

annually.⁶ In contrast, new immigrants are expected to account for 131 500 entrants to the labour market per year. An example of a company that has to realize the benefits of new immigrants as a major source of talent is provided in the Strategic HR box.

Occupational Market Conditions

In addition to looking at the overall labour market, organizations also generally want to forecast the availability of potential candidates in specific occupations (engineers, drill press operators, accountants, and so on) for which they will be recruiting. Alberta has recently faced a severe labour shortage of workers in the oil and gas sector.⁷ Furthermore, the mining, construction, electricity, manufacturing industries, as well as the non-profit sector are also experiencing significant labour shortages.⁸ A shortage of information technology workers is projected to cost the Canadian economy \$10 billion per year until it is resolved. Shortages of civil service workers, accountants, lawyers, engineers, meteorologists, funeral directors, and hospitality industry workers are also expected.⁹

FORECASTING FUTURE HUMAN RESOURCES NEEDS (DEMAND)

RPC

Identifies the organization's staffing needs

A key component of HRP is forecasting the number and type of people needed to meet organizational objectives. Managers should consider several factors when forecasting such requirements. From a practical point of view, the demand for the organization's product or service is paramount. Thus, in a manufacturing firm, sales are projected first. Then the volume of production required to meet these sales requirements is determined. After this, the staff needed to maintain this volume of output is estimated. In addition to this basic requirement for staff, several other factors should be considered, including the following:

1. *projected turnover* as a result of resignations or terminations
2. *quality and nature of employees* in relation to what management sees as the changing needs of the organization
3. *decisions to upgrade* the quality of products or services or *enter into new markets*, which might change the required employee skill mix
4. *planned technological and administrative changes aimed at increasing productivity and reducing employee head count*, such as the installation of new equipment or introduction of a financial incentive plan
5. the *financial resources* available to each department; for example, a budget increase may enable managers to pay higher wages or hire more people; conversely, a budget crunch might result in wage freezes or layoffs

In large organizations, forecasting demand is primarily quantitative in nature and is the responsibility of highly trained specialists. *Quantitative techniques* for determining human resources requirements include trend analysis, ratio analysis, scatter plot analysis, and regression analysis. These are often viewed as numerically or mathematically grounded, and therefore more objective in nature. *Qualitative approaches* to forecasting range from sophisticated analytical models to informal expert opinions about future needs, often involving subjective interpretations or estimates, such as the nominal group technique or the Delphi technique.

THE STRATEGIC IMPORTANCE OF HUMAN RESOURCES PLANNING

Human resources planning (HRP) is the process of forecasting future human resources requirements to ensure that the organization will have the required number of employees with the necessary skills to meet its strategic objectives.

Human resources planning (HRP) is the process of forecasting future human resources requirements to ensure that the organization will have the required number of employees with the necessary skills to meet its strategic objectives. HRP is a proactive process, which both anticipates and influences an organization's future by systematically forecasting the supply of and demand for employees under changing conditions and by developing plans and activities to satisfy these needs. Effective HRP helps an organization achieve its strategic goals and objectives, achieve economies in hiring new workers, make major labour market demands more successfully, anticipate and avoid shortages and surpluses of human resources, as well as control or reduce labour costs.

HRP has recently become a key strategic priority not just for HR departments but for strategic business planners as well. The existing labour shortage in Canada is forecast to increase to 1 million workers over the next 15 years.¹ Currently, Canada is in the beginning stages of a major labour shortage. As the baby boom generation begins to retire, there are not enough candidates to fill vacant positions.² On average, two out of every three job openings over the next decade will be focused on replacing retiring workers. In addition, fertility rates in Canada continue to decline, resulting in fewer possible workers for the future labour force. Combined, these conditions create a situation of fierce labour competition, further increasing the importance of effective HRP. HRP will be absolutely essential for successful strategy implementation.³

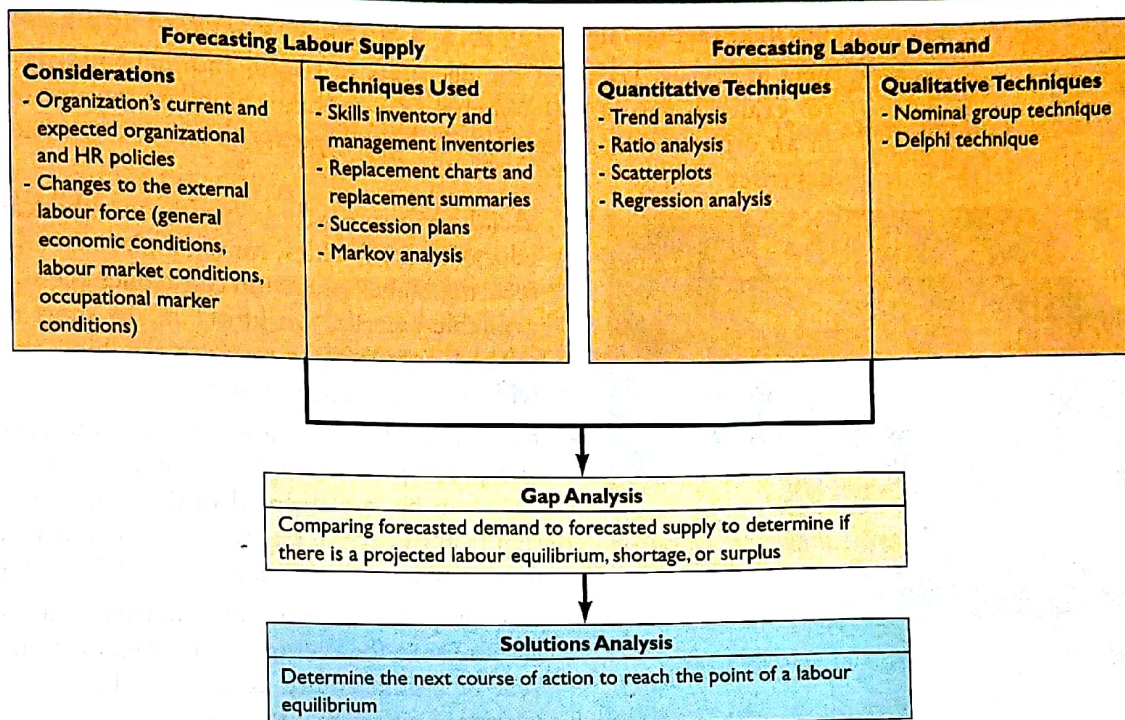
As illustrated in Figure 4.1, key steps in the HRP process include analyzing forecasted labour supply, forecasting labour demands, and then planning and implementing HR programs to balance supply and demand.

Lack of or inadequate human resources planning within an organization can result in significant costs when understaffed positions create costly inefficiencies and when severance pay is required for large numbers of employees being laid off. It can also create situations in which one department is laying off employees while another is hiring individuals with similar skills, which can reduce morale or productivity and can often result in turnover. The greater concern is that ineffective HRP can lead to an organization's inability to accomplish short-term operational plans or long-range strategic plans.

The Relationship between HRP and Strategic Planning

An HR plan (HRP) does not occur independently of the other departments within an organization (such as finance, marketing, research and development). The HRP must align with the overall goals of the organization as well as both the long-term and short-term strategic plans set by the organization. Fundamental to the business planning process is the impact and alignment of HRP (as discussed in detail in Chapter 1). An organization's strategic decision to expand, redirect, diverge, divest, partner, or merge will have an associated effect on the HR expectations and plans of the organization.

Failure to integrate HRP and strategic planning can have very serious consequences. For example, in Ontario, a fifth year of high school called the Ontario

FIGURE 4.1 Human Resources Planning Model

Academic Credit (OAC) year (often referred to as Grade 13) was abolished in 2003. As a result, there was a double cohort of students (from both Grade 12 and Grade 13) graduating and aspiring to attend postsecondary institutions. Most universities and colleges adopted a strategic decision to significantly increase admissions in 2003 to accommodate the double cohort. Postsecondary institutions that aligned their HRP with the strategy of increased admissions benefited from an associated increase in labour. Organizations that did not link their strategic decisions with HRP struggled to support the increased number of students inside the classroom (professors and teaching assistants) and outside of the classroom (libraries, career and learning centres, cafeterias, and so on).

The Importance of Environmental Scanning

Environmental scanning is a critical component of HRP and strategic planning processes; the most successful organizations are prepared for changes before they occur. **Environment scanning** involves assessing factors that affect the external labour market as well as an organization's ability to find and secure talent from outside of the organization. The external environmental factors most frequently monitored include the following:

- economic conditions (local, regional, national, international); for example, if the unemployment rate in a region is low, an organization would have to be more aggressive in recruiting talent, as availability of talent may be more scarce

environment scanning An assessment of external factors influencing the organization's ability to find and secure talent from the external labour market, including economic, competitive, legislative, social, technological, and demographic trends.

- market and competitive trends; for example, compensation policies that lag behind competitors' policies may result in higher turnover or more difficulties in attracting talent
- new or revised laws and the decisions of courts and quasi-judicial bodies; for example, a raise in the minimum wage rate can inflate the cost of labour in an organization, therefore creating budgetary pressure to reduce labour expenses



A trend toward higher education can reduce the size of the available external workforce in the short run.

- social concerns such as healthcare, childcare, and educational priorities; for example, a trend toward securing higher education can reduce the size of the available external workforce in the short run, but in the longer run can result in retaining applicants with more specialized training
- technological changes affecting processes, products, and people; for example, a new technology developed can be implemented in the organization and significantly reduce labour demands through automation of a previously labour-intensive process
- demographic trends of an internal and external labour force; for example, if an organization is situated in a community largely inhabited by senior citizens, it may face difficulties securing a diverse or full-time workforce from the local area

Steps in Human Resources Planning

HRP is critical to an organization's success as it aligns forecasted labour supply (provided by the human resources department) with the predicted labour demands of the organization (such as the number of employees needed and the skill sets required). An element of HR planning that is often taken for granted is the availability and accuracy of information regarding the current HR situation. Understanding the current internal labour force is the basis for a number of demand and supply estimates. Therefore, before embarking on an HR planning exercise, current HR levels (quantity and quality) must be assessed.

There are numerous sources of information available to identify existing talent or human resources in an organization. An organization chart can provide HR planners and managers with an understanding of the organizational structure, business units, and possible career paths. This macro-level information can be linked to more micro-level information, such as how many employees the company currently has at each level, what existing skill sets the employees have, as well as the demographic information and job-related information about the existing employee base.

An organization must forecast not only future HR demand (the number of employees and the skill sets needed in the future) but also future HR supply (internal availability of workers). These two forecasts can occur simultaneously or one after the other, depending on the resources available (time, money, people, and so on). Only after demand and supply have been forecast can an organization identify potential labour imbalance issues, after which plans to balance HR can be developed and implemented.

RPC

Researches, analyzes, and reports on potential people issues affecting the organization

FORECASTING THE AVAILABILITY OF CANDIDATES (SUPPLY)

Short-term and long-range HR demand forecasts only provide half of the staffing equation by answering the question, "How many employees will we need?" The next major concern is how projected openings will be filled. There are two sources of supply:

1. *Internal*—present employees who can be trained, transferred, or promoted to meet anticipated needs
2. *External*—people in the labour market not currently working for the organization, including those who are employed elsewhere and those who are unemployed, who can be expected to join the organization to meet anticipated needs

While internal forecasting identifies which members of the internal workforce will remain within the organization and where, an awareness of the external labour force can help organizations identify challenges that the expected recruitment of candidates into the internal labour force may bring. Such challenges could include the number of graduates in a specific program, the literacy levels of the local or target population, as well as general economic trends. These external factors can impact how much compensation an organization must provide to secure top talent. As well, in times of low unemployment the internal workforce may be more inclined to seek employment elsewhere, perceiving favourable ease of movement. Therefore, trends in the external labour force have a direct impact on projections of the internal labour force.

Forecasting the Supply of Internal Candidates

Before estimating how many external candidates will need to be hired, management must determine how many candidates for projected openings will likely come from within the firm. This is the purpose of forecasting the supply of internal candidates. This can be accomplished using tools such as a skills/management inventory, replacement plan/summaries, succession plans, or Markov analysis. Each of these is discussed in detail below.

skills inventories Manual or computerized records summarizing employees' education, experience, interests, skills, and so on, which are used to identify internal candidates eligible for transfer or promotion.

management inventories Records summarizing the qualifications, interests, and skills of management employees, along with the number and types of employees supervised, duties of such employees, total budget managed, previous managerial duties and responsibilities, and managerial training received.

Skills Inventories and Management Inventories

Skills inventories contain comprehensive information about the capabilities of current employees. Data gathered for each employee include name, age, date of employment, current position, present duties and responsibilities, educational background, previous work history, skills, abilities, and interests. Information about current performance and readiness for promotion is generally included as well. Data pertaining to managerial staff are compiled in **management inventories**. Records summarizing the background, qualifications, interests, and skills of management employees, as well as information about managerial responsibilities and management training, are used to identify internal candidates eligible for promotion or transfer opportunities.

To be useful, skills and management inventories must be updated regularly. Failure to do so can lead to present employees being overlooked for job openings. Updating every two years is generally adequate if employees are encouraged

to report significant qualifications changes (such as new skills learned or courses completed) to the HR department as they occur.

replacement charts Visual representations of who will replace whom in the event of a job opening. Likely internal candidates are listed, along with their age, present performance rating, and promotability status.

Cenera www.cenera.ca

replacement summaries Lists of likely replacements for each position and their relative strengths and weaknesses, as well as information about current position, performance, promotability, age, and experience.

succession planning The process of ensuring a suitable supply of successors for current and future senior or key jobs so that the careers of individuals can be effectively planned and managed.

Replacement Charts and Replacement Summaries

Replacement charts are typically used to keep track of potential internal candidates for the firm's most critical positions. It assumes that the organization chart will remain static for a long period of time and usually identifies three potential candidates for a top-level position, should it become vacant. Such charts typically indicate the age of potential internal candidates (which cannot be used as a criterion in making selection or promotion decisions but is necessary to project potential or likely retirement dates), the current performance level of the employee, and his or her promotion potential. The latter is based on the employee's future career aspirations and a supervisory assessment of readiness for promotion.

To provide a more objective estimate of future potential, this information may be supplemented by results of psychological tests, interviews with HR specialists, and other selection techniques.

Although replacement charts provide an excellent quick reference tool, they contain very little information. For that reason, many firms prefer to use **replacement summaries**. Such summaries list likely replacements for each position and their relative strengths and weaknesses, as well as information about current position, performance, promotability, age, and experience. These additional data can be extremely helpful to decision makers, although caution must be taken to ensure that no discrimination occurs on the basis of age, sex, and so on.

Succession Plans

Forecasting the availability of inside candidates is particularly important in succession planning. In a nutshell, **succession planning** refers to the plans a company makes to fill its most important executive positions. It extends beyond the replacement chart by focusing on developing people rather than simply identifying potential replacements. As a result, there is a stronger focus on skills development for a specific list of potential successors within an organization.

In the days when companies were hierarchical and employees tended to remain with a firm for years, executive succession was often straightforward: Staff climbed the ladder one rung at a time, and it wasn't unusual for someone to start on the shop floor and end up in the president's office. Although that kind of ascent is still possible, employee turnover and flatter structures mean that the lines of succession are no longer as direct. For example, potential successors for top positions might be routed through the top jobs at several key divisions, as well as overseas, and sent through a university graduate-level, advanced management program.

Succession planning is extremely important today, affecting both large and small organizations. The Entrepreneurs and HR box highlights some of the challenges that entrepreneurial organizations often face with succession planning. Because succession planning requires balancing the organization's top management needs with the potential career aspirations of available candidates, succession should include these activities:

An Ethical Dilemma

You were recently asked to identify one employee under your management as a top performer to align with a new company program offering top performers intensive management skills training. The employee you identified for this role is unaware of the program. This morning, she confided in you that she has just applied for graduate school. Five months from now, she will find out if she has been accepted, and she would start the program one month after that. Would you change your identification of the top performer in your team based on this information? Why or why not?

- analysis of the demand for managers and professionals in the company
- audit of existing executives and projection of likely future supply
- planning of individual career paths based on objective estimates of future needs, performance appraisal data, and assessments of potential
- career counselling and performance-related training and development to prepare individuals for future roles
- accelerated promotions, with development targeted at future business needs
- planned strategic recruitment aimed at obtaining people with the potential to meet future needs as well as filling current openings⁴

Tips FOR THE FRONT LINE

Markov analysis A method of forecasting internal labour supply that involves tracking the pattern of employee movements through various jobs and developing a transitional probability matrix.

It should be noted that replacement charts, replacement summaries, and succession plans are considered highly confidential in most organizations.

Markov Analysis

Estimating internal supply involves much more than simply calculating the number of employees. Some firms use the **Markov analysis** technique to track the pattern of employee movements through various jobs and develop a transitional probability matrix for forecasting internal supply by specific categories, such as position and gender. As illustrated in Figure 4.2, such an analysis shows the actual number (and percentage) of employees who remain in each job from one year to the next, as well as the proportions promoted, demoted, transferred,

FIGURE 4.2 Hypothetical Markov Analysis for a Manufacturing Operation

2013 → 2014	Plant Manager	Foreperson	Team Leader	Production Worker	Exit
Plant Manager (n = 5)	90% 4				20% 1
Foreperson (n = 35)	8% 3	82% 28			10% 4
Team Leader (n = 110)		11% 12	70% 77	7% 8	12% 13
Production Worker (n = 861)			6% 52	72% 620	22% 189
Projected Supply	7	40	129	628	

Percentages represent transitions (previous year's actuals).
Actual numbers of employees are shown as whole numbers in each block (projections for 2014 based on current staffing).

and leaving the organization. These proportions (probabilities) are used to forecast human resources supply.

ENTREPRENEURS and HR

Succession Planning and Family Businesses

In the second quarter of 2010, small businesses created 35 549 jobs, while large firms created only 728 jobs. During that period, small businesses in the construction sector alone accounted for 23 014 new jobs, while those in the healthcare and social assistance sectors introduced 9 755 new jobs.

Multigenerational family-controlled businesses often struggle with succession planning. Only one-third of family-owned businesses survive the transition to the second generation. And of these, only one-third survive the transition to the third generation.⁵

There are many reasons for these failures.

1. Determining who will inherit the business and how ownership will be determined among children can

be a source of immense stress for family business owners. Therefore, many choose to ignore the issue of succession planning altogether.

2. Second, a family business is a great source of pride for the business owner and is often their single largest asset. The concept of retirement or walking away can be incomprehensible to those who built the business.
3. There may not be a qualified or interested successor within the family.

While these are difficult issues to deal with, family businesses must begin to take an informed and strategic approach to these issues.

In the example provided, there were 35 employees in the foreperson occupation in 2013. Out of these, 82 percent (28 employees) are expected to remain in that position next year (based on past levels of activity). The organization can anticipate that 8 percent of the foreperson population (which would be 3 out of the 35 employees in 2013) would be promotable to the role of plant manager. In addition, the past trends show that 10 percent of employees at this level are lost to turnover (representing 4 employees who are expected to leave the organization before the start of next year). In addition, out of the 110 team leaders (the level below), 11 percent (12 employees) would be eligible for promotion to a foreperson position. Therefore, next year's projected supply of forepersons would be the 28 from this year who are projected to stay in that role plus the 12 team leaders who are projected to be eligible for promotion over the year, for a total supply of 40 forepersons.

To complement such quantitative data, the skills and capabilities of current employees must be assessed and skills inventories prepared. From this information, replacement charts or summaries and succession plans can be developed.

Forecasting the Supply of External Candidates

Some jobs cannot be filled with internal candidates because no current employees are qualified (such as those holding entry-level jobs) or they are jobs that experience significant growth. In these situations, the firm looks for external candidates. Employer growth is primarily responsible for the number of entry-level openings. A key factor in determining the number of positions that must be filled externally is the effectiveness of the organization's training, development,

and career-planning initiatives. If employees are not encouraged to expand their capabilities, they may not be ready to fill vacancies as they arise, and external sources must be tapped.

To project the supply of outside candidates, employers assess general economic conditions, labour market conditions, and occupational market conditions.

General Economic Conditions

General economic conditions refer to the natural fluctuations in economic activity, which have an impact on all businesses. These include factors such as interest rates, wage rates, rate of inflation, and unemployment rates. In general terms, the lower the rate of unemployment, the smaller the labour supply and the more difficult it will be to recruit employees. It is important to note that unemployment rates vary by occupation and geographic location and can result in an organization's inability to fill certain positions.

Labour Market Conditions

Labour market conditions refer to the demographics of those in the population, such as education levels, age, gender, marital status, and so on. Demographic conditions remain stable and can be forecast with a relatively high degree of accuracy. Fortunately, a wealth of national labour market information is available from Statistics Canada and other government or private sources. Regional chambers of commerce and provincial/local development and planning agencies can be excellent sources of local labour market information.

A crucial reality is that a large portion of the population is expected to retire over the next decade, significantly decreasing the size of the labour force. Graduating students (from any level of education) who are just joining the workforce are projected to account for 550 000 new entrants to the labour market

Statistics Canada
www.statcan.gc.ca

STRATEGIC HR

Pumping Up People Supply

According to Judith Thompson, senior manager of HR at Burnaby, BC-based Sorin Group, "Canada isn't well known for its biomedical engineers so even when we hire now, to ask for medical device experience, we wouldn't get it. So we hire an engineer or scientist and train on the rest of it." The company has come to realize the benefits, and necessity, of new immigrants as a major source of talent. "Our culture is very diverse. About 90 percent of our staff speak English as a second language, from production people to vice-presidents, so we don't look for Canadian-born, Canadian-educated, Canadian experience because in these economic times that would set us back," she says. "I would never have filled 60 positions last year with those criteria."

Training is extensive, as it takes three or four months before workers, wearing gowns and gloves in a super-clean environment, can make a product that is usable.

And even then it takes another six months to ramp up to regular production, says Thompson. Sorin supports its employees with in-house English-language training, through a partnership with immigration services, and provides subsidies to foreign-trained engineers who want to pursue an engineering degree in British Columbia.

"We're getting better feedback on problems on the floor because the employees are more comfortable speaking to the researchers and scientists and surgeons who come in on tours. The confidence level of the group has gone up and they are very devoted to the company and the product they make," says Thompson.

Source: Adapted with permission from S. Dobson, "Pumping Up People Supply at Sorin Group Canada to Build Heart Valves," Canadian HR Reporter, February 23, 2009.

annually.⁶ In contrast, new immigrants are expected to account for 131 500 new entrants to the labour market per year. An example of a company that has come to realize the benefits of new immigrants as a major source of talent is provided in the Strategic HR box.

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FORECASTING FUTURE HUMAN RESOURCES NEEDS (DEMAND)

RPC

Identifies the organization's staffing needs

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2. *quality and nature of employees* in relation to what management sees as the changing needs of the organization
3. *decisions to upgrade* the quality of products or services or *enter into new markets*, which might change the required employee skill mix
4. *planned technological and administrative changes aimed at increasing productivity and reducing employee head count*, such as the installation of new equipment or introduction of a financial incentive plan
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Quantitative Approaches

trend analysis The study of a firm's past employment levels over a period of years to predict future needs.

Trend Analysis

Trend analysis involves studying the firm's employment levels over the last three to five years to predict future needs. The purpose is to identify employment trends that might continue into the future, assuming that the past is a strong predictor of the future. Trend analysis is valuable as an initial estimate only, since employment levels rarely depend solely on the passage of time. Other factors (such as changes in sales volume and productivity) will also affect future staffing needs; thus, trend analysis is an approach used in relatively static and non-changing environments.

ratio analysis A forecasting technique for determining future staff needs by using ratios between some causal factor (such as sales volume) and the number of employees needed.

Ratio Analysis

Ratio analysis involves making forecasts based on the ratio between some causal factor (such as sales volume) and the number of employees required (for example, the number of salespeople). Ratio analysis can also be used to help forecast other employee requirements. Like trend analysis, ratio analysis assumes that productivity remains about the same; it is, however, more useful than trend analysis if there are significant changes between past patterns and future expectations. For example, suppose a salesperson traditionally generates \$500 000 annually in sales and that the firm's plans call for increasing sales by \$3 million in the coming year. If the sales revenue-salespeople ratio remains the same, six new salespeople would be required (each of whom produces an extra \$500 000 in sales). With ratio analysis, additional consideration can be given to changes in productivity. Using the example above, if we expect that the launch of a new technology and additional training programs will increase productivity by 20 percent, we can determine that in the future sales per employee will be \$600 000. Based on the projected \$3 million increase in sales, we would now need five additional employees rather than the six predicted when things were static.

scatter plot A graphical method used to help identify the relationship between two variables.

The Scatter Plot

Scatter plots can be used to determine whether two factors—a measure of business activity and staffing levels—are related. If they are, then when the measure of business activity is forecast, HR requirements can also be estimated.

An example to illustrate follows. Legislative changes to the Canadian health-care system require that two 500-bed hospitals be amalgamated. Both previously had responsibility for acute, chronic, and long-term care. The government's plan is for Hospital A to specialize in acute care while Hospital B assumes responsibility for chronic and long-term care. In general, providing acute care requires staffing with registered nurses (RNs), while chronic and long-term care facilities can be staffed primarily with registered practical nurses (RPNs).

By the end of the calendar year, 200 beds at Hospital A must be converted from chronic and long-term care beds to facilities for acute patients. At the same time, Hospital A's 200 chronic and long-term patients must be transferred to Hospital B. In a joint meeting, the directors of nursing and HR decide that a good starting point in the planning process would be to calculate the relationship between hospital size (in terms of number of acute beds) and the number of RNs required. After placing telephone calls to their counterparts at eight hospitals in larger centres across the country, they obtain the following information:

Size of Hospital (Number of Acute Beds)	Number of Registered Nurses
200	240
300	260
400	470
500	500
600	620
700	660
800	820
900	860

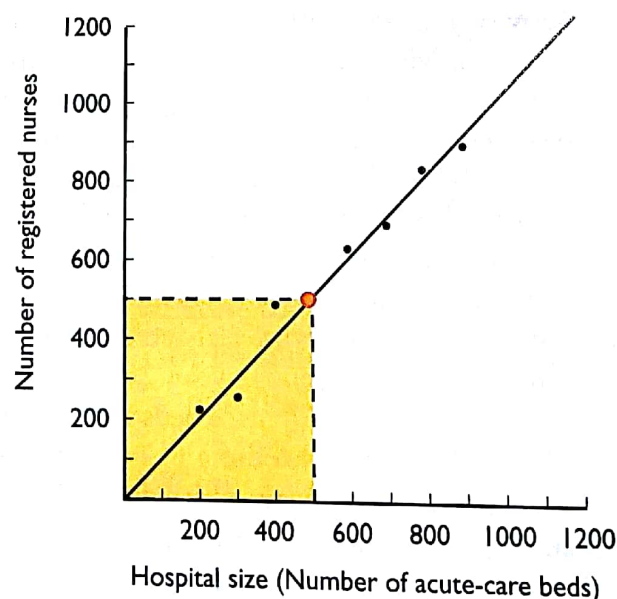
To determine how many RNs would be needed, they use the data obtained to draw the scatter plot shown in Figure 4.3, in which hospital size is shown on the horizontal axis and number of RNs is shown on the vertical axis. If the two factors are related, then the points will tend to fall along a straight line, as they do in this case. Carefully drawing a line that minimizes the distances between the line and each of the plotted points (the line of best fit) permits an estimate of the number of nurses required for hospitals of various sizes. Thus, since Hospital A will now have 500 acute-care beds, the estimated number of RNs needed is 500.

Regression Analysis

regression analysis A statistical technique involving the use of a mathematical formula to project future demands based on an established relationship between an organization's employment level (dependent variable) and some measurable factor of output (independent variable).

Regression analysis is a more sophisticated statistical technique to determine the line of best fit, often involving multiple variables (rather than just two, as per the example above). Using this statistical tool to determine the effect of one variable on another, the investigator is able to determine the magnitude and direction of the relationship between variables to develop future predictions. In the context of HRP, regression analysis involves the use of a mathematical formula to project future demands based on an established relationship between an organization's

FIGURE 4.3 Determining the Relationship between Hospital Size and Number of Registered Nurses



Note: After fitting the line, the number of employees needed, given the projected volume, can be extrapolated (projected).

employment level (dependent variable) and some measurable factors of output (independent variables), such as revenue, sales, or production level.

Qualitative Approaches

In contrast to quantitative approaches, which use statistical formulas, qualitative techniques rely solely on expert judgments. Two approaches used to forecast human resources demand (or supply) are the nominal group and Delphi techniques. Although managerial judgment is central to qualitative forecasting, it also plays a key role when quantitative techniques are used. It's rare that any historical trend, ratio, or relationship will continue unchanged into the future. Judgment is therefore needed to modify the forecast based on anticipated changes.

Nominal Group Technique

nominal group technique A decision-making technique that involves a group of experts meeting face to face. Steps include independent idea generation, clarification and open discussion, and private assessment.

The **nominal group technique** involves a group of experts (such as first-line supervisors and managers) meeting face to face. Although one of its uses is human resources demand forecasting, this technique is used to deal with issues and problems ranging from identifying training needs to determining safety program incentives. The steps involved are as follows:¹¹

1. Each member of the group independently writes down his or her ideas on the problem or issue (in this case, estimates of demand).
2. Going around the table, each member then presents one idea per round. This process continues until all ideas have been presented and recorded, typically on a flipchart or chalkboard. No discussion is permitted during this step.
3. Clarification is then sought, as necessary, followed by group discussion and evaluation.
4. Finally, each member is asked to rank the ideas. This is done independently and in silence.

The advantages of this technique include involvement of key decision makers, a future focus, and the fact that the group discussion involved in the third step can facilitate the exchange of ideas and greater acceptance of results. Drawbacks include subjectivity and the potential for group pressure to lead to a less accurate assessment than could be obtained through other means.

Delphi Technique

Although short-term forecasting is generally handled by managers, the **Delphi technique** is useful for long-range forecasting and other strategic planning issues. It typically involves outside experts as well as company employees, based on the premise that outsiders may be able to assess changes in economic, demographic, governmental, technological, and social conditions, and predict the potential impact of these external changes more objectively. The Delphi technique involves the following steps:¹²



In the nominal group technique, each member presents ideas independently, followed by group discussion and evaluation of ideas.

Delphi technique A judgmental forecasting method used to arrive at a group decision, typically involving outside experts as well as organizational employees. Ideas are exchanged without face-to-face interaction, and feedback is provided and used to fine-tune independent judgments until a consensus is reached.

1. The problem is identified (in this case, estimates of demand), and each group member is requested to submit a potential solution by completing a carefully designed questionnaire. Direct face-to-face contact is not permitted.
2. After each member independently and anonymously completes the initial questionnaire, the results are compiled at a centralized location.
3. Each group member is then given a copy of the results.
4. If there are differences in opinion, each individual uses the feedback from other experts to fine-tune his or her independent assessment.
5. The third and fourth steps are repeated as often as necessary until a consensus is reached.

As with the nominal group technique, the advantages of the Delphi technique include involvement of key decision makers and a future focus; in addition, though, it permits the group to critically evaluate a wider range of views. Drawbacks include the fact that judgments may not efficiently use objective data, the time and costs involved, and the potential difficulty in integrating diverse opinions.



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In the Delphi technique, after each member independently and anonymously provides their forecast, the results are compiled at a centralized location.

staffing table A pictorial representation of all jobs within the organization, along with the number of current incumbents and future employment requirements (monthly or yearly) for each.

Short-term plans—although still approximations—are more specific and are often depicted in a **staffing table**. A staffing table is a pictorial representation of all jobs within the organization, along with the number of current incumbents and future employment requirements (monthly or yearly) for each.

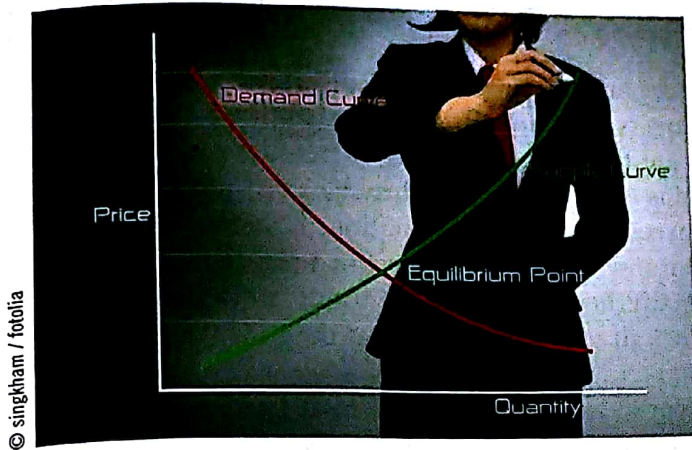
Gap Analysis: Summarizing Human Resources Requirements

The end result of the forecasting process is an estimate of short-term and long-range HR requirements. Long-range plans are general statements of potential staffing needs and may not include specific numbers.

PLANNING AND IMPLEMENTING HR PROGRAMS TO BALANCE SUPPLY AND DEMAND

Once the supply and demand of human resources have been estimated, program planning and implementation begin. To successfully fill positions internally, organizations must manage performance and careers. Performance is managed through effectively designing jobs and quality-of-working-life initiatives; establishing performance standards and goals; coaching, measuring, and evaluating; and implementing a suitable reward structure (compensation and benefits).

To manage careers effectively, policies and systems must be established for recruitment, selection and placement (including transfer, promotion, retirement, and termination), as well as training and development. Policies and systems are also required for job analysis, individual employee assessment, replacement and succession planning, and career tracking, in addition to career planning and development.



Once the future demand and supply of human resources has been established, managers and HR experts work together to determine actions required to reach the equilibrium point.

Specific strategies must be formulated to balance supply and demand considerations. As illustrated in Figure 4.4, there are three possible scenarios:

1. projected labour demand matches projected labour supply (equilibrium)
2. projected labour supply exceeds projected demand (surplus)
3. projected labour demand exceeds projected supply (shortage)

Labour Equilibrium

Although it is extremely rare to have a labour equilibrium, when the expected supply matches the actual demand, organizations do not need to change their course of action. Existing plans to replace outgoing

employees should be maintained by promoting or transferring internal members of the organization as well as recruiting external labourers.

FIGURE 4.4 Balancing Supply and Demand Considerations

Conditions	Possible Solutions
Labour Equilibrium (when labour demand equals labour supply)	• Vacancies are filled internally through training, transfers, or promotions or externally through hiring
Labour Surplus (when labour demand is less than labour supply)	• Hiring freeze: reassign current workers to job openings • Attrition: standard employee resignation, retirement, or death • Early retirement buyout programs: entice those close to retirement to retire early with a buyout program, access to full or reduced pension, and/or continuation of benefits • Job sharing, work sharing, or reduced workweek programs: reducing work from the standard full-time workload to a less than full-time work • Layoff: temporary or permanent withdrawal of employment due to business or economic reasons • Termination: permanent separation from the organization because of job performance reasons • Leave of absence: voluntary, temporary withdrawal of employment with guaranteed job upon return
Labour Shortage (when labour demand is greater than labour supply)	• Scheduling overtime hours • Hiring temporary workers • Subcontracting work • External recruitment • Internal promotions or transfers

hiring freeze A common initial response to an employee surplus; openings are filled by reassigning current employees and no outsiders are hired.

attrition The normal separation of employees from an organization because of resignation, retirement, or death.

early retirement or buyout programs Strategies used to accelerate attrition that involve offering attractive buyout packages or the opportunity to retire on full pension with an attractive benefits package.

Hints : TO ENSURE LEGAL COMPLIANCE

job sharing A strategy that involves dividing the duties of a single position between two or more employees.

work sharing Employees work three or four days a week and receive EI benefits on their non-workday(s).

reduced workweek Employees work fewer hours and receive less pay.

Tips : FOR THE FRONT LINE

layoff The temporary or permanent withdrawal of employment to workers for economic or business reasons.

Labour Surplus

A labour surplus exists when the internal supply of employees exceeds the organization's demand. Most employers respond initially by instituting a **hiring freeze**, which means that openings are filled by reassigning current employees and no outsiders are hired. The surplus is slowly reduced through **attrition**, which is the normal separation of employees because of resignation, retirement, or death. When employees leave, the ensuing vacancies are not filled and the staffing level decreases gradually without any involuntary terminations. In addition to the time it takes, a major drawback of this approach is that the firm has no control over who stays and who leaves.

Some organizations attempt to accelerate attrition by offering incentives to employees to leave, such as **early retirement or buyout programs**. Staffing levels are reduced and internal job openings created by offering attractive buyout packages or the opportunity to retire on full pension with an attractive benefits package at a relatively early age (often 55 or 60). To be successful, buyouts must be handled carefully. Selection criteria should be established to ensure that key people who cannot be easily replaced do not leave the firm. A drawback of buyouts and early retirement packages is that they often require a great deal of money up front. Care must also be taken to ensure that early retirement is voluntary, since forced early retirement is a contravention of human rights legislation.

Another strategy used to deal with an employee surplus involves reducing the total number of hours worked. **Job sharing** involves dividing the duties of a single position between two or more employees. Reducing full-time positions to part-time work is sometimes more effective, especially if there are peak demand periods. Creating a job-share position or offering part-time employment can be win-win strategies, since layoffs can be avoided. Although the employees involved work fewer hours and thus receive less pay, they are still employed, and they may enjoy having more free time at their disposal, while the organization benefits by retaining good employees.

Twenty-five years ago, the federal government introduced a **work-sharing** scheme, a layoff-avoidance strategy that involves employees working three or four days a week and receiving employment insurance (EI) benefits on their non-workday(s). Between February 1, 2009, and April 3, 2010, the program was temporarily extended to provide 52 weeks of benefits.¹³ Similar to work sharing, but without a formal arrangement with the government regarding EI benefits, is a **reduced workweek**. Employees simply work fewer hours and receive less pay. The organization retains a skilled workforce, lessens the financial and emotional impact of a full layoff, and reduces production costs. One potential drawback is that it is sometimes difficult to accurately predict in advance how many hours of work should be scheduled each week.

Another strategy used to manage an employee surplus is a **layoff**: the temporary withdrawal of employment to workers for economic or business reasons. Layoffs may be short in duration (for example, when a plant closes for brief periods in order to adjust inventory levels or to retool for a new product line) but can last months or even years at a time if the organization is negatively affected by a major change in the business cycle. Unfortunately, layoffs are often permanent in nature. Layoffs are not easy for managers, who have to reduce

termination Permanent separation from the organization for any reason.

leave of absence Allows an employee who may be interested in taking time away from work for a variety of reasons (e.g., personal, educational, etc.) to have a set period of time away from their position without pay, but with a guarantee that their job will be available upon their return.

Research INSIGHT

survivor syndrome A range of negative emotions experienced by employees remaining after a major restructuring initiative, which can include feelings of betrayal or violation, guilt, or detachment, and can result in stress symptoms, including depression, increased errors, and reduced performance.

supplemental unemployment benefits (SUBs) A top-up of EI benefits to bring income levels closer to what an employee would receive if on the job.

severance package A lump-sum payment, continuation of benefits for a specified period of time, and other benefits that are provided to employees who are being terminated.

An Ethical Dilemma

How much time, effort, and money should firms devote to helping “surviving” employees deal with downsizing? With mergers and acquisitions?

number of employees to the required level, or for workers, but are usually necessary to ultimately reduce the impact of the organization’s economic downturn. Layoffs and terminations are discussed in depth in Chapter 11.

Termination is a broad term that encompasses permanent separation of the worker from the organization. Termination is often triggered by a management decision to sever the employment relationship for job performance reasons. Purging poorly performing employees is often an ongoing activity in any organization, regardless of any projected labour surpluses; however, the rate of termination may increase if there is a projected surplus of labour.

The option of a voluntary **leave of absence** can also be used if the labour surplus is temporary in nature. A leave of absence allows those who may be interested in time off for personal, educational, or other reasons to have a set period of time away from their position, with a guarantee that their job will be available upon their return. A leave of absence can be paid or unpaid, but often seniority and benefits remain intact. Terms of the leave and expected return must be clearly outlined, including potential conflicts of interest and mutual expectations from each party.

Easing the Pain of Labour Surplus Management

Although restructuring initiatives, ranging from layoffs to mergers and acquisitions, were prevalent in the last two decades, organizations that engaged in layoffs were not consistently achieving the desired goals or financial benefits of their decisions. In a study of 6 418 workforce reductions in Fortune 500 firms over 18 years, researchers found no consistent evidence that downsizing led to improved financial performance.¹⁴

A primary reason for this is the high cost associated with **survivor syndrome**, a range of emotions that can include feelings of betrayal or violation, guilt, or detachment. The remaining employees, anxious about the next round of terminations, often suffer stress symptoms, including depression, increased errors, and reduced performance.

To ease the financial burden of layoffs, some organizations offer **supplemental unemployment benefits (SUBs)**, which are a top-up of EI benefits to bring income levels of temporarily laid-off workers closer to their regular, on-the-job pay. SUB programs are generally negotiated through collective bargaining between the employee and employer. Benefits are payable until the pool of funds set aside has been exhausted.

A **severance package** is typically provided when employees are being terminated through no fault of their own in order to avoid wrongful dismissal lawsuits. Severance pay is legally required in certain situations, such as mass layoffs.

In addition to pay, severance packages often include the continuation of benefits for a specified period. In determining the appropriate package, employers should take salary, years of service, the employee’s age, and the likelihood of him or her obtaining another job into consideration.¹⁵ Executives may be protected by a *golden parachute clause* in their contract of employment; this is a guarantee by the employer to pay specified compensation and benefits in the case of termination due to downsizing or restructuring. To soften the blow of termination, *outplacement assistance*,

generally offered by an outside agency, can assist affected employees in finding employment elsewhere. The issues and processes related to managing a labour surplus legally and fairly are provided in significant detail in Chapter 11.

Labour Shortage

A labour shortage exists when the internal supply of human resources cannot meet the organization's needs. Scheduling overtime hours is often the initial response. Employers may also subcontract work on a temporary or permanent basis. Another short-term solution is to hire temporary employees.

As vacancies are created within the firm, opportunities are generally provided for employee transfers and promotions, which necessitate performance management, training (and retraining), and career development. Of course, internal movement does not eliminate a shortage, which means that recruitment will be required. It is hoped that resultant vacancies will be for entry-level jobs, which can be filled more easily externally.

Internal Solutions to a Labour Shortage

A **transfer** involves a lateral movement from one job to another that is relatively equal in pay, responsibility, or organizational level. Transfers can lead to more effective use of human resources, broaden an employee's skills and perspectives, and help make him

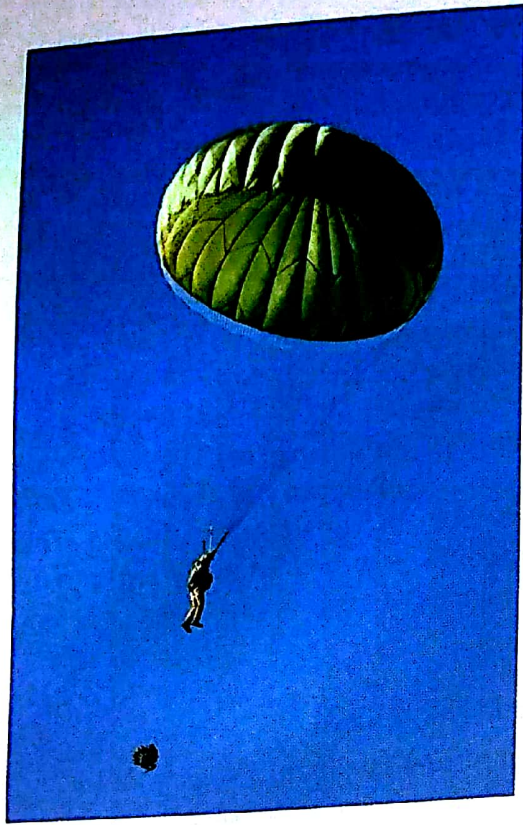
or her a better candidate for future promotions. Transfers also offer additional technical and interpersonal challenges and increased variety of work, which may enhance job satisfaction and motivation.

A **promotion** involves the movement of an employee from one job to another that is higher in pay, responsibility, or organizational level. Such a move may be based on merit, seniority, or a combination of both. Merit-based promotions are awarded in recognition of a person's outstanding performance in his or her present job or as an assessment of his or her future potential.

A focus on employee retention initiatives can also mitigate potential labour shortages. The HRP process often highlights challenges the organization is having with turnover or retention at specific levels. This may warrant further investigation into why employees are leaving and which types of employees are leaving. Rather than a broad focus on retention, organizations can benefit from focusing on retaining key employees or employees with strong job performance. A discussion of career planning to assist with internal solutions in response to a labour shortage is provided in Chapters 6 and 7 (Orientation and Training, and Performance Management).

External Solutions to a Labour Shortage

External solutions to managing a labour shortage involve recruiting the right quality and quantity of talent needed in an organization to meet the long-term goals

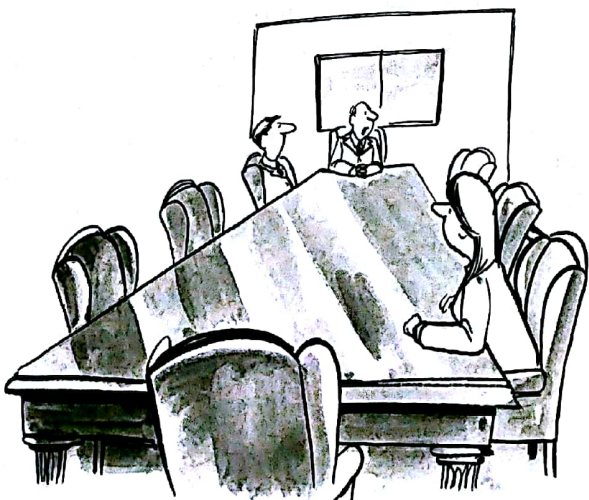


A golden parachute clause protects executives' compensation in the case of termination due to downsizing or restructuring.

Hints TO ENSURE LEGAL COMPLIANCE

transfer Movement of an employee from one job to another that is relatively equal in pay, responsibility, or organizational level.

promotion Movement of an employee from one job to another that is higher in pay, responsibility, or organizational level, usually based on merit, seniority, or a combination of both.



"How could anyone think that this department is under staffed?"

and strategy of the company. Options for selection related to managing a labour shortage are provided in Chapter 5 (Selection).

RECRUITMENT

recruitment The process of searching out and attracting qualified job applicants, which begins with the identification of a position that requires staffing and is completed when résumés or completed application forms are received from an adequate number of applicants.

recruiter A specialist in recruitment whose job is to find and attract capable candidates.

Recruiters Café
www.recruiterscafe.com
 Great Place to Work Institute
 Canada
www.greatplacetowork.ca

Recruitment is the process of searching out and attracting qualified job applicants. It begins with the identification of a position that requires staffing and is completed when résumés or completed application forms are received from an adequate number of applicants. A Watson Wyatt study found that organizations with superior recruiting practices financially outperform those with less effective programs and that successful recruiting is a strong indicator of higher shareholder value.¹⁶

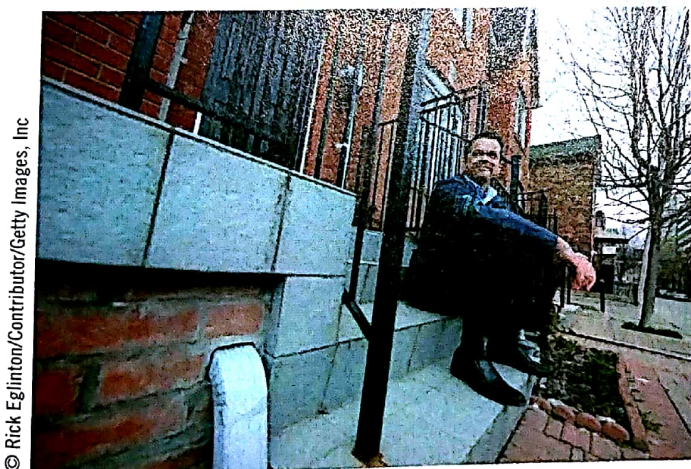
Authority for recruitment is generally delegated to HR staff members, except in small businesses where line managers usually recruit their own staff. In large organizations in which recruiting is done on a continual basis, the HR team typically includes specialists, known as **recruiters**, whose job is to find and attract qualified applicants. As a growing talent shortage leads to increased competition for the employees needed to implement strategy, recruiters are becoming increasingly critical to achieving an organization's strategic objectives.

Organizations are increasingly seeking the high profile given to an "employer of choice," such as those included in lists such as Mediacorp's "Top 100 Employers," the Hewitt Associates "50 Best Employers," and the *Financial Post's* "Ten Best Companies to Work for." Employers such as Scotiabank, Purolator, Tim Hortons, and many others are also applying the marketing concept of branding to strengthen their recruitment activities.¹⁷

Employer Branding

Gabriel Bouchard, founder of the Monster Canada online job board, says, "In an increasingly tight job market, employers must remain permanently visible to potential employees, establishing and maintaining relationships with potential candidates before they even begin pursuing a new job. This is particularly crucial when it comes to hard-to-fill or mission-critical positions."¹⁸ Proactive employers are trying to obtain a competitive advantage in recruitment by establishing themselves as employers of choice through employer branding. The purpose of an employer brand is to attract people to apply to work at the organization and to earn the loyalty of current employees.

Employer branding is the image or impression of an organization as an employer based on the perceived benefits of being employed by the organization. It is the experience of an employee when working for a company, based on feelings, emotions, senses, realities, and benefits (functional benefits such as personal development, economic benefits such as monetary rewards, and psychological benefits such as feelings of purpose, belonging, and recognition). It is essentially a promise made to employees and their perception of how well that promise is delivered.¹⁹ Employer branding involves three steps as summarized in Table 4.1.



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Gabriel Bouchard, founder of Monster Canada online job board, encourages employers to create a brand for themselves.