Abstract. Job analysis is a procedure for developing and defining duties, authorities and controls for each person in the arboricultural firm. It also examines the resources needed so that each person can accomplish his job including personnel training programs. The job analysis should start with the manager's position and move sequentially down the organizational chart.

Management by Objectives (MBO) is an approach to management which has been widely publicized and employed in American business. One of the most effective means of developing an MBO program in a small business such as an arboricultural firm is through use of the job analysis method. This approach is not widely known or applied, but it has been uniformly successful wherever used. The most appealing feature of the approach is that it is easy to implement.

The basis of an MBO program is a carefully thought through set of firm objectives and sub-objectives. Plans are then developed to attain them. The plan should encompass each person in the organization and his activities.

A job analysis for each person in the organization will implement a total MBO program in the firm. The process should start with the manager and go sequentially down the organizational chart.

Firm objectives and what is expected from each employee must be realistic. If they are not, the program is doomed. If the objective and plans for each person are realistic, the job analysis approach will increase productivity and profits. It is a powerful motivator for everyone in the organization.

One thing that workers want is a definite knowledge of just what their employer expects from them. Few things are more demoralizing than to work hard on something or to produce something only to find that your boss really wanted something else. Frustration, unhappiness and reduced output are the inevitable result for both employees and employers. The job analysis process alleviates this problem.

A Job Analysis Outline is shown (Figure 1). For illustrative purposes, the position of a crew foreman with part-time sales responsibilities (10 percent of time) is analyzed. (The process can be used for any type of job, combination of responsibilities and authorities.)

Let's take this form apart, examine the parts, put it back together and reexamine it. The parts are: Duties, Authorities, Controls, and Resources and Training Needed.

Duties. As mentioned, people want to know just what their duties are. They want the boundaries of that duty to be well defined. One duty you might assign an arboriculture firm crew foreman/part-time salesman would be to complete jobs that produce at least $15,000 average revenue each week. He now knows exactly what you expect. You will be happy if he produces more than $15,000 of revenue but you will be satisfied with that.

Yet, $15,000 of sales gets at only part of that crew foreman/part-time salesman's duties. You want them to be profitable revenues. So, you may say he has a duty to get $60.00 revenue per man hour of labor. You may specify that you expect the crew to service 400 customers per year. You may specify that he should obtain those revenues with not more than 50 percent labor expense. You may specify that a full time crew be employed throughout the year. You might specify that complaints from customers be less than 2 percent of total customers.

You might specify that job cost-estimate over-runs be less than 10 percent of the total jobs completed. You could specify that 100 new prospects are to be called or contacted each year in addition to all customers of the past two years. (The crew foreman will contact 10 percent of new prospects and old customers.) You should expect a detailed plan and budget on how these are going
to be carried out. The duties column now looks like column 1, Figure 2.

These are not all the duties you would expect an arboriculture crew foreman to perform. You would have others to add to this list.

**Authority.** It's difficult for most people to give up authority. Yet it is a necessity if you expect a duty to be performed satisfactorily. If you are going to expect your crew foreman to fulfill these duties, you have to give (delegate) enough authority to permit him to accomplish it.

This means you look at each duty separately and ask yourself, "How far must this man be able to go if he is to get the job done? If I limit him too much, he will be hamstrung." In general, it's better to let him make too many decisions (exercise authority) than it is to let him make too few. If he's a good man, this helps build ego (and so morale) and he works harder to use his authority wisely.

Let's look at some possible authorities you might have to give or delegate so he can perform the duties already listed. Notice that each specific duty has one or more specific corresponding duty. Our Job Analysis Outline looks like columns 1 and 2, Figure 2.

**Controls.** These are the evaluation tools you use to determine how well your crew foreman has performed his duties and how well he has exercised the authority you gave (delegated) to him. They may be formal reports, informal reports, planned observations, spot checks. There are many types of controls you use. One thing to keep in mind is that these controls are evaluation tools rather than disciplinary. As such, they stress...
**Figure 2**

**JOB ANALYSIS**

**POSITION:** Crew Foreman/Part-time Salesman

**PERSON:** Jay Bay

<table>
<thead>
<tr>
<th>DUTIES</th>
<th>AUTHORITIES</th>
<th>CONTROLS</th>
<th>RESOURCES &amp; TRAINING NEEDED</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Produce $15,000 revenue/week</td>
<td>To repair or have equipment repaired</td>
<td>Job orders and sales charges</td>
<td>Labor supervisory skills; equipment; trained workers</td>
</tr>
<tr>
<td>2. $60 revenue per man hour</td>
<td>To supervise; dismiss; employee with manager’s permission</td>
<td>Monthly operating statements</td>
<td>Knowledge of equipment &amp; work procedures</td>
</tr>
<tr>
<td>3. Service 400 customers this year</td>
<td>Contact each customer (5 min. call) &amp; log details</td>
<td>Spot checks &amp; customers’ sales list</td>
<td>Ability meet people &amp; explain work</td>
</tr>
<tr>
<td>4. Full time crew employed throughout year</td>
<td>Plan and list rainy day jobs</td>
<td>Amount of unproductive down time (% of total time)</td>
<td>List duties and job needs; set priorities</td>
</tr>
<tr>
<td>5. Cost estimate over-runs less than 10% of total costs</td>
<td>Check job orders and complete to specs.</td>
<td>Work diaries</td>
<td>Job estimation and labor supervision</td>
</tr>
<tr>
<td>6. Labor costs less than 50% of total costs</td>
<td>To schedule &amp; supervise labor assigned to Dept.</td>
<td>Labor reports and monthly operating statements</td>
<td>Adequate equipment; supervisory &amp; job planning skills</td>
</tr>
<tr>
<td>7. 100 new customers contacted in addition to all old customers of the past two years (crew chief will contact 10% of these)</td>
<td>To contact 40 new prospects in Mar. &amp; April</td>
<td>Completion of prospects’ list</td>
<td>Sales and planning skills</td>
</tr>
<tr>
<td>8. Daily work schedule and plan</td>
<td>To meet with management and schedule work</td>
<td>Spot checks</td>
<td>Knowledge of area &amp; job requirements to minimize travel and job time</td>
</tr>
</tbody>
</table>

What the crew chief has done well just as much as what he may have done poorly. They provide the basis for column 4 (resources and training needed.)

Another thing specified controls accomplish is that the worker knows how he is being evaluated. He already knows what is expected of him and how much authority he has. Now he knows the way in which you are judging him. He can use the same means for both self-evaluation and as a check to determine whether your evaluation is correct. There should be few suggestions in store for him.

When we include possible specific controls in our Job Analysis Outline it looks like column 3, Figure 2.

**Resources needed.** Now, let’s turn to the last column of the Job Analysis Outline “Resources and Training Needed.” This has two applications. First, you need to look at what resources (training, equipment, funds, labor, etc.) your manager really needs to perform each duty you have assigned him. It’s hard to hold a man accountable for digging a post hole in five minutes if he doesn’t have a post hole digger or even a shovel. Just so it’s hard to hold a foreman to $15,000 in sales if he...
has never before worked in an arboricultural firm or if you don’t give him adequate equipment to do the job.

The second application comes from the controls column. If your control tells you that labor costs are more than 50 percent of revenues, you look for the reason why. The crew foreman may need training in labor supervision. In this case, it tells you what you need to do to help the crew foreman, who is not performing duties well, to do better. The crew might be too large. Workers may not have sufficient skills or job procedures. Whatever the reason for the high labor costs, you let the crew foreman know that you will help him solve the problem so he can perform the duty (under 50 percent labor cost as a percent of revenue).

Your completed Job Analysis Outline now looks something like Figure 2.

It is important that the firm have definite objectives and plans for reaching those objectives. Otherwise the Job Analysis Chart loses much of its effectiveness. The job analysis procedure is a planning process and aids in the development of realistic objectives, an overall plan for the firm and indicates how each person will contribute to the attainment of the firm’s objectives.

Summary
A job analysis outline or form is a very versatile tool. It is a communications tool. It clearly states what is expected of employers and what authority has been delegated. It is an evaluation tool and can be used as a basis for employer incentives or rewards. It establishes the controls by which a manager can maintain his knowledge about employee performance. It is a motivation tool since the employee knows exactly what is expected of him. There are fewer misunderstandings. It is a training tool. It helps develop a training program tailored to specific duties and for individual employees. Managers interested in improving their supervisory practices should consider incorporating it into their system.

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ABSTRACT


A system of inspection, grading, and incentive pay that appears to be unique in the industry even today has been developed. This system accurately establishes the quality of workmanship being performed. The vehicle that provided all these advantages was simply a well-thought-out inspection program that covered all areas of landscape installation and irrigation. The appropriate forms were devised, an inspector training period was instituted, and employees were told about the program and its purposes. The proof of the value of the program was apparent after only a year of operation. The landscape inspection report form listed several areas of concern. Only the first two lines did not apply to the actual workmanship on the job: choice of plants for locality and choice of plants for location. The major areas were preparation, installation and finishing, each with various subcategories.