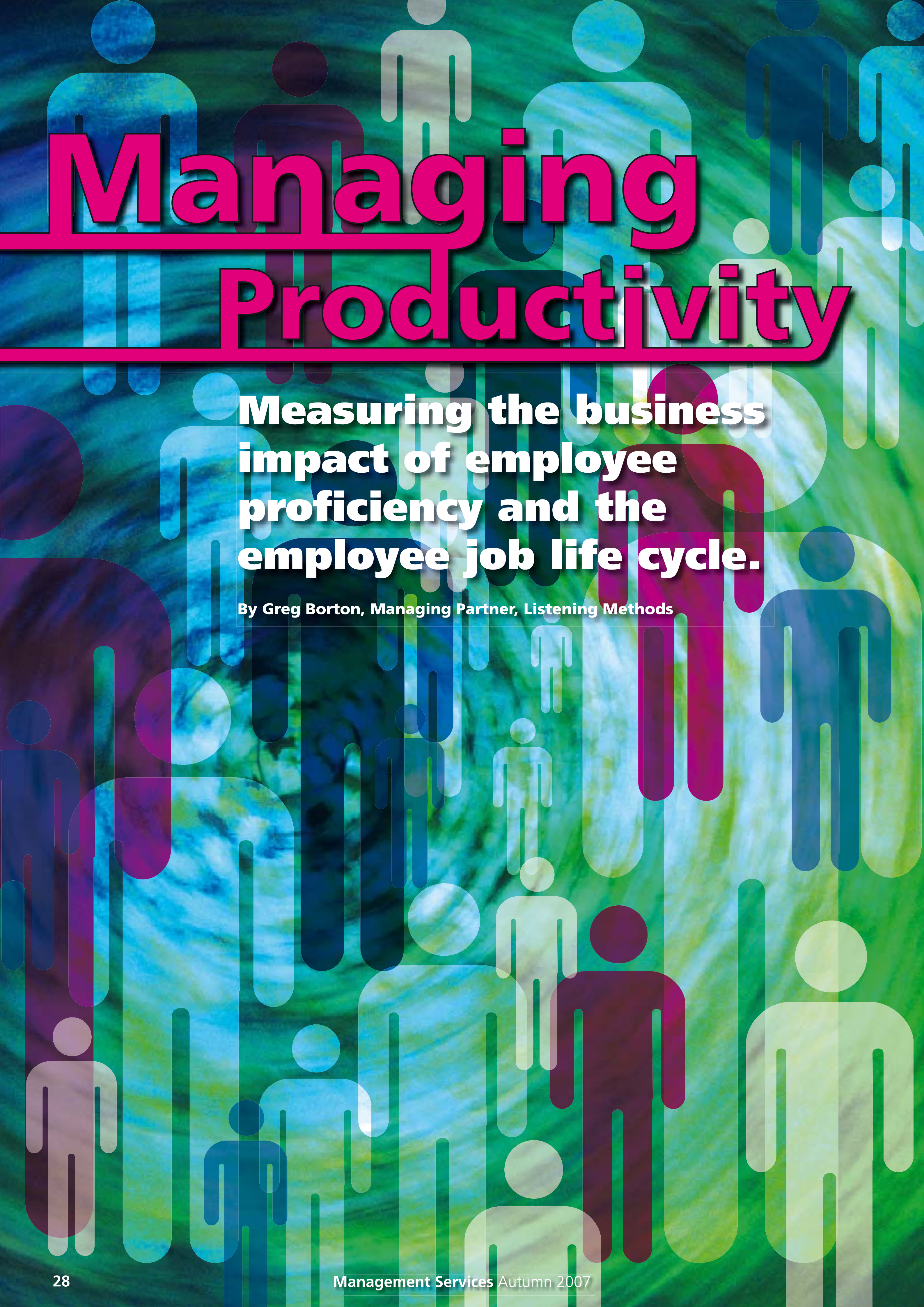


Managing Productivity

Measuring the business impact of employee proficiency and the employee job life cycle.

By Greg Borton, Managing Partner, Listening Methods

Managing the job life cycle may be one of the most effective ways of meeting business goals

Summary:
Implementing workforce scheduling and management may increase your labour productivity 5-10%. Creating the business processes for ongoing quality monitoring may increase productivity by 5-8% and increase customer satisfaction. However, if you have high employee turnover, increasing employee job duration based on new hiring strategies, reward and recognition programmes and other labour retention tactics can increase your productivity by 10-30% while simultaneously increasing quality. The cost of managing the employee job life cycles may be significantly less than that of other project opportunities. The data and conclusions in this White Paper are based on Mr Borton's work at large companies

Introduction
The VP of a large division is meeting with the management group...

"We actively use workforce management and scheduling to keep data about our employees and ensure that we meet our quality of service measures.

"We should all be pleased with the improvements we have made due to our quality programme. Service is more consistent and productivity has improved by several percent.

"But we seem to be missing something. There is still a high error rate, causing customer issues and call-backs. Our efficiency has improved, but I think there's more room for improvement.

"I have noticed that we seem to have an awful lot of new employees in our training courses. Does anyone have good data on the job retention rates?"

At this point in the meeting, the VP of human resources looks up:
"Our turnover is high. As far as we can tell, we lose 20% of our new hires within the first few months and up to 35% by six months.

"We also know that an employee doesn't reach full productivity until they have worked at least six months. There is always a major portion of the employees who are not at full productivity.

"Other than that, we don't have good data telling us what is going on or whether our programmes are effective."

If you have implemented the management and quality programmes previously mentioned, you are an unusually good business operation. However, the conversation shows that this group does not have the information to manage their employee proficiency or job life cycle of their workforce. In fact, if one visits a number of large organisations, it will quickly be found that few large operations track this job life cycle. In some cases this may not be important since simply knowing the attributes of the life cycle will not provide useful information for meeting the group's goals. But in cases where there is a significant new employee learning curve and moderate to high job turnover, managing this life cycle may be one of the most effective ways of meeting business goals.

What is the employee job life cycle?
The job life cycle describes the evolving employee proficiency, quality, productivity and job retention of typical employees throughout the process of hiring, employment and termination. It picks out the most important performance data and measures it carefully for each of the different time periods in typical employees' time with a company.

The following chart illustrates the high points of an employee job life cycle. Here, six different stages – job duration groups – have been chosen to describe the employee's proficiency. Each stage has a different set of attributes which are:

1. Job life cycle groups – the different stages that an employee goes through as they become proficient on the job;
2. Duration of each life cycle group – the number of weeks that an employee is in each group;
3. Average weeks on the job;
4. The number of employees in the group at any one time;

A future is quite important to an employee, especially those on the lower rungs of a corporate ladder

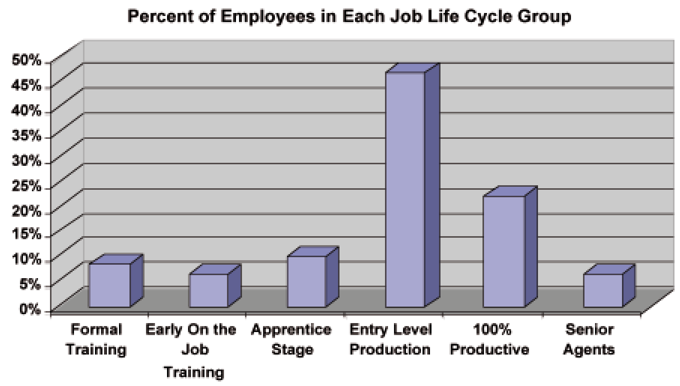
Employee Job Life Cycle Group	Start	Formal Training	End of Week 4	Early On the Job Training	End of Week 8	Apprentice Stage	End of Week 16	Entry Level Production	End of Week 26	100% Productive	End of Week 52	Senior Agents		TOTALs & Weighted Averages
Number of Weeks in Each Job Group		4 Weeks		4 Weeks		8 Weeks		10 Weeks		26 Weeks		52+ Weeks		
Average Weeks on the Job of Employees in each Group		3 Weeks		7 Weeks		14 Weeks		22 Weeks		48 Weeks		104 Weeks		29 Weeks
Number of Employees in Each Job Group		70		40		90		330		155		45		730
% of Hires Who Have Terminated by this Point in the Job Life Cycle		22%		38%		48%		62%		85%		na		

(NOTE: Greater than half of the employees are in the zero to six month category.)

5. The percent of the employees who have terminated their employment by the time they reach the end of this group.

The organisation portrayed in the above chart obviously has a problem – high turnover. In the first four weeks, 22% of the new hires leave. Almost 50% leave by the end of 16 weeks and 85% of the workforce stays less than one year.

This chart shows the 'lopsided' nature of this workforce. As can be seen, most of the employees are in the entry level production stage of their employee life cycle. They do not reach



full productivity until the next stage. As will be seen later in the paper, there is a very high cost associated with such a profile.

One would also be surprised to find out how often this profile occurs. Do you have too many low productivity personnel, due to their place in the employee life cycle?

It turns out that a number of organisations have high employee turnover in operations such as customer contact centres, back-office processing and inventory management positions.

Healthcare, communications, banking and insurance are more prone to these high turnover characteristics than other industries. The reasons are multifold, but in general, the environment in which these organisations perform forces them into these employee patterns. The characteristics of their environment are:

1. Employee compensation is low to moderate;
2. Upward mobility is generally not available to the employees in terms of significant increases in compensation or in more senior job opportunities;
3. High turnover due to hiring characteristics and competitive job markets;
4. Complex training, of which only a portion of new hires can actually accomplish; therefore, leading to a significant new employee drop-out rate;.
5. The typical employee will encounter a wide range of customer and other issues that cause a long-term learning curve; therefore, requiring an employee to have months of 'on-the-job' experience before they are able to quickly and accurately handle most issues that arise.

Attribute	High Opportunity Measure
Size of Employee Group	More than 300 Employees
New Employees Hired per Month for a labour intensive business unit	Greater than 20 new hires per month
How Extensive is your New Employee Training?	

This table provides a few questions that will predict whether you are ripe for harvesting some of the goals mentioned above.

Opportunities for improvement

If you meet many of the above criteria, then you have significant opportunities to improve productivity, quality and reduce the stress on your management by pursuing programmes that reduce employee turnover. In particular:

- Productivity opportunities will range between 10-30% of the cost of labour and supporting infrastructure by increasing your workforce's average job duration; thus, automatically leading to increases in productivity. This translates directly to a reduced requirement for full time equivalent employees (FTEs)
- Increasing the average job duration also leads to reduced errors, thus, increasing the quality of customer's perception of quality of service.
- Lastly, there will be reduced stress on your management team and organisation by significantly reducing the number of new employees being hired. There is a more stable environment, working at a higher productivity and quality level. This enables the management group to focus more on strategic and business process issues instead of managing employee churn.

In fact, the opportunities for improving performance are as high, if not higher, from managing the job duration life cycle as they are from implementing a number of other technology and business process opportunities.

The costs of doing work across the employee life cycle

The opposite chart, although showing data that is somewhat exaggerated, provides information about an example customer contact centre for each different job life cycle group. The data is derived from several large companies who meet the profiles

In a high turnover environment, the management team feels powerless to confront and solve the high employee turnover

described in the text above. They all have complex learning curves and high job turnover.

First, for these customer contact centres, the variation in calls handled per hour is wide. In the early training it is four calls per hour. This is because most new calls are new experiences, with each call requiring careful learning and often, questions to supervisors. Call handling increases to six per hour during the apprenticeship and eight when an employee moves into the early production stage. Not until the employee has finished their sixth month, when they move into the 100% productive category, do they reach full productivity of 10 calls handled per hour. Of equal importance is the error rate analysis.

1) Duration of Formal Training Courses	3 Weeks or more
2) Duration of 'Apprenticeship'	A month or more
3) Time until Employees are Fully Productive	Typical 6 months or longer
High Job Turnover of New Employees	15% to 25% or more leave within 3 months; another 20% to 25% leave by 9 to 12 months
Low Average Job Duration across Employees	Overall, the average Job Duration is than one and a half years or less

It is no surprise that during the early on the job training and apprenticeship stages that there are many of errors (upwards of 50% and more calls are handled with some problem). This declines to 25% in the 'early production' stage, and reaches a better 85-90% correct handling rate only after the agent has been working for six months.

These errors are very, very expensive. The cost of solving a customer issue when there is a mistake made during a call is often double or triple the cost of an error-free call.

The chart at the top of page 32 shows the 'cost-per-call' and the 'cost-per-customer-issue-solved' for each of the employee life cycle groups in a customer contact centre, based on the data above. Note that these costs are calculated based on both the longer durations for new employees and their higher error rates, which causes additional work to be done.

Note that in our example (see first table in this White Paper), more than half of the employees are in the 'less than six months' employment category. This means that more than half the overall employees are at the lower productivity rates and higher error rates. This should be of major concern to management. Currently, it is the unusual group that receives reports, by each employee life cycle group, that enables them to understand and manage this process.

There is also another, cultural issue. It is often observed that, in a high turnover environment, the management team feels somewhat 'powerless' to confront and solve the high employee turnover. So it becomes accepted as a 'de facto' state. They turn their focus to other issues which can be solved more easily. In fact, this business problem can be addressed just as successfully as many other problems, often with a more significant positive impact on business performance than other options provide.

A 10 to 15 week increase in the average job duration has a massive impact on budgets. Table 2 on page 32) provides a baseline (where an organisation is now) and a Scenario (where an organisation could be) based on increasing the average job duration by roughly 10 weeks.

By comparing the agent populations in each of the groups, and the calls handled by each group, one quickly sees that by simply increasing the job duration 10 to 15 weeks there are major changes in the productivity of the organisation. This is due to the fact that in the baseline, most employees and work is handled in the 'less than six months' groups, which have lower productivity and higher error rates.

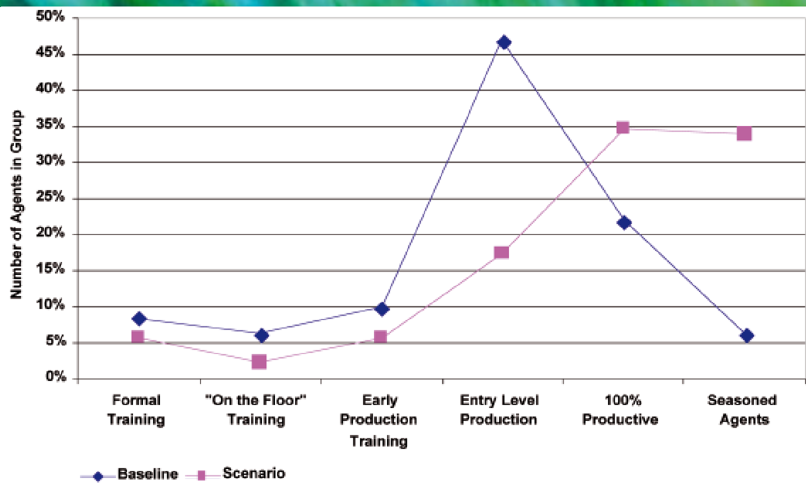
Job Duration of Employee	Start	Formal Training	End of Week 4	Early On the Job Training	End of Week 8	Apprentice Stage	End of Week 16	Entry Level Production	End of Week 26	100% Productive	End of Week 52	Senior Agents	Weighted Averages
Activities Handled per Hour per Employee		**0**		**4.00**		**6.00**		**10.00**		**12.00**		**13.00**	**8.83**
Percent of Activities Handled Correctly the 1st Time		**0%**		**25%**		**65%**		**91%**		**94%**		**96%**	**87%**
Portion of Activities Requiring Consultation or Consequent Visits													
1 Employee needs to Pass Work to Someone Else (Agent has yet to learn all Skills)		**0%**		**15%**		**12%**		**6%**		**5%**		**3%**	**6%**
2 Consult Required for Help, then Employee Completes Work		**0%**		**10%**		**10%**		**5%**		**3%**		**2%**	**5%**
3 Employee Mistakes that cause a additional visits by Customer		**0%**		**20%**		**15%**		**5%**		**3%**		**2%**	**6%**
TOTAL Calls Requiring Transfers or Causing Call-backs		**0%**		**45%**		**37%**		**16%**		**11%**		**7%**	**17%**

For large operations which have high turnover and a long learning curve, there are opportunities to reduce employee budgets by 10% to 20%

Employee Job Life Cycle Group	Start	Formal Training	End of Week 4	Early On the Job Training	End of Week 8	Apprentice Stage	End of Week 16	Entry Level Production	End of Week 26	100% Productive	End of Week 52	Senior Agents		TOTALs & Weighted Averages
Average Cost per Work Activity				$3.87		$3.34		$3.16		$2.45		$2.34		$3.05
Average Cost-per-Customer-Issue Solved, including time to handle mistakes and cost of Transfered & Callback Calls				$11.90		$5.98		$3.99		$2.81		$2.56		$3.89

Duration of Agent Employment:	Start	Formal Training	End of Week 4	"On the Floor" Training	End of Week 8	Early Production Training	End of Week	Entry Level Production	End of 6	100% Productive	End of 12	Seasoned Agents	Total Employees Required and Calls Handled	Total Budget
The Baseline - the Current State														
Number of Employees in Each Group		60		45		70		330		155		45	705	
Activities Handled by Group				6,480		39,690		267,300		177,863		53,460	544,793	$38,775,000
Percent of Work Handled by Group				1%		7%		49%		33%		10%		
The Scenario: What If We Can Add 10 Weeks to the Average Job Duration?														
Estimate of Emplyhee Composition		30		12		30		89		178		173	512	
Activities Handled by Group				5,448		21,792		87,167		217,917		212,469	544,793	$28,163,235
Percent of Work Handled by Group				1%		4%		16%		40%		39%		

By aging the employee population, the majority of the employees are now in the greater than six months category; thus, reaching significantly higher productivity levels and lower error rates. This 'movement of the bulge' is shown in the graph opposite. The baseline, in the darker blue, shows the peak employees in 'full production', which is roughly comprised of those who are between four and six months of employment. Under the scenario, in the lighter pink, the bulk of the employees are in the last two categories which consist of personnel who have been on the job more than six months. The opportunity costs are immense. The annual budgets of the baseline and the scenario are also shown on the table. As one can see, the baseline budget is $39 million per year, whereas the scenario is showing a budget of only $28 million per year – a 28% productivity improvement. This may be a bit higher than the opportunity available to some organisations, but not by much. Due to the double impact of reduced hiring, higher productivity and fewer errors, there will be a significant impact even with a several week increase in the average job duration.



A required success factor – monitoring and managing the evolution of the employee workforce

In order to manage the employee workforce, it is important that the management group has a structured business process and the tools for monitoring and managing the evolution of its workforce. This can only be accomplished by having information that identifies, in a consistent manner across all major sites, the employees' attributes in each job duration group. The data should include:

- Hiring and termination data across the employee population in order to identify job durations by site;
- Hiring, training, productivity and cost data for employees of each job group;
- Work activities, task details and business processes of each group, such as task duration, transfers of work, completed work, error rates and types, etc, in order to determine the real cost and productivity of each group;
- Estimates of error rates, and consequent re-work (for instance call backs in a contact centre) due to mistakes or omissions made when doing work;
- Good agent job termination reasons by group, so that management may better understand why agents terminate early in order to address these issues with retention programmes;
- Data to support correlation analysis on what factors most affect turnover – is it pre-job skills, compensation, training, etc. This can be captured from HR and with sample data, analysed to know specifically what the most important factors are for increasing job duration.

Capturing, analysing and providing monthly reports on the employee agent work force correctly and consistently, with scheduled monthly updates, will enable a management group to manage the trends in its labour pool. A company will be able to identify the productivity opportunities, qualify the business impact and value of project initiatives, and be able to measure the changes in the agent demographics, productivity, and costs as various initiatives are implemented.

What programmes are effective at increasing the employee job duration?

The goal of a strategy to increase average job life cycles is to make the business a fun place to work, in which most employees have no desire to go anywhere else. Over time, this means that good employees stay, that there is a large pool of prospective employees who want to join and there is a low attrition rate.

As has been shown above, the pay-off is very high. Programmes that are typically most effective include:

- Changing new employee hiring strategies

Strategic hiring practices reduce initial employee churn. In our case study, we show that employee churn in the first 8 to 16 weeks is very expensive since these short-term hires have high training and supervisory costs and very low contribution to the organisation. Often, the investment required to upgrade the new employee hiring strategy is low, and the return is almost immediate.

- Introducing aggressive reward and recognition programmes.

A good reward and recognition programme is not particularly expensive and often leads to not only longer job durations, but also increased efficiency. The goal is to make the workplace more fun, but in doing so, targeting behaviours and goals that improve quality and efficiency. This affects the entire workforce.

- Providing longer term upward mobility and career paths

A future is quite important to an employee, especially those on the lower rungs of a corporate ladder. This is a powerful motivator, which may or may not be available to larger organisations.

- Changing the compensation to more senior employees sometimes is effective, but not always

Rewarding those who stay longer with increased compensation may have an effect in those markets where there is significant competition for employees. However, other programmes, such as those mentioned above, are often more effective at increasing retention. In addition, they are often less expensive to implement.

Conclusion

For those large operations which have high turnover and a long learning curve, there are opportunities to reduce employee budgets by 10-20% by increasing the average employee job duration an average of 10 to 15 weeks.

There is usually a vast amount of data available to human resources and management about hiring, retention, and job performance, but little of it:

- Shows the progression of new hires through their life-cycle, identifying the changes in employee proficiency.
- Identifies the true costs of handling issues (which may consist of more than one task, for instance phone calls) at each stage of the employee life cycle, then linking this information to the overall costs.
- Provides the ability to measure the impact on personnel, costs and returns of possible management strategies addressing these issues.
- Enables upper management to understand, measure and manage the productivity trends in its workforce at a granular level.

In order to manage towards the goal of job retention, it is necessary for an organisation to have a formal business process with continuously updating reports and key performance Indicators and informing management about the workforce. This requires:

- Collecting solid information about the labour force, its costs and the changes in key factors such as average job duration, productivity, skills (both pre- and post-hire);
- Experimenting with multiple labour management strategies with a goal of increasing the average job duration and productivity;
- Tracking and measuring the impact of the various initiatives in order to select and optimise those that have the desired effect.

More importantly, by successfully implementing the programmes to reap the productivity opportunities, it will also reap significant increases in the quality of its work product and its customers' satisfaction. A general relationship is that productivity opportunities are almost always directly linked to quality improvements. This will lead to more ongoing business from current customers as well as provide it with the track record to continue its growth with new customers.

About the Author

Greg Borton is the managing partner at Listening Methods. He provides consulting services and solution implementations related to capturing and using hard-to-get customer and agent interaction analytics information. This information is used to address high value business opportunities related to customer experience, sales processes, churn management and employee productivity. Greg has founded several successful software and consulting companies, selling one to Avaya and has been on the advisory board of six start-up companies in the contact centre and CRM markets. His engagements cross a range of industries, including financial services, telecommunications, manufacturers, and software products. Mr Borton is a graduate of Harvard University, cum laude, in the sciences.