



# Ecosystem Workforce Program



## A QUICK GUIDE TO CONDUCTING AN ECOSYSTEM WORKFORCE ASSESSMENT

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The transition from resource extraction to ecosystem management on public lands and the increased interest in private land restoration have led some rural communities to try to promote an ecosystem management industry that can provide new types of quality jobs for forest workers while addressing ecological restoration needs. To accomplish this, community organizations need to understand the types of forest work that are being undertaken and the capacity of businesses and workers to do those types of work. Information about forest restoration work and the workforce can help community organizations and public agencies link the needs of landowners and the capacity of contractors and workers. With this information, they can provide contractor assistance, develop appropriate worker training, and structure contracts to foster quality jobs. This document offers a simple approach for conducting a workforce assessment.

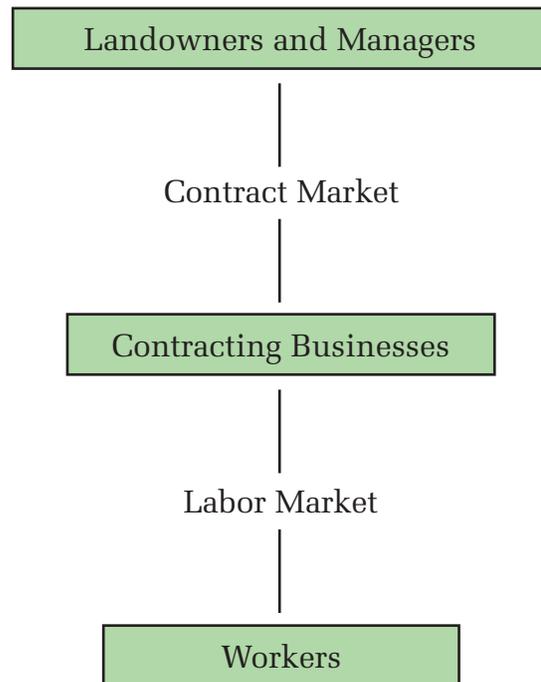
### What is an ecosystem workforce assessment?

An ecosystem workforce assessment collects information about the state of the industry in a particular locale. It generally includes information about the types and amount of work undertaken in a particular area, the businesses contracted to perform that work, and workers hired to do the work.

Land managers find contractors to perform services through the contract market. Contractors and workers find each other in the labor market (see figure at right). Understanding the local ecosystem management industry requires understanding landowners, businesses, workers, and the contract and labor markets that connect them. Typically,

this involves looking back several years to see what work landowners have contracted for and gathering information from contractors and workers to build a picture of business and workforce capacity, barriers, and needs.

This assessment requires basic computer skills, including the use of a spreadsheet program such as Excel, and the willingness and ability to interview forest contractors and workers in their native language.



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## The purpose of a workforce assessment

You can use this assessment to:

- Decide if ecosystem management industry development is a strategy that your community wants to pursue
- Learn about types of ecosystem work being undertaken in your community
- Learn about the skills, equipment, and interests of the contracting firms and workers
- Learn if there are any gaps between landowner needs and contractor services
- Develop relationships with contractors, workers, and agency staff, including contracting officers
- Identify opportunities for more effective use of local contractor and worker capacity
- Identify training and assistance needs, such as skill development, bonding, and access to capital

This information can act as a solid foundation for developing quality jobs programs that link forest and watershed work and the people skilled and equipped to undertake the work in your community.

## Undertaking a workforce assessment

We recommend a process with five components:

- (1) Creating a steering committee to guide the assessment;
- (2) Developing the purpose and scope of the assessment;
- (3) Assessing the restoration work being performed;
- (4) Assessing worker and business capacity, interests, and needs; and
- (5) Reporting the results to the steering committee and other key partners.

Prior to starting, spend some time planning what you will do in each step.

### Create a steering committee

The first step is to bring together a group of partners to develop assessment goals, a scope of work, and commitment to the assessment. Partners might include federal and state natural resource agencies, community organizations, contractors and workers, and economic development entities. Generally, representatives of all interested stakeholder groups should participate in developing the assessment plan, including those who can use the results of the assessment to act and those who will be affected by subsequent development activities. Although a steering committee can guide the process and provide feedback, someone, most likely from a local community organization, will have to dedicate time to gathering information, analyzing data, and reporting results.

### Develop the purpose and scope

The steering committee should begin by defining the purpose of the assessment. What are the goals of the committee in undertaking the assessment? How will the committee and its members use the information? Let the answers to these questions guide the assessment. After developing goals and objectives for the assessment, the steering committee will need to determine the scope of the project:

- What is the geographic scope? Which lands and communities should be included?
- What is the organizational scope? Which landowners or granting agencies should be included?
- Where are the businesses and workers located that you want to interview?



- What kinds of work do you want to include? Reforestation, thinning, road decommissioning and maintenance, instream work, and noxious weed treatments are just a few possibilities.
- What is the timeframe for the analysis? How many years back do you want to go?

To answer these questions, the committee might consider the assessment goals and how it plans to use the results. In addition, the committee might have to shift the scope to match the realities of data gathering and analysis. Data may be available at different scales than the group would prefer and some organizations or agencies may not record desired information in accessible ways.

### Assess the work (demand for contracted work)

Once you have determined the goals and scope of your assessment, you can turn to the questions of how much and what types of work is being done in your locale. Because it is very difficult to predict future work, we recommend that you look at work that was actually contracted in the recent past as a guide to what is likely to happen in the future.

Assessing the work involves four steps:

(1) developing assessment questions, (2) gathering data, (3) inputting data, and (4) analyzing data.

#### 1. Develop assessment questions

Based on your scope and goals, develop assessment questions. For example, if you are focusing on federal lands, you might want to ask:

- How much and what type of work have local agencies contracted out over the past five years?
- What types of work have increased and decreased over time?
- What are the sizes of the contracts and how have they changed over time?
- How much of the work did local contractors perform?
- To what extent did local contractors capture contracts involving particular types of work?
- Are their patterns in the size of contracts that local contractors typically capture?
- Did local contractors capture contracts that were Historically Underutilized Business (HUB) zone set asides, 8(a) set asides, request for proposals (RFP), or request for quotes (RFQ)?

You will want to choose assessment questions that fit your particular circumstances.

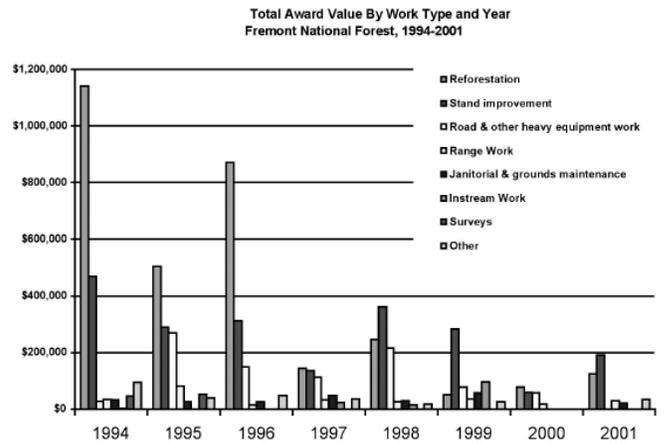
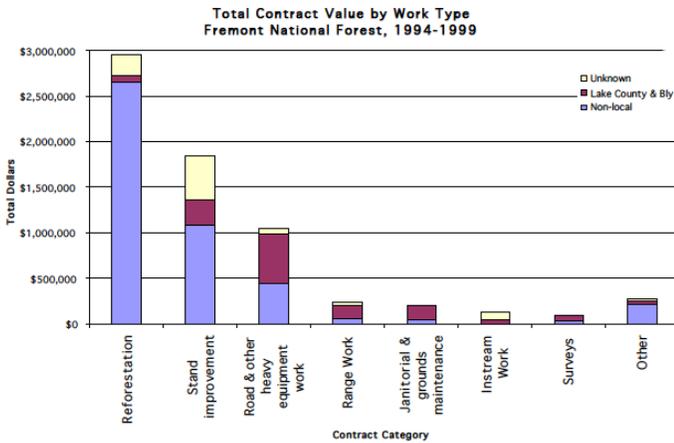
#### 2. Gather data

Answering your questions requires that you determine exactly what kind of information you need and where you will get it. For example, to answer the questions above, you need, for each contract: the type of work involved, the issuing agency, the year issued, the dollar value, contractor name and address, if it was set aside for HUB zone or 8(a) contractors, and if the agency used a low bid, RFP, or RFQ to solicit offers.

Each agency and organization will have different systems for tracking their contracts. You will have to work with each agency's procurement staff to determine the type of information available and its format. A word of caution: program staff are often unaware of the tracking systems that contracting staff use. Be sure to work with both program and procurement staff.

Federal land management agencies historically kept contracting information at the forest level in contract registers or logs. The federal government no longer keeps contract logs. Now, contracting information is kept at the Federal Procurement Data Center (<https://www.fpds.gov/>). With few exceptions, all contracts valued over \$2,500 should be available on line. One must register, log on, and use the query tool to access data. The database contains considerably more information than was in the old contract logs, but it is difficult to successfully use this database. It is possible to request that a federal contracting officer or procurement technician obtain the required data. When the data have been collected, it will be necessary to sort through contracts, eliminate irrelevant information, and identify useful information. The Federal Procurement Data Center data do not include timber sales or stewardship contracts created with an integrated resource contract timber. This information can be obtained from your local Forest Service office. They do include information about integrated resource contract services, but these will not be specifically designated.

Other organizations, such as watershed councils, might be less systematic about how they gather information about their contracted work. Even if an entity cannot provide exact information, it is worth talking with staff and volunteers about their program to identify how much and what kinds of work they have been contracting. You can provide a qualitative assessment of the work opportunities if more systematic data are



not available. More detailed information about acquiring procurement information from federal agencies is available at <http://ewp.uoregon.edu/economy>.

**3. Input data**

Data should be entered into a spreadsheet or database. Whenever possible, obtain electronic versions of the data so it does not have to be manually entered. Even with electronic data, this step can be time-consuming because the data will have to be compiled and formatted specifically to meet your needs.

**4. Analyze data**

Once you have your data in a spreadsheet or database, there are numerous ways that you could analyze them. Begin by answering your assessment questions. In addition, look for patterns in the data that had not occurred to you when you were designing your assessment. You might do this by looking at the data from several different angles. For example, you might group the data by work type and then group it by year to see if different patterns emerge. For example, the figure above shows strikingly different results for the Fremont National Forest during the 1990s. In the first graph, it appears that reforestation is a large part of the Forest's contracting. However, looking a year at a time showed that reforestation declined dramatically during the decade.

**Assess businesses and workforce (supply of businesses and workers)**

A business and workforce assessment involves five major steps: (1) developing assessment questions

(2) developing interview questions, (3) identifying businesses and workers, (4) conducting interviews, and (5) compiling and analyzing data.

**1. Develop assessment questions**

A supply assessment identifies contracting firms and workers and their interests, skills, and needs. The best way to obtain this information is to talk with contracting firms and workers directly. Prior to talking to contractors and workers, the steering committee needs to develop assessment questions, just as it did for the work assessment. For example, you might want to understand:

- The local contractors' size, experience, and equipment
- Contractor interest in federal contracting
- Barriers that may hinder their increased participation in federal contracting
- Contractor suggestions for increasing local participation in federal contracting
- The kinds of bonding capacity or licenses contractors have
- How many workers are in your area and their skills
- Working conditions and how they might be improved
- Workers' training needs

Undoubtedly, there will be other questions that would be important in your area.

**2. Develop interview questions**

Good interview questions allow you to gather information that you need to answer your assessment questions. Developing these questions requires careful planning so that you get the type

of information you want. Some questions should lead to simple, concrete answers that can be easily tabulated. For example, you might want to know how many years each company has been in business and what types of work they do. At the same time, several questions will need to be more open-ended and exploratory. For example, you might want to hear suggestions about how a federal land management agency should change its contracting practices or what kind of training workers need. As you develop your questions, consider the likely answers that you may receive and what you will do with that information. It is easy to create questions that do not elicit the type of information you expected. The EWP web page (<http://ewp.uoregon.edu/economy>) contains several sets of sample interview questions. After you have developed draft interview questions, have several people review them, including the contractors and workers on your steering committee. Conduct practice interviews to determine how much time the interview will take and if your questions lead to the type of answers that you expected. Revise your questions based on what you learned. You may find that you need to eliminate some questions, so that you take up less of the interviewee's time.

### **3. Identify businesses and workers**

To gather information from workers and businesses, you will have to decide what kind of workers and businesses to target for interviews and then locate actual business owners and forest workers. Return to your decisions about the scope of the assessment to decide which types of businesses and workers you will target. You might consider labor-intensive businesses and workers who perform reforestation and thinning, technical firms such as surveying firms, heavy equipment operators such as those who undertake local road work or own backhoes or other equipment, logging firms, and small mill owners.

There are several potential sources for identifying businesses to be interviewed, including:

- The contracting data obtained for the demand assessment
- Bidders lists, which some national forests and other agencies keep
- Known contracting businesses
- State contractors licensing boards
- Contractor associations
- Local phone books

In addition, in every interview, you should ask the interviewee if they know of other contractors who undertake similar work.

Finding workers can be more difficult than finding contracting businesses, as there are rarely lists of forest workers. One important source of workers may be the contractors that you interview. In addition, ask contracting officers and community residents with large social networks to identify people who work in the woods. Whenever you interview a worker, ask them who else you should talk to. A word of caution: In many areas, significant numbers of forest workers may not be comfortable being interviewed in English. If this is the case in your community, find someone who can help you conduct interviews in the worker's native language. If you ignore non-native English speakers, you may not have a complete picture of work in the woods or the needs of forest workers.

### **4. Conduct interviews**

Obtaining information from business owners and workers is only one purpose of conducting interviews. Interviews are also an important step in building relationships. Approach business owners and workers with respect. Before beginning the interview, explain who you are, the purpose of your project, and ask permission to interview them. Explain how you will protect their privacy and how you will use the information that they give you. Finally, let them know when your results will be available and follow through by sending them your report and inviting them to meetings where the results will be presented or discussed.

As you are setting up interviews, think about times of the day and year that contractors and workers are most likely to be available. You may need to be available to talk with people early in the morning and at night, when people are not in the woods. It may also be easier to talk with people during slow months, for example, during the winter. Because they are doing you a favor by talking to you, be prepared to travel to meet with them in their office, home, or other convenient place. If you have having difficulty setting up interviews, you might consider using a trusted community resident to set up or conduct the interviews.

### **5. Compile and analyze data**

Unlike the demand assessment, the supply assessment will likely be primarily qualitative. The

particular analysis you perform will depend on the questions that you ask of workers and contractors. You might begin your analysis by determining the number, experience, equipment, and size of local businesses. Look for patterns. Then review and compile the needs and barriers that business owners face. Repeat the analysis for workers.

### Report results and recommendations

As you collect and analyze your data, you will quickly see patterns that will help you decide how your organization should move forward. You may be able to act on these ideas, but it is vital that your findings be written up or otherwise shared with others—your assessment steering committee, the business owners and workers you interviewed, and others who can act upon the information. Broad support about how to proceed with your economic development plans depends on people having access to the same, good quality information.

Your report should include a discussion of your analysis and its meaning. You may wish to include recommendations as part of your conclusions. However, be sure that your recommendations

can be drawn from the data; resist the urge to editorialize. Use the report as the basis for discussion among steering committee members about next steps in your economic development efforts.

### Projecting future work

This workforce assessment quick guide offers ways to analyze recent restoration, but it might also be useful to develop projections for future restoration. When creating a plan to make these predictions, the following should be included:

- What kind of work will be considered? What kinds of landownership?
- Will only needed work, already-funded work, and/or work that is likely to be funded be considered?
- Who will be consulted to make these predictions?
  - Speaking with program staff in government agencies and non-profit restoration organizations can help build a picture for future activities.
- What questions will be asked?

### Resources

Sample worker and contractor surveys are available at <http://ewp.uoregon.edu/economy>.

Moseley, C. and L. Wilson. 2002. *Multiparty Monitoring for Sustainable Natural Resource Management*. Available at [http://ewp.uoregon.edu/sites/ewp.uoregon.edu/files/downloads/downloads/monitoringguidebook\\_w\\_cover.pdf](http://ewp.uoregon.edu/sites/ewp.uoregon.edu/files/downloads/downloads/monitoringguidebook_w_cover.pdf).

Examples of workforce assessments are available at <http://ewp.uoregon.edu/resources/workforce-qualityjobs/>.

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