



Dr. John J. Garland, PE
Consulting Forest Engineer
1115 NW 17th Street
Corvallis, OR 97330-2612
Tel: 541-754-9080
Fax: 541-752-5450
garlandp@peak.org

Comprehensive Idaho Timber Workforce Overview

prepared by:

Dr. John J. Garland, PE
Garland & Associates
Corvallis, Oregon

presented to:

The “Group”

Associated Logging Contractors – Idaho

Intermountain Forest Association

Idaho Forest Products Commission

November 24, 2007

Headlines and Bottom Lines

Idaho has the lowest overall business cost in the western states and is the third fastest growing state while advertising a 22% increase in the labor force over the past ten years. (Idaho's Incredible Business Incentives. 2007. Idaho Labor & Commerce. 8p.). Such growth can stress current and future employers seeking to hire new workers or replace those who retire or leave for other jobs. A local headline describes the overall issue:

Chamber Makes Progress On Workforce Development

..Our Chamber is working hard to address the biggest problem faced by member businesses: finding employees with appropriate skills and training

(North Idaho Business Journal, April 30, 2007 p.12)

For individual firms in logging, sawmilling, trucking and forestry services, the headlines of labor shortages translates quickly to their bottom line. Firms are missing key workers and equipment operators that control the pace of production, quality, and overall productivity. Some firms have unused capacities in logging equipment and trucks that remain idle because they need operators or drivers. Both entry level workers and skilled workers are needed for the forestry sector in Idaho, the western US, across the US and internationally where forestry operations are found.

Jobs that are difficult, dangerous, dirty and declining

As a result of historical work practices, forestry sector jobs are seen by many as “difficult, dangerous, and dirty.” In fact because of technological progress sawmill workers operate computers in air conditioned work stations, logging operators “pilot” complex harvesting machines, and truckers drive in more comfortable trucks. However, much of forestry work is done on steep slopes, outdoors in bad weather, and requires demanding fitness levels just to walk around. Public attention is drawn annually to reports of the “most hazardous jobs” featuring logging as first, second or third place continually (Bureau of Labor Statistics, 2006). Public perception is also fueled by characterizations of the forestry sector as a “dying” industry or part of the “old economy” where mills, jobs and towns are shriveling away.

Workforce: State, Regional, National and International Issues

Workforce issues are generating concern and debate in many states. Idaho's exceptionally low unemployment rate is often raised when workers are needed for a growing economic base as well as for rural industries that maintain community viability. Growth in Idaho's other sectors of construction, mining, or retail trade further pressures demand for forestry sector workers. Adjoining states are facing the same problems as Idaho in their forestry sectors. Across the US, forestry sector firms face strong competition for workers and declining loyalty to forestry businesses in rural communities. Internationally, forestry sectors in developed countries face labor declines for field forestry work and have imported workers from newly emerging countries to conduct forest operations. As another example, Canada (Quebec) has trouble recruiting students into programs that prepare workers for logging and sawmilling operations (personal communication).

Aging Workers

Perhaps the major workforce issue of the United States and Idaho is the aging workforce.

Combined, those age 45 to the traditional retirement age of 65 made up almost 35 percent of the (Idaho) labor force. Every sector of the economy is seeing more of its jobs in the hands of workers 45 and older as every region of the state watches the older segment of the population grow faster than the younger ones.

Idaho Employment, September 2007 / July 2007 Data IDAHO DEPARTMENT OF LABOR. P. 34.

In the Inland Northwest, a recent survey of logging firms provided insights on the aging issues:

Contract logging respondents averaged 51 years of age and had been in the harvesting business for an average of 23 years. Of the personnel employed by logging firms, 58 percent were found to be 40 years or greater in age. The sawmill industry in the Inland Northwest is concerned that there is an aging workforce among contracting firms that may someday limit their supply of raw material. However, this concern is not limited to the forest products industry. Carroll and Taeuber (2004), reported that from 1992 to 2002, an increasing percentage of Idaho's workforce was 45 years and older. The report also indicated that the proportion of individuals 65 years and older who continue working has also increased slightly

Travis T. Allen. 2005. A Structural Assessment of the Logging Contract Business in the Inland Northwest for 2004. MS Thesis. College of Natural Resources. University of Idaho. 40p.

In the report cited above, nearly 42% of the wood products sector was over age 45 in 2004. (Carroll and Taeuber. 2004. A profile of older workers in Idaho: local employment dynamics. U.S. Department of Commerce, U.S. Census Bureau. 10 pp.)

Similarly, next door in Oregon...

According to the U.S. Census Bureau, 16% of Oregon's workers — more than 254,000 out of 1.6 million — are 55 years or older. And that percentage will continue to rise as more of the state's baby boomers head into their golden years and approach age 65. The first boomers to reach that magic number will do so in 2011, just four years away.

Labor strains: Oregon industries brace for the loss of the aging boomers and their experience. Jon Bell . Oregonbusiness.com accessed on 10-29-07.

The Idaho logging and wood products manufacturing workforce has substantially aged over the last generation. Appendix A shows the age distribution of workers over time compared to the US male population. The Idaho logging workforce was substantially younger than the US Male workforce population in the past but now 44% of the workers in 2006 were over 45 years of age. The wood products manufacturing workers were also younger in the past but by 2006 had reached parity with the aging US Male workforce with 40% of the workers over age 45.

Worker Turnover

Worker turnover is the ratio of workers who separate from the firm or who get hired compared to the number workers employed. The US 2006 turnover rate was about 3-4% while the Idaho logging

subsector has run 10-12% since 1991. Wood products manufacturing was somewhat lower at 8-10% for the period with a low year in 1991 of 3.8%.

Foreign Workers

In response to needing workers, many firms have employed foreign workers—both with and without documents. The increasing Hispanic population is finding work in the forestry and other sectors of Idaho.

Idaho's 2006 Population Growth Led by Hispanics...

The influx of Hispanics into Idaho intensified from mid-2005 and mid-2006. The Census Bureau estimated that the population of Idaho's largest minority jumped nearly 6.4 percent, more than twice the state's overall population growth rate. The new population estimates also found the segment of working-age Idahoans continuing to increase, a key factor in maintaining the labor pool required to support the state's economic expansion. Idaho's Hispanic population reached 138,870 on July 1, 2006, up 8,300 from a year earlier. Nearly one in every four new residents was Hispanic. It was the ninth fastest growth rate in the nation, maintaining Idaho's Hispanic population at 15th largest in the country. Hispanics make up 9.5 percent of the state's total population, which was the sixth fastest growing in 2006 at 2.6 percent. The statewide population was 1,466,465.

ID Dept of Labor, 5/18/2007, Press Release

Hispanics have been a large part of the forestry services workforce and are finding employment in logging and sawmilling.

Competition for Workers

Demographics point to a lower number of workers entering the workforce in Idaho and the statements below provide concerns over competition between sectors from existing firms and the new firms likely to locate or expand to Idaho locations.

Every major industrial sector (Kootnai County) except information grew between 2003 and 2006. The largest source of new jobs was construction with 2,390. Since the county labor force grew by about 7,670 people during that period, construction absorbed more than three of every 10 new workers.

(WHERE DID ALL THE GOOD WORKERS GO? A Study of Employment in Idaho's Panhandle, K. Tacke, Idaho Dept of Labor, June 2007. 13p.)

Economy.com ranks Idaho among the 10 states with the lowest overall costs of doing business. The Corporation for Enterprise Development rates Idaho No. 1 in manufacturing investment and 6th in long-term employment growth.

(Overall Business Costs in Western States. Moody's Economy.com Index. March 2005.)

Wage competition may influence worker choices and the forestry sector has advantages relative to all employment but may not reach levels found in all manufacturing or mining. Logging relative to all covered employment (by unemployment insurance) in Idaho had better wage advantages in the past than now but still exceeds the level in all industries (Appendix B).

Work as a Goal

Another concern for employers generally is what has been described as the “work ethic” of the new generations of workers.

Perhaps part of the current (problem)with keeping workers can be attributed to the work ethic of the younger labor force – a view of work life far different from the grandparents and even the parents of people in the teens and 20s today. Employers seem concerned about their commitment to the job, their analytical ability, their interpersonal skills, patience and loyalty. Some employers complain about their sense of entitlement -- to good pay, interesting work and plenty of time off.

In response, some younger workers say that a personal life should be the first priority and keeping close with their families and friends takes precedence over work. They question the need to be loyal to employers who seem to have no loyalty to them. Many younger workers have seen their parents and grandparents lose jobs in mass layoffs and believe their loyalty was not rewarded.

(Tacke, 2007)

Gender in the Workforce

While the Idaho logging subsector had a consistent 7-9% participation by females since 1991, the wood products manufacturing subsector increased from 14% to 24% in 2006. The US workforce had 46% female participation in 2006. The statistics do not indicate the nature of jobs the male/female workers were doing, but certainly some percentage were production jobs. The US figure is heavily weighted to the service economy which employs more women than men in many subsectors.

The Future Starts Now!

Because of the way the workforce evolves over time, it is a profound realization that the workforce for the forestry sector of Idaho is largely in place right now. If there are problems, issues and questions of workforce availability and quality now, they will only continue in the same undesirable directions if changes are not initiated at the soonest opportunity.

A Reasoned Response

In response to the workforce issues in the forestry sector of Idaho, a “Group” of organizations has outlined a reasoned approach to help resolve issues and chart a positive future for the Idaho Timber Workforce. The description below outlines the needs and proposed actions.

Concerns over recruiting and retaining qualified and committed workers are rising among America's manufacturing businesses. Idaho's sawmills, logging and transport businesses are looking for ways to help them better compete for quality workers and keep the industry viable in the future. The Associated Logging Contractors - Idaho, Intermountain Forest Association and Idaho Forest Products Commission have teamed up to sponsor a study of forestry workforce issues. The group wants to learn what individuals, businesses, organizations and government can do to help forest businesses in the Idaho region improve their ability to competitively recruit, hire and retain a high quality workforce... (contact the Idaho Forest Products Commission at 208/334-3292 or e-mail ifpc@idahoforests.org.)

The organizations above are collectively referred to in this Overview as the “Group.” It serves as a coordinating body for the efforts of the contractor for the Project--Garland & Associates, Corvallis, Oregon. The Group describes the contractor as:

Dr. John Garland of Garland and Associates in Corvallis, Oregon will conduct the project. Dr. Garland has been involved with numerous forest workforce projects and is Professor Emeritus of forest engineering at Oregon State University.

A general description of the Project by the Group shows the four step approach used:

The project will consist of four parts; an overview, a survey, a report and a summit. The overview will gather timely and relevant information on current and future forest workforce issues. The survey will solicit the opinions, observations and suggestions of employers, employees and others about workforce issues. The report will summarize the survey findings and provide a slate of possible recommendations the forest industry might implement to improve their competitive advantage in recruiting, hiring and retaining a qualified workforce in the region. Finally, the summit will provide an opportunity to present and discuss the project findings with members of Idaho's forest business and develop actions that businesses, associations and government agencies may implement. The summit will be held in spring of 2008. (May 13th in Coeur d' Alene)

The Group solicits participation and cooperation by those in the public and private sector interested in the future of the Idaho Timber Workforce. The Project provides a starting point for bringing such cooperative efforts to a focused point at the Summit and for the actions thereafter.

Views of the Sector Workforce

Factor of Production, Statistical View, Family Members, Human Capital

How people view the timber workforce varies with their past experience and current circumstances. Traditional economics and some business theories treat the workforce as a “factor of production” like land, capital and so forth. The underlying assumptions are that workers are all alike in the production setting, additional workers are exactly like ones now employed, and wages are set by the marginal productivity of the last worker hired. Such views are easy to incorporate in economic models, business theories, and high level decision making in large firms and organizations. These views just don't fit the reality of individuals, small firms or the forestry sector.

Another view of the workforce is found in statistical abstractions of groups of workers. Demographic information of age distributions, income, education, regional and sector differences, etc. about worker groups is useful background for decisionmakers. It provides a picture at a point in time or a past time series of selected measures. However, statistics do not provide cause and effect relationships nor do they reflect a future that may be different than the past. Finally, statistics are the reflection of aggregated behavior of individuals, firms, subsectors and sectors. It is not possible to go in reverse from a statistical series to predict likely behavior of individuals, firms and sectors. Statistical data on workforces are useful and necessary, but not entirely sufficient for workforce improvements.

When individuals think about the workers in the timber workforce, they may think of relatives and friends who work in the sector. They take in the whole picture of the person including their personal circumstances and relationships. The “halo effect” of the whole person may color the worker's

employment circumstances. For example, it may be difficult for managers to terminate, discipline or even supervise a relative of the owner of the small firm. Objective treatment of individual workers and their work environment is called for in workforce improvement efforts.

The approach to individuals found in some other industries is to treat people as “human capital” rather than a factor of production or a favored relative. People are not all alike and investment in people changes their productive capacities. In some cases rather than add another employee, it may be possible re-arrange job responsibilities and train existing employees to meet the work demands. Furthermore, there are trends to increase responsibilities for production, maintenance, environmental performance, and other areas in the forestry sector for employees. Considering the individual worker in terms of “human capital” is simply following other sectors (electronics, construction, etc) and international competitors (Garland, J. 2000. Treat your people as "human capital." Forest Pro (Caterpillar publication). p. 14-15,).

Treat People Like Trees

Supervisors in some firms may treat workers and their workforce as replaceable parts and do not think broadly enough about their own future.

People don't quit companies, they quit supervisors...

HR Chief Peters of Roy O. Martin Lumber, Engineered Wood Products Journal , Spring 2007, p. 18

Shaking people's view of workers from fixed notions they hold can be done by analogy. What if people were trees, how would those in the forestry sector think about them? Table 1. shows how they compare over the lifespans of people and the rotations of trees. Emphasis on tree regeneration has always been critical in forestry but growing workers for the forestry sector is a new concept for some.

Table 1. Comparison of People and Trees	
Trees and Stands	People and Workforces
Regeneration	Recruitment
Young Stand Management	Forestry education and job experience
Thinning or Individual Tree Selection	Job selection and placement
Fertilization--periodic	Continuing education & worker development
Middle age Stand Management— protection from insects/disease, fire,	Job and career changes, selection, retention
Old growth Management	Aging workers and managers
Final Harvest	Retirement

Trajectories of development

It can be somewhat of a shock for individuals, firms and a sector to realize that they are already on a trajectory of development—whether they knew it or not! Thinking about how the individual, firm or sector is progressing over time does not come naturally. However, when such trajectories are made visible, they provide considerable insights on the way progress is made. Listed below are some

example trajectories for consideration. The notion of tracking progress is crucial for any enterprise as noted by the business sage, Peter Drucker, that “You can’t change what you don’t measure.”

Sector as a whole- Swedish example

One of the more interesting trajectories of development for a forestry sector is what the Swedish harvesting industry has charted for its technological progress. Appendix C (1) shows how productivity per person day has changed while overall employment has fallen as the type of technology has evolved. A similar trajectory exists for the forest harvesting sector of Idaho but has not as yet been made explicit. The measure of productivity could as well have been accidents, employment, or any measure of interest to sector leaders.

The firm itself

It is somewhat rare for small firms to make their trajectories of development visible but they exist nonetheless in the minds of company owners and managers (as well as in their records). What benefits accrue to making parts of the trajectory visible to workers within the firm are unrealized and they may have no sense of the future based on the past. Appendix C (2) shows a trajectory of a western Oregon logging firm for illustration.

Individuals

Prototypical trajectories of three types of individuals are shown in Appendix C (3) using age and a subjective measure of productive potential (an actual measure might be annual salary). The lower trajectory represents an individual who does not rise very high in productive potential and whose career terminates early due to such circumstances as an accident, involvement with drugs, or some career-ending event. The middle trajectory shows the typical trajectory of most workers with production potential declining with age. The higher trajectory shows the high performance worker sought by most firms whose production potential grows over time with infusions to their capacity and contributions. The discussion of trajectories with workers need not be so abstract as trajectories shown but can be in terms of the next job up the ladder or the employee’s aspirations for a career within the company, etc. The concept of the individual having a career trajectory and being in charge of their working lives is the important idea.

Changing the trajectory

Once the idea of a trajectory of development exists, the next question is what does it take to change the trajectory? Several steps are needed as described below:

1. Choose the measure or measures that are important for the individual, firm, or sector to monitor over time.
2. Make the trajectory explicit and show the past to the present. The trajectory does not need to be a picture but can be some kind of narrative.
3. Decide on where the trajectory should go, pick targets for the measures, and identify the improvement efforts to move the trajectory.
4. Monitor the trajectory as frequently as needed to see progress or consider other improvement efforts.

The motivation to make improvements to trajectories of individuals is clear with their own self interests. Firms are already making changes to their trajectory of development as they carry out their

management activities. Making the trajectory visible is what logically follows. For the sector and subsectors, it is necessary to emphasize that: **It is the job of sector leaders to change the trajectory of the sector!** In all of the trajectories, doing nothing or doing the same thing is affecting the trajectory of development.

Where the action is !!!

Individuals and Career Choices

Ultimately, the decisions of individual workers determine employment for firms and the sector. These decisions are conditioned by circumstances of the worker and of the firm and its competitors for the labor. It is not unusual for managers to be surprised when workers just “up and quit.” Rarely do individual workers quit unexpectedly (to them). Workers are frequently assessing their current employment circumstances and expected futures within the firm (organization) while managers may be indifferent at best or hostile when workers attempt to engage them about their futures. Once a year performance evaluations that are constrained by standard forms or policies are unlikely to lead to workers who feel like firms are as interested in their future as they are. What kind of behavioral changes or structural changes will provide workers with the decision information needed for them to see a career ladder in a firm or a trajectory in the sector?

Firms

Proprietary Actions

Firms have written or unwritten employment guidelines that are successful (or not) with their workers. For small firms, the owners’ view of the work relationship makes a strong imprint on how things should work. No matter how illogical it is to assume that that current work conditions/relations would be the same as those of older managers/owners, many firms are locked into a past inconsistent with the present or future. Some firms do see their workers as vital assets and work at procedures to engage individual workers (and even their families) in charting a working future together. Not surprisingly, these firms treat such approaches as proprietary competitive advantages. It seems reasonable that each firm consider a menu of approaches and to choose those that are compatible.

Collective Actions

While some firms have cooperative arrangements with others say in the renting/subcontracting of specialized equipment or trucking, there are few firms that seek cooperative worker arrangements. Some firms jointly use the services of a private safety consultant who might engage in some skill training activities as well as safety. While legal barriers and proprietary concerns may limit such arrangements between firms, working relationships for labor are seen between firms in other sectors, eg agriculture, construction, etc.

Forestry Sector/subsectors

There has been collective efforts among the associations representing employers within the forestry subsectors. The preference seems to be for the firms to associate with others providing similar services although crossover memberships occur. In the areas of safety and political activism cooperative efforts

among subsector associations are noted. This particular project represents an unusual effort to address sector- wide employment issues. The subsectors for this Project include:

1. Forestry services
2. Logging
3. Trucking
4. Primary wood processing (sawmills)
5. Foresters/Managers

Forestry subsector associations vary in their members' focus on issues to address. Safety and insurance benefits are often important interests. Compared to the construction industry, the forestry sector has not engaged in collective worker programs such as training, student work arrangements, etc. (Construction Camp-N-Work Program Underway in Boise. Idaho AGC, press release June 20, 2003). Such efforts extend nationwide in construction to support national centers for construction education and research with a cents per hour assessments for such projects as instructional resources in English and Spanish (Building Tomorrow's Workforce. Summer 2007, Vol 11,#2 National Center for Construction Education and Research).

It is expected that this Timber Workforce Project will serve as a catalyst among the Idaho subsector associations for dialogue on what kinds of individual and collective association actions might be considered relative to the workforce. One association covering WA, ID, OR, MT seems to work with labor issues of law and benefits (Timber Product Manufacturers Association) and provides a Wage Survey covering forestry sector workers for its members.

Across the US, a number of regional employer associations address worker issues such as safety, insurance, and training. There have been cooperative efforts for specific actions, such as mechanized harvesting operator training, that have started up but not remained viable in the long term. There is no obvious national association representing the interests of forestry sector workers themselves except for unions that are somewhat regional in nature based on membership. Some unions/quasi unions specifically identify Hispanic migrant worker interests for their actions. While union membership is growing nationally after years of declines, the forestry sector has not received much attention for the subsectors covered by this Project.

In place of union agreements, state and federal regulations governing worker employment have increased over time. Safety and health regulations covering workers in the dangerous forestry sector have increased. Greater coverage can be expected of forestry services workers at the federal level which translates to Idaho workers. Other regulations covering migrant workers relating to working, living and wage conditions are the topics of concern after newspaper exposés and lawsuits (Pineros: Men of the Pines. Sacramento Bee Series. <http://dwb.sacbee.com/content/news/projects/pineros/> and Southern Poverty Law Center suits. Accessed on November 12, 2007. http://www.splcenter.org/legal/news/article.jsp?aid=111&site_area=1). Another factor in treatment of workers comes through the certification processes that some firms subscribe to as a matter of marketing policies. Evaluation criteria for some certification systems call for specific training, adherence to laws and regulations, and prescribed standards of treatment for workers and contractors.

The public sector of Idaho has a large stake in the success of the firms and workers in the forestry sector. Public policies in support of the forestry sector that generates public benefits for rural communities, living wage employment, provides environmental protection, and public amenities from hunting opportunities to scenic vistas from private lands. As an example, Idaho makes training funds available for firms relocating or expanding in Idaho with extra funds for rural areas. It is a question how such a program could be made effective for forestry sector firms (Worker training to make your company more productive and profitable. Nd. Idaho Commerce and Labor. www.idahoworks.com. 2p.) A variety of other public policies ranging from support of targeted vocational education programs to tax credits for small business health care or worker continuing education/training could be considered depending on problems, needs and opportunities identified from this Project.

Identifying Obstacles (Remove the barriers)

With any endeavor before significant steps toward progress can be undertaken, it is necessary to deal with one or more obstacles that serve as barriers to making progress. Removing the barriers to progress can be more important than initiating new, creative approaches to workforce improvements. The Survey/Research may identify such obstacles and the Group may need to address them if they are significant.

Examples of such obstacles to improvements are evident in some listings of workforce issues in Idaho:

- Is there an actual shortage of workers or a sector competitive disadvantage
- Is seasonal work limiting employment choices? (See Appendix D.)
- Are housing options limiting employment in rural areas?
- Does negative public view of forestry sector influence high school counselors?
- Do workers see forestry jobs as dead end jobs (does lack of a perceived career ladder influence choice)?
- Does the question of forestry sector viability affect employment? (See Appendix E.)
- Others ??

Whatever obstacles or barriers to making improvements are identified in the Survey/Research efforts will need to be assessed to see how to remove or neutralize them.

Subsector/Sector Responses To Potential Improvement Efforts?

A key question for any set of workforce improvement efforts that might be conceptualized is how would the individuals, firms, and subsectors respond to them. During the Survey, it might be helpful to get preferences from those interviewed about what kinds of improvements they would see themselves working toward. Such questions are hypothetically placed before participants to see how they prefer to resolve the workforce issues. A dialogue with the Group about the nature of such questions is in order to consider what approaches to place before interviewees. Under no circumstances should the list of preferences be considered the solutions of choice but only a means to gain a response from individuals, firms, and subsectors on their preferences. **Examples** of topical areas to consider are listed below as a starting basis for discussion.

A. For individual workers

1. Recruitment/retention payment schemes?
 2. Pay for qualifications?
 3. Credentialing/certifications
 4. Company housing/camp sites
- B. The firm itself
1. Alternative payment schemes
 2. Career ladder development
 3. Employee career planning
 4. Training tax credit
- C. Subsector collective efforts
1. Logging machine operator training program
 2. Trucking school for owner/operators
 3. Sawmill recruitment effort
 4. H2B Visa Cooperative effort for forestry services
- D. Forestry sector wide approach for reaching high school counselors
- E. Television ads to feature sector employment
- F. Public Sector
1. Targeted vocational education program
 2. Forestry sector scholarships for worker training
 3. State tax credit for worker training/re-training
 4. State sponsored H2B forestry services contract
 5. State forest activities code compelling safety training for workers in logging and forestry services
 6. Others?

A Possible Future.... or Changing the Trajectory of Individuals, Firms, and the Sector

The current Project on the Timber Workforce provides the basis for improvement efforts by individuals, firms, subsectors and the sector as a whole. It is likely that proposed actions will come from private firms and public organizations. This stepwise Project follows the list below and hopefully engages the key participants in the Idaho forestry workforce.

- A. Collecting and interpreting what is known about the forestry sector workforce.
- B. A Survey to clarify viewpoints, gain perspectives, seek motivations, identify alternatives, generate interest and seek commitment
- C. A Report to summarize knowledge, clarify perspectives and outline some alternative futures, specific actions, and choices for sector leaders.
- D. A Summit to seek participation, generate and consider various approaches, and gain commitments to actions.
- E. A Post-Summit Report to provide a roadmap for action.

The activities after the Summit will be crucial to initiate, implement, and monitor the workforce improvement efforts selected. One approach is to empanel an “Idaho Timber Workforce **Action Planning Committee**” to follow up on Summit recommendations, help remove barriers to progress, seek funding opportunities, and track progress for the entire sector. The emphasis for the Committee is

the selected actions and not the deliberation of alternatives, discussion of the problem, or rehashing the Summit results. The composition and charter of such an Action Planning Committee merits discussion by the Group and at the Summit.

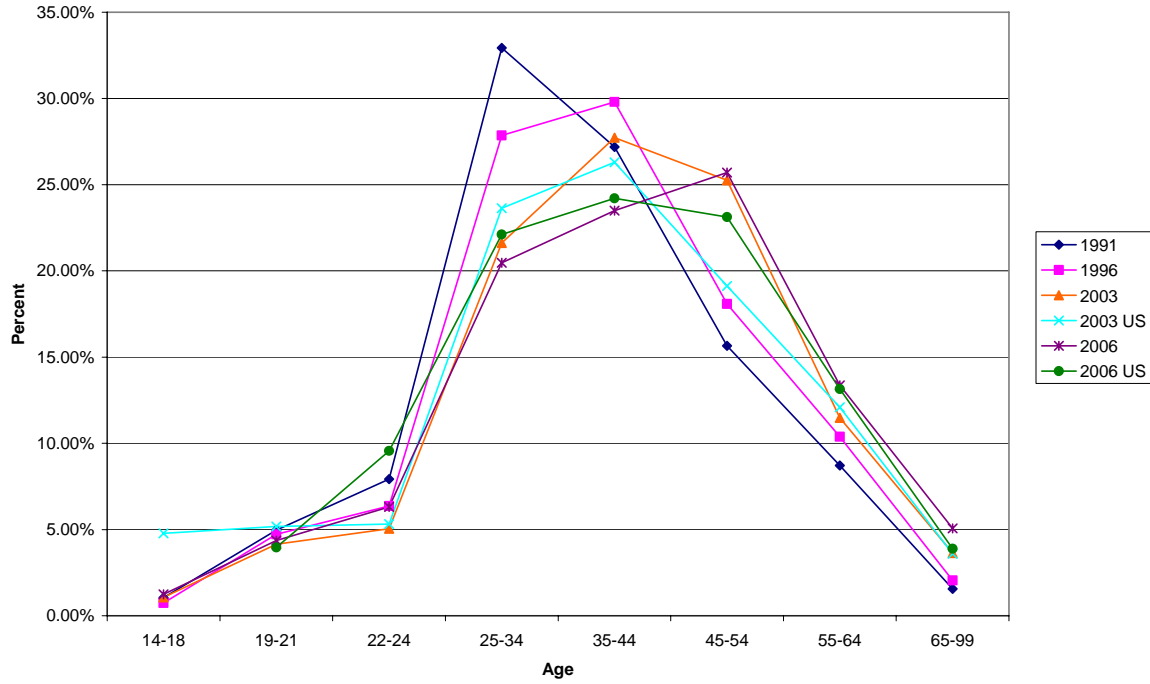
Concluding Remarks

The Idaho Timber Workforce Project is an unprecedented and **bold effort!** It represents an innovative and cooperative effort among the Idaho forestry sector. While success is not guaranteed by this approach, it is clear that not undertaking the Project will assure continuing problems with the timber workforce. The author appreciates the opportunity to serve as the Contractor for the Project.

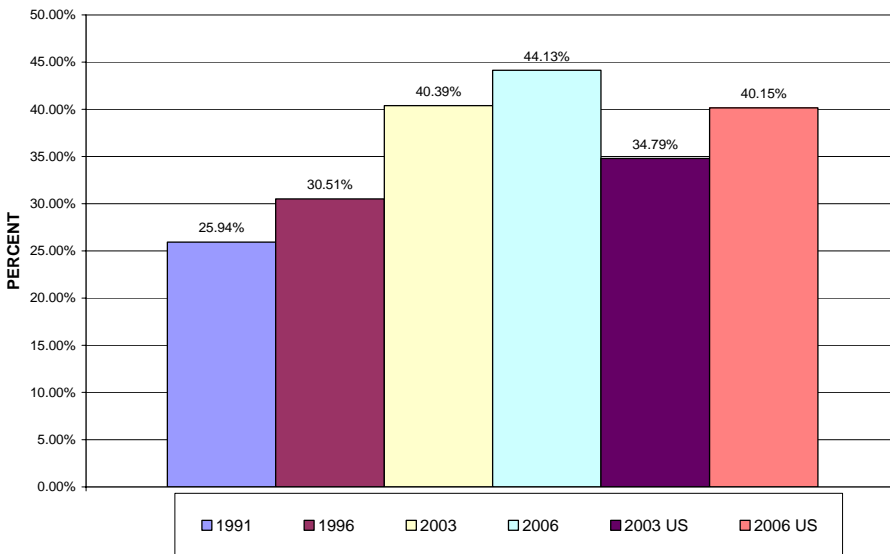
Acknowledgements:

The author is grateful for review materials provided by the “Group” and for references and data from the Idaho Department of Labor provided by Kathryn Tacke, Regional Economist.

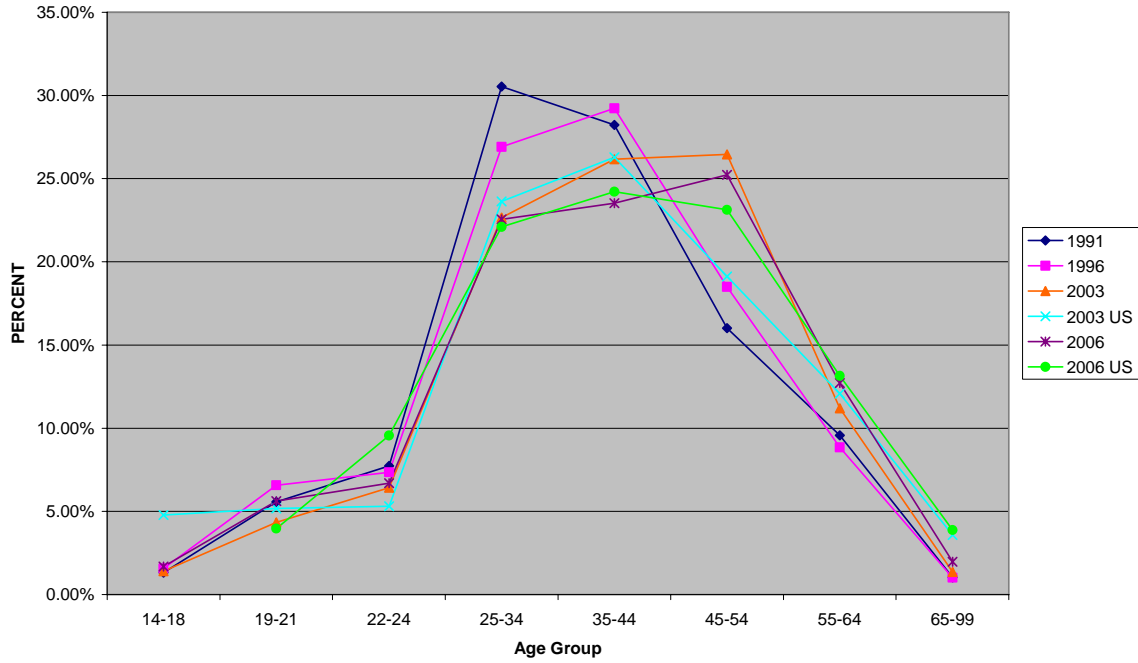
**Idaho Male Logging & US Male Workforces
Selected Years**



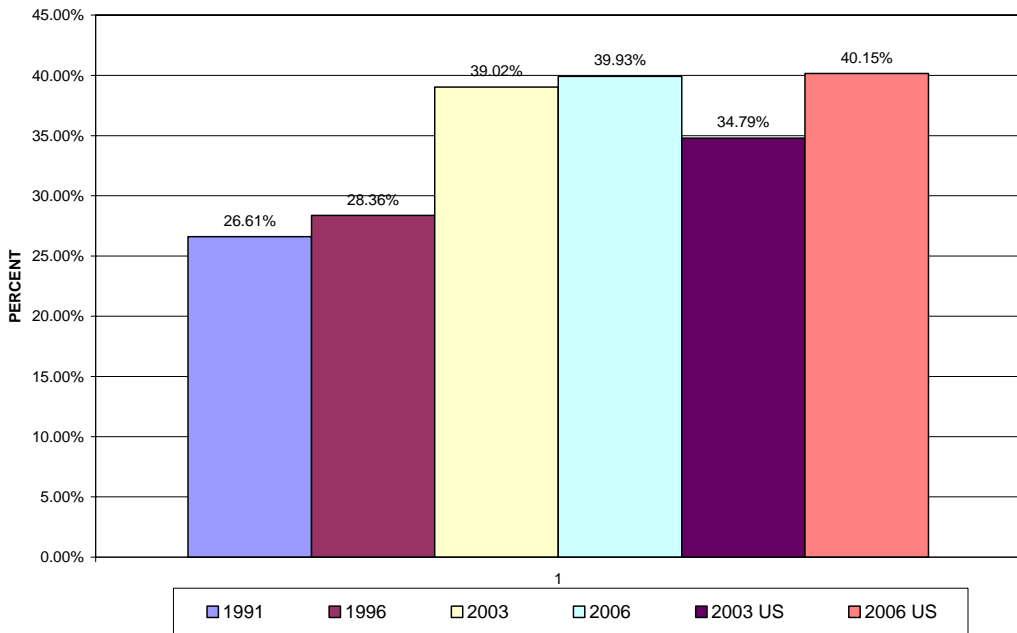
Idaho male logging & US male Workforce over 45 Years of Age



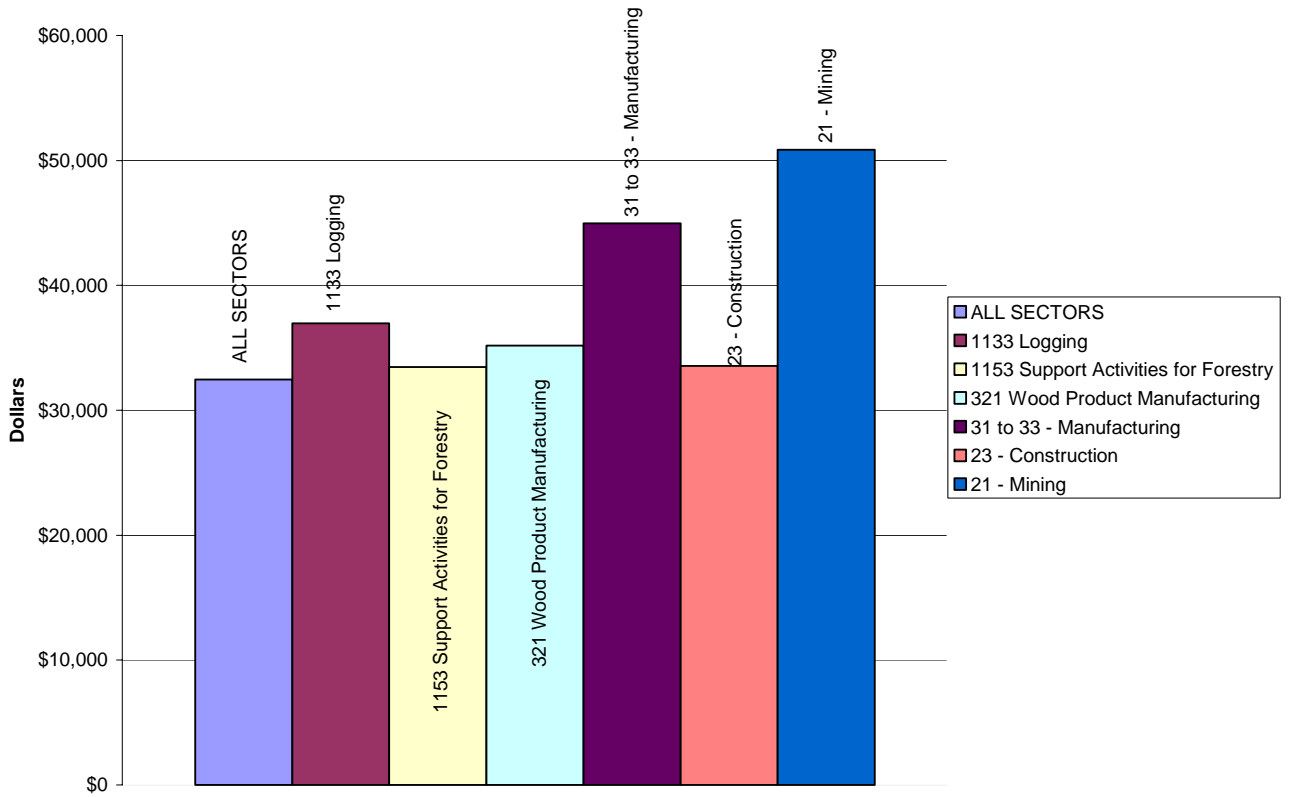
**Idaho Wood Products Male Workforce & US Male Workforce
Selected Years**



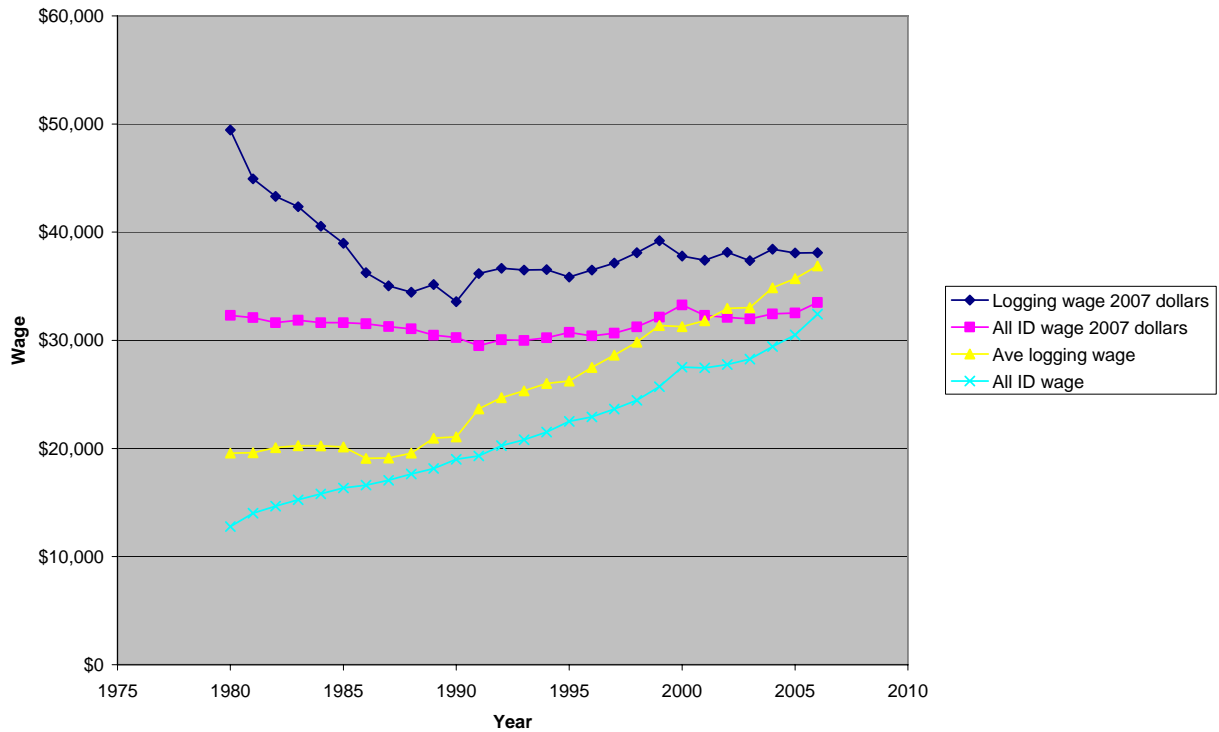
**Idaho Wood Products & US Male Workforces over 45 Years
Selected Years**



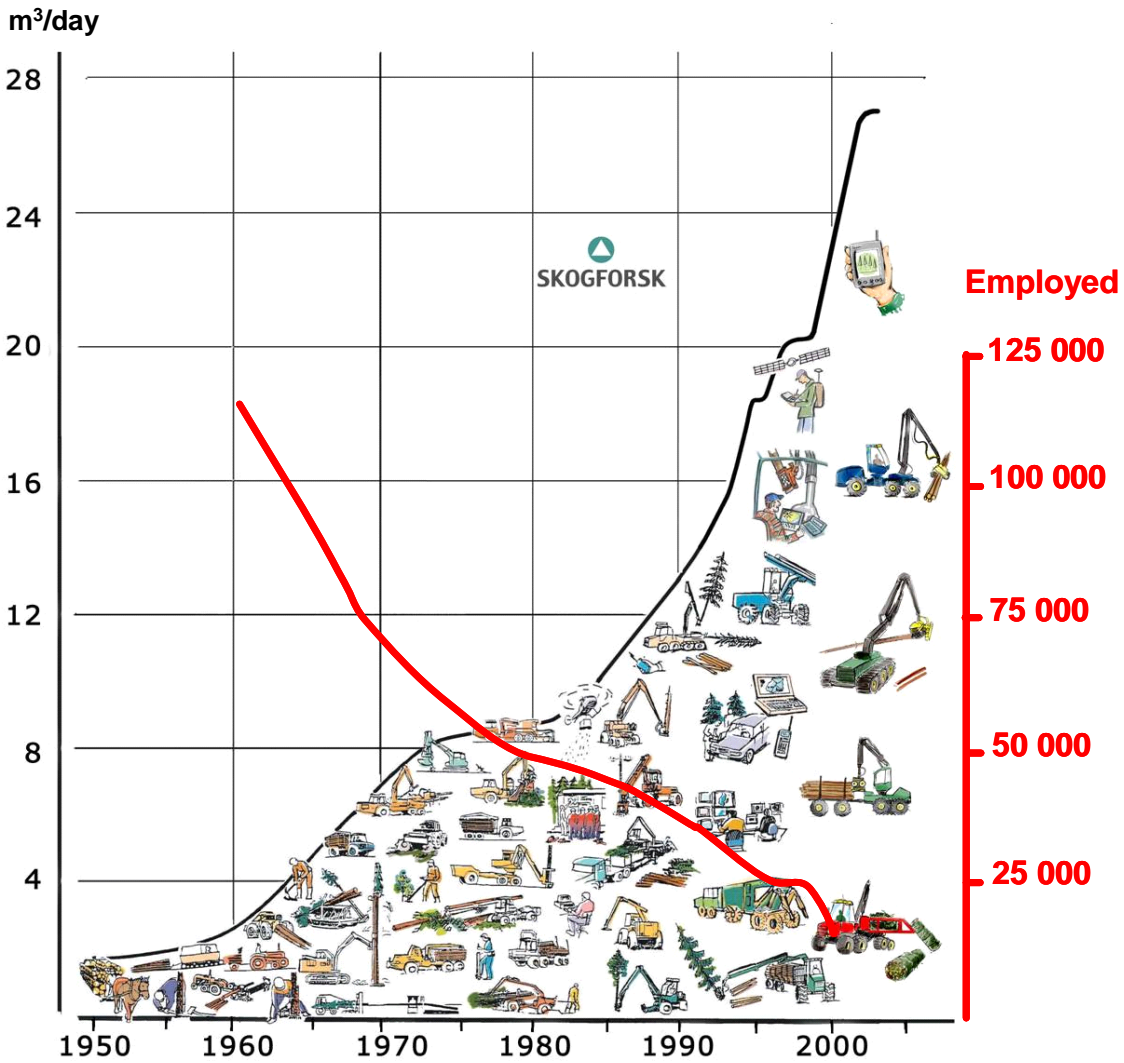
2006 Idaho Annual Wages by Sector



Idaho Logging & Industry Wages

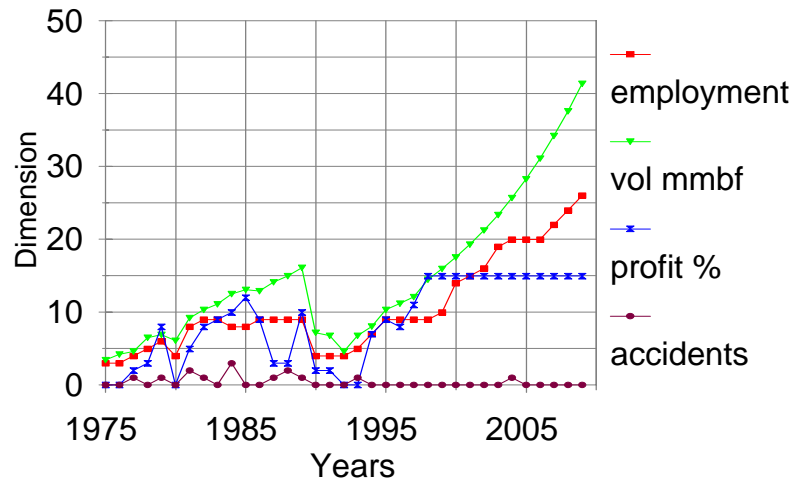


Productivity in forest operations, m³/day

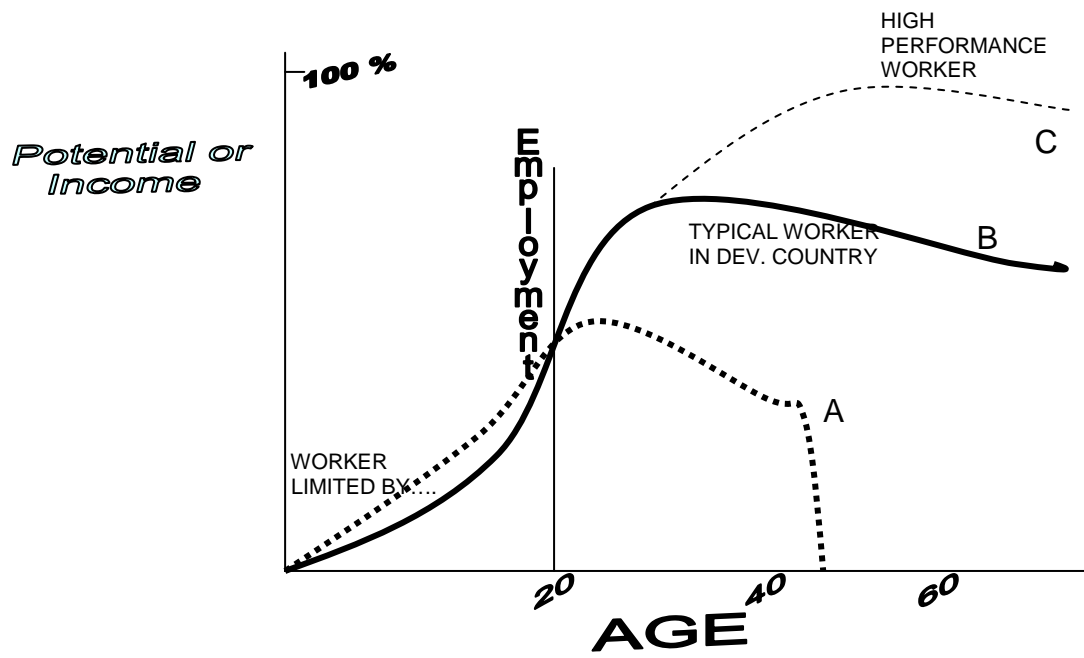


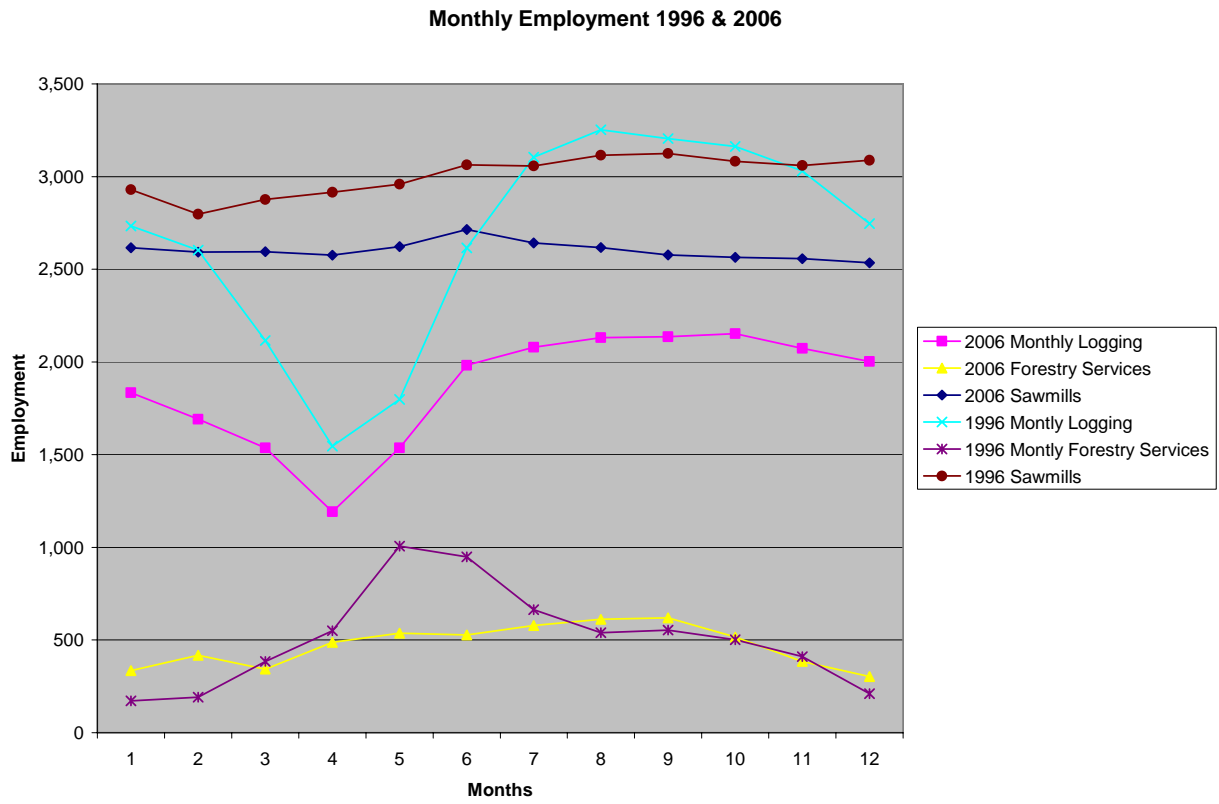
Sourcedata: Statistisk årsbok

Trajectory of a Logging Firm Western Oregon



TRAJECTORIES OF INDIVIDUALS





Idaho Forestry, Logging & Sawmilling Employment

