

SECTION 4 WORKFORCE DEMAND

This section covers:

- Choosing the planning period
- What we mean by “workforce demand”?
- The factors that influence demand
- Planning for Uncertainty
- The Impact of Organisational demand
- Matching staffing to workload at different times
- Planning for Skill mix

4.1 Choosing the planning period

We must first decide how long ahead we are going to plan for. Strategic WFP is by definition looking beyond the current budgetary period. For most organisations the Workforce Plan will be derived from and match the strategic business plan. This is typically 3-5 years, generally revised annually. Plans may include critical events ahead, such as the opening of new facilities or the launches of new products and services, each with workforce implications.

Some organisations are essentially project based. An extreme example of this would be the 2012 Olympics which at its peak employed xxx people, but different “job families” over different periods in the y years of the project’s overall life. Construction, IT, and Consultancy are examples of businesses that are a series of projects. Most have to be fully estimated at the bidding stage before people are deployed or employed, which is why they rely heavily on “peripheral” sources of staff.

Some job families may need to be planned beyond the business plan depending on their training period. Diamond cutters for example need seven years training before being fully qualified; the NHS plans nine years ahead in the case of consultants and staff and associate specialists.

In a five year plan we may choose not to forecast *all* job families beyond say Year Two, but only focus on critical ones for the years further ahead. Again, this depends on the ease of securing new staff and the training period.

We also need to decide how to break down the total planning periods into *periods* of time. In the first two years this would typically be by quarter; in subsequent years perhaps every six months.

4.2 What do we mean by workforce demand?

The total demand for a job family comprises two parts:

- a) The requirement dictated by the forward plan
- b) The replacements needed due to ongoing workforce flows

We will look at (b) in the next section.

The forward requirements comprise the following:

- The introduction of new roles, elimination of existing ones, and/or respecification of the skills in existing roles - period by period
 - The number of FTE's required, by job family and grade (this includes the mix of staff of different levels of skills and, in some case, professions)
 - Shift patterns, and fluctuating workloads by time of day
- PLUS:
- The core competencies (knowledge, skills, maybe behaviours) required within the job family
 - For some job families, the profile of depth of expertise within the group

4.3 The Factors that Influence Demand

The Workforce Planning professionals need a dialogue at various levels, based around sets of questions that they know require an answer. These levels will include:

- The strategic planners (if they exist) – if not, the senior managers responsible for the business strategy
- The managers of “operational delivery” departments
- The Finance and IT directors
- The HR Director

(plus maybe others depending on the specific organisation)

Ideally, a senior workforce planner would be directly involved in strategic planning so that workforce issues are fully addressed at that stage. It may be necessary to modify the strategic plan if there are major workforce constraints that cannot be properly addressed.

Strategic Planning/Senior Management

If a Business Plan has already been produced, some questions to ask include:

- *Does the plan clearly indicate the volumes to be delivered, period by period, for the overall duration of the plan?*
- *Does it indicate the timing of key events such as new facilities, combining or closure of facilities, launches of new products and services etc?*
- *To what extent has the plan incorporated “scenarios” – (see 3.4 below) – and risk analysis?*

Operational Managers

Many business or strategic plans at the top level will not give sufficient detail for answering all our workforce planning needs. The gaps need to be filled in with the operational managers charged with the delivery of goods and services. In addition to the three questions above, we may also ask:

- *are there organisation changes planned, affecting changes in roles, job families, numbers of managers and so on? (see 3.5 below)*
- *are there productivity changes (or targets) planned which will affect the ratios used to translate delivery into FTE's? (see 3.6 below)*
- *are there changes in shift patterns, workloads, role specifications planned? (see 3.7 below)*
- *are there new regulations foreseen which will affect staffing?*
- *are there new customer expectations that will influence staffing?*
- *what is the current practice, and are any changes envisaged, regarding the use of different forms of contract – fulltime, part time, flexible working, contractors, agency staff and so on?*

Finance and IT Directors

We do not want to go to the Finance Director to find out how many people can be afforded, even though there may be a later stage in our Planning which requires a dialogue about affordability. At this point we want to know about any factors that will influence work numbers – regulatory requirements, changes planned in financial policies and so on.

From the IT Director we are interested in new projects planned, their timing and implications for staffing.

HR Director

We will in due course have a number of questions regarding the *supply* side of our plan. At this point we are interested in any changes in *employment law* that are anticipated during the planning period and their implications for staffing of particular job families. In section 2, para 4, we considered the definition of the working year taking account of absenteeism through training, sickness and holidays. We are interested therefore in any expected policy changes that may influence these.

4.4 Planning for uncertainty: scenario planning

The world in which organisations operate changes at an ever faster rate and often in a way that was difficult to predict. This is why since the 1970s the value of conventional forms of planning have been questioned. Plans are updated ever more frequently in order to reflect the impact of the unexpected, and is not better to be smartly responsive than attempting to predict and forecast?

Scenario planning is an answer that addresses this way of thinking. It involves developing a range of possible futures, with an intelligent estimate of the probability

of each occurring. This enables organisations to develop strategies that explore the opportunities presented by each scenario, while mitigating or avoiding their adverse consequences.

Scenarios can be generated by projecting trends, the Delphi technique and scenario workshops or a combination of the three. Projecting trends is relatively easy and useful to compare against other scenarios, but it has the drawback of not taking disruptive change into account. The Delphi technique involves forecasting trends and generating scenarios on an anonymous basis. These are circulated and revised several times so that each iteration becomes increasingly coherent. Workshops need to be carefully managed so that the views of dominant personalities do not side-line those other participants.

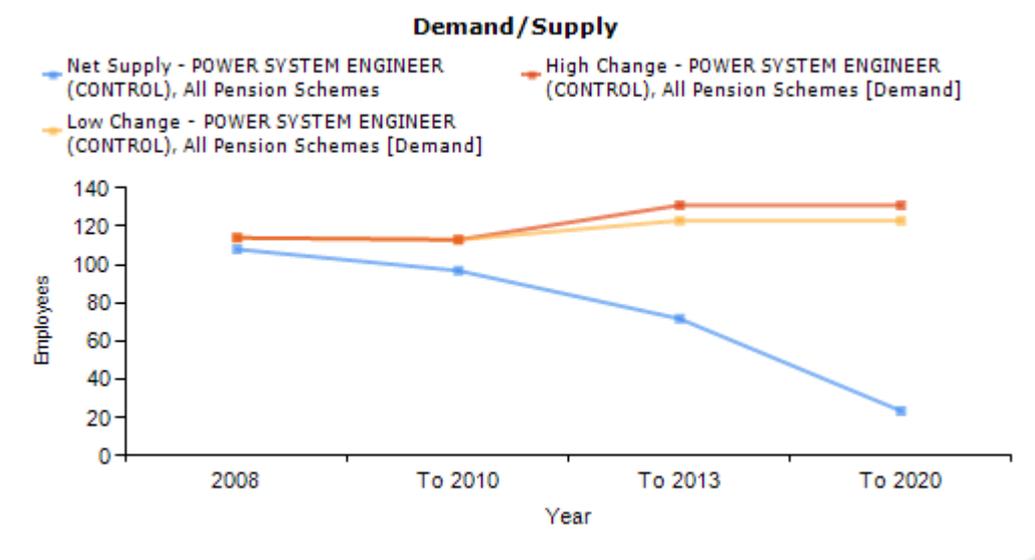
This approach can be used in all areas of planning for the longer term, and we would expect to see it in the business plan, which will translate into ranges of staffing levels. For example, two possible scenarios for a supermarket could:

- (a) home deliveries increase by 20 per cent, while store sales decline by five per cent a year, over the next five years
- (b) home deliveries increase by five per cent, while store sales decline by one per cent a year, over the next five years

In the case of (a), there would be clearly a significant increase in van drivers and warehouse workers – (which in areas of low unemployment may bring challenges). It may mean some store closures also. This contrasts with scenario (b) of gradual change that would be easy to accommodate.

The Australian Government has produced five economic and social scenarios which can then be used by particular industries to their own implications. Oregon carried out a similar exercise and came up with a range of emerging occupations and existing ones which are likely to grow significantly

The following example from National Grid shows the gap between two demand scenarios and the number of staff-in-post. This is based on an average age of retirement of 58.



Job Family	Pension Scheme	2008 Establishment Headcount	Demand						Net Supply				Gap (Shortage - / Surplus +)					
			To 2010		To 2013		To 2020		2008 Headcount	To 2010	To 2013	To 2020	To 2010		To 2013		To 2020	
			Low Change	High Change	Low Change	High Change	Low Change	High Change					Low Change	High Change	Low Change	High Change	Low Change	High Change
POWER SYSTEM ENGINEER (CONTROL)	All Pension Schemes	114	113	113	123	131	123	131	108	97	72	24	-16	-16	-51	-59	-99	-107
Subtotal		114	113	113	123	131	123	131	108	97	72	24	-16	-16	-51	-59	-99	-107

4.5 The impact of Organisational Design

Some of the impacts of different choices are summarised below:

- *Span of Control* The so called “flat” organisation has a large number of people per supervisor. This leads obviously to a lack of attention to the individual. However the ratio adopted, as an average for each job family is an important one for planning. Not only does it dictate the number of supervisors but it governs the promotion opportunities for the front line workers. The most common span of control is 6-8.
- *Self Managed Teams* Common in Manufacturing, Transport and IT this approach leads to a low ratio of middle managers to front line workers and eliminates supervisors.
- *Matrix organisations* seek to overcome the silo thinking of functional or geographical management by having an additional horizontal line of management, typically on product lines. This can offer greater customer focus than a functional organisation and a better career structure to functional specialists than a product based company. However, it can also result in confused priorities and muddled accountability. It leads to a higher ratio of managers.
- *Process based organisations* have leaders of processes and horizontally cut across all the functions needed to support that process, with representatives from each. Often called *horizontal organisations* or *customer-centred organisations*, they are a variation of the matrix.
- *Dual Reporting* This is an approach, common in Germany and Financial Services, where people report to separate bosses for technical guidance and for administrative matters. It is often very effective as it recognises that most managers are promoted for expertise and not necessarily for people skills. Again this approach affects the manager: staff ratios

- *Centralisation or decentralisation* of either direct or overhead support. Neither option is perfect. Centralisation leads to lower management costs, as fewer staff are needed overall, but this is often leads to an inflexible head office rule-based culture. Decentralisation may demand more people, but in the end creates more successful business units.
- *Alliances and partnerships* offer a ready access to expertise or complementary products that, combined, make a more attractive customer offer. However, they are difficult to sustain as trust is key and in a dynamic world the balance of power between the entities can shift quite significantly. It is best if organisations are similar in size to avoid the tendency of the large fish eating the small. The workforce planner needs to understand the relative contributions of the two parties in staff and skills.
- *Off-shoring* – many call centres and IT support units have gone to India, the Philippines and other countries that can muster plenty of educated English speakers. Often they are still employed by the original company – but whether they are or not, they are still part of the workforce plan.
- *Outsourcing* – if other organisations can undertake a non-core function better or cheaper, then this is an option. Catering, maintenance and payroll are typical examples. Issues of maintaining quality and service are well known – in WFP
the staff required are part of the workforce needed to deliver the business plan and need to be planned for.

4.6 Matching staffing to workload at different times

Some operations have very varying demand at the time of day and week. We are all familiar with retailers who employ additional teenagers at weekends, and the varying numbers of lanes open at different times of day. In the case of hotels those catering for the business clients have poor weekend and bank holiday utilisation, however, the reverse is the case for hotels in tourist locations.

The following example (Figure 3.3) shows how Accident and Emergency attendances vary very considerably by time of day. The staffing levels did not adequately reflect this and during the early hours of the morning there were only 8 patients per member of staff while at the busiest times there were 37, which is almost a fivefold difference. Following a workforce review, during quite periods the ratio of patients to staff was increased to 13. The number of hours when the patient numbers were quite manageable increased from 3 to 11, (this was taken to be between 15 to 25 an hour). These changes reduced patient waiting time during busy periods, which is better for both patients and staff.

Figure 3.3- A&E Attendances by Time

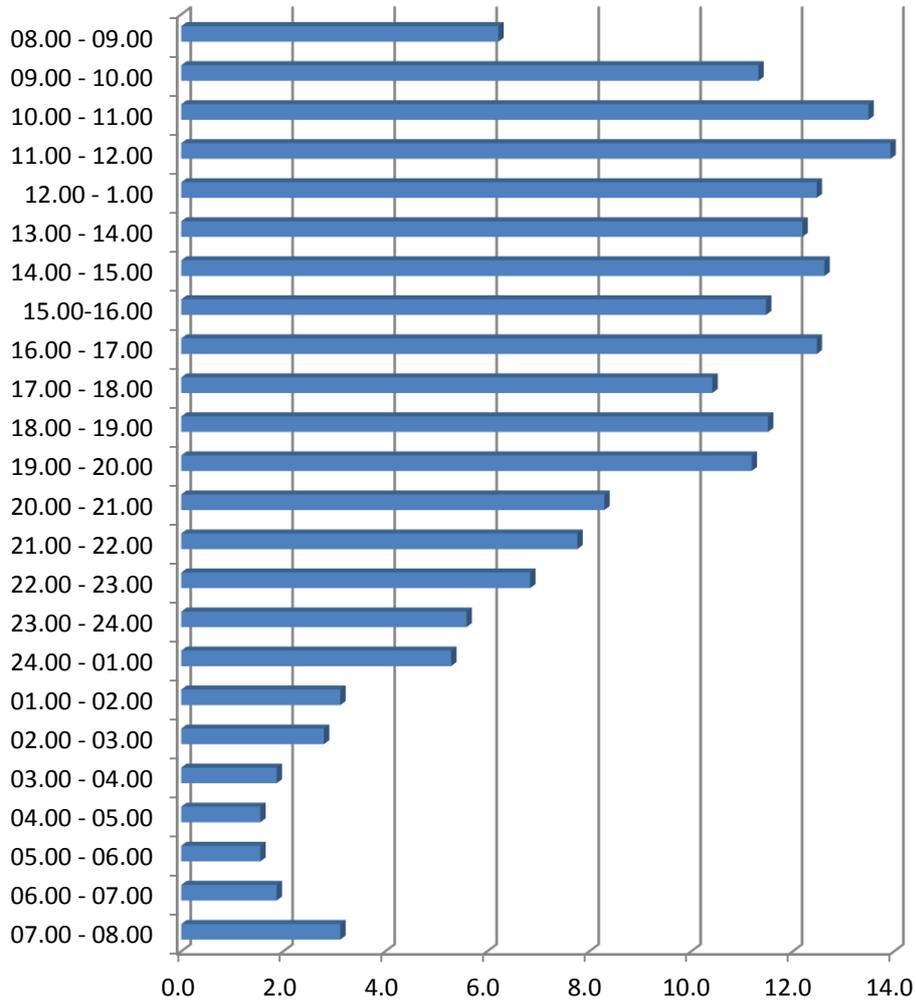


Figure 3.4 Accident and Emergency Patients to Staff Ratios, Before and After Change Programme

Time Period	Patients to Staff		
	Original	Revised	Change
08.00 - 09.00	20	20	0
09.00 - 10.00	36	36	0
10.00 - 11.00	36	36	0
11.00 - 12.00	37	37	0
12.00 - 1.00	33	33	0
13.00 - 14.00	33	33	0
14.00 - 15.00	34	34	0
15.00 - 16.00	31	31	0
16.00 - 17.00	33	33	0
17.00 - 18.00	28	28	0
18.00 - 19.00	31	31	0
19.00 - 20.00	30	30	0
20.00 - 21.00	33	22	-11
21.00 - 22.00	31	21	-10
22.00 - 23.00	37	22	-15
23.00 - 24.00	30	18	-12
24.00 - 01.00	28	17	-11
01.00 - 02.00	17	25	8
02.00 - 03.00	13	20	7
03.00 - 04.00	10	15	5
04.00 - 05.00	8	13	4
05.00 - 06.00	8	13	4
06.00 - 07.00	12	18	6
07.00 - 08.00	17	25	8

Key:

-  Too many patients per member of staff
-  Too few patients per member of staff
-  A good number of patients per member of staff

4.7 Skill Mix

Our basic planning unit has been the job family, and apart from some intermediate grading that might exist within it, we have assumed that the skills of each member are the same. This is of course never the case. Some will be trainees, others established experts.

It helps to have a way to categorise expertise. This can be done by qualifications achieved or courses attended, or by a judgement of the level of expertise on a three or five point scale. Here is an example of such:

A = Aware: knows what it means

B = Basic: can talk about it

- C = Competent: can put it into practice
- D = Distinguished: people come and ask how
- E = Expert: teaches others

In WFP, we need to answer questions such as:

- How many trainees can we accommodate? (this will be influenced by our forward planning for the job family)
- How many people with specific qualifications do we need?
- What percent of the group would we like to have “D” or “E” or levels of expertise?

In a typical NHS general ward 60 per cent of the nurses are qualified at degree or diploma level and 40 per cent are healthcare assistants. However, in teaching hospitals the percentage of qualified nurses can be considerably higher. Hospitals have to trade off staff costs against quality of care. Large accountancy practices and departments have to make a similar decision regarding the respective percentages of qualified accountants/accounts technicians.

4.8 Building in allowances for the working year

The business plan which dictates our demand for the delivery of good and services will be defined in terms of units per period. People, even “FTE’s”, do not work 24/7 however. Not only will we need to establish where shift patterns are needed, but individuals also are absent from delivering work through sickness, holidays and training. The definition of an FTE can take these into account in the productivity ratios used, but usually they do not.

In some job families, absences are just absorbed without any extra cover. Others, particularly front line jobs – and even more so those covered by union agreements – demand a “full complement”. Agencies providing temporary workers are often used. But for each job family this needs to be determined and either the definition or the number of FTE’s adjusted accordingly.