TIPS FOR
EFFECTIVE PERFORMANCE
APPRAISALS

Guidelines and Tips for Rating Performance

When we speak of *rating performance,* we are not referring merely to the clerical exercise of checking off boxes and averaging numbers, but also to the crucial business of arriving at sound judgments based on the evidence accumulated over the entire appraisal period. It is a task that requires managers to be fair and objective, and for most people, there is the rub. As a human being and not a robot, all your judgments are to some degree subjective. If there is no evidence to support or contradict your judgment, it is that much harder to know when you are wrong.

Common Rating Errors

In an effort to cope with this problem, industrial psychologists interested in how ratings are done for performance appraisals have categorized the 10 most common rating errors. As you read them, think about which errors you may have observed or of which you may have been a victim.

1. Similar to Me

Tending to rate people higher if they are similar to you (have the same values, interests, preferences), or rating them lower if they are not similar to you

Although this may sound like the behavior of snobs and aristocrats, it is a serious problem in a workforce characterized by increasing diversity, in which some managers cannot relate to the cultural differences of their employees.

2. Positive Leniency

Rating higher than a person deserves

"I give high ratings. It motivates my employees, it makes them feel good." This approach usually takes the form of giving Bob a higher rating than he deserves to encourage him, hoping he will do better next year. However, Mark and Susan, who work in the same unit, receive the rating they actually deserve. When they see Bob getting a rating as high as theirs although it is obvious to them that he does not deserve it, they may be demoralized and discouraged. And what do you do next year when Bob *does not* improve? He can argue that his performance did not change from last year, so why should he get a lower rating? In fact being rated higher than one deserves is actually demotivating ("I can get the rating without working for it") and fosters disrespect for the process. This rater error is particularly common if the rater is rushed.

3. Negative Leniency

Being reluctant to assign high ratings to individuals; rating people lower than they deserve

"Nobody's perfect." This is another strong tendency if the rater is rushed. Some managers set unattainable goals and objectives; thus, high ratings are never possible. Others are strict graders and refuse to give a rating at the top of the scale.

4. Halo-or-Horns Effect

Being overly influenced by a single favorable or unfavorable trait that colors the judgment of the individual's other traits

Alternatively, prior to the review, the manager may allow another person's positive or negative evaluation to affect the rating of the employee.

Jeff had incredible success in the past. Now it seems that he can do no wrong. Conversely, Jeanne had an off year two years ago. Her current high-quality performance is diminished by the memory of two years ago.

5. Recency Effect

Rating someone down or up based solely on recent events; ignoring the performance of the entire period

"What have you done for me lately?"

This is especially likely when the manager has not been keeping records during the year. Recent behavior and performance seem more relevant and meaningful, even if we remember the earlier performance.

6. Attribution Bias

Tending to see poor performance more within the control of the individual, and to see superior performance as more influenced by external factors

This sounds academic at first glance, but you are probably quite familiar with it. "If Steve is successful, it's because of me. If he is not successful, it's his fault." (Of course, perhaps I did not coach him enough, set clear enough goals, or check back often enough.)

7. Stereotyping

Generalizing across a group; not recognizing individual differences

Beyond the obvious gender, racial, or cultural assumptions sometimes made, I run across managers who assume all college graduates with a 3.9 grade point average make the best job candidates, all engineers can learn quickly, all research scientists are highly analytical, and all salespeople are motivated and ambitious.

8. Contrast Effect

Making comparisons; evaluating the employee relative to the person last evaluated

This is most often seen with teachers or professors who rip to shreds the first student's essay, only to realize by the fourth or fifth paper that every student seems to be missing the point: All the papers that come *after* that realization are treated much more leniently.

9. First Impression

Forming an initial positive or negative judgment and then ignoring or distorting subsequent information to avoid changing the initial impression

While similar to the halo-or-horns effect, here the rater actually is unable to shake an initial impression or admit a mistaken perception. This phenomenon has caused many a personal relationship to drag on longer than the objective evidence would support.

10. Central Tendency

Placing people in the middle of the scale, or close to the midpoint to avoid extreme positions; playing safe

Some organizations have actually forced managers to make this error by requiring a forced distribution or rating across employees to resolve a clustering of ratings at the top of the scale. Grade inflation should be corrected, but forced distribution is a draconian solution.

There is no way to eliminate the subjective element from judgments about employee performance. If managers have a mountain of facts at their disposal, their chances of being objective are greater than if they only have a few. But managers still have to interpret those facts and decide which ones are the most meaningful.

Nevertheless, good documentation and a systematic approach can make managers right a much greater percentage of the time. At the very least, it can make all their decisions defendable: The facts and procedures prove that judgments were not made arbitrarily. For that matter, systematic documentation and evaluation also can give other people the opportunity to look at that same data and come to their own conclusions. This can be important if upper management's input and approval are required.

Writing the Performance Appraisal

In this chapter, we discuss writing the appraisal as if you are using a variation of the Model Performance Appraisal Form that we present in Chapter 3 (Form 3.1). You will find it useful even if you cannot employ all the steps in our version of the form. The principles of writing an accurate and effective performance appraisal are the same whatever form you use.

It is a three-step process:

1. Gather and analyze data throughout the appraisal period.
2. Rate the performance.
3. Write the narrative portion of the appraisal.

Of these three tasks, the first is by far the most time consuming and complex. It is also the most crucial.

Gather and Analyze Data throughout the Appraisal Period

If a manager wants to avoid the recency effect among other common errors, this is really the only way. Yet for many supervisors, it seems to be the most difficult to square with the realities of everyday management. "Where do I find the time?" Much depends on the degree of contact between manager and employees. How often does the manager really see the employees doing what they do?

Collect Data at Regular Intervals

The manager must determine in advance the time span within which data will be collected throughout the appraisal period—and then, when the time comes, do it. You might think of these as periodic *miniappraisals,* although the manager is only collecting information to use for ongoing coaching and feedback, not for final conclusions.

The appropriate time schedule for some may be weekly, for others monthly, quarterly, or semiannually, depending on the degree of involvement with the employee and the employee's responsibilities. On the one hand, Phil, who is responsible for purchasing, selecting, and installing equipment, also must maintain the efficiency of the area and achieve these goals through teams reporting to him. The complexity and the high degree of independence inherent in Phil's responsibilities might warrant relatively infrequent miniappraisals, perhaps done quarterly. On the other hand, Phil can and should collect information on *his* employees with much greater frequency—their tasks are simpler and more numerous; there is more data to collect.

Most managers are alert to relevant information when it hits their desk. They may even request certain reports or documents regularly. The problem with this approach is that it does not ensure that they are tracking each objective or performance factor regularly. At the end of the year, many gaps may exist in the data. We are suggesting a more systematic approach.

Assume a manager has decided that a monthly interval is appropriate. At each interval, the manager should see if he or she has information relevant to each of the performance objectives and performance factors. If not, the manager should check over the past month to see if anything has happened that should have been documented but was not. If the answer is no, then the manager should pay particular attention in the coming month to collecting data that will fill in the gaps.

If by the end of the year there is no information against an objective, how can the manager evaluate it? The goal is to have a number of pieces of information on each objective and performance factor by the end of the appraisal period.

Some managers ask the employee to give them the information relating to the objectives or performance factors in a monthly report. That is an excellent idea, but by itself is not enough. Unless the manager imposes an extremely high degree of organization and structure on it, the report will probably not cover all the performance objectives and all the performance factors, and the manager needs information on all of them. The discipline is to search actively and regularly, throughout the year, for the information on each objective and performance factor.

Do It Openly and without Pressure

We are not suggesting that a manager stand behind a pole, watch the employees, and take notes while they are working. Managers should avoid giving employees the feeling that they are being watched and judged. They should be able to say something like this: "Linda, these are the things we've agreed on for next year. We may make some adjustments during the course of the year, but for the moment, this is our target. At the end of this year, my overall evaluation of your performance will be based on how well you have done on all these individual issues. To assure I have enough information to make that judgment, I am going to be making notes to myself regarding all these issues on a regular basis. But, there is something you can do to help me. I'd like you to give me information on these issues as they come up, so I'll have accurate information and can make a fair assessment at the end of the year."

Is Linda going to run to her manager with every little mistake she makes? Perhaps not. But you would be surprised how many times an employee who understands the basis for the evaluation will go to the manager and say, "Well, I know you're going to hear about this anyway, but I want to give you my side of it." Or, "Here's something that's happening that isn't going so smoothly, I want to make sure there isn't any misunderstanding regarding the approach I'm about to take." It adds clarity for you to ask for employees' input. Experience shows that employees are often harsher on themselves than their managers would have been.

Document as You Give Feedback during the Year

If data collected six weeks into the year suggests that employees are veering down the wrong path, it would be unwise to wait until the end of the year to tell them about it. The manager should make an intervention now, if possible. On the other hand, that event, and the action the manager finds necessary to take, should still go into the system as a piece of data for ultimate inclusion in the performance appraisal.

Suppose I am reviewing Linda's performance at the end of the year. She says, "Lately I've been trying hard and doing a lot better. I think I deserve a rating of 'exceeded the standard' on that performance factor." The manager can say, "In fact, most of the year your performance on that factor 'met the standard' and a couple of times you exceeded it. But in the first two months, you were performing 'below the standard' so overall for the year you performed at 'met the standard.'" Certainly it's encouraging that Linda's performance is improving. But the evaluation period is the entire year, not just the past two months.

What Kind of Data to Gather

There are three types of information that a manager should gather with reference to employees' performance: objective data, significant incidents, and observations:

Objective data: Only the manager is in a position to know what kinds of objective data are available on the employees. For sales representatives, perhaps there are call reports, listings, dollar volume of sales, number of calls per day, or quarterly reports (did the employee get them in on time?). For information technology professionals, there may be project milestones or deadlines. For any role, there may be quantifiable information that is directly a result of their individual efforts. Whatever objective data exists should be taken into account.

Significant incidents: Throughout the year, as they happen, record events that stand out. We call them *significant* instead of critical to underline that the manager should not merely be recording negative information. A manager should also record positive events that relate to the performance objectives or performance factors.

The manager may not have many significant incidents on each employee, but even a few can be very informative; and a single significant incident can contain evidence for more than one performance factor or performance objective. Suppose mine is a consumer products company: In the middle of the appraisal period, the release date is set for a new product; an advertising campaign is organized; and a manufacturing facility is ready to gear up. At the last minute, my employee Alison discovers that computer-manufacturing software my company planned to supply to the manufacturing group will not be available from the supplier on time. She examines the options: (1) reworking the manufacturing standards, (2) finding another supplier of another program, or (3) arranging for partial shipment. She chooses the third option, which works out well.

That is a complex accomplishment, and it tells a lot about the way Alison works. Through this significant incident, she has demonstrated some degree of initiative, an analytical approach to problem solving, and her command of her technical arena or knowledge. So, for her performance appraisal, that one incident can supply information on all three of those performance factors.

Behaviors you observe as you manage: The third category consists of behaviors the manager observes when "managing by walking around." I pick up many problems about my own company by asking, "Why is that done that way?" So if while managing by walking around, a manager notices something relevant to performance (not necessarily that the employees are sitting around reading the newspaper), make a note of it.

Have a Record-Keeping System

If, because it would take too much time, you resisted our suggestion to talk to the employee prior to the performance appraisal, then you are probably saying, "Record-keeping system? Here we go again." Record keeping, however, need not be very elaborate or time-consuming.

If I have just one or two employees, then it might be possible for me to keep my records of employee performance in whatever regular appointment or scheduling software or book I use—week-at-a-glance, month-at-a-glance, or just a daily schedule book.

The preceding situation is probably an exception. At some point, most managers have to gather data on many individuals at once. They undoubt-

edly have a file folder for each individual, thus making record keeping even easier. On a periodic basis, the manager takes the little notes that have accumulated on the employees, dates them individually, and dumps each note into the respective employee's file folder.

By the end of the appraisal period, the file folder should have a number of pieces of paper relevant to that employee's performance. The dating automatically confers a certain order on the collection. The manager increases the order by separating out all papers that are associated with objective number one. In other words, the manager would say, "Well, what's my evidence for performance objective number one?" Not "What do I remember, what do I think of, how do I think this person did, do I like this person?" but "What information do I have?"

If I, as manager, have only two pieces of paper relevant to that objective, I am in trouble. If I have several pieces of paper, plus a critical incident or two, some pieces of observed behavior, several objective pieces of data, perhaps some information I've gotten directly from the employee, I can say with confidence, "Well, obviously the evidence supports the conclusion this person overall is 'meeting the standard' I set," or "I can see plenty of evidence that this employee is way above [or way below] the standard." Whatever my conclusion may be, the evidence is there.

I will have that evidence if I throw it into the file folder on a regular basis. If I develop the discipline of making notes to myself on a regular basis and putting them in the file folder, my task at the end of the year will be much easier. In fact, it can take some of the pressure off me during the year, because I know I need not remember every item relevant to every employee's performance. Once I have added a note to the file, I can stop worrying about it.

Rating the Performance

The manager who has gathered information regularly during the year and has a reasonably well-organized record-keeping system is ready to rate the performance on the appraisal form. First, the manager will rate each objective, then each performance factor, and finally give an overall or summary rating.

Here are some rules of thumb for avoiding those common rater errors described at the outset of this chapter.

- Know the standards.
- Stick to those standards.
- Describe specific facts in the narrative.
- Document, document, document.
- Use multiple miniappraisals.

Know the Standards

Whether managers are using the formal performance objectives and performance factors put forward in Chapter 3, they need to know as precisely as they can against what standard they are measuring employees.

Stick to Those Standards

This is not a restatement of the first rule. Many managers, when they get to this point, throw out the requirements while knowing very well what they are. They say, "Oh, George is doing so well, trying so hard, I think I'll rate him as having 'Fully Met Expectation' even though, technically, he deserves a 'Did Not Meet Expectation,' because, I don't know, I don't want to have an argument with him." Do not do that. If George knows what the standards are and he has been coached well during the year, the final rating should not be a surprise to him. In any case, occasionally presenting reality to an employee is part of a manager's job. Arguments can be avoided by other means than unconditional surrender.

Describe Specific Facts in the Narrative

Probably, several people are going to read this document, including upper management and perhaps one or more individuals in the human resources department. One of the things they are going to look for is whether there is a reasonable correspondence between the narrative and the rating. Another reader of this document will be the employee: Making it clear, in the narrative explanation, how the rating was arrived at will greatly reduce the occasions for disagreement or resistance.

Document, Document, Document

This is the performance appraisal equivalent of the "location, location, location" message you hear about real estate. With proper documentation, ratings are more accurate because the manager has enough data to reach meaningful conclusions. One might argue about individual facts, but the overall impression is obviously based on the preponderance of evidence.

Not only is this important for the accuracy and defensibility of the appraisal, it is also crucial for employee feedback. Employees' cooperation with plans for problem solving depends on the manager's ability to convince them that problems really exist. Say an employee differs with my conclusion, and I know of seven instances in which the employee failed to meet the standard of performance. The employee might say of one of these instances: "Well, I'm not sure that incident means what you think it means." I can then say, "Okay, but if I forget about that one, what about the other six instances. There seems to be a clear pattern here."

Use Multiple Miniappraisals

Not all managers have direct contact with each of their employees on a daily basis. There may be someone between them. If so, then that person can give the manager additional data. This middle person should be told what the requirements, standards, or expectations are and what information he should be looking for. He should gather the information on a weekly or a monthly basis and give it to the manager as part of the overall information-gathering process. In organizations that use matrix management, an employee may have four or five managers in the course of a year. In information technology departments and the comptroller/audit department, a person often works on multiple team engagements or assignments, so there are multiple sources of input. All this data can be pooled at the end of the year and used for the performance appraisal.

Giving Grades

A manager should not emphasize the numerical score an employee receives with respect to a given performance factor or performance objective: We suggest that managers say "met the standard" or "occasionally exceeded the standard" rather than "I've given you a 3" or "I've given you a 4." It is the best approach to use when managing and improving employee performance.

Determining the Overall Rating

The fact remains, however, that to arrive at an overall rating that will enable a manager to compare the overall performance of different employees or compare a given employee's overall performance this year and last year, the manager needs to translate these phrases into numbers.

This is the point at which most performance appraisal systems fall apart. The overall rating may seem to those who receive it a somewhat mystical interpretation of the individual scores. It is often difficult to arrive at and still more difficult to defend. But it need not be. If you follow the performance appraisal methods we present in this book, we can show you how to arrive at an overall rating that is easy to calculate and meaningful in a way that each participant can easily appreciate.

It all hinges on the issue of weighting. A manager must have some way of expressing the relative importance and difficulty of the employee's different responsibilities. Therefore, at the beginning of the appraisal period, a manager should assign weights to each of the performance objectives and each of the performance factors. Each is given a certain percentage; all the percentages for the performance objectives add up to 100 percent, as do the percentages for the performance factors. It is important that managers explain this system fully to employees, so they understand where to put their greatest efforts, and so the ultimate evaluation does not come as a shock.

For example, at the beginning of the year, the manager would tell Fred, the employee, what percentage each of the performance objectives would be worth; the manager might even negotiate the values with Fred. Of the six objectives, say the first objective represented 30 percent, the second represented 30 percent, and the remaining four represented 10 percent each. Those first two objectives, then, represented 60 percent of the total objectives. If Fred's performance was below standard on those two objectives, that fact would weigh heavily on his appraisal even if he achieved perfection with respect to the remaining objectives.

The manager would not need to rely on what is obvious, or on the general sense of how things stack up. Once the manager arrived at a decision about the employee's performance on each objective, she would calculate the final result with a glance at the Performance Rating Analysis Worksheet (Form 1.1) found, in downloadable form, at the end of this chapter.

As the form suggests, the manager would start by listing the objectives, then under the "Enter Weight" column, she would note the weight that she assigned these objectives with the agreement of the employee, at the begin-

ning of the year. Next, she would circle the rating she gave the employee's performance of the objective. For each objective, she would multiply the weight (i.e., the percentage point) times the number representing the rating and note that in the column to the right. She would add the "Combined Score" column and divide by 100 to derive my figure for the overall weighted-average rating for objectives.

Then the manager would go through the same process for the performance factors; these too can be weighted (although the manager can give them all equal weight if she feels that expresses the truth about the job). This will yield a weighted average rating for performance factors.

Finally, the manager would need to repeat the process one more time. If she has decided that Part I of the Model Performance Appraisal Form in Chapter 3 (the performance objectives) and Part II (the performance factors) are of equal weight, then Part III, the overall summary rating, is a simple average of the two previous weighted averages. If these are weighted unequally (as they usually are), the manager again multiplies the weighted rating for performance objectives and for performance factors against their respective weightings, add the sum and divide by 100. The final number will need to be rounded off, with one decimal point allowed (e.g., 3.9 on a 5-point scale).

On the one hand, we might determine that for Bob, his objective (sales success as shown in dollar volume) represents 90 percent of his job, in which case his performance factors would represent 10 percent. Barring any unethical behavior, the manager has decided that she is less concerned about how he achieved his goals than whether he achieved them. On the other hand, for Brian's job the objectives may represent only 50 percent of the job; his ongoing day-to-day behavior is just as important as his objectives.

In both cases, let us repeat, it is important that the employees be fully aware of different weights given their different responsibilities at the beginning of the appraisal period.

When a manager finally comes to the overall rating (Part III of Form 3.1) and someone says, "Why did you give me this rating?" the manager can say, "Well, this is how I evaluated you on your total objectives; this is how I evaluated you on all your performance factors. Now because, as we have agreed, the objectives were a larger portion of the job, they have been weighted more heavily. Therefore, the overall rating for this performance appraisal is that you met the standard." The same logic and the

same explanation apply when employees question their rating in total performance factors or total performance objectives. "I've rated you as performing above the standard for your last three performance objectives: but you'll remember we agreed that the first objective was as important as the other three combined, and on that objective you were Below Expectation, so on balance I'm rating you as having Fully Met Expectation."

This method of rating still requires judgment and has subjective aspects (it is impossible to entirely eliminate the subjective element) but it is defendable, reasonable, provides a consistent basis of comparison between employees, and connects back to the actual job-relevant events of the year. From the data gathered throughout the year, a manager can produce evidence in support of every item. It is certainly light years away from the usual statement of "it seems to me that overall you're doing okay, so I've rated you as 'meeting the standard.' "

The Narrative Portion of the Appraisal

The narrative portion of the appraisal is a summary of the best information collected on each objective and performance factor. It is the place where managers present their evidence and reasoning for the conclusions expressed by the rating. A manager should write at least one or two sentences of narrative for each performance objective and performance factor. Here are some rules to remember when writing a narrative.

Highlight the Best Evidence

For any individual item, managers should highlight their best evidence. If you have 10 pieces of information for a particular issue, 4 or 5 may be incontrovertible. Others may leave some room for interpretation, argument, and discussion. In the written appraisal, managers should highlight the most defendable evidence or information, saving the rest for the face-to-face discussion.

Give Comparison Basis for Qualitative Data

Generally a manager should compare the employee's performance to the standard—not to the performance of any other given individual (e.g., Bob

has not shown as much initiative as Mary). Not only does this create bad feelings when this appraisal is shown to the employee, it is a statistically invalid way of measuring performance. However, a manager can and should point out that the standard for "initiative," as defined for that job is one that the other employees holding the same position in the organization have easily met or exceeded during this appraisal period and in the past. This is an effective way to deal with an employee's contention that the standard is set too high.

Give More Evidence for Especially High and Low Ratings

It is inevitable that your manager and senior management will give closer, more careful scrutiny to the extreme ratings: the highs and the lows. Therefore, managers should take extra care that they have (and that they present) all the data they need to back up those ratings. If there is ever arbitration or any other outside scrutiny of an employee's performance, those ratings will be studied in more detail, so managers certainly want to make sure that they justify them. In recognition of this fact, many organizations' forms *require* a narrative statement for ratings at the top and bottom of the scale. This encourages the rater error of central tendency because midpoint ratings do not require the extra effort of a narrative statement. We recommend narrative statements for *all* the performance objectives and performance factors, with special attention to very high and very low ratings.

Use Language Consistent with Your Form

Managers should use language in the narrative that is consistent with the form, so that anyone looking at the appraisal can easily relate the rating scale to the narrative and can see how they reinforce each other. Furthermore, by keeping the language of the narrative consistent with the rating scale, the manager is also keeping the language of all the employees' narratives consistent with each other.

   If the midpoint of the rating scale is "achieved established standards" in the language of a form, the manager should not write in the narrative, "did okay" or "performed about average." If the employee achieved the top of the rating scale on a particular objective, "did exceedingly well," or "did great in my book," or "one of the best I've seen this year" just doesn't make sense. Instead the manager should say something like, "On this particular

objective I feel that Bill surpassed the established standards regularly." Consistent language supports a manager's arguments and makes the over-all rating clearer and more defendable.

Be Careful of Giving Assurances or Making Promises

It can be dangerous to make categorical promises in exchange for perform-ance improvements unless managers are sure they can back them up; courts have ruled that there is an implied contract in such statements. If a manager tells Janet, "Make 150 percent of your quota next year and you'll be in line to be supervisor!" and Janet meets her quota but there are no openings for supervisor, the company and the manager may be in trouble. Legalities aside, it is never a good idea to create misunderstandings with employees. Therefore, managers should be careful to word statements in a way that is consistent with reality. Managers can suggest the possibility of advancement or reward, if such possibilities exist, but all the "ifs" need to be included. "Were you to achieve this level, you'd be eligible for possible ad-vancement if there were such opportunities."

PERFORMANCE RATING WORKSHEET*
Downloadable Form 1.1

This form allows you to convert your individual ratings into an overall rating that is meaningful. Use this form three times:

1. To calculate weighted rating for all objectives.
2. To calculate weighted rating for all performance factors.
3. To determine the combined weighted rating for objectives and performance factors.

Weight Definitions:

Adjust the weight for each criterion based on its level of importance for successful job performance. Be sure the total adds up to 100%.

Rating Definitions:

5 = Greatly Exceeded Expectation   2 = Did Not Meet Expectation

4 = Consistently Exceeded Expectation   1 = Significantly Below Expectation

3 = Fully Met Expectation

List Objectives or Performance Factors	Enter Weight	Circle Rating High-Low	Combined Score (Weight X Rating)
1.		5 4 3 2 1	
2.		5 4 3 2 1	
3.		5 4 3 2 1	
4.		5 4 3 2 1	
5.		5 4 3 2 1	
6.		5 4 3 2 1	
7.		5 4 3 2 1	
8.		5 4 3 2 1	
(Total Weight must equal 100%)	(100%)		Total Combined Scores:

Divide "Total Combined Scores" by 100 for overall weighted rating: _____ = _____ ÷ 100

For Part III of Model Performance Appraisal Form:

Overall Weighted Rating, combining weighted scores on
Objectives and Performance Factors: (include one decimal point) _____

1.0–1.9   2.0–2.9   3.0–3.9   4.0–4.5   4.5–5.0