

Designing Clear Space-to-Lead

A study of 32 organisations finds 1 in 10 leaders not adding value to some direct reports due to over-layering. Organisations with a high average span are not protected. Delayering appropriately creates clear space-to-lead, better leadership pipelines, and cost savings as a by-product.

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EXECUTIVE BRIEFING

An effective organisation design is multifaceted but critically helps leaders to add value to the work of direct reports. If a leader's decision space duplicates that of a report, then the leader can't add value and there is over-layering. Research into 32 organisations, with half a million jobs in total, finds low spans of control correlate with over-layering for individual leaders, but not for organisations. A leader's job with a span of 6 or greater is significantly more likely to add value than one with a lower span. But, counterintuitively, the organisations with a mean span of 6 or greater were more, not less, over-layered than those with a lower average span. This is because mean spans are driven by the nature of front-line work – the more prescribed the work's outputs, the higher the average span.

The author argues that the right number of layers is found with a Leadership Levels approach in which there is decision space for up to one leadership layer per Level above first-line employees. He has found up to 8 Leadership Levels in global companies like Deutsche Post DHL, which therefore needs 9 layers of employees. The 32 organisations in the detailed dataset presented by the author ranged from Leadership Level 4 to 7 and had from 1 to 5 layers too many. As a mean average they had the following: 3 layers too many; 36% of jobs in unnecessary layers; and leaders with a 6.6 span.

The author and colleagues¹ interviewed 1,100 leaders to assess if their job was adding value to key direct reports. They found 25% were not. In 60% of these cases a job could be deleted via delayering. The interviews tended to be in especially over-layered hierarchies. Extrapolating conservatively to all leaders in the 32 bodies, the author estimates that 1 in 10 weren't adding value to all direct reports. Beyond 3 small bodies that weren't over-layered, potential pan-organisation delayering cost savings ranged from 2% to 12% of leader headcount per body, with a mean of 6%. But, cost savings are a by-product. The main benefits of delayering are greater accountability, faster decision-making, being closer to customers, higher employee engagement, better people development and retained talent.

When designing organisations, the author suggests CEOs first ensure that they will have the right number of layers with discrete decision rights, and then consider spans. The research shows the wide diversity of spans in use. Of 50,000+ leaders sampled, 93% have a span of 1 to 15. Yet, the 7% of leaders with a span of 16 or more lead directly 24% of all the employees in their organisations.

The article reveals how jobs in the 32 organisations break down by Leadership Level accountabilities. This shows that 50% of leadership jobs are Level 1 leaders, not more accountable Level 2+ managers. Yet, leadership pipeline models like that from Ram Charan and Steve Drotter exclude Level 1 leaders. And, they see over-layering as due to inappropriate leader behaviours, not also to structural issues.

A synthesis of talent and accountability perspectives is needed as leaders add value to direct reports when they have appropriate competence as well as clear space-to-lead due to effective structures.

QUESTION How tall or wide should your organisation be for leaders to add value, and if your organisation has too many layers, what cost savings are likely to be available from delayering?

FINDINGS

- Value-add depends on the nature of the organisation's layers, not its average span of control. A very wide mean span indicates highly prescribed front-line work rather than value-adding layers.
 - The 32 bodies had from 6 to 12 employee layers and mean spans ranging from 2.6 to 20.0.
 - On average, the 32 bodies had leaders with a 6.6 span; 3 layers too many; 36% of employees in unnecessary layers; 10% of leaders not adding value with 6% representing a cost-saving option.
 - 6% fewer leaders via delayering would lift the mean span across the 32 bodies from 6.6 to 7.0.
 - The data suggest even global companies need no more than 9 layers including CEO and first-line.
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AN EFFECTIVE ORGANISATION DESIGN has many aspects but critically it helps leaders to add value to the work of direct reports. If a leader's decision space duplicates that of a report, then the leader can't add value and there is over-layering. Our research into 32 organisations in various sectors and countries shows links between over-layering, spans of control, and leader cost saving opportunities. First, we introduce organisational layering principles based on Leadership Levels decision-making space. Then, we share the Leadership Levels, layers and average spans found in the 32 bodies. As the degree of over-layering does not explain their mean spans, we reveal what does. We then discuss how we used 1,100+ interviews to assess the need to delayer, delayering options and benefits. We give a rule of thumb about the extent of over-layering and leader cost saving options. We also share the correlation found in our interviews between leader value-add and spans, and present 15 factors that drive a leader's span. Referring to a distribution of 50,000+ individual spans, we show the wide range used in practice. In addition, we present a map of jobs by Leadership Level and consider leadership pipeline implications, illustrating the importance of clarifying leader definitions.

Layering principles based on Leadership Levels decision-making space

For major organisations, the right number of employee layers including the CEO is likely to range from five to nine. The precise number can be found using the author's Leadership Levels approach. This builds on the Decision Making Accountability framework created by Brian Dive at Unilever.² The framework analyses a job to assess in which of eight Work Levels it sits, with Work Level 1 being the lowest accountability level, in essence, *for jobs with prescribed outputs³ from outlined methods*.

The Leadership Levels approach subdivides Unilever's Work Level 1 accountabilities into:

- **Level 0** *for first-line jobs with prescribed outputs, outlined methods and sub-methods yet choice over some aspects of how to work towards these outputs;*
- **Leadership Level 1** *for jobs with prescribed outputs from outlined methods yet choice over sub-methods* whether as a leader of Level 0 jobs or an individual contributor.

Subdividing Work Level 1 is important conceptually. For example, it helps differentiate the decision space of Level 1 leaders (supervisors⁴) from the decision space of their direct reports. Moreover, a Work Level 1 split is useful as 90% of jobs are here: ~60% in Level 0, and ~30% in Leadership Level 1. The author's approach also adds pan-organisation analytics to the Unilever framework, as this article illustrates. Lastly, it renames Dive's accountability strata from Work Level 2+ to Leadership Level 2+.

The Leadership Levels approach has links to, yet is different from, earlier work by Elliott Jaques and colleagues.⁵ Jaques argued that for effective leadership a Level 2 manager should have no more than 50–70 subordinates and that all must be direct reports, even if they include ‘supervisory assistants’.⁶ But, our experience of people-intensive businesses is that they can deploy Level 2s successfully with 70–150 people, and occasionally up to ~250, with a layer of Level 1 supervisors between manager and front-line. Indeed, most companies record any supervisors as a separate layer. We support this, if a supervisor is needed. Yet, the Leadership Levels approach is challenging. We have found over-layering in Levels 1 to 6, but in 40% of cases it was due to two, not one, supervisory layers in Level 1.

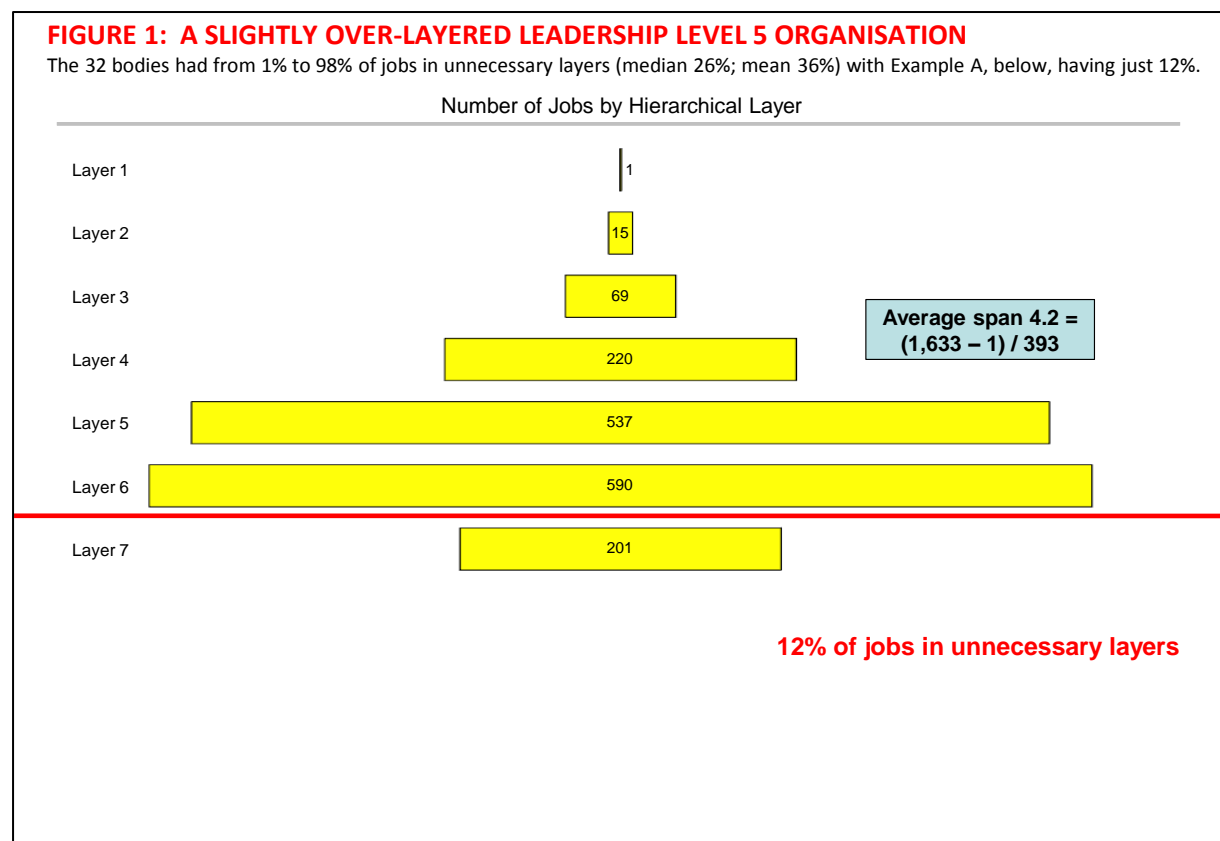
In sum, as well as an organisation having typically a first-line employee layer in accountability Level 0 there is decision space for one layer per Leadership Level from Level 1 up to the top job. If a CEO is in a Leadership Level 5 job and has first-line employees in Level 0, then the organisation needs 6 layers.

Leadership Levels, layers, and average spans in our dataset of 32 organisations

Using the Leadership Levels approach, the 32 bodies in our dataset were found to range from Level 4 to 7 (the median being Level 6) and thus they needed from 5 to 8 layers (median 7). Yet, they had 1 to 5 layers (median 3) too many, with from 1% to 98% of their jobs in these unnecessary layers.

The largest of the bodies had 118,000 people and 11 layers yet needed 8 as the CEO job was Level 7. It has since delayered to 8 layers. We have also worked with companies that are Level 8, such as Deutsche Post DHL with 520,000 employees and Tesco with 465,000 in 2017.⁷ We have not included these as whole entities in our detailed dataset of 32 bodies due to data availability.

Figures 1 and 2 give examples of Leadership Level 5 businesses in our dataset.



The customer data analytics firm in **Figure 1** (Example A here) has 1,633 jobs structured in 7 layers. As 393 of these jobs are leaders in the sense of having at least one direct report, the company’s mean span is 4.2.⁸ Interviews revealed that the CEO job is Level 5 and some first-line jobs are Level 0. Thus, the company needs no more than 6 layers of employees. So, we draw a red line after layer 6. But it has 201 jobs below layer 6, which we record as 12% of jobs in unnecessary layers. As all 201 jobs are in layer 7, we know none are leader positions. By saying they are in unnecessary layers, we are not saying the 201 jobs aren’t needed. Rather the picture shows there is one layer too many between these first-line jobs and the CEO. Accountability interviews pinpoint which layer is not adding value. The answer varied by department from Level 1, through Level 2, to Level 3.

The business in **Figure 2** had 4,773 roles in 11 layers. The 978 leader jobs had an average span of 4.9. As the CEO job was Level 5 and the first-line Level 0, we again draw a red line after layer 6. But the business had 3,632 jobs (76%) in unnecessary layers, with 5 layers too many. Interviews revealed over-layering in Levels 1 to 4. Our delayering proposals included a new top structure. This is one of the worst cases of over-layering we have seen. It was 2008 and the business was Northern Rock, the failed FTSE 100 bank that had just been taken into public ownership. The CEO agreed with our recommendations and we worked with him over two years to flatten the business and split it into a ‘good’ and ‘bad’ bank. The good bank was sold in 2011 and now operates as part of Virgin Money.

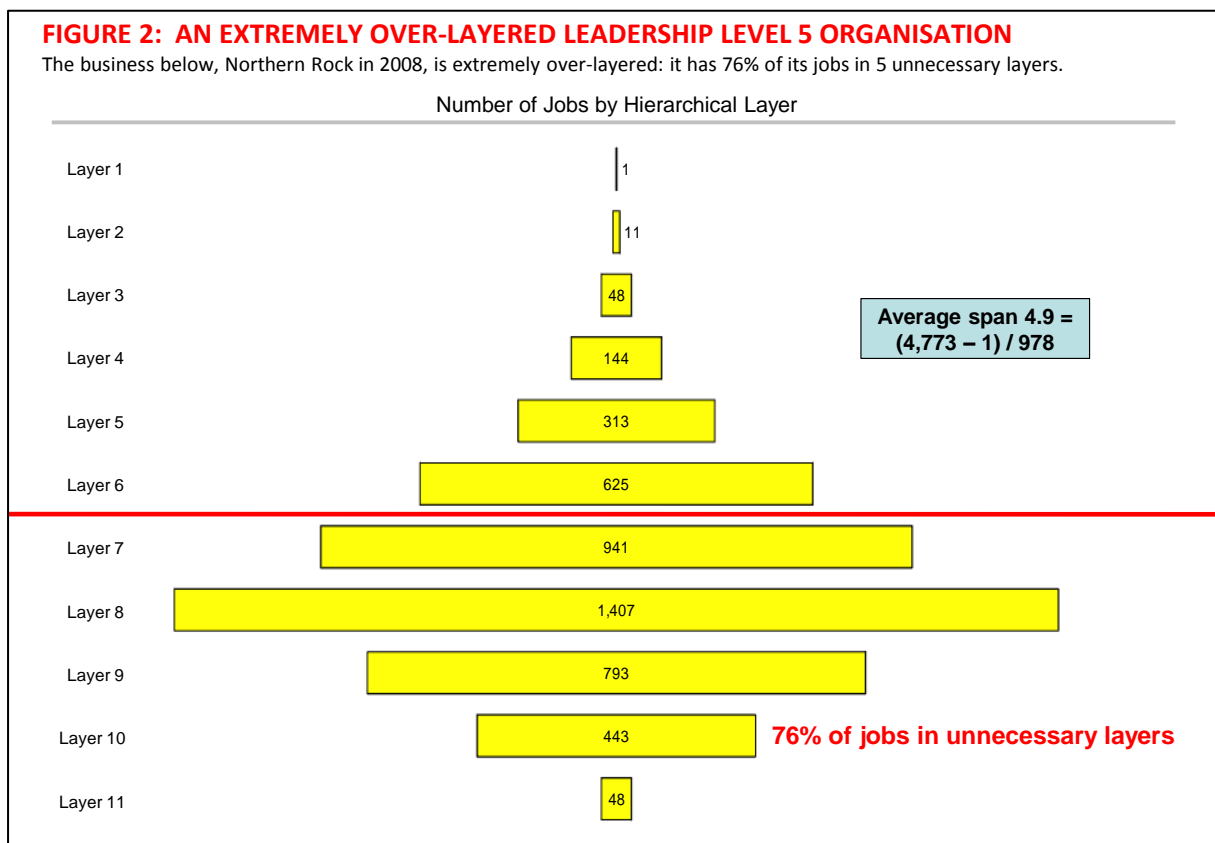


Figure 3 shows the layers and average spans we found in all 32 bodies. They had from 6 to 12 employee layers (median 10; mean 9.4), and mean spans from 2.6 to 20.0 (median 5.9; mean 6.6).⁹ At 11 layers, Northern Rock had one layer more than the median. Simplistic layers benchmarking may have erroneously implied this was near to optimal.

FIGURE 3: MAXIMUM LAYERS AND AVERAGE SPANS FOR 32 BODIES

The 32 bodies had from 6 to 12 employee layers (median 10; mean 9.4), and mean spans from 2.6 to 20.0 (median 5.9; mean 6.6).

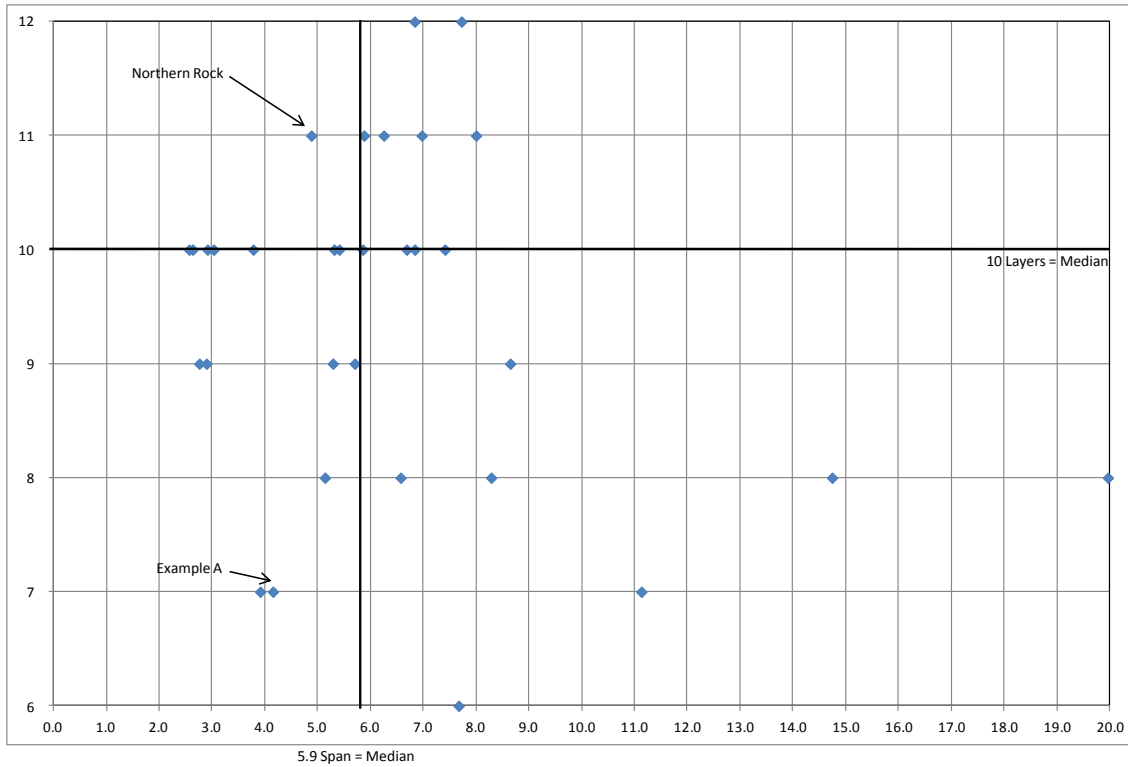
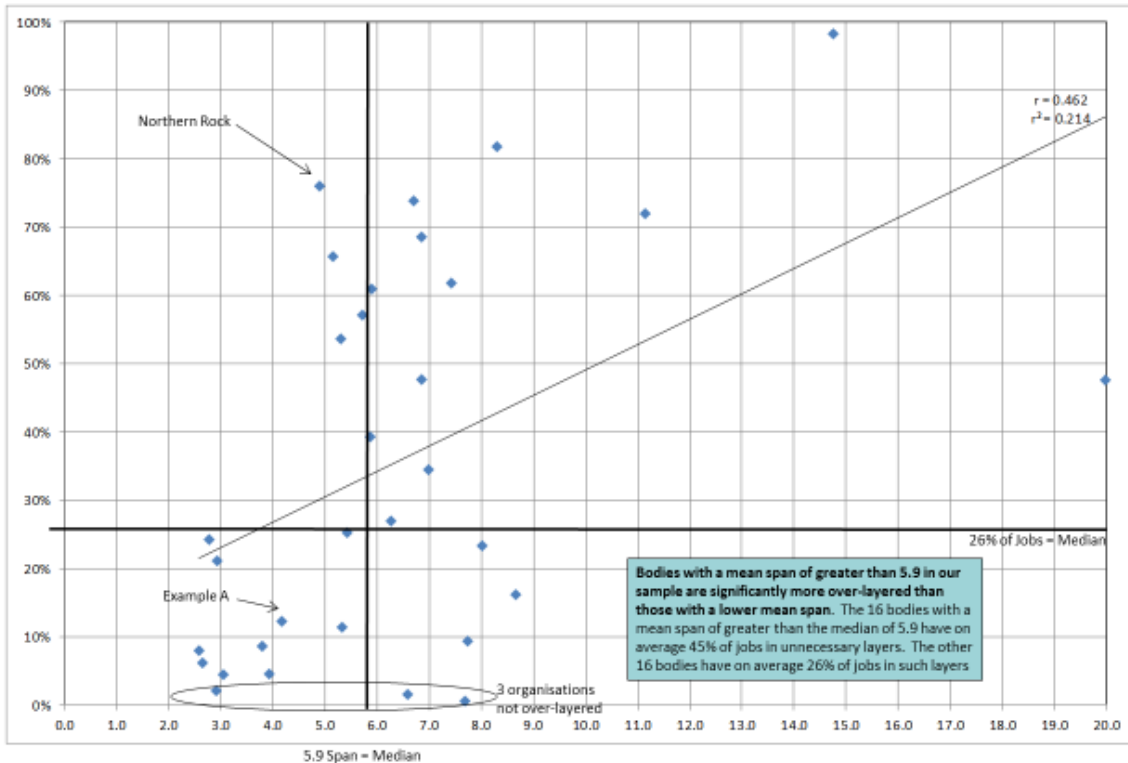


Figure 4 retains a horizontal axis of average span with the vertical axis now plotting the share of each organisation’s jobs in unnecessary layers, the median being 26% of jobs, and the mean 36%.

FIGURE 4: JOBS IN UNNECESSARY LAYERS AND AVERAGE SPANS FOR 32 BODIES

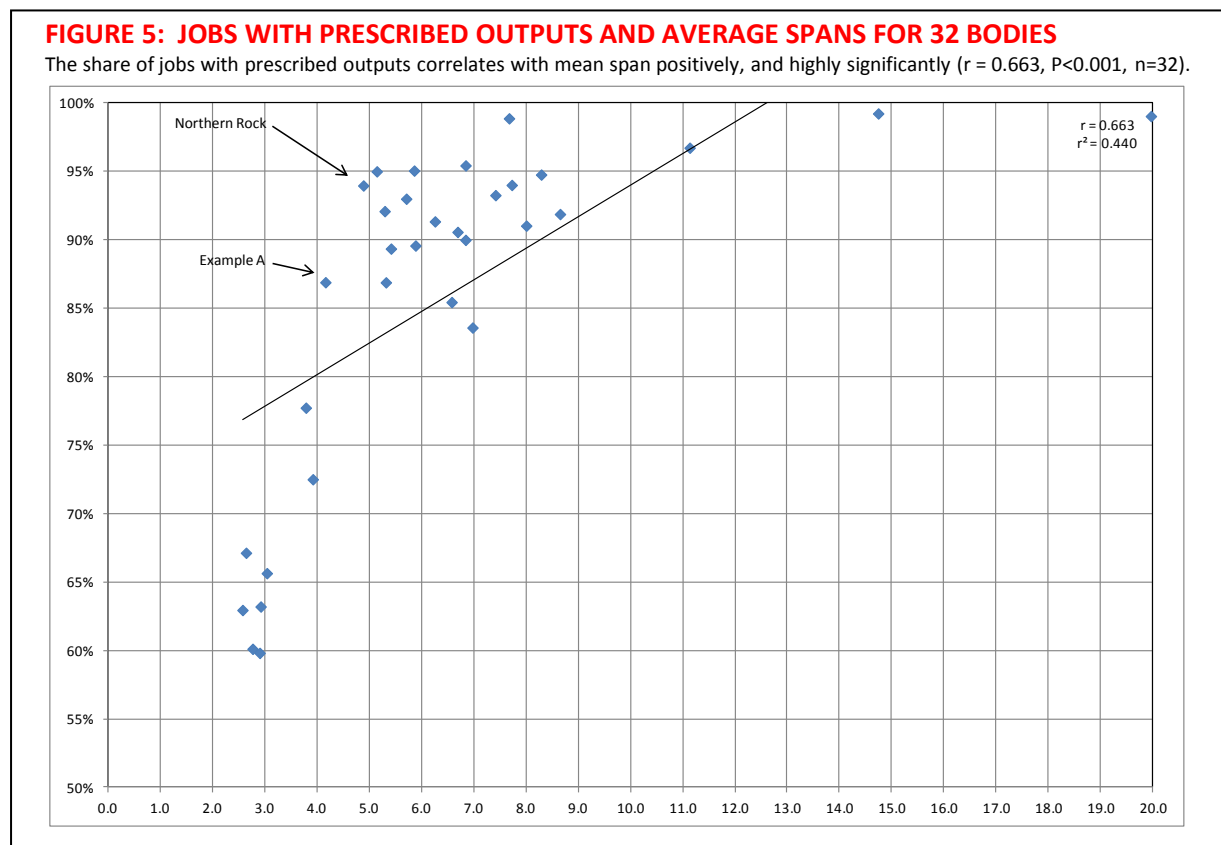
Counterintuitively, the correlation between over-layering and mean span is positive, and significant ($r = 0.462$, $P < 0.05$, $n = 32$).



Northern Rock’s over-layering is now obvious: it has the third highest share of jobs in unnecessary layers. **Figure 4** also shows the correlation between over-layering and mean span. Counterintuitively, this is positive and statistically significant (Pearson correlation coefficient: $r = 0.462$, $P < 0.05$, $n = 32$).¹⁰ The bodies with a mean span greater than the median of 5.9 are significantly more over-layered. They have on average 45% of jobs in unnecessary layers, while the other 16 have on average 26%.

What drives an organisation’s average span?

If an organisation’s average span is not a good indicator of over-layering, what is driving it instead? We looked at the extent to which an organisation’s front-line work has prescribed outputs in terms of the share of its jobs that are either in Level 0 or Level 1. As shown in **Figure 5**, this proportion ranged from 60% to 99% and was correlated to the body’s mean span in a highly statistically significant way ($r = 0.663$, $P < 0.001$, $n = 32$).¹¹ Thus, an organisation can have a high mean span, since much of its work has prescribed outputs, and yet it can be significantly over-layered.



Interviews to assess the need for delayering, delayering options, and delayering benefits

Focusing on especially over-layered hierarchies in the 32 bodies,¹² we interviewed 1,100 leaders and 200 first-line subordinates to determine, among other things, if each leader job was adding value to its key direct report(s). Circa 25% of the leader jobs were not adding value. In 60% of these cases, as part of delayering we recommended a leader job could be deleted entirely, while in 40% of cases the same number of jobs were needed, perhaps with the erstwhile leader job repositioned as a specialist support role. Thus, 15% of these 1,100 leader jobs could be deleted via delayering.

For 3 of the bodies, over-layering was not significant. For most others, we estimated potential cost savings from deleting non-value-adding leader jobs across the whole organisation. These delayering cost savings ranged from 2% to 12% of leader headcount per organisation and averaged 6.4%.¹³ Adding back the 3 bodies with limited over-layering, despite them offering no cost savings, the mean leader reduction possible from delayering the 32 bodies remains just over 6%.

As a corollary of this 6% average, we estimate that 1 in 10 of the leader jobs in our dataset are not adding value to at least one direct report. The organisation-wide leader cost saving of 6% is less than the 15% for interviewed leaders as interviews target heavily over-layered hierarchies.

If they cut 6% of leaders via delayering, the mean span for the 32 bodies would rise from 6.6 to 7.0.¹⁴

Benefits from flattening over-layered structures go well beyond leader cost savings. As a major FTSE 100 CEO said about delayering we were helping with: 'You do it to strengthen management accountability, get more connected to customers, and get faster as an organisation at making decisions – the cost saving is a by-product, not the primary goal.' Other benefits include better people development and talent retention – as employees get stretching roles, not non-jobs – and improved employee engagement and productivity. In our view, personal growth and talent retention benefits are underplayed by some observers, perhaps because they are reaped in the medium term.

Nevertheless, some clients ask us about delayering cost savings. *As a rule of thumb, if an organisation has a sensible top structure and yet has 25% of employees in unnecessary layers, then delayering may offer cost savings of about 4% of leader headcount. If it is 50% of employees, the savings may be around 7% of leaders. And if it is 75% of employees in unnecessary layers, the cost saving available from delayering may be around 10% of leader jobs.*¹⁵

Lastly, the 32 bodies had 6 to 26 grades each (median 11), or 0.9 to 4.3 grades per accountability Level (median 1.7), with Levels counted to include Level \emptyset . A statistically significant correlation exists between grades per accountability Level and the share of jobs in unnecessary layers ($r = 0.512$, $P < 0.01$, $n = 32$). Thus, narrow banding may contribute to over-layering.

The correlation in interview data between leadership value-add and spans

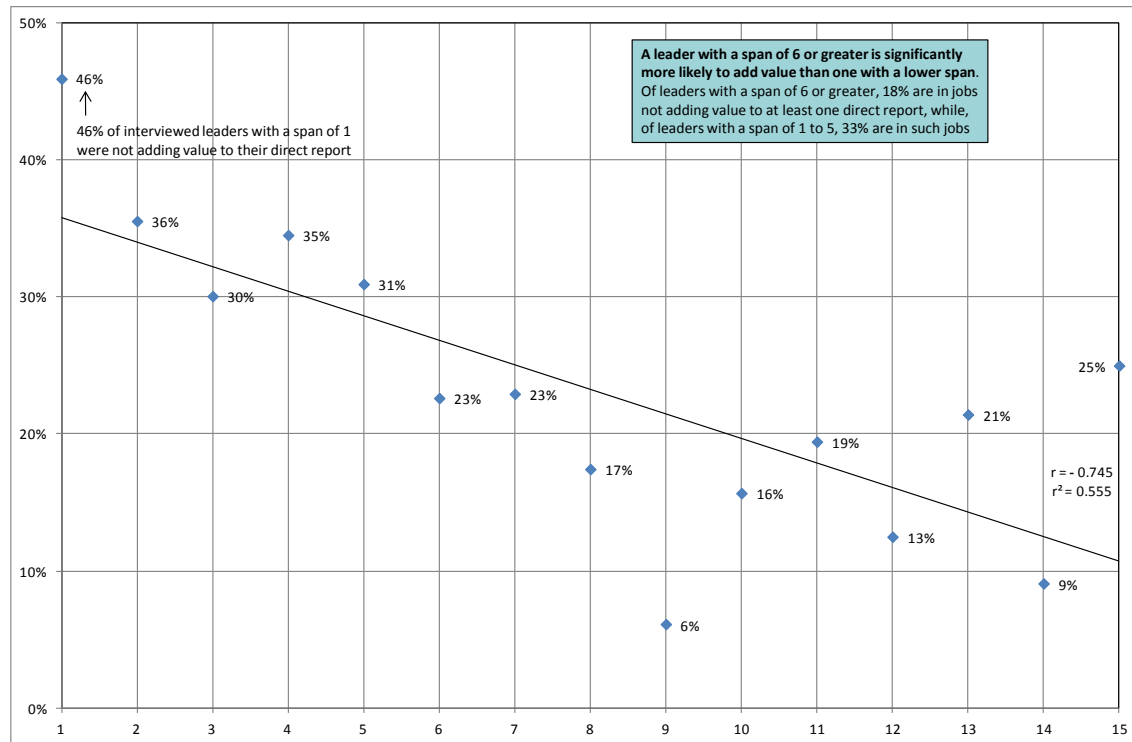
A job's Leadership Level is not a function of its span. One of the decision-making elements used to assess a job's Level is 'resources and expertise'.¹⁶ Here, we ask about span as a precursor to assessing decision rights to define direct report jobs and to hire, reward, and fire incumbents. A job may be, say, Leadership Level 3 on this element for reasons of expertise, with no staff.¹⁷

Figure 6 shows the share of interviewed leaders in a non-value-adding role for spans 1 to 15.¹⁸ There are jobs, for example in specialist functions, that are value-adding despite spans of only 1, 2, 3, 4, or 5. Moreover, some roles are not adding value to one or more direct reports despite spans of 11, 12, 13, 14, or 15. Nevertheless, a statistically significant negative correlation exists between the percentage of leaders in non-value-adding roles and their individual spans ($r = -0.745$, $P < 0.01$, $n = 15$).

Indeed, of leaders with a span of 6 or greater, 18% are in non-value-adding jobs, while, of leaders with a span of 1 to 5, 33% are in such jobs. Hence, at this micro scale of individual leader spans, our dataset finds that spans are inversely related to over-layering.¹⁹

FIGURE 6: NON-VALUE-ADD JOBS BY SPAN FOR 1,100+ INTERVIEWED LEADERS

The share of interviewed leaders in non-value-adding jobs correlates with span negatively, and significantly ($r = -0.745$, $P < 0.01$, $n = 15$).



What drives a leader’s span?

In organisation design, having thought through the right layers, it’s necessary to think of appropriate spans. The span that is feasible for a leader tends to be driven by the 15 factors in **Table 1**.

TABLE 1: FACTORS THAT HELP OR HINDER A LEADER IN HAVING A WIDE SPAN OF CONTROL

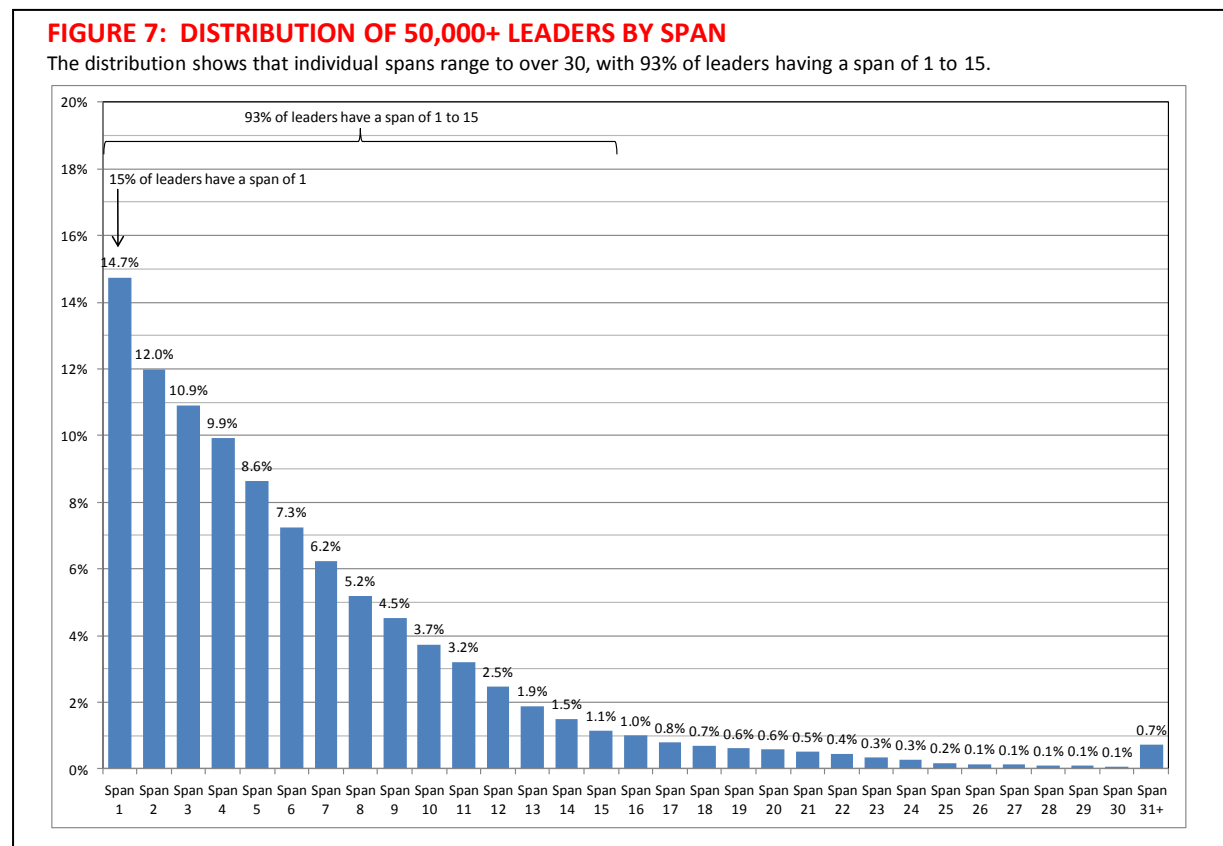
Factors positively related to span	Factors negatively related to span
1. High degree of standardisation of outputs and methods between direct report jobs, such that in the limit the jobs are simple and identical (beyond any support jobs)	1. Complex interdependence among direct report jobs requiring the leader to interlock tasks by consulting frequently with them, if spontaneous mutual adjustment between them is insufficient
2. Effective support to the leader from: (a) direct report assistants such as front-line coordinators of manual work who are in the front-line but guide colleagues when the supervisor is not present; (b) other departments, e.g. quality sampling the outputs of direct reports and providing feedback; (c) production line or IT systems that streamline work flow, particularly those that help the leader to prioritise and allocate work to specific team members and monitor their outputs	2. The leader has significant, time-consuming tasks beyond oversight of tasks delegated such as: (a) creating his or her own professional outputs; (b) owning critical external interactions like selling complex proposals to, or commissioning complex services from, other organisations; (c) having to interlock with colleagues in other areas to resolve problems or deliver positive changes; and (d) planning, budgeting or scheduling the work of the team
3. Highly effective communications systems to ease vertical communications between the leader and subordinates and horizontal communications between teams	3. Highly variable conditions meaning operations are very unstable with the leader thus designing and implementing changes to methods or technologies and dealing with new problems
4. Greater delegation of work, for example decision rights previously the reserve of the leader (if matched by the direct reports having access to the information needed for effective decision-making)	4. Widespread geographical dispersion of direct reports meaning the leader is away from some when visiting others (but for some Level 1 supervisors, this issue can be resolved with the use of front-line coordinators)
5. For each type of direct report job, a small number of measures are needed to assess performance for which there are high quality data available to the leader for each job-holder	5. Mandated in-depth performance evaluation on a formal basis with each direct report at least once a year, and perhaps as often as once a month
6. Optimal layering that avoids span-breakers (jobs that do not add value to one or more direct reports)	
7. The leader’s team (or unit of which the leader is a core part) having passed the critical mass needed to benefit from economies of scale and with the quantity of the team’s outputs having been further increased substantially via the leader taking extra direct reports to fullest extent	
8. Work requiring deployment of direct reports on multiple shifts and/or use of part-time direct reports (such that leader’s span on a headcount basis is much larger than leader’s span on a full-time equivalent basis)	
9. Capable reports with apt experience/training (helped by low turnover)	
10. Capable leader with relevant experience/training (helped by job tenure)	

We have discerned these factors from our experience in the field and research into other writers’ observations about spans.²⁰ Ten factors make a bigger span easier, while 5 make it trickier. For example, a leader’s span can be wider if there is standardisation of work and support to the leader from a front-line coordinator, such as a charge-hand on a production line.²¹ In contrast, spans need to be narrow when there is complex interdependence among direct reports requiring the leader to interlock tasks, or the boss has time-consuming tasks that can’t be delegated.

Spans in practice

Only 3 of our 32 bodies had mean spans over 10: a grocery supply chain (11), a car-parts logistics business (15), and a retail store function (20). In all 3, the work was highly prescribed, with 97%–99% of jobs below Leadership Level 2, and front-line coordinators helped relevant supervisors.

But what about individual leader spans? For 21 of the 32 bodies, spans were available for each leader. The distribution of these 54,000 leaders by span is shown in **Figure 7**. This reveals individual leader spans range from 1 to over 30, with 93% of the leaders having a span of 1 to 15. Surprisingly, the mode span was 1 with 15% of leaders. Of first-line leaders – those with no leader below them – 19% had a span of 1 versus 6% for non-first-line leaders. First-line one-on-ones may be OK, for instance, in specialist areas with master–apprentice learning, but other one-on-ones are not optimal.

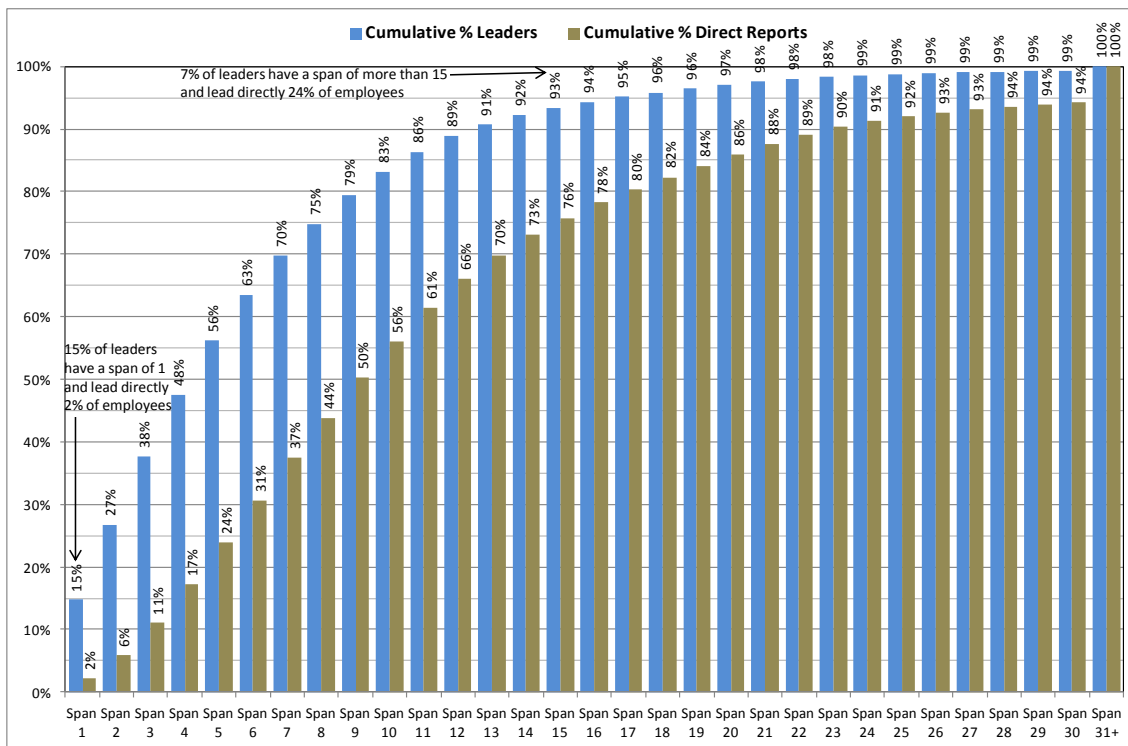


As well as thinking about the distribution of leaders by span, the distribution of direct reports by the span of their leader can also be considered. **Figure 8** plots both distributions cumulatively.

Thus, while 15% of the leaders have a span of 1, these leaders only lead directly 2% of employees. Similarly, 7% of leaders have a span of 16 or more, but have 24% of all employees as direct reports.

FIGURE 8: CUMULATIVE DISTRIBUTION OF LEADERS AND DIRECT REPORTS BY SPAN

As well as the distribution of leaders by span, the distribution of direct reports by the span of their leader can also be considered.



The span distribution illustrates a common pitfall where businesses set a mean span target. If a target of, say, 7 is set and it is taken in error to mean all leaders need 7 direct reports, there will be mayhem. This does happen. We spoke to every layer in a 12-layer hierarchy in a business that could justify 8 layers. More than once we heard: ‘Our structure is in line with group OD principles which say you should aim for a span of 7. Where we had bigger teams, we divided them by adding layers.’

Leadership pipeline implications

To anchor talent development initiatives on a solid foundation, it helps to map where jobs reside. Mapping by hierarchical layer is only part of it. It’s also useful to look at jobs by Leadership Level.

Table 2 summarises all jobs and leader jobs by Leadership Level for the 32 bodies in aggregate.

For example, it estimates that only 0.25% of the jobs are strategic by being Leadership Level 4+.

TABLE 2: JOBS BY LEADERSHIP LEVEL IN 32 BODIES WITH AVERAGE SPANS

Accountability Level	Percentage of Jobs	Of Which Leaders	Percentage of Leaders	Mean Span	Mean Entry Age for LL7/8 Talent
Leadership Level 7	0.001%	100%	0.007%	Circa 12	Age 50
Leadership Level 6	0.007%	100%	0.046%	Circa 9	Age 47
Leadership Level 5	0.042%	100%	0.276%	Circa 8	Age 40
Leadership Level 4	0.20%	100%	1.32%	Circa 7	Age 37
Leadership Level 3	1.35%	90%	8.00%	Circa 6	Age 31
Leadership Level 2	8.40%	70%	38.70%	Circa 5	Age 26
Leadership Level 1	30%	26%	51.65%	Circa 7	-
Non-Leadership Level Ø	60%	0%	0%	0	-
Total	100%	15.2%	100%	6.6	-

The table also gives mean spans by Level. These fall from 12 at Level 7, to 5 at Level 2, then rise to just over 7 for Level 1 supervisors. The spans reflect our over-layered sample, not best practice.

The last column is for Unilever as we don't have these data for the 32 bodies. It gives the mean entry age to a Level for 26 talented Directors who made it to Level 7 or 8 (8 being the 1990s CEO job prior to Unilever slimming down). Even these high-flyers spent about 5 years in each of Levels 2 to 6.²²

The table shows the importance of clarifying terms when discussing leaders and measuring spans. For us, a leadership job is one with at least one direct report on a hard-line basis. On this definition, just over 50% of leaders are Level 1 supervisors. But, leadership pipeline models like the one from Ram Charan and Steve Drotter give insufficient attention to supervisors. Indeed, Charan and Drotter explicitly exclude supervisors from their model: 'the transition from team member to team leader isn't worthy of its own passage.'²³ Their approach runs the risk of being misapplied, since users may mistake supervisors for 'managers of others', the most junior leadership category in their model, or vice versa.²⁴ Charan and Drotter also assume that organisations are not over-layered in terms of job design. For them, if a leader is too close to their direct reports this is always because the leader has not yet made the required behavioural 'passage' from the direct reports' layer to the leader's layer. A synthesis of both perspectives is necessary as, in practice, leaders add value to direct reports due to having appropriate competence and clear space-to-lead through an effective organisation design.

In summary, an effective organisation design has many aspects but critically it helps leaders to add value to direct reports' work. If a leader's decision space duplicates that of a report, then the leader can't add value, even if competent. Our research of 520,000 jobs, including 79,000 leader roles in 32 bodies, finds low spans correlate with over-layering for individual leaders but not for organisations. A leader's job with a span of 6 or greater is significantly more likely to add value than one with a lower span. Yet, counterintuitively, the organisations in our dataset with a mean span of 6 or greater are more, not less, likely to be over-layered than ones with a lower average span. This is because mean spans are driven more by the nature of front-line work than by how well layered an organisation is. In general, the more prescribed the outputs, the higher the mean span. CEOs should first ensure that they have the right number of layers with discrete decision rights, and then think about sensible spans. Our research suggests no organisation needs over 9 layers, including CEO and front-line. Indeed, the 32 bodies in this article's dataset only needed from 5 to 8 employee layers.

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ABOUT THE RESEARCH

This article is informed by over 10 years of qualitative and quantitative research by the author in his capacity as a management consultant. He uses two types of research. First, he interviews employees about their jobs from the front-line to the top job. This determines how many layers an organisation needs and, if there are too many, how best to resolve this. Jobs are analysed using accountability elements to assess in which of up to nine Levels of accountability the job resides (Level 0 for non-leaders with prescribed outputs, methods and sub-methods, and Leadership Level 1 up to Level 8 for more complex roles). Data from 1,100+ leader interviews are shared exploring the link between value-add and span. The author also summarises factors that drive a leader's span, discerned from field and desk research.

Second, the author analyses the layers and spans of all jobs in an organisation using bespoke software. Adding to interview-based insight, this allows him to compare the layers an organisation needs to how many it has. A key metric is the share of an organisation's jobs that are in unnecessary layers. The organisation's mean span is calculated and the share of jobs with prescribed outputs, i.e. those below Level 2. The information the author collects also often makes it possible to estimate delayering cost savings. Putting these data together, the author explores correlations between the degree of over-layering and factors such as mean spans, pay grades and cost savings.

The article shares findings from a dataset of 32 of these organisational analyses covering 520,000 jobs, including 79,000 leader roles.

Of the 32 organisations, 20 are private sector and 12 are national or local public sector organisations. 19 are standalone bodies, 9 are business units within larger groups, and 4 are functions within a business. 10 are based in North America, have significant activities there, or are owned by a North American parent. For 21 bodies, spans were available for each leader, making it possible to observe the distribution of 54,000 leaders by span, rather than simply focusing on averages.

NOTES

1. The author's key colleagues for these interviews were Brian Dive, John Bruce-Jones, Bernard Dive, Christina Harvey and Peter Dugmore.
2. B. Dive, *The Healthy Organization* (London: Kogan Page, 2002) and *The Accountable Leader* (London: Kogan Page, 2008).
3. Prescribed outputs can be completely specified beforehand, according to defined circumstances. Level 2 outputs can only be partially specified beforehand. In part, a Level 2 diagnoses the precise tasks to be achieved by them according to the needs of situations that arise.
4. A Level 1 leader does not have the full managerial authorities of a Level 2+ leader. Hence, we prefer to call a Level 1 leader a supervisor, not a manager. But, Level 1 leaders are very often titled 'manager' by their organisation.
5. E. Jaques, 'In Praise of Hierarchy', *Harvard Business Review* (January–February 1990); and R. Rowbottom and D. Billis, *Organisational Design: The Work Levels Approach* (Aldershot: Gower, 1987). At Unilever, B. Dive asked D. Billis to help him use the Rowbottom and Billis approach. After much fieldwork, Dive defined 7 decision making accountability elements per Work Level and wrote Unilever's Work Levels Manual. The Leadership Levels approach in the current article reflects the author's developments on Unilever's Work Levels framework.
6. E. Jaques and S.D. Clement, *Executive Leadership* (Arlington: Cason Hall, 1991), 116–121. In theory, E. Jaques' Stratum II is our Level 2.
7. With Sir Terry Leahy as CEO, Tesco grew from being Level 7 in 2001 with 225,388 employees (82% in the UK) to a light Level 8 in 2011 with 492,714 employees (60% UK). Tesco's success then faltered. It now has 464,520 employees (2017), versus its peak in 2012 of 519,671.
8. A job's span is the number of jobs, full or part-time, reporting hard-line to it. We include any personal assistant and budgeted vacancies as well as filled jobs, if possible. A unit's mean span is its number of jobs excluding the top job, divided by leader jobs including the top job.
9. The mean span of 6.6 for the 32 bodies is calculated as a weighted average, weighing each organisation by its share of total leaders.
10. Our sample includes 5 Whitehall departments with very low mean spans. While over-layered, they were not typically as over-layered as most of the other bodies. If we cut them out of the sample, the statistical significance of the positive correlation disappears at 5% level.
11. This reflects two phenomena. First, mean spans for leaders in Level 1 tend to be higher than in Level 2 or Level 3. Thus, the greater the share of jobs below Level 2, the higher the share of leaders in Level 1 and the bigger the organisation's mean span. Second, organisations with a high share of jobs below Level 2 tend to have higher-than-average Level 1 mean spans.
12. Of 32 organisations in the dataset, the author interviewed in 29. For 3, the right number of layers was assessed based on experience interviewing in other parts of a parent group or industry sector. Of 1,300 interviews, 1,100 were conducted in the 29 bodies, with 200 in 5 extra bodies, typically another part of a group owning one of the 32 bodies. Interview findings in the 5 bodies were like those in the 29. The 200 interviews were added to increase the sample size of interviewed leaders to over 1,000.
13. These figures are the author's views of the total leader headcount reduction possible from delayering specific organisations. The mean of 6.4% is a weighted average, weighing each organisation with a cost-saving option by its share of leaders in those bodies.
14. The range of mean spans across the bodies would change little with delayering from 2.57 to 20.0, to 2.75 to 21.2. Leader cost savings for the body with the lowest mean (2.57) were estimated as 7%, while those for the body with the highest (20.0) were estimated at 6%.
15. Even a body with no jobs in unnecessary layers can be over-layered if some jobs are too far from the top job. For example, in a Level 5 body, a Level 2 job should be no lower than layer 4 but may be in layer 5 if it reports to a Level 2. Weighing the 32 bodies by its share of jobs, the weighted mean percentage of jobs too far from the top job is 43%, with 35% in unnecessary layers and 8% in necessary ones. If a body's top job is Level N and it has Level \emptyset jobs, we define unnecessary layers as any employee layers greater than N+1, with the top job as layer 1. While N+1 layers are needed for Level \emptyset jobs with a boss in Leadership Level 1, not all these layers are needed for Level 1+ jobs.
16. We interview to assess job complexity not job-holder capability. We may get a sense that a job is bigger, or smaller, than a person. But, our focus is on the role. To help, we may interview more than one person in the same job type.
17. No Level 4 job with zero span was found in the bodies. Yet, defining Level 4 in *The Healthy Organization*, B. Dive says: 'Scientists at this level, who might have no infrastructure of subordinates, undertake applied research, which discovers new linkages in existing knowledge, typically within a scientific discipline, and which results in new products, services or applications that better meet existing needs.'
18. Of 1,100 leaders interviewed, 34 (3%) had a span of more than 15. Of the 34, 32 were adding value to direct reports but 2 were not.
19. The 1,100 leaders had a mean span of 6.5, almost identical to the mean of 6.6 for the circa 79,000 leaders in the 32 organisations. The 820 value-adding leader jobs averaged a span of 7.0 while the 280 non-value-adding ones had a mean span of 5.2. If the recommended 15% leader delayering cost savings were taken from the 1,100 leaders, the mean span in these hierarchies would rise from 6.5 to 7.5.
20. Desk research into spans included: P.F. Drucker, *Management: Tasks, Responsibilities, Practices* (reprint Oxford: Butterworth-Heinemann, 2001), 318–320; G.G. Fisch, 'Stretching the Span of Management', *Harvard Business Review* (Sept.–Oct. 1963), 74–85; A. Janger, *Measuring Managerial Layers and Spans*, Research Bulletin No. 237 (New York: Conference Board, 1989); E. Jaques, *Requisite Organization* (Arlington: Cason Hall, 1989), 21; H. Mintzberg, *The Structuring of Organizations* (Englewood Cliffs: Prentice Hall, 1979), 134–147; G.L. Neilson and J. Wulf, 'How Many Direct Reports?', *Harvard Business Review* (April 2012); H. Stieglitz, 'Optimising Span of Control', *Management Record* (National Industrial Conference Board, Sept. 1962), 25–29; R.M. Tomasko, *Downsizing: Reshaping the Corporation for the Future* (New York: American Management Association, 1990), 157–173; L.F. Urwick, 'The Manager's Span of Control', *Harvard Business Review* (May–June 1956); D.D. Van Fleet and A.G. Bedeian, 'A History of the Span of Management', *Academy of Management Review* (July 1977); J.C. Worthy, *Lean But Not Mean: Studies in Organization Structure* (Chicago: University of Illinois Press, 1994), 149–154.
21. Front-line coordinators may be needed in people-intensive manual work that is not always undertaken in the presence of a supervisor, where front-line workers need on-the-spot help to avoid stopping a production line, physical process, or customer's journey. If designed properly, front-line coordinators aren't a layer between the front-line and supervisors.
22. See B. Dive, *The Healthy Organization* (London: Kogan Page, 2002), chapter 8.
23. See R. Charan, S. Drotter, and J. Noel, *The Leadership Pipeline*, 2nd ed. (San Francisco: John Wiley & Sons, 2011), 16.
24. Vice versa, since we estimate that roughly 30% of Leadership Level 2 leaders in our dataset have no supervisor(s) below them.