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## CHAPTER 5

# Templates for Reporting Performance Measures

The reporting framework must accommodate the requirements of different levels in the organization and the reporting frequency that supports timely decision making. This chapter presents some better-practice formats that will help speed up this vital step.

This chapter should be read in conjunction with the whitepapers and books written by Stephen Few, see [www.perpetualedge.com](http://www.perpetualedge.com).

### Reporting Key Result Indicators in a Dashboard to the Board

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A dashboard should be a one-page display, such as the examples in Exhibits 5.1 and 5.2. The commentary should be included on this page.

A good dashboard with the key result indicators (KRIs) going in the right direction will give the board confidence that management knows what it is doing and that the ship is being steered in the right direction. The board can then concentrate on what it does best: focusing on the horizon for icebergs in the first-class lounge instead of parking themselves on the ship's

Key Performance Indicators

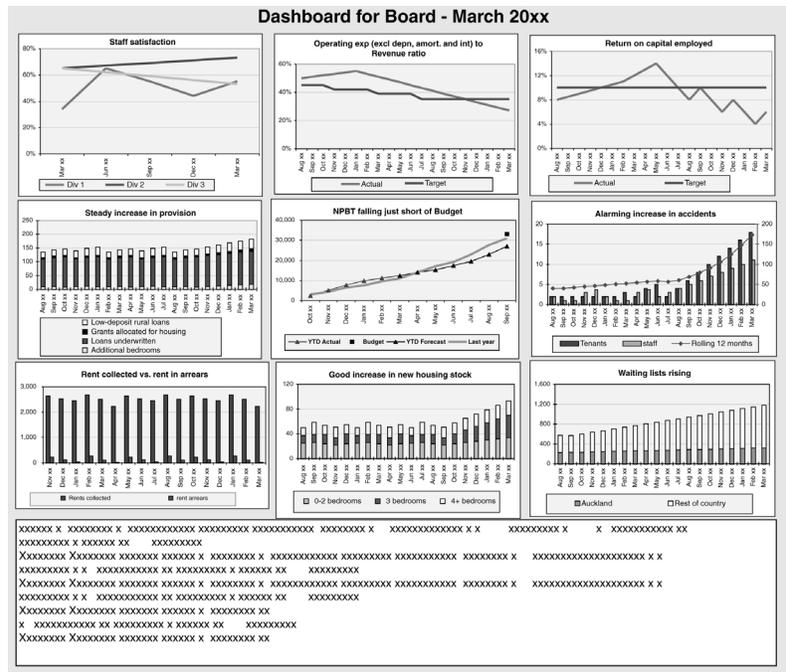


EXHIBIT 5.1 Nine-Graph Dashboard Example

bridge and getting in the way of the captain, who is trying to perform the important day-to-day duties. Ten examples of KRI board dashboard graphs can be found in Exhibit 5.3.

### Customer Satisfaction

Customer satisfaction needs to be measured at least every three months by using statistical samples and focusing on your top 10% to 20% of customers (the ones that are generating most if not all of your bottom line). This process does not need to be overly expensive. If you think once a year is adequate for customer satisfaction, stick to running a sports club; you are not safe in the public or private sectors.

### Dashboard for Board - September 20xx

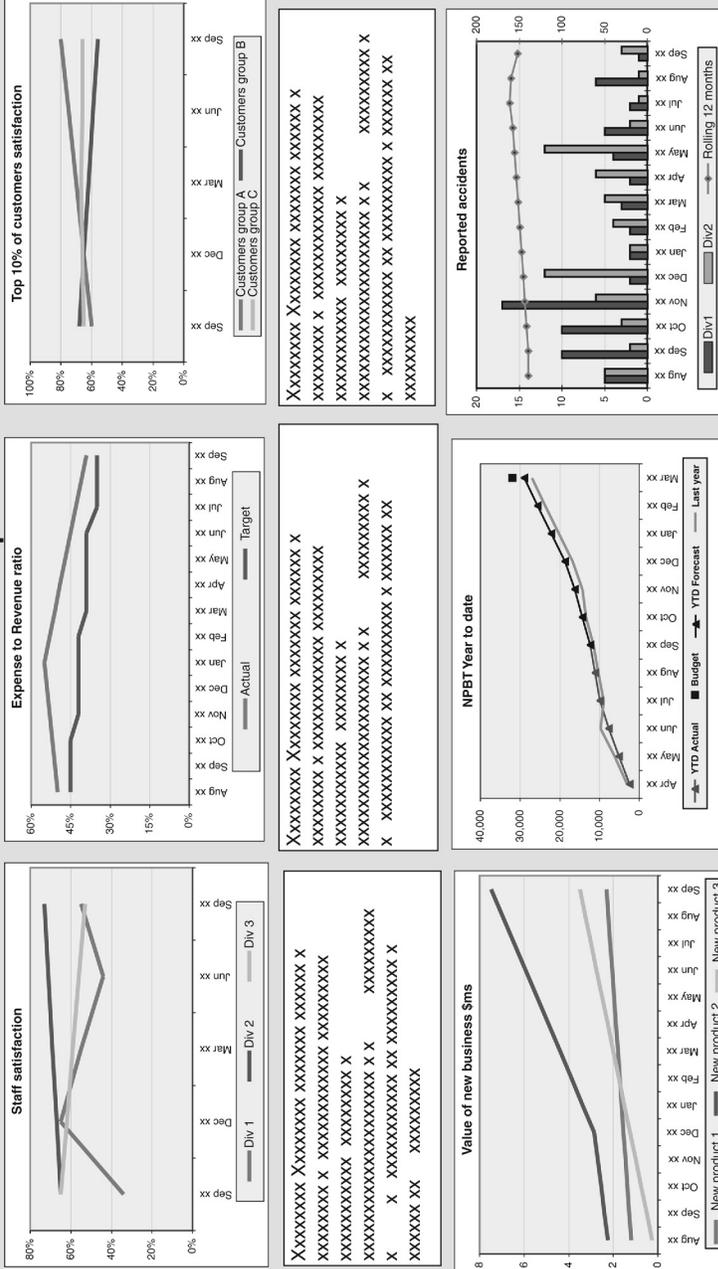


EXHIBIT 5.2 Six-Graph Dashboard Example

Key Performance Indicators

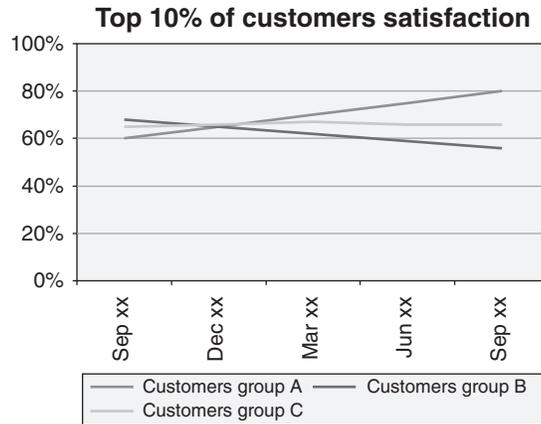
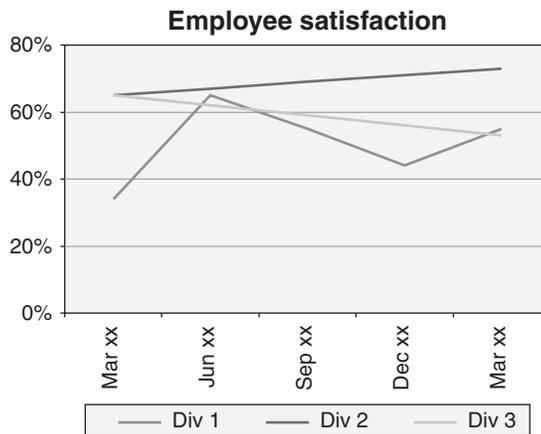


EXHIBIT 5.3 KRIs for a Board Dashboard

### Employee Satisfaction

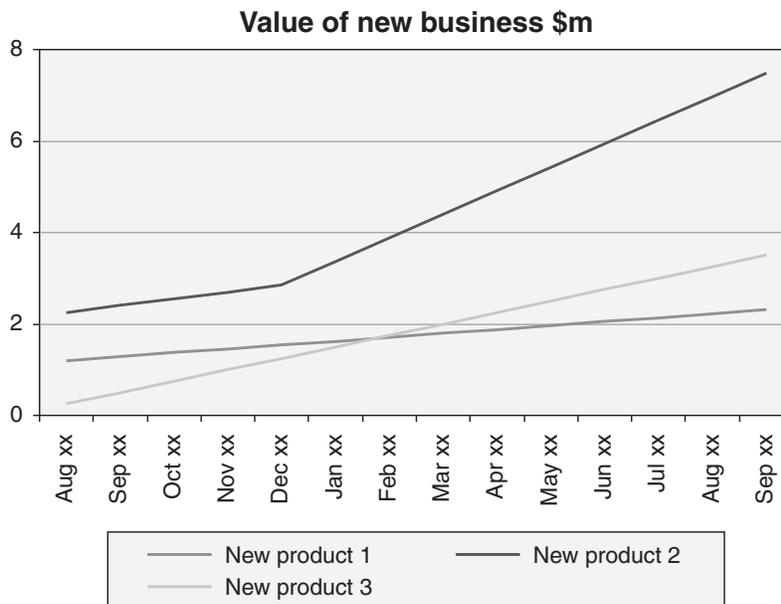
This is no different or less important than customer satisfaction. As one person said, “Happy staff make happy customers, who make happy owners.” If you believe in this connection, run a survey now! A staff satisfaction survey need not be expensive and should never be done covering all staff; instead, it should be replaced by a rolling survey with a vertical and horizontal slice of the management and staff.<sup>1</sup>



*Templates for Reporting Performance Measures*

**Value of New Business**

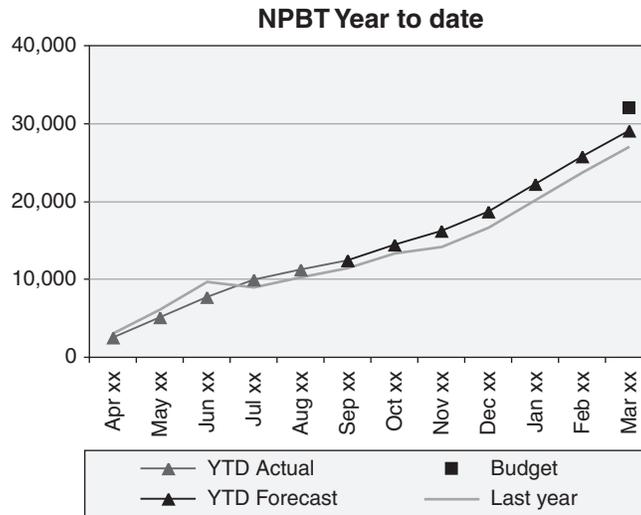
All businesses in the private sector need to focus on the growth of their rising-star products. It is important to monitor the pickup of this new business, especially among the top 10% to 20% of customers, who create most of the bottom line.



**Net Profit before Tax**

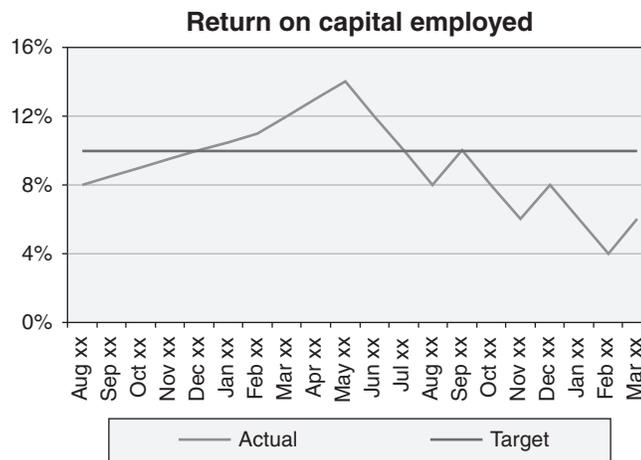
Since the board will always have a focus on the year-end, it is worthwhile to show the cumulative net profit before tax (NPBT). This graph will include the most recent forecast that should be updated on a quarterly basis bottom-up. This is the only KRI graph that starts at the beginning of the year; the rest should show a rolling 15- to 18-month trend.

Key Performance Indicators



**Return on Capital Employed**

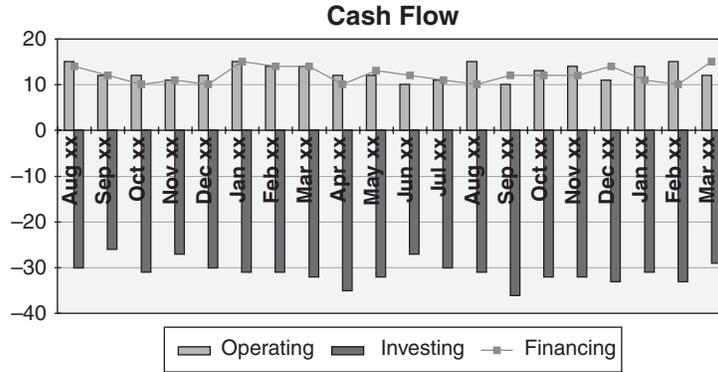
Return on capital employed (ROCE) is the old stalwart of reporting. The difference now is that ROCE is no longer a key performance indicator (KPI) but a key result indicator (KRI). This graph needs to be a 15- to 20-month trend graph.



*Templates for Reporting Performance Measures*

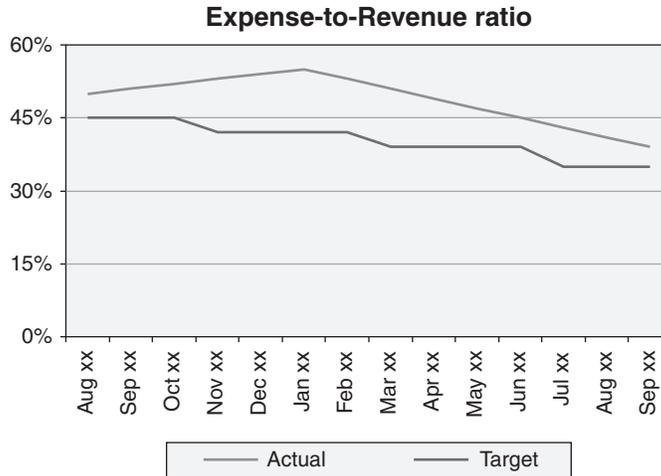
**Cash Flow**

The cash flow graph goes back at least 12 months and should be projected out at least 6 months forward.



**Expenses as a Ratio to Revenue**

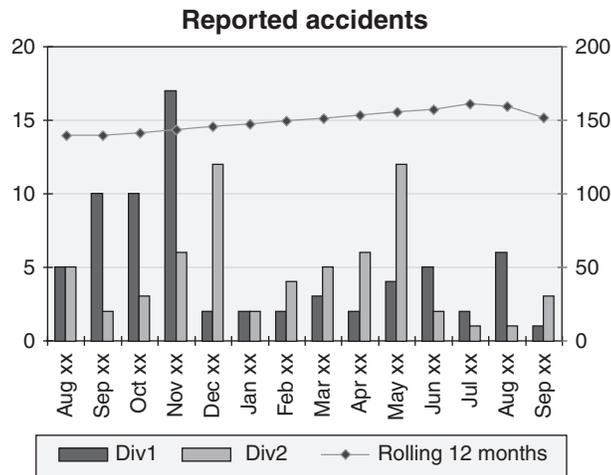
The board should be interested in how effective the organization has been in utilizing technology and continuous improvement to ensure that cost of operations is tracking well against revenue.



Key Performance Indicators

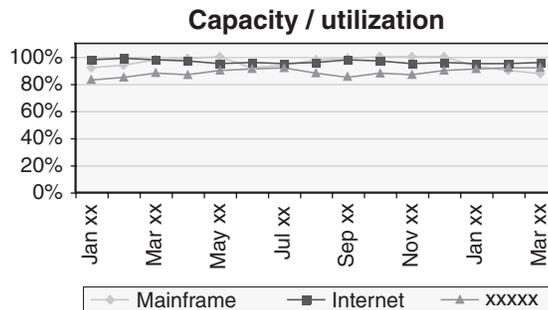
Health and Safety

All boards are interested in health and safety; the well-being of staff is a much higher priority these days than it was in the past.



Capacity

Monitoring the capacity of key machines and plant should go forward at least 5 to 12 months. The board needs to be aware of capacity limitations, and such a graph will help focus board members on new capital expenditure requirements.

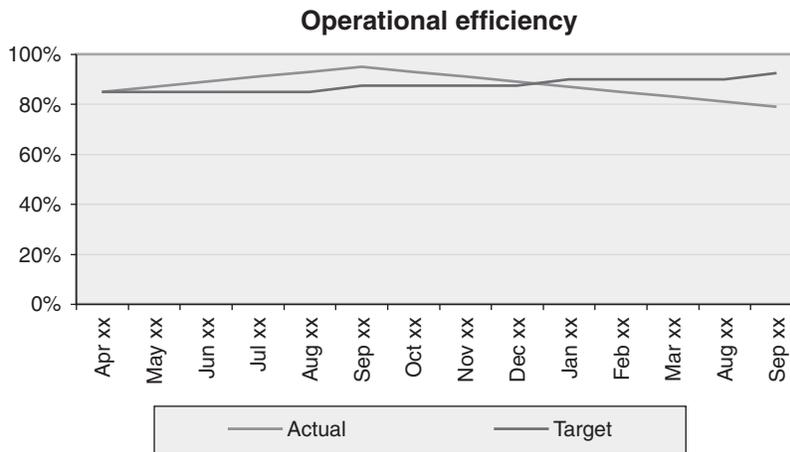


*Templates for Reporting Performance Measures*

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### Operational Efficiency

Operational efficiency is a composite index based on a variety of statistics, such as delivered in full on time, portion of idle machine time (measuring key machines only), and the like.



### Reporting Performance Measures to Management

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Measures must be reported to management in a timely fashion. As mentioned throughout this book, key performance indicators (KPIs) need to be reported 24/7, daily, or at the outside weekly; other performance measures can be reported less frequently, such as monthly and quarterly.

#### Daily Reporting

The main KPIs are reported 24/7 or daily. Exhibit 5.4 shows how they should be reported on the intranet—some form of table giving the contact details, the problem, and some history so a call can be made and the manager cannot hide poor performance.

Late planes over 2 hours											
Time:	Statistics of last stop			Region manager's name				Contact details			No. of late planes over 1 hour
	Flight number	Arrival late by	Departure late by	Time added	Current time at location	Work	Mobile	Home	Last 30 days	30-day ave. of last 3 months	30-day ave. of last 6 months
	BA1243	1:40	2:33	0:53	18:45	xxxxx	xxxxx	xxxx	4	3	4
	BA1598	1:45	2:30	0:45	19:45	xxxxx	xxxxx	xxxx	2	3	4
	BA12	1:45	2:27	0:42	20:45	xxxxx	xxxxx	xxxx	4	4	5
	BA146	1:45	2:24	0:39	21:45	xxxxx	xxxxx	xxxx	5	4	4
	BA177	1:45	2:21	0:36	22:45	xxxxx	xxxxx	xxxx	2	4	3
	BA256	1:45	2:18	0:33	23:45	xxxxx	xxxxx	xxxx	5	4	5
	BA1249	1:45	2:15	0:30	0:45	xxxxx	xxxxx	xxxx	2	4	3
	Total	7 planes									

EXHIBIT 5.4 Intranet-Based KPI Exception Report Example

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Another benefit of providing senior management with daily/weekly information on the key performance areas is that the month-end becomes less important. In one company where there is a 9 o'clock report every morning, management holds a sweepstakes on the month-end result. Talking about the monthly numbers is a small part of the meeting, which happens in the first week of the following month. In other words, if organizations report their KPIs on a 24/7 or daily basis, management knows intuitively whether the organization is having a good or bad month.

### **Weekly Reporting**

Some KPIs only need to be reported weekly. Exhibit 5.5 is an example of how the KPIs could be presented. Note that while all the KPIs will be graphed over time—at least 15 months—only the three KPIs showing a decline in performance would be graphed. The other two KPI graphs would be maintained and used when necessary.

### **Monthly Reporting**

Performance measures can be shown endless ways, whether in a balanced scorecard or not. Performance measures can be shown through icons, gauges, traffic lights, and so on. Exhibit 5.6 is an example of a Stephen Few dashboard.

Too often too little thought goes into the design of these management reports. A must visit for all report designers is Stephen Few's Web site ([www.perceptualedge.com](http://www.perceptualedge.com)), where you can access, free of charge, many high-quality white papers on graphical displays.

His book on dashboard design is also highly rated.<sup>2</sup>

Key Performance Indicators

**Top five KPIs**  
**Weekly report xx xxxx 20xx**

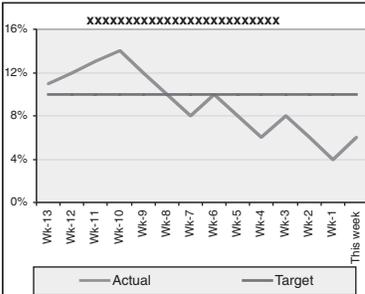
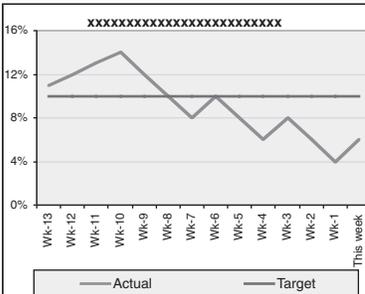
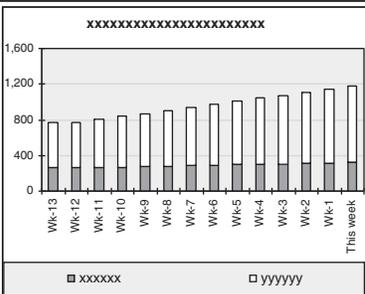
Top 5 weekly KPIs	Target	Result	Rating
Xxxxxxx xxxxx xxxxx (see graph below)			☹
Xxxxxxx xxxxx xxxxx (see graph below)			☹
Xxxxxxx xxxxxxxx xxxxxxxx.			☺
Xxxxxxx xxxxx xxxxx (see graph below)			☹
Xxxxxxx xxxxxxxx xxxxxxxx..			☹
	Issues:  Actions to be taken:		
	Issues:  Actions to be taken:		
	Issues:  Actions to be taken:		

EXHIBIT 5.5 Top five KPIs Weekly report xx xxxx 20xx

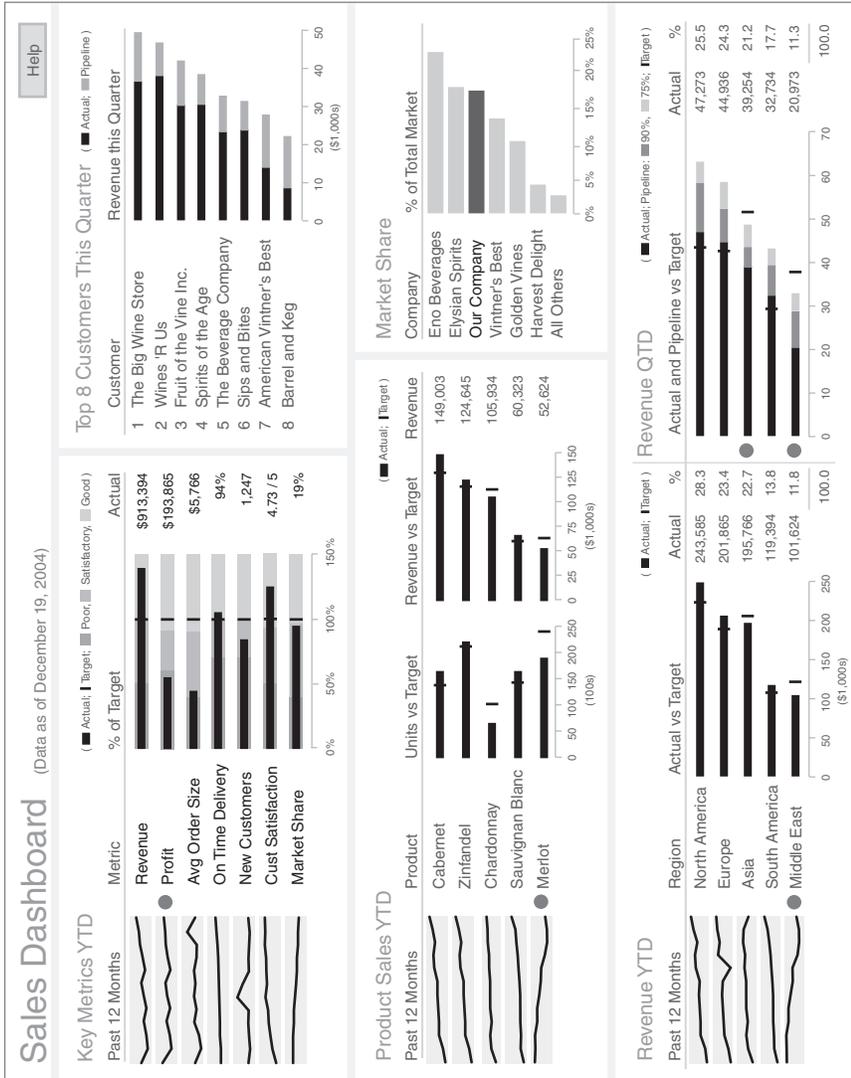


EXHIBIT 5.6 Sales Dashboard

Stephen Few's contribution to report design is immense. His workshops, books, whitepapers and articles are a must attend/read for all those involved in reporting performance to the Board, senior management, staff and the general public. All reporting of winning KPIs and other performance measures is vastly improved if one adopts his design techniques in all forms of balanced scorecard reporting.

Few has come up with a very useful list of 11 common pitfalls in dashboard design:

1. Exceeding the boundaries of a single screen (where managers have a multiple choice as to what they can see—in other words the designer has not determined what is important).
2. Supplying inadequate context for the data. (Graphs which do not clearly show what is good or bad performance).
3. Displaying excessive detail or precision (not rounding enough).
4. Expressing measures indirectly (Few prefers, on occasion to hold one data series as a constant and express the other as a percentage deviation).
5. Choosing inappropriate media of display (choosing the wrong graph, especially a pie chart; using a graph when a table would be better; etc.).
6. Introducing meaningless variety (using a myriad of different graphs on one page, just because we can do them).
7. Using poorly designed display media (lack of thought regarding the real issues).
8. Encoding quantitative data inaccurately (by setting the starting scale away from zero).
9. Arranging the data poorly (by not linking issues together and not positioning graphs on the same point together).

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10. Not highlighting what is important (all data competing for attention).
11. Cluttering the screen with useless decoration (too many rocket scientist's toys).

Each one of these pitfalls is explained in detail in his white paper on the topic.<sup>3</sup>

## **Reporting Performance Measures to Staff**

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### **Team Balance Scorecards**

Exhibit 5.7 is an example of a team scorecard using Excel. Excel is a useful tool to design and test a template before a more robust and integrated solution is sourced.

Some providers supply graphs, help you develop them, and then charge by usage. One such provider is Ergometrics ([www.ergometrics.com](http://www.ergometrics.com)).

Exhibit 5.8 presents another speedometer report. Exhibit 5.9 explains how the graphs in Exhibit 5.8 are interpreted.

### **Reporting Organizational Progress to Staff**

It is a good idea to have some form of monthly icon report for staff, a report that would not be damaging to the organization if it found its way to a competitor. Icon reports are ideal, as they tell you what is good, what is adequate, and what needs to be improved without giving away core data. Exhibit 5.10 is an example of an icon staff report that covers the CSFs and reminds staff about the strategies.



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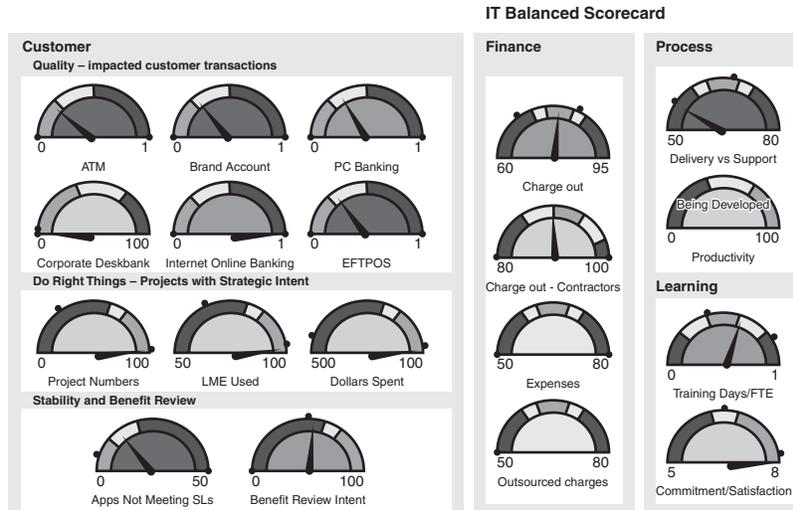


EXHIBIT 5.8 Team Speedometer Report

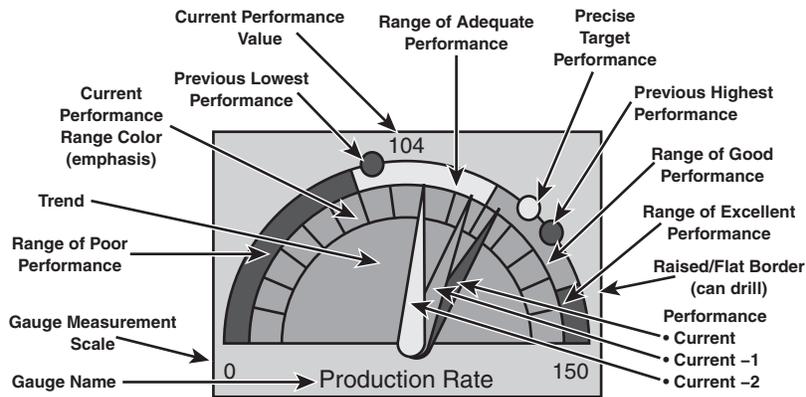


EXHIBIT 5.9 How One Company Has Made the Speedometer Give More Information

Key Performance Indicators

<b>Our mission</b>	To provide energy at the right price at the right time
<b>Our vision for next five years</b>	To be the preferred energy provider in the xxx
<b>Our strategies</b>	<ol style="list-style-type: none"> <li>1. Acquire profitable customers</li> <li>2. Increase cost efficiencies</li> <li>3. Innovation through our people</li> <li>4. Use best business practices</li> </ol>

**Our perspectives and progress**

<p><b>FINANCIAL</b></p> <ul style="list-style-type: none"> <li>☺ Utilization of assets</li> <li>☺ Optimization of working capital, EBIT, growth, etc.</li> </ul>	<p><b>CUSTOMER FOCUS</b></p> <ul style="list-style-type: none"> <li>☺ Increasing customer satisfaction</li> <li>☺ Gaining profitable customers, etc.</li> </ul>	<p><b>ENVIRONMENT/ COMMUNITY</b></p> <ul style="list-style-type: none"> <li>☺ Supporting local businesses</li> <li>☹ Linking with future employees</li> <li>☺ Community leadership, etc.</li> </ul>
<p><b>INTERNAL PROCESS</b></p> <ul style="list-style-type: none"> <li>☺ Process delivery in full on time</li> <li>☺ Optimizing technology</li> <li>☹ Work accidents, etc.</li> </ul>	<p><b>EMPLOYEE SATISFACTION</b></p> <ul style="list-style-type: none"> <li>☺ Positive company culture</li> <li>☺ Retention of key staff</li> <li>☹ Increased staff recognition, etc.</li> </ul>	<p><b>LEARNING AND GROWTH</b></p> <ul style="list-style-type: none"> <li>☺ Increasing empowerment</li> <li>☺ Increasing staff adaptability</li> <li>☺ Coaching Increasing, etc.</li> </ul>

EXHIBIT 5.10 Icon Report for Staff Example

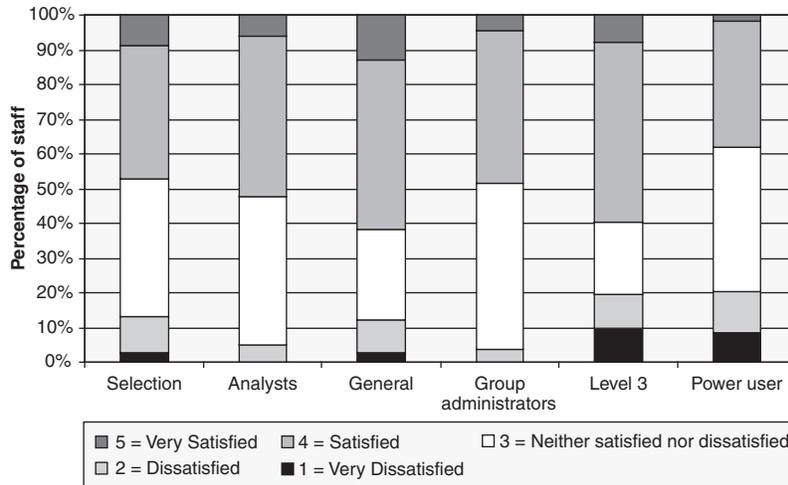
**Graph Format Examples**

Exhibits 5.11 through 5.22 provide graphs for demonstration purposes only. The KPI team will need to be experts in graphical displays, ensuring, in each case, that the graph chosen conveys the appropriate message.

**Good Features in Exhibit 5.11**

- Use of a five-point scale
- Grid lines to highlight “nearly 40% of all participants were satisfied with . . .”

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**EXHIBIT 5.11** Satisfaction Survey Response

When showing this graph in color, you may wish to use red for very dissatisfied as a warning.

**Good Features in Exhibit 5.12**

- A clear summary of a number of activities
- Graph incorporates an “overall” score

This graph would be shown with a yellow background.

**Good Features in Exhibit 5.13**

- Particularly useful for survey responses

The vertical gridlines are lightly shaded.

**Good Features in Exhibit 5.14**

- Ease of sector comparison
- Overall trends clearly displayed
- Groups easily differentiated

Best suited for multicompany/unit comparison where similar units can be compared.

Key Performance Indicators

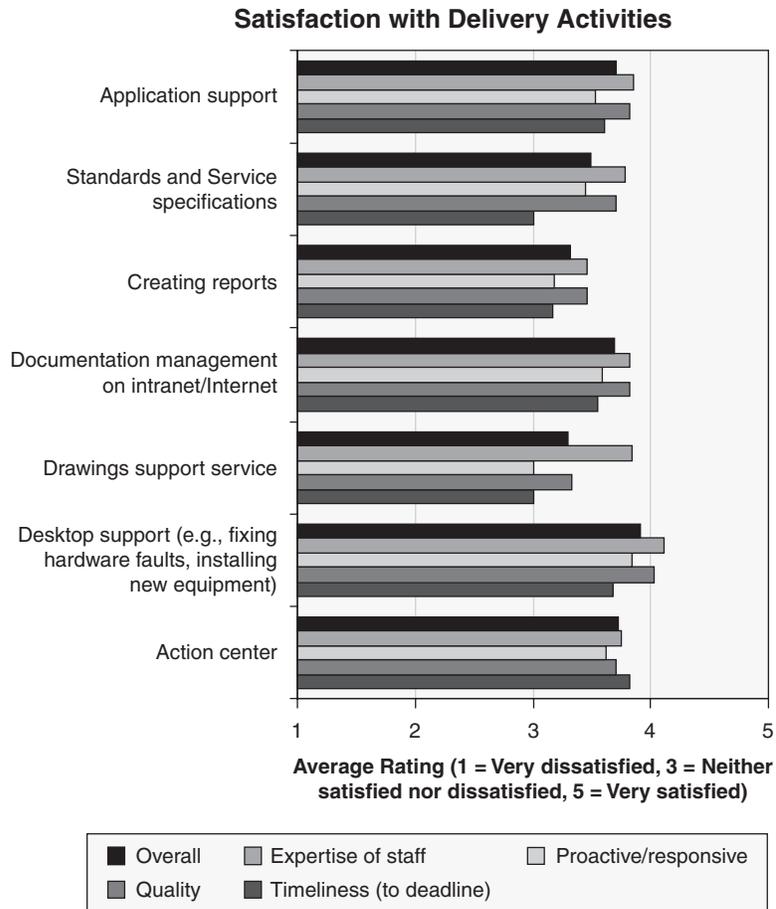


EXHIBIT 5.12 Satisfaction Graph Example 1

**Good Features in Exhibit 5.15**

- Two-line combination graph comparing financial and non-financial information
- Lines shaded to match the scales

Notice that the vertical scales do not match up—there are four divisions on the left and six on the right-hand side scale. It is always best to match them up.

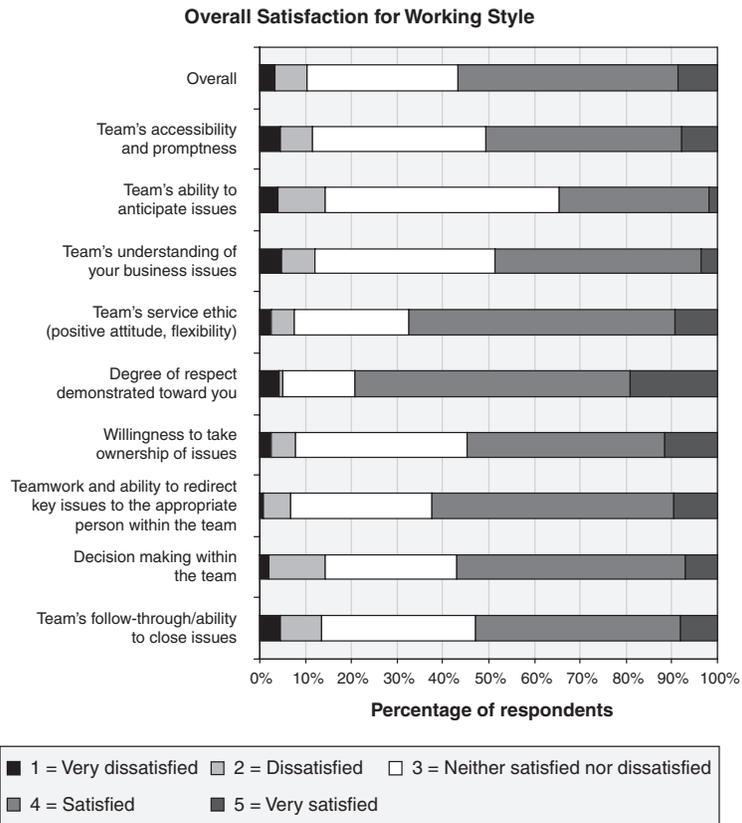


EXHIBIT 5.13 Satisfaction Graph Example 2

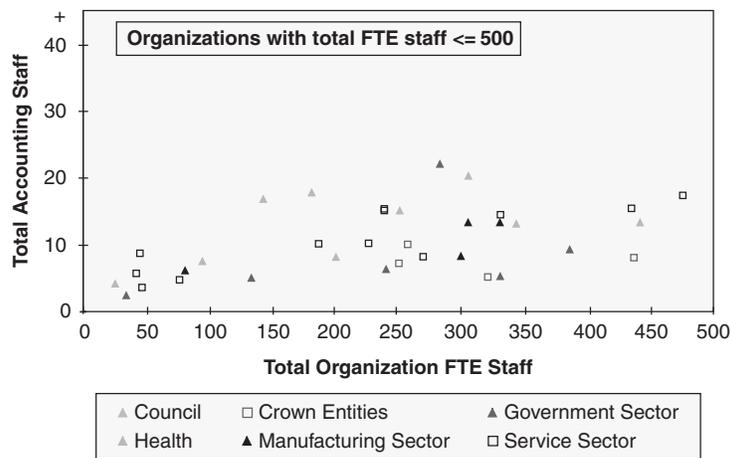


EXHIBIT 5.14 Scatter Diagram Example

Key Performance Indicators

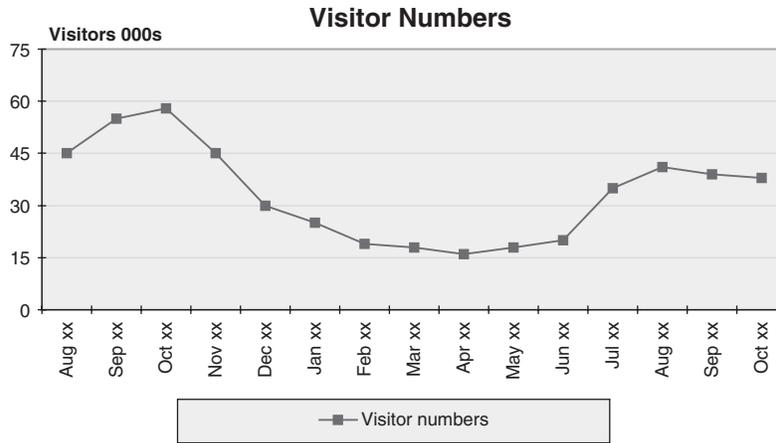
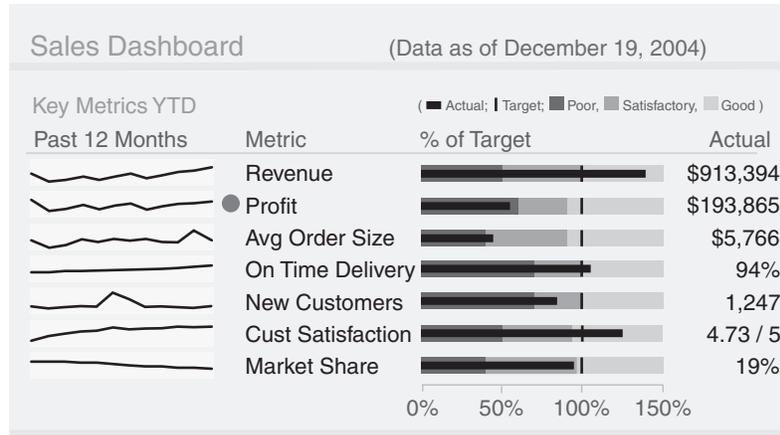


EXHIBIT 5.15 Contrasting Two Relevant Data Streams

**Good Features in Exhibit 5.16**

- A sparkline graph looks like a line graph without the axis's. Even with this truncated diagram you can still see the trend. These sparkline graphs come with a bullet graph that show different detail about current performance. The shades are good to poor performance and the dark vertical line the target. The large bullet points indicates where action needs to be taken.

*Templates for Reporting Performance Measures*



**EXHIBIT 5.16** Combination of Sparkline and Bullet Graphs

Source: Stephen Few at [www.perpetualedge.com](http://www.perpetualedge.com)

This color matching aids identification of results and comprehension. Note that gridlines match up. Both vertical scales have same number of divisions.

**Good Features in Exhibit 5.17**

- A stacked bar graph for ease of display of both total and individual costs and not too many components (Four to five items is about the maximum.)

**Good Features in Exhibit 5.18**

- Horizontal multibar graph allowing easy comprehension and comparison

**Good Features in Exhibit 5.19**

- Multiline graph showing a 15-month range with three clearly identifiable revenue streams

Key Performance Indicators

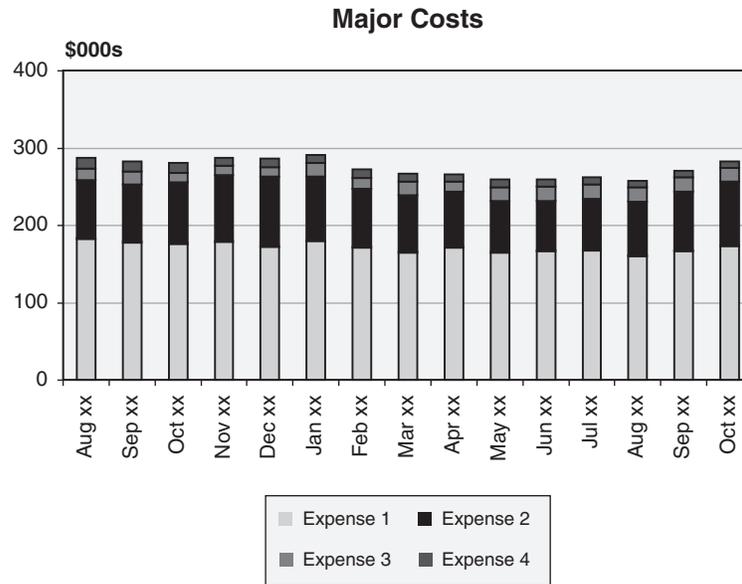


EXHIBIT 5.17 Stacked Bar Example

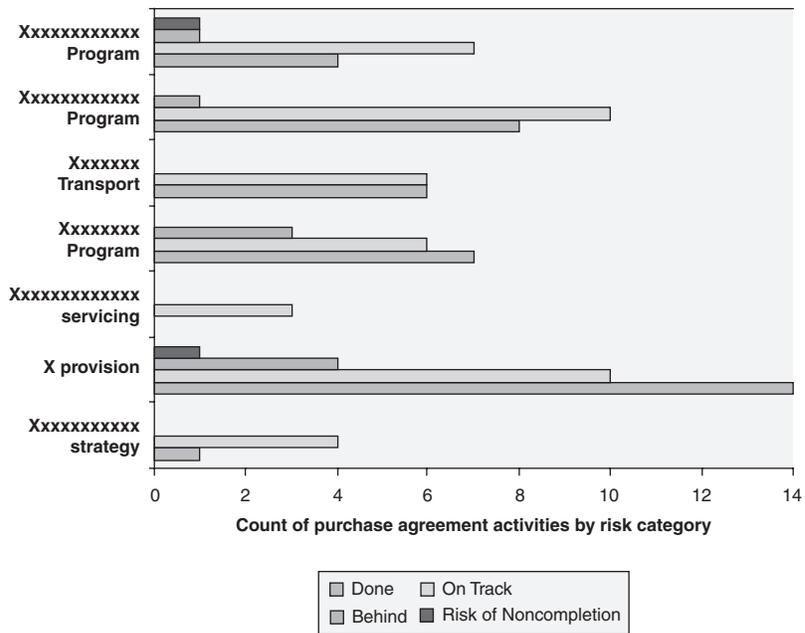


EXHIBIT 5.18 Horizontal Multibar Graph Example

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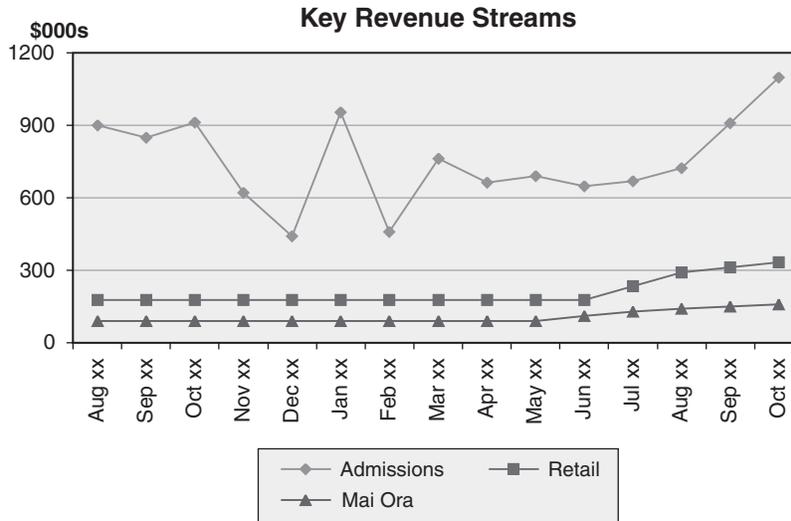


EXHIBIT 5.19 Multiline Graph Example

**Good Features in Exhibit 5.20**

- Demonstrates acceptable range of performance as well as indicating that improvement is being sought over time (cascading downward target)

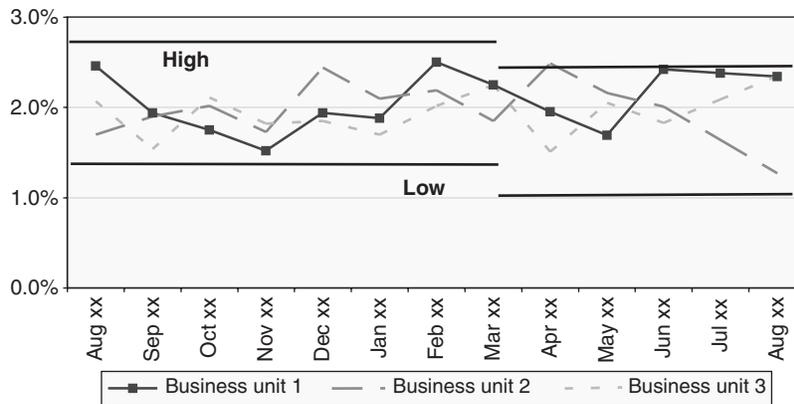


EXHIBIT 5.20 Acceptable Ranges Graph Example

Key Performance Indicators

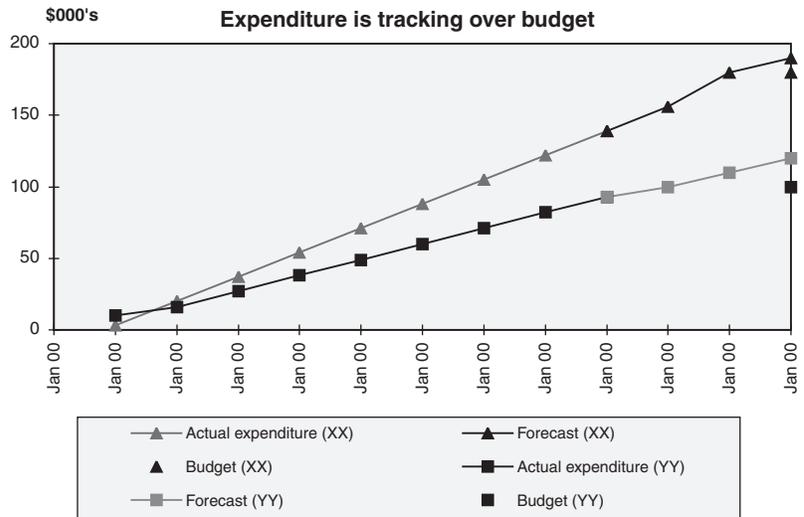


EXHIBIT 5.21 YTD Cumulative Example

**Good Features in Exhibit 5.21**

- Ready comparison between actual/forecast and budget for two significant items of expenditure covering the year in focus

Note that the budget year-to-date trend is not drawn in, as it would be a straight line in most cases, and where there is a seasonal trend the line would be merely an error-prone guess.

**Good Features in Exhibit 5.22**

- Three lines beginning as actual and moving on to forecast

It is a good idea to show a clear distinction between actual and forecast numbers by changing the color of the line (e.g., from dark blue to light blue).

The checklist in Exhibit 5.23 will help ensure that your graphs help in the decision-making process.

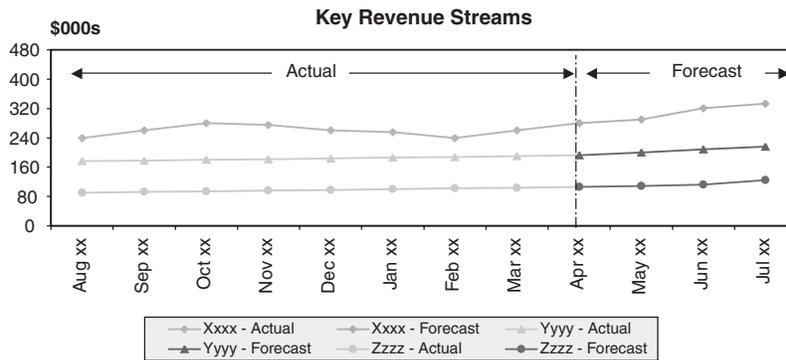


EXHIBIT 5.22 Actual and Forecast Comparisons Example

EXHIBIT 5.23 Better-Practice Graphics Checklist

	Check as appropriate
1. Insert graphs into tables in a Word document to enable formatted text to be placed underneath or to the side without the need for complex tab arrangements. Graphs will also auto size to the width of the table when pasted, saving formatting time.	<input type="checkbox"/> Yes <input type="checkbox"/> No
2. Where possible, show at least 15-month trend analysis.	<input type="checkbox"/> Yes <input type="checkbox"/> No
3. Avoid more than three trend lines per graph, as they probably will cross over numerous times and cause confusion.	<input type="checkbox"/> Yes <input type="checkbox"/> No
4. In line graphs, thicken the standard line to allow colors to stand out.	<input type="checkbox"/> Yes <input type="checkbox"/> No
5. Use a pale-yellow background to maximize color impact.	<input type="checkbox"/> Yes <input type="checkbox"/> No
6. Avoid more than five divisions in a stacked bar.	<input type="checkbox"/> Yes <input type="checkbox"/> No
7. Wherever possible, print in color.	<input type="checkbox"/> Yes <input type="checkbox"/> No
8. Use high-quality glossy paper for the final copy.	<input type="checkbox"/> Yes <input type="checkbox"/> No
9. Put the title of the graph in the table rather than on the graph to enable an 11th-hour change without having to go back to the source graph.	<input type="checkbox"/> Yes <input type="checkbox"/> No

(Continued)

**EXHIBIT 5.23** *(Continued)*

	<b>Check as appropriate</b>
10. Make the graph title mean something (e.g., instead of RoCE, say “RoCE is improving”; instead of EBIT, say “EBIT is declining but expected to recover.”)	<input type="checkbox"/> Yes <input type="checkbox"/> No
11. Organize workbooks so that worksheet names clearly show which graphs are in each worksheet.	<input type="checkbox"/> Yes <input type="checkbox"/> No
12. Limit graphs to four per worksheet so that they can be viewed on one screen. This also avoids searching for graphs six months later when you have forgotten which worksheet they are in.	<input type="checkbox"/> Yes <input type="checkbox"/> No
13. Keep it simple; there are many graphical options that do not convey their message quickly (e.g., radar, bubble, and 3D surface graphs are so difficult to read that two individuals can read the same graph and end up with very different conclusions).	<input type="checkbox"/> Yes <input type="checkbox"/> No
14. When paste-linking graphs into the document, select the manual link option as opposed to automatic. Word attempts to update all automatic links when opening a document, and this can corrupt graphs or lock the computer if the source worksheet was not opened first.	<input type="checkbox"/> Yes <input type="checkbox"/> No
15. Integrate graphs with the text. Do not place graphs in an appendix.	<input type="checkbox"/> Yes <input type="checkbox"/> No
16. Have read Stephen Few’s work on graph and dashboard design.	<input type="checkbox"/> Yes <input type="checkbox"/> No
17. When creating a graph using Excel, change the font to disable auto-sizing or the text will always dominate the graph when enlarged.	<input type="checkbox"/> Yes <input type="checkbox"/> No

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## Notes

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1. "How to Seek Staff Opinion and Not Blow Your Budget," *Human Resources* (June 2002), available from [www.waymark.co.nz](http://www.waymark.co.nz).
2. Stephen Few, *Information Dashboard Design: The Effective Communication of Data* (Sebastopol, CA: O'Reilly Media, 2006).
3. Stephen Few, "Common Pitfalls in Dashboard Design," [www.perceptualedge.com/articles/Whitepapers/Common\\_Pitfalls.pdf](http://www.perceptualedge.com/articles/Whitepapers/Common_Pitfalls.pdf).

