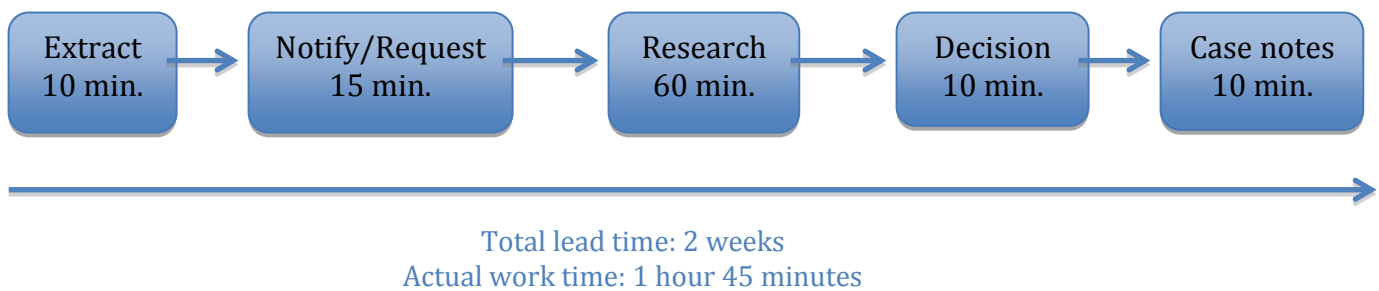


CASE STUDY: Regulatory/Processing

Jason supervises a team responsible for reviewing compliance issues in a major industry. The important work of the team provides support to businesses (the main customer) while protecting consumers and citizens. Jason’s team is made up of five experienced staff members.

The work process of Jason’s team includes the following five steps:

- Extracting potential compliance issues from the data base (work time: 10 minutes)
- Notifying business of issue and requesting information (work time: 15 minutes)
- Conducting research (work time: 60 minutes)
- Entering a decision in the data base (work time: 10 minutes)
- Entering case notes (work time: 10 minutes)



Typically the total *work time* (time actually spent working on the process) takes about an hour and 45 minutes. However, total lead time (the elapsed time it takes to complete the entire process) averages about two weeks due the need to request and wait for information from businesses. However, most businesses are very interested in resolving compliance issues in a timely manner. Staff members are responsible for each step in the process with the total process referred to as a “case.” While some staff members are faster than others, they all take roughly the same amount of time to complete their cases.

Jason holds fairly regular staff meetings and quarterly performance reviews with his staff. During each performance review, Jason ensures individual staff members are completing cases within a two-week time frame although no one is sure where the two-week standard originated. In general, the team has never had a problem keeping pace with the workload.

During a recent two month period, the team’s workload increased by approximately 30 percent. The added demand was due to a legislative change that increased requirements on many businesses within the industry. Luckily, the increased caseload was temporary—once the new requirements were met, work volume went back to normal. However, lead times slipped a full week going from two weeks to three. Jason was not alarmed—in fact, he felt the team did a great job keeping up with the work, despite having to take time to receive training on the new legislative requirements. Taking one extra week or so to complete a case did not seem like a big deal.

Month	Monthly Work Volume	FTE	Lead Times
July	401	5	2 weeks
August	415	5	2 weeks
September	387	5	2 weeks

October	392	5	2 weeks
November	405	5	2 weeks
December	379	5	2 weeks
January	395	5	2 weeks
February	391	5	2 weeks
March	523	5	3 weeks
April	517	5	3 weeks
May	392	5	3 weeks
June	403	5	3.5 weeks

In the following months, however, Jason noticed that his team was becoming more and more stressed. Businesses that were accustomed to getting cases resolved within a couple of weeks were calling the office to request status updates. His team was working as hard as ever but it appeared they were not making good progress.

Jason felt like it was time to ask for some help—he waited for the next senior management team meeting and asked for an additional employee. He felt hiring another staff member was the best way for his team to “get back to normal.” He justified the request with the data showing his team’s increase in lead times. Fortunately, the senior management team was able to move resources and Jason was given another full-time employee.

Jason and his team were relieved about being assigned an additional staff member; however, there was a catch. Some customer complaints had filtered up to senior management and Jason’s boss asked him to look at ways to improve his team’s work processes. He wanted to make sure the investment of an additional employee would improve the team’s overall performance.

Wanting to do a good job, Jason read a couple of books on management and process improvement. He was certain he could make changes that would allow the team to get back on track with their workload demands.

Jason held a day-long team retreat. The objective was to identify changes and to brainstorm new ideas that could be reported back to senior management. The staff grumbled about having to spend a full day away – doing so would cause them to fall further behind. However, once the retreat began, most everyone was excited to offer up their perspective on how things could be improved.

After a full day of brainstorming, debate, and compromise, Jason was exhausted. Some team members really pushed their ideas while others hardly participated. Knowing he would have to report back to senior management, Jason had to have a solution. At the end of the day, the decision was made for the team to be given specialized functions in the following areas:

- Data extraction and notification (1 FTE)
- Research (4 FTE)
- Data entry (1 FTE)

Not everyone was happy with the new assignments. However, after providing change management and new procedures training the team was ready to go—certain that they would be able to get lead time back to normal. However, after a couple months, Jason was shocked to find lead times had increased to four weeks despite the additional staff member and the reorganization of work into specialized functions.

Month	Monthly Work Volume	FTE	Lead Times
July	386	6	4 weeks
August	406	6	4 weeks

Jason held a team meeting to discuss the increase in lead times and asked the team why they felt things were not improving. Almost immediately, team members started pointing fingers at each other. The research staff blamed the data extraction person because they didn't feel they had enough information to do their job. In fact, they had to go back and duplicate some of the work to obtain the information they needed. Even worse, the research staff lost the ability to manage their own work because the data extraction position pushed through cases without any sense of priority—before the segregation of assignments, “critical” cases were completed first. More and more work was piling up waiting for the research staff to take action. The data entry person was experiencing a totally opposite impact with more and more extra time available.

Concerned about the feedback he received, Jason developed a series of reports to track work through each step of the process. He also had workload reports developed for each employee. He incorporated new individual targets into the performance plan for each position and doubled his efforts to meet with staff to review their stats. Staff became frustrated with the focus on the new performance standards, especially the research staff.

One day a very important and influential customer called to complain about a case. Taking time out of his busy day, Jason personally researched the case and found out that an error had been made. The complaint made its way to senior management and Jason was told in no uncertain terms that the mistake should never be made again. Even though there were rarely quality issues associated with the team's work, Jason made a decision to assign 50 percent of his best researcher's time to quality control activities. The employee approached the new assignment with great zeal and quickly identified a way to sample and review the quality of work.

- Data extraction and notification (1 FTE)
- Research (3.5 FTE)
- Data entry (1 FTE)
- Quality control (.5 FTE)

Since it appeared most of the quality issues originated with the data extraction position, a new procedure was developed to review all work before it went to research. The procedure required the data extraction position to hold cases in groups of 15 cases until they were “cleared” by quality control. Sometimes the cases moved quickly, but other times the group of cases would wait to be cleared before the batch would move on to research. In addition to the weekly individual workload reports, Jason now had weekly quality control reports and issues to deal with. Based on the recommendation of his QC position, staff received regular training because it appeared they were struggling to keep up with all the new procedures. In the meantime, lead times increased to six weeks.

Month	Monthly Work Volume	FTE	Lead Times
September	402	6	5 weeks
October	397	6	6 weeks

Jason reported the latest numbers in a team meeting and everyone was shocked. They were certain they were working harder than ever before but things were obviously getting worse. One of the research staff mentioned that they were getting tired of answering the growing number of phone calls and that they were spending more and more of their work day tracking down issues and providing status updates for frustrated customers. They also realized that they were starting to expedite the work of frustrated customers—moving those cases ahead of all others.

The team agreed that they were spending too much time answering phone calls. After conducting some research, the team determined that each call took at least five minutes in addition to the time needed to research the issue and to expedite the case if needed. The team also determined that about 25 percent of customers were now calling to request status updates or to complain about the time it was taking for a decision. Jason took this information to senior management—unfortunately there were no additional resources that could be moved to Jason’s team to handle the phone calls. Jason did the next best thing—he developed a rotation where all research staff would take turns answering incoming calls.

- Data extraction and notification (1 FTE)
- Research (2.5 FTE)
- Data entry (1 FTE)
- Quality control (.5 FTE)
- Customer service- phones (1 FTE)

After some training and additional procedures, the team implemented the customer service function. They were hopeful this would allow them to focus more on their actual work. However, the team now just had 2.5 positions doing research. After a couple of months, their lead times were at two months but the phone calls were being answered faster.

Month	Monthly Work Volume	FTE	Lead Times
November	406	6	7 weeks
December	388	6	8 weeks

By this time Jason was spending the majority of his time reviewing individual workload reports, quality control reports, and reports detailing phone activity (wait times, average call times, etc.). He was also spending more time reporting this data to senior management as well as putting out daily fires. He started coming into work early and staying late just to keep up with all of the new demands on his time.

Hope seemed to be on the horizon after some members of senior management returned from a conference where they visited with several vendors and were convinced that Jason’s processes needed to be completely updated with the latest technology. Management requested and received funding to automate the team’s specialized processes.

Unfortunately, after spending thousands of dollars and a year of programming to incorporate the latest technology—lead times remained at two months. Over time, customers adjusted to the new timeframe and Jason, as well as many members of his team left the team to accept other employment. New employees were trained to replace the departing employees. The new employees often wondered why the existing work processes were ever set up this way.

Questions

1. Did Jason correctly diagnose his team’s initial problem correctly? What was it? Jason did not completely diagnose his team’s problem—he focused on the increase in workload (due to the legislative change) and the resulting increase in lead times. The true root cause of the increase in lead times was his team’s inability to respond quickly to the increase in workload (resulting in a backlog of work).
2. What missing piece of data did Jason need in addition to lead times? (What senior management should have asked for?) The missing data was the amount of work Jason’s team was able to complete during and immediately after the months of increased workload. In addition to the monthly workload figures and lead times, senior management should have asked for this data to determine the team’s ability to handle the spike in work volume.

Month	Work Volume	Work Completed	Lead Time
Dec	379	382	2 weeks
Jan	395	414	2 weeks
Feb	391	403	2 weeks
Mar	523	394	3 weeks
Apr	517	388	3 weeks
May	392	402	3 weeks
June	403	394	3.5 weeks

3. Could Jason have anticipated the increase in workload? How could he have avoided this situation altogether? It is likely that Jason could have anticipated the increase in workload (based on the legislative change). The entire situation could have been avoided if he had built in strategies to handle temporary increases in workload. The temporary increase in workload created too much work in process, leading to an ongoing backlog.
4. Though well intentioned, what type of complexity did Jason introduce into his process? Jason introduced several forms of complexity into the process: specialized roles, unnecessary hand-offs, batching, linear sequencing, lack of prioritization and unnecessary data/reports. Unfortunately, much of unnecessary complexity was memorialized when the process was automated.
5. What undesirable effects started to occur as the team fell further and further behind? Whenever a system or a process is out of balance or has an ongoing backlog (work coming in that exceeds the work going out) several undesirable effects occur. These include an increase in customer status requests, complaints, quality issues, and overall employee stress.
6. What is the most important or critical function in Jason’s process? What happened to it over time? In any system or process, there is always one critical function or step that determines the overall productivity or effectiveness of the entire system. In Jason’s process, the most critical function is the research/decision process step. In his management role, Jason should have done everything possible to maximize his team’s time in this critical function. Unfortunately, he did the opposite—substantially reducing the time spent in research/decision by allocating time to other specialized roles.



7. What is the difference between the actual work time and total lead time of Jason's process? The overall lead time (elapsed time to complete the entire process) began at two weeks and, over several months, increased to eight weeks. Throughout this time period, the actual work time remained exactly the same at one hour and 45 minutes. The gap between work time and lead time widened substantially—mainly due to the unnecessary complexity and process steps Jason introduced into the system.
8. What actions can the team do to improve lead times? Fortunately, much of the complexity Jason introduced into the process can be reversed. First and foremost, the new manager needs to implement procedures to maximize the time and quality for conducting research and making decisions. This may include eliminating some of the positions or functions Jason created (improvement is often about STOPPING non-value added activities or process steps) and putting the capacity back into the critical function. Doing so will also have the positive side effect of eliminating much of the unnecessary reporting or data that is simply creating noise in the system—making it difficult to focus on critical functions.

After the critical function is maximized with available resources, the challenge becomes reducing the largest gaps between work time and lead time. Doing so will speed up the entire process and create significant additional capacity. The new manager can apply a few basic rules to reduce the gaps including eliminating unnecessary hand-offs, ensuring staff have prioritized or “triaged” work, eliminating batching (producing work in batches rather than a continuous flow), ensuring quality at the source and identifying process steps that can be done in parallel (rather than linear sequencing).

The new manager should also ensure there are strategies in place to handle increases in work volume. This includes trying to anticipate the potential for workload increases (seasonal variation, etc.) as well as preparing for the unexpected. By monitoring the volume of work coming in and going out (work in process) on a weekly basis, the manager can quickly determine if the process is becoming out of balance. If the system becomes out of balance, pre-set strategies can be triggered to avoid an ongoing backlog and the resulting undesirable effects.