INSTABILITY of FOREST LAND OWNERSHIP in WESTERN OREGON and WASHINGTON 1932 - 1941

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INSTABILITY OF FOREST LAND OWNERSHIP IN WESTERN OREGON AND WASHINGTON, 1932-41

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I. INTRODUCTION

Stability of land ownership has long been advanced as a requisite for continuous management of forest properties on a basis approaching a sustained yield. Without a high degree of ownership continuity, it is virtually impossible to develop and execute voluntary plans required to manage a forest property through the long years of full rotation. Ability to retain possession of forest properties for long periods of time, however, tends to stimulate the desire to attain "long run" as well as "short run" advantages. When resources are managed with due regard for long-run consequences, the interest of the public, as well as the individual, is usually best served. Because of this harmony of interest, the public may justifiably seek out the causes and possible cures of forest land ownership instability.

Although it was in the depression years of the 30's that the factors causing ownership dislocation became particularly evident through tax delinquency and reversion, the land management policies of earlier years were beginning to be reflected in these same channels considerably before 1930. Because of timber removal and failure in agricultural colonization in Michigan, for example, unredeemed lands came back to the State in great quantities after 1896.[1/] As far back as 1926 only 56.7 percent of the unplatted land of the 16 cut-over counties in the northeastern part of Minnesota was tax paying.[2/] There is evidence that fourth-year tax delinquency increased in Oregon and Washington counties following 1918.[3/]

1/ Fairchild, F.R. and associates. Forest taxation in the United States. U.S. Dept. Agric. Misc. Pub. 218, p. 180. 1935.
2/ Ibid. p. 182.
3/ Ibid. pp. 166-7.

By 1930 unstable forest land ownership attracted national attention. It seemed to be most critical in the Lake States and the South. It was approaching a critical stage in the Pacific Northwest. Some private land was going back to the counties, some to the States, and some to the Federal government. Land was reported as reverting to public ownership in such condition that it could neither yield the taxes levied against it nor, without organized management, recompense the public in any degree for the public debts accumulated on it. For the most part there was no adequate plan for handling this land. As a result, local political organization was upset and the economic foundations of communities and regions were undermined. Tax-reverted land areas far exceeded in magnitude the public programs of acquisition for forest purposes.4/

In 1931 Congress authorized and made appropriation for a study of the economic factors and relationships affecting (1) the trends in reversion in different regions, (2) the desirability of utilizing reverted and reverting land for forest production, (3) the desirable line between Federal and State or local public ownership, and (4) the formulation of plans for the handling and use of reverted and reverting lands, especially in relation to the prosperity of local industries and communities. In effect, this plan called for an effort to answer two questions: (1) How may tax-forfeited lands best be handled, and (2) what can be done to stem the flow of tax delinquency and forfeiture.

Investigations were conducted in the western parts of Washington and Oregon, because they contain the greatest present concentration of forest industries and the greatest reserve of old-growth timber in the United States. Initial studies were begun in 1932, covering the period 1932-33. A check study was made in 1935-37, and another in 1940-41.

Eighteen counties--nine in each State--were chosen as samples of the 1932-33 situation (fig. 1). They represented a variety of physical and economic conditions and consisted predominately of forest lands.

4/ Testimony of R. Y. Stuart, Chief Forester, before the subcommittee of the House Committee on Appropriations, Agricultural Appropriation Bill for 1932, 71st Cong., 3rd Session.

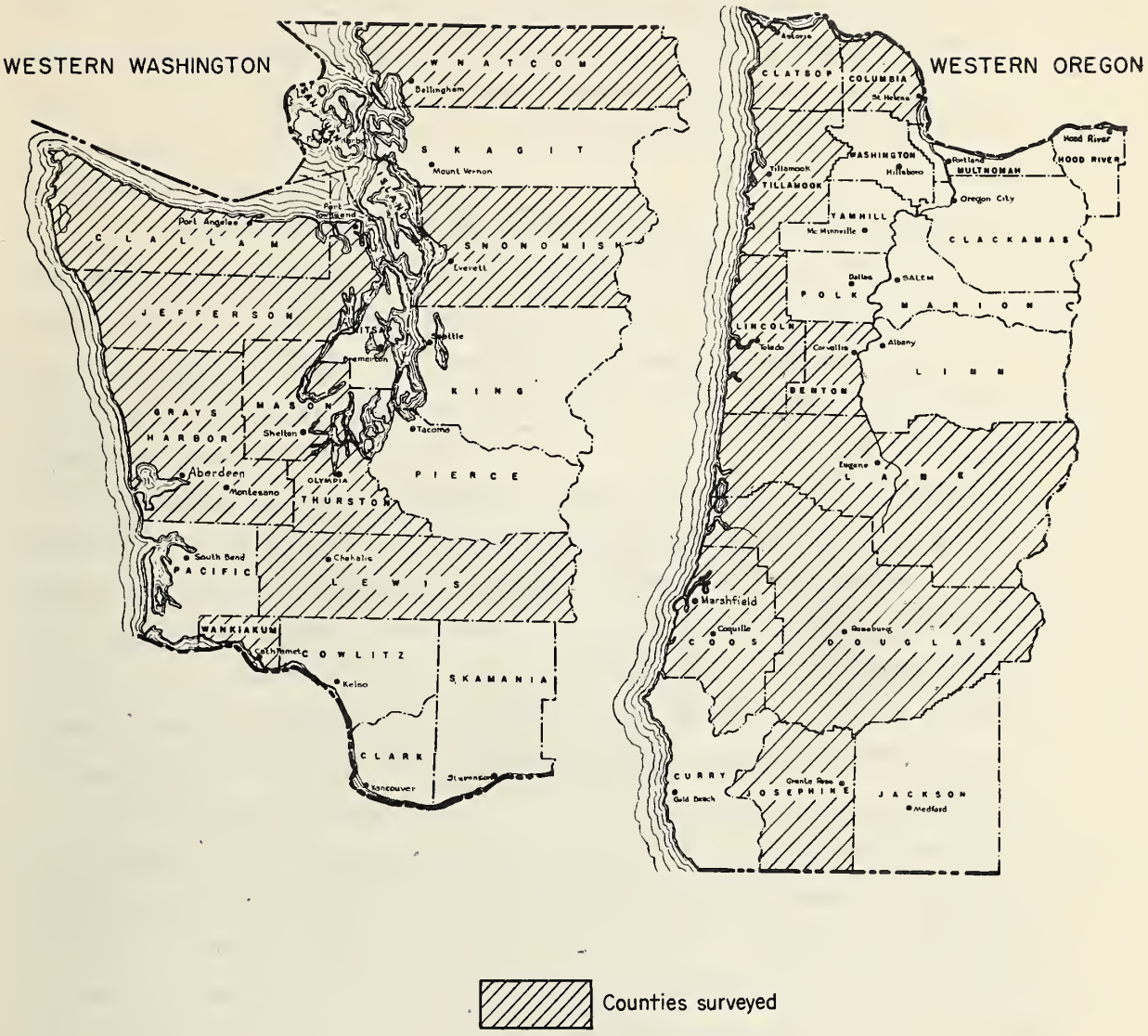

Figure 1.-- Map of western Washington and western Oregon showing counties included in survey

The Washington counties are Clallam, Grays Harbor, Jefferson, Lewis, Mason, Snohomish, Thurston, Wahkiakum, and Whatcom. The Oregon counties are Benton, Clatsop, Columbia, Coos, Douglas, Josephine, Lane, Lincoln, and Tillamook. Data were compiled on status of tax delinquency and character of ownership for all of these counties, except a few blocks of agricultural, urban, and subdivided rural land (table 1). Other data on related subjects were also compiled for these 18 counties.

The extent of reversion to public ownership was determined in the same specific areas for eight of the Oregon counties as of 1935-36 and for six of the Washington counties as of 1936-37. Lincoln County, Oregon, and Grays Harbor, Mason, and Wahkiakum Counties, Washington, were omitted because they had deferred foreclosure of delinquent tax liens.

The extent of tax delinquency and reversion to public ownership as of 1940-41 was determined in the same specific areas for four counties--Grays Harbor and Lewis, Washington; Columbia and Coos, Oregon. Coastal conditions are represented by Grays Harbor and Coos, interior valley by Lewis and Columbia. Saw-timber depletion was nearly complete in Columbia, far advanced in Grays Harbor, at the middle state in Coos, and approaching the middle in Lewis.

The purpose of this report is to: (a) Show what was happening to private forest land ownership in western Washington and western Oregon during the period 1932-41; (b) isolate the causes responsible for the severity of the ownership disturbances evidenced through tax delinquency and reversion; (c) note developments since 1941 and suggest their relationship to future ownership problems; and (d) suggest steps that might be taken to lessen the severity of ownership disturbances in a subsequent period of business decline.

II. THE STATUS OF FOREST LAND OWNERSHIP AS REFLECTED BY DELINQUENCY AND REVERSION

What was happening to forest land ownership in 1932-41 can best be shown, though not explained, by tax delinquency and reversion records. Attention will be directed first to the area and value of land either reverted or in a precarious ownership condition; secondly, to the types of forest lands most adversely affected; and then to the changes occurring within the period.

Tax Delinquency and Reversion Measured by Land Area

The 18 counties selected for study in 1932 contained 9,882,100 acres of privately owned and tax-reverted lands (table 2). Of this area 31.2 percent (8.6 percent for 1928 and earlier years, plus 22.6 percent for 1929 and 1930) was delinquent in 1932-33 for taxes levied in 1930 and prior years. Another 479,000 acres, or 4.8 percent, had reverted to public ownership. A total of 3,556,000 acres, or 36 percent of the total area (excluding federally and State-owned lands), was either in a precarious ownership position, because of tax arrears, or had actually passed to some public agency.

An examination of the county experience (fig. 2 and table 2) shows that disturbed ownership conditions were widely spread over the two States. However, the situation was more acute in some counties than in others. For example, in Lewis County, Washington, virtually no land had reverted to public ownership by 1932 and only 16.3 percent of its land was delinquent. On the other hand, in Lincoln County, Oregon, 11.2 percent had actually reverted, 37.1 percent was delinquent, leaving only 51.7 percent of the acreage paying taxes. In ten of the counties more than 30 percent had reverted or was delinquent for taxes. Between 20 and 30 percent of the area in five additional counties had reverted or was delinquent.

With respect to reversion, the situation in western Washington and western Oregon grew much worse in the nine years subsequent to 1932 (fig. 3 and table 3). Reverted lands representing 3.5 and 5.8 percent of all privately owned and tax-reverted land in Washington and Oregon, respectively, in 1932 increased to 11.1 and 14.6 percent in 1941.

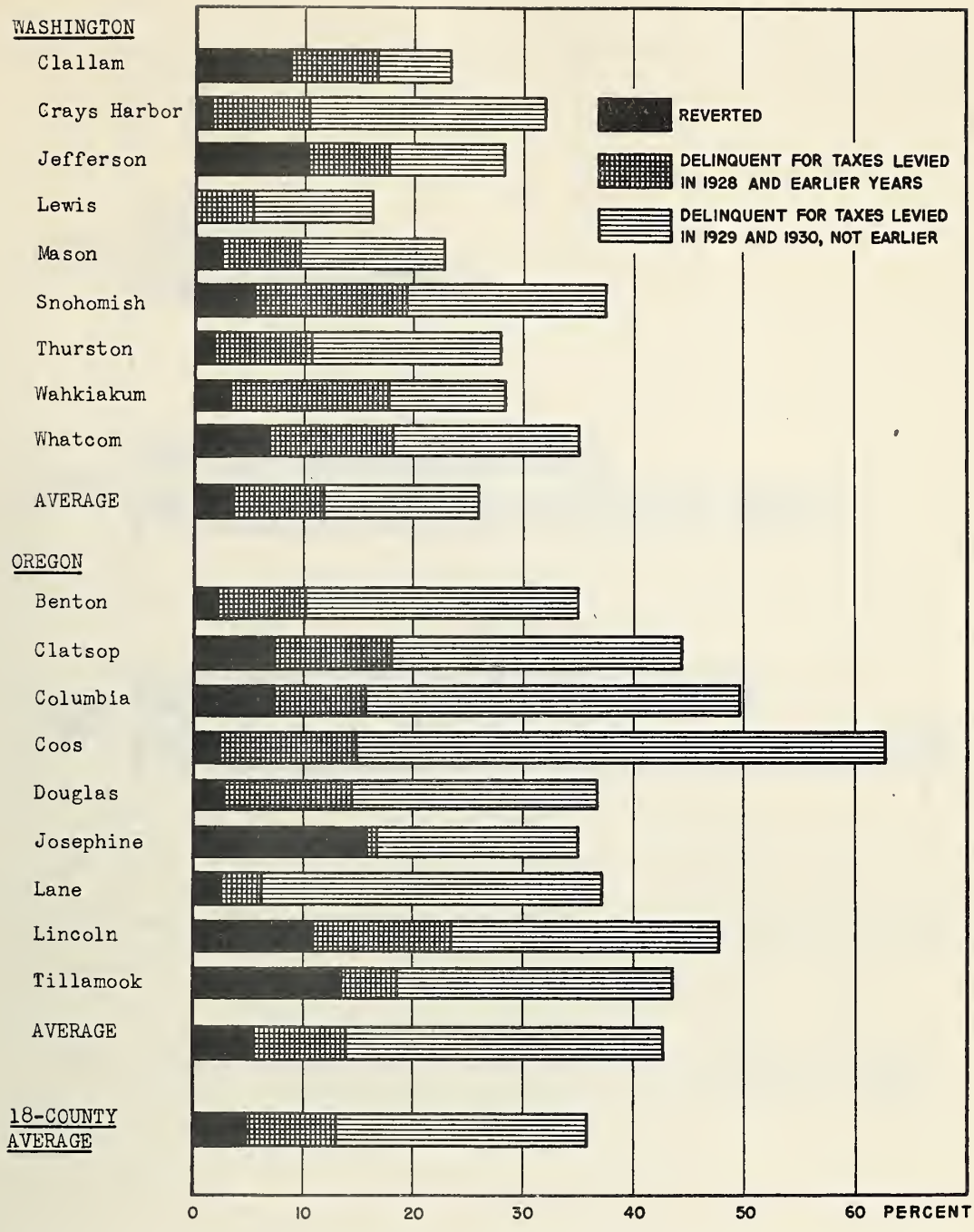

Figure 2.--Proportion of private lands that were tax-reverted or tax-delinquent within areas studied in 18 selected counties of the Douglas-fir region, 1932-33

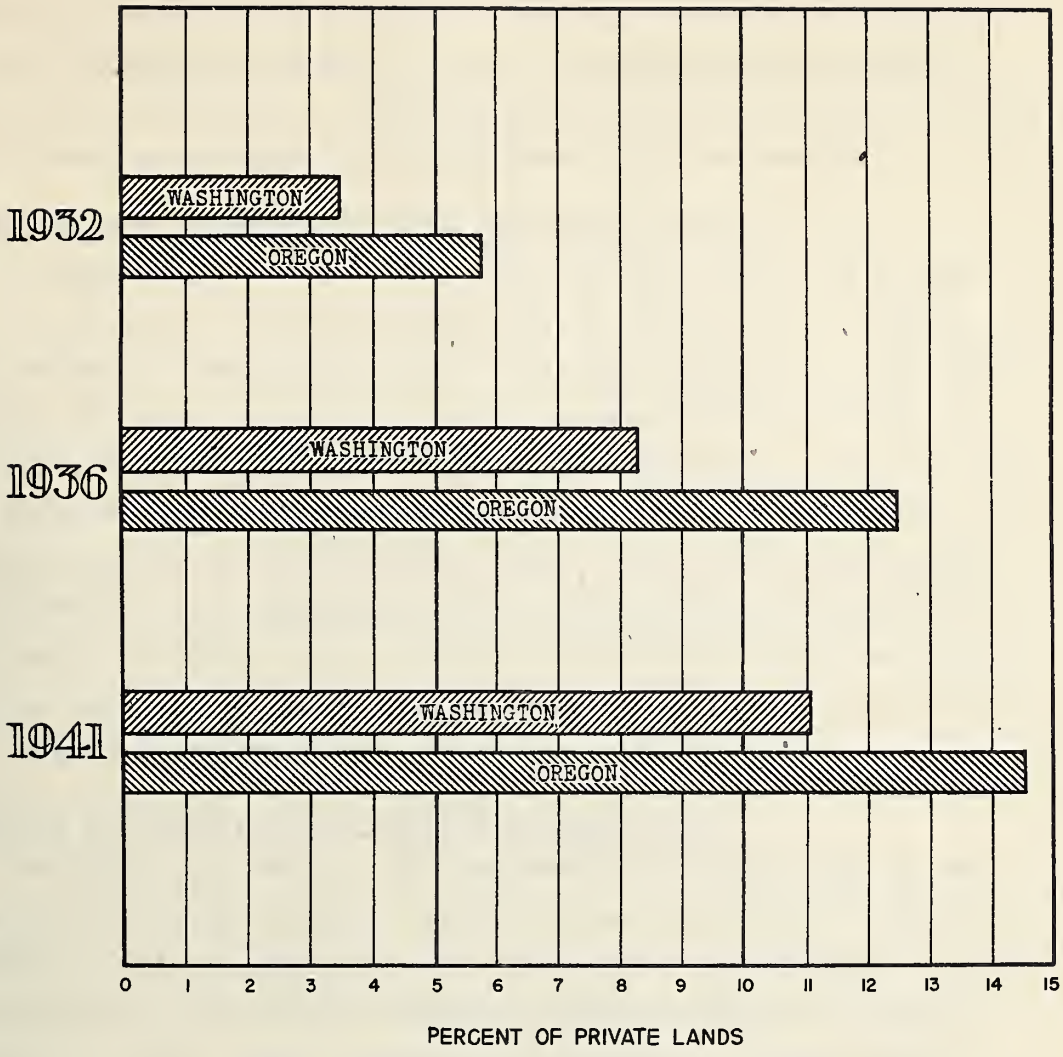

Figure 3.--Trend in proportions of tax-reverted lands within areas studied in the 18 selected counties of the Douglas-fir region, 1932-41.

It is evident that conditions in Oregon were less satisfactory than in Washington. Tax delinquency associated with levies for 1928 and earlier years was equal in both States in 1932, but delinquency for the years 1929 and 1930 was twice as great percentage-wise in Oregon as in Washington. The reversion experience of Oregon was also less favorable than Washington throughout the study period.

Tax Delinquency Measured in Terms of Assessed Values

As expected, tax delinquency, measured in terms of area, was larger than that in terms of value (fig. 4 and table 4). Twenty-three percent of the area in nine Washington counties was delinquent in 1932, but only 10 percent of their tax base was thus impaired. In Oregon, the percentages were 37 and 32 respectively. This 5 percent difference in Oregon warrants special note. The impairment of virtually one-third of the taxable value in the nine counties under consideration could not avoid placing these counties in an embarrassing fiscal position. Too, it would indicate that Oregon was assessing its lower-valued properties at a much higher percentage of their true value than was Washington.

Ownership Dislocations and Commercial Conifer Land

The precarious position of land owners during the 1930's was primarily a problem of forest land and forest conditions. More specifically, it was a problem of commercial conifer forest land. Over 3 million acres of land of this type was either delinquent or had reverted to a public agency because of nonpayment of taxes--954,500 acres in Washington, 2,078,400 acres in Oregon (table 5). In Washington, commercial conifer land comprised 85.4 percent of the total area, 87.4 percent of the reverted and delinquent area, 89.8 percent of the area in long-term[5/] delinquency, and 94.5 percent of the reverted area (fig. 5). The corresponding percentages for Oregon were 77.5, 84.4, 85.8, and 85.2, respectively. Agricultural land, the next largest areal group, comprised but 9.7 percent of the total

5/ Tax delinquent three years and more.

area in Washington, 16.3 percent of the total area in Oregon, and smaller percents of each delinquency class, except short-term[6/] in Washington.

In Washington, 26.9 acres out of every 100 was involved in delinquency--14 in short-term, 9 in long-term, and 3.9 in reversion. Oregon was even less favorably situated. Here, 46.8 acres out of every 100 was in difficulty--30.9 in short-term delinquency, 9.5 in long-term delinquency, and 6.4 in reversion. In Washington, the reversion hazard for commercial forest land was 7.8 times that experienced by agricultural land, and in Oregon 4.9 times.

All commercial conifer forest land, including saw timber, was in difficulty. The situation in the two States was, however, quite different (table 6). In Washington the severity of tax maladjustments was clearly associated with forest conditions. Deforested lands and seedling and sapling stands, representing 42.5 percent of the commercial conifer area, contained 59.7 percent of the delinquent and reverted forest land. Either because of the uncertainty or the long deferment of income from these lands, it seemed inadvisable to incur additional tax costs.

However, in Oregon, land stocked with saw timber fared little better than other forest land. An examination of columns (2) and (4) in table 6 shows that delinquency and reversion struck all lands with almost equal severity, regardless of cover conditions. The extent to which the forests were opened up in the two States explains, in part, the difference found in Oregon. Operations were considerably more advanced in Washington than Oregon. Saw-timber and pole-piling stands represented 57.5 percent of the Washington area under study, but in Oregon the same classes comprised 77.9 percent of the area. Because large blocks of mature Oregon timber were not immediately operable, they were allowed to drift into delinquency and reversion in much the same manner as if the area were deforested. Apparently the possibility of income realization looked little better to the

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6/ Tax delinquent two years and less.

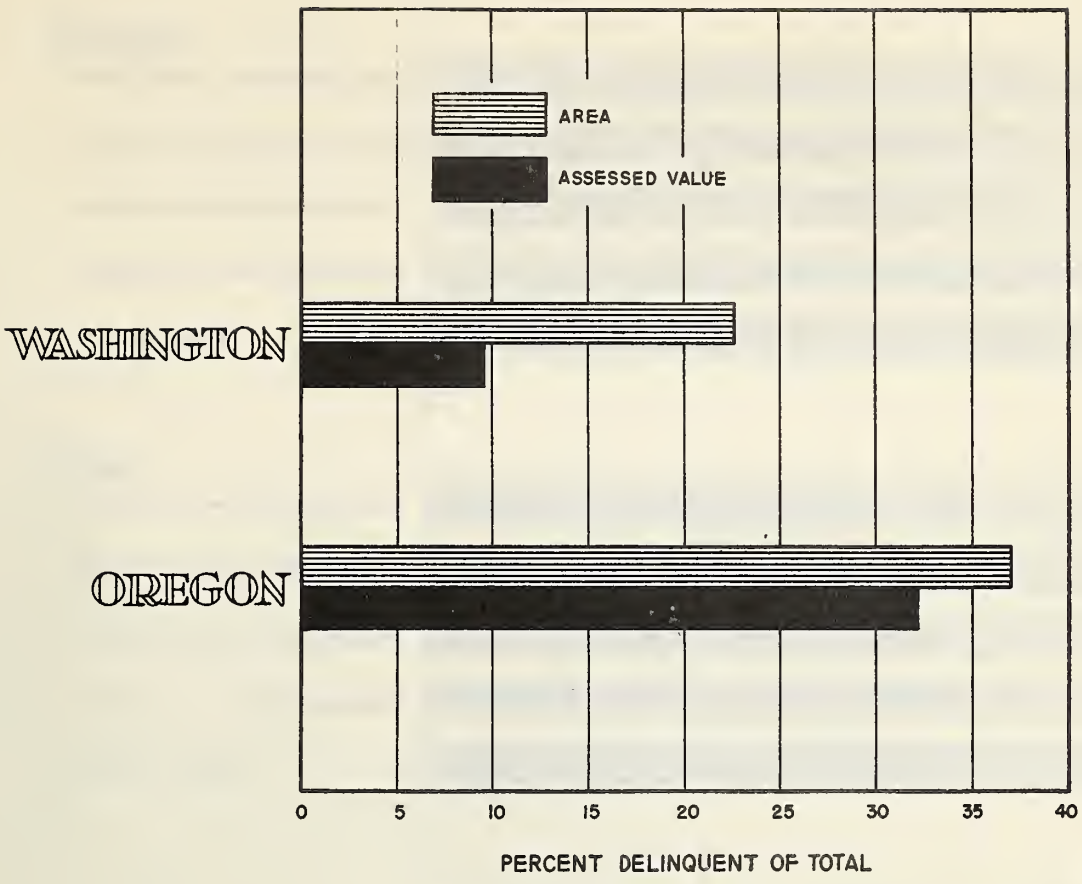


Figure 4.--Relation between area and assessed valuation of tax-delinquent lands in western Washington and western Oregon counties, Douglas-fir region, 1932.

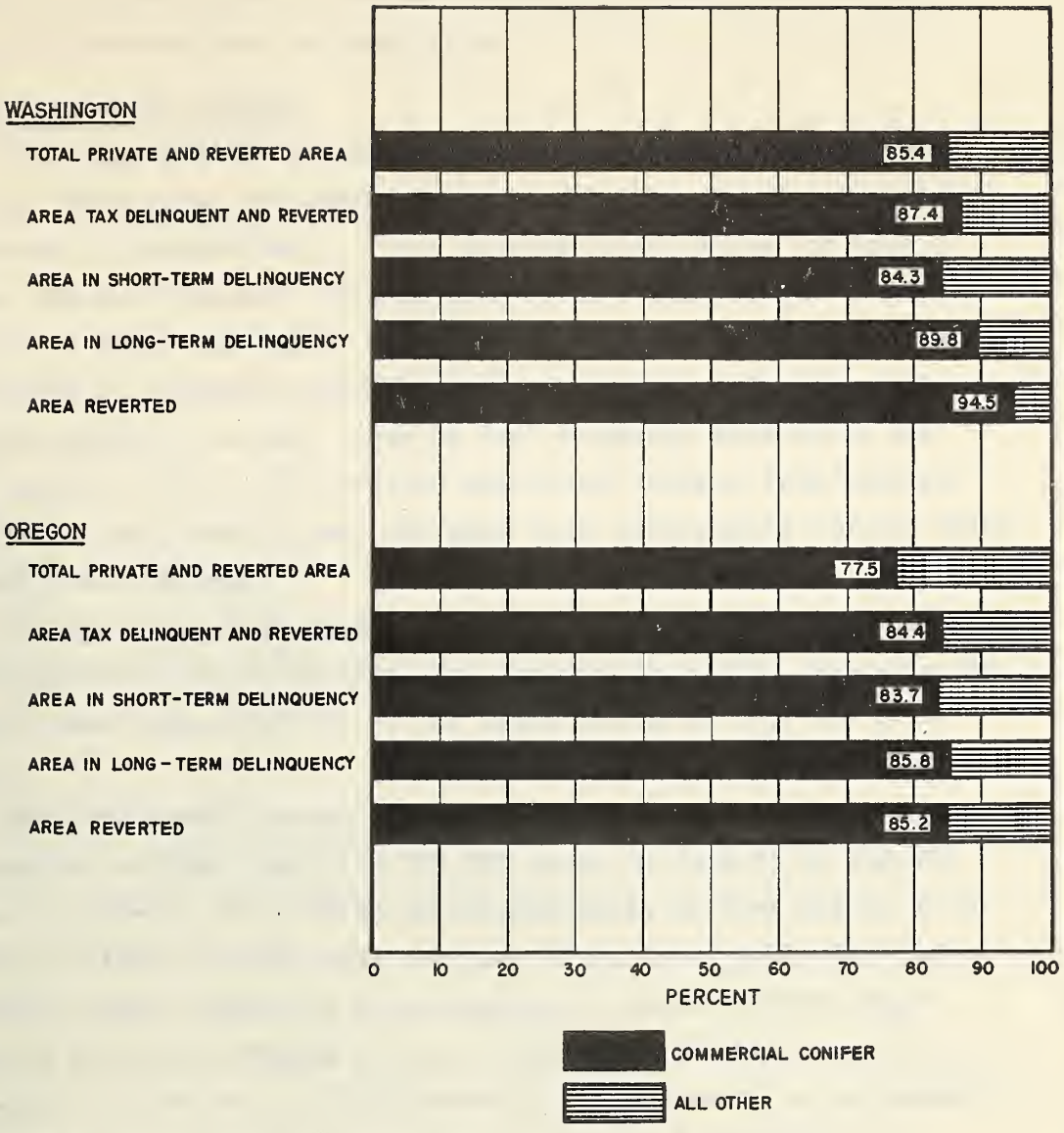


Figure 5.--Percent of commercial conifer forest in area of all private and reverted land, in area of each tax-delinquency class, and in area of reverted lands, in territory studied, Douglas-fir region, 1932-33

holder of mature timber in certain parts of Oregon, than to the owner of cut-over land in Washington.

The Situation in 1935-37

Following 1932-33 property tax delinquency increased in both States. Washington and Oregon both attempted to stem the flood of reversion in numerous ways. They delayed foreclosures for unpaid taxes, reduced interest rates on delinquent taxes, forgave interest charges on some back taxes, and made special provision for paying back taxes in long-term installments. Oregon granted a discount for prepayment of current taxes on real property; Washington had done so since 1925. They secured additional revenue from sources other than the property tax, and many local governments reduced their property tax levies.

Irrespective of inducements offered to tax-delinquent owners, a considerable body of private land reverted to public ownership for unpaid taxes, almost all of it for taxes levied in 1930 and prior years.

Net reversion 7/ within identical areas studied in six western Washington counties rose from 121,200 acres in 1932-33 to 232,200 acres in 1936-37, an increase of 111,000 acres in four years, or an average of about 28,000 acres per year (fig. 6 and table 7). Net reversion within identical areas studied in eight western Oregon counties rose from 283,900 acres in 1932-33 to 662,200 acres in 1935-36, an increase of 378,300 acres in three years, or an average increase of about 126,000 acres per year (fig. 6 and table 8). The commercial conifer land group comprised approximately 95 percent of the total increase in each State.

Reversion of saw-timber land increased 1.7 times in Washington and 2.7 times in Oregon. Of the 141,400-acre increase in Oregon, 84,300 acres was in Douglas County and 22,300 acres was in Lane County. Both counties contained considerable remote, nonoperating timber.

7/ Total reverted to public ownership less amount reconveyed to private owners.

Reversion of pole-piling land increased 1.4 times in Washington and 1.9 times in Oregon. By 1935, owners were cutting heavily into stands on accessible land of this type for railroad ties, piling, and poles, particularly in Washington, following depletion of saw timber.

Reversion of seedling-sapling land increased 1.6 times in Washington. In Oregon every county showed a large percentage increase except Tillamook, which showed a large decrease because of fire in 1933 and the consequent change to deforested classification. As a result, total reversion of seedling-sapling land in Oregon recorded practically no increase.

The most notable increase was in deforested land. Reversion of this land increased 2.8 times in Washington and 3.5 times in Oregon. It comprised nearly one-third of all reverted commercial conifer land.

As in the earlier period, the principal factor controlling reversion was the time when timber crops could be harvested. This was true within and among counties and major divisions of the region. It was true in spruce-hemlock types as well as Douglas-fir, and in good forest-growing sites as well as poor. It was true in all properties except a few relatively large properties containing mostly saw-timber and pole-piling land held by well-financed owners. Even among these holdings, small properties had reverted.

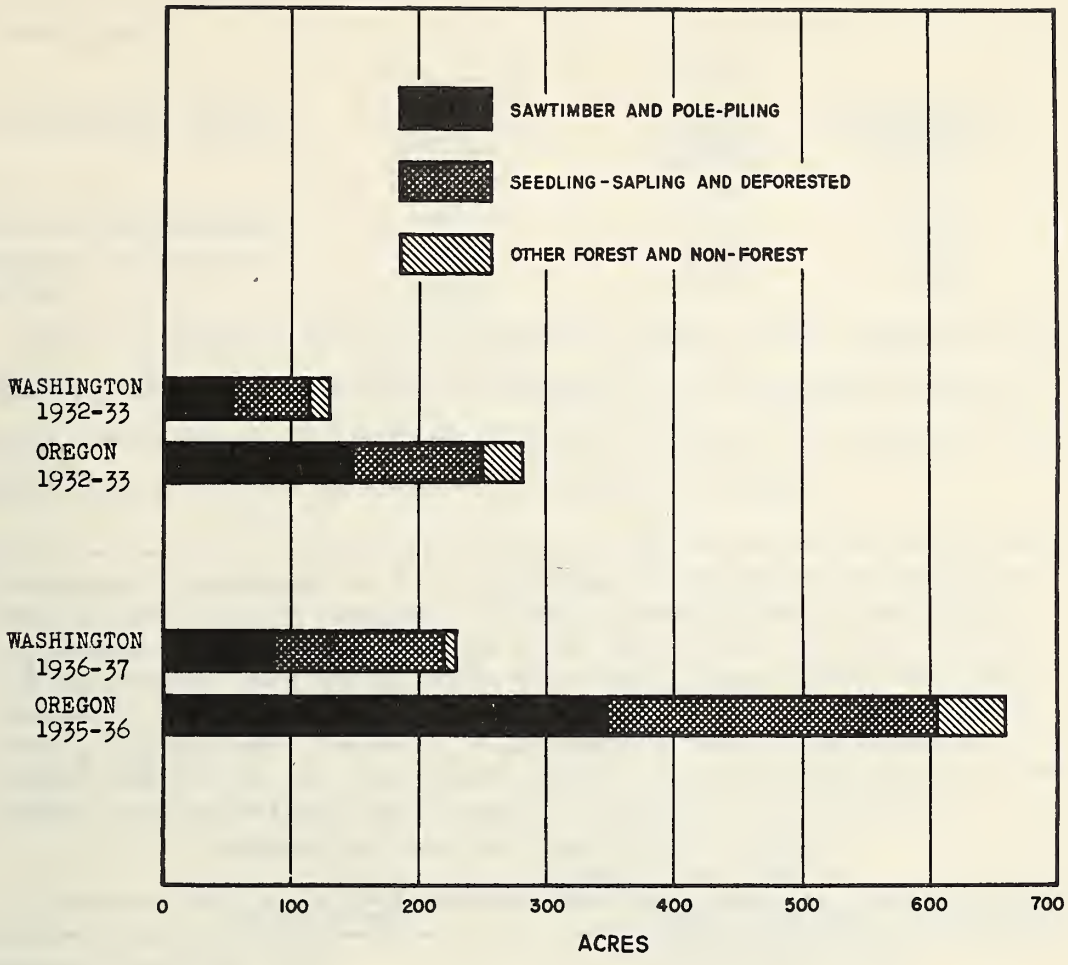


Figure 6.--Total reverted lands in acres by cover type in the 18 selected counties of the Douglas-fir region

Comparison of 1940-41 with the Situation Found in 1932-33

The study comparing 1932-33 with 1940-41[8/] showed that tax reversion and delinquency still centered around commercial forest land in 1940-41 (fig. 7). This conifer land comprised not only most of the total and delinquent land, but also over nine-tenths of the reverted land:

Delinquency status	Commercial forest	Other forest	Non-forest
	Percent	Percent	Percent
Total land	83.7	3.2	13.1
Short-term delinquent	70.6	4.4	25.0
Long-term delinquent	86.2	3.3	10.5
Reverted	95.0	3.0	2.0

Out of 2,385,200 acres of commercial conifer land, 958,900 acres, or 40.2 percent, was involved in reversion and delinquency (tables 9 and 10). An average of 14.4 out of every 100 acres had reverted, and another 19.3 acres was delinquent three years and more.

8/ There was a shrinkage in total acreage, as shown in the table below, of less than 2 percent. It was caused by State, municipal, and Federal acquisition through other means than tax foreclosure, and by private land subdivision into small tracts that were not studied. By county, the shrinkage is: Grays Harbor, 4.0 percent; Lewis, 0.4 percent; Columbia, 0.4 percent; Coos, 2.4 percent. Changes in the forest types were caused mainly by depletion of saw timber, reforestation, and growth of saplings to pole size.

Area of private and tax-reverted land by broad cover class, 1932-33 and 1940-41

Cover class	1932-33	1940-41	Difference
	Thousand acres		
Commercial conifer land			
Saw-timber stands (usually over 20" dbh)	1,009.5	762.8	-246.7
Pole-piling stands (usually 6-20" dbh)	489.8	528.6	+ 38.8
Seedling-sapling stands (usually less than 6" dbh)	274.1	458.1	+184.0
Deforested (cut over and burned)	659.3	635.7	- 23.6
Total	2,432.7	2,385.2	- 47.5
Other forest land (hardwood & noncom'l.)	91.5	90.1	- 1.4
Nonforest land	376.1	371.8	- 4.3
Total all land	2,900.3	2,847.1	- 53.2

Contrary to popular belief and despite improved conditions in the forest industries during the eight years, most of the reverted and long-term delinquent land was forested and less than one-third was deforested. However, seedling-sapling and deforested lands, together, comprised 218,500 of the 342,500 reverted acres.

During the 8-year period, the amount of land reverted and still in public ownership increased four times among saw-timber types, six times among pole-piling, fifteen times among seedling-sapling, and five times among deforested.

The amount of reverted commercial conifer land in each county varied from high to low according to status of depletion in 1940-41. An average of 28.6 out of every 100 acres had reverted in Columbia, 20.5 in Grays Harbor, 11.4 in Coos, and 6.1 in Lewis. In percent reverted acreage was of total of each type: Columbia and Grays Harbor led in deforested and pole-piling types; Columbia and Coos led in seedling-sapling; Grays Harbor and Coos led in saw timber.

The increase in tax-reverted commercial conifer land exceeded the decrease in saw-timber area in every county but Lewis:

County	Decrease in saw-timber area		Increase in tax-reverted commercial conifer land
	Percent	Acres	Acres
Columbia	58.4	27,700	59,400
Grays Harbor	32.5	75,800	131,100
Coos	13.8	35,800	50,100
Lewis	22.9	107,400	50,200
Total	24.4	246,700	290,800

The apparent reversal of form in Lewis County is explained by the fact that it was on the upswing of a depletion cycle, while Coos was at a peak and the other two counties were on a downswing.

The amount of commercial conifer land involved in long-term delinquency more than doubled during the 8-year period. It rose from 216,300 acres to 461,600 acres. The increase in each county and in each type was noticeable. But this situation is modified by the fact that 285,100 acres was held by the owner under provision for payment

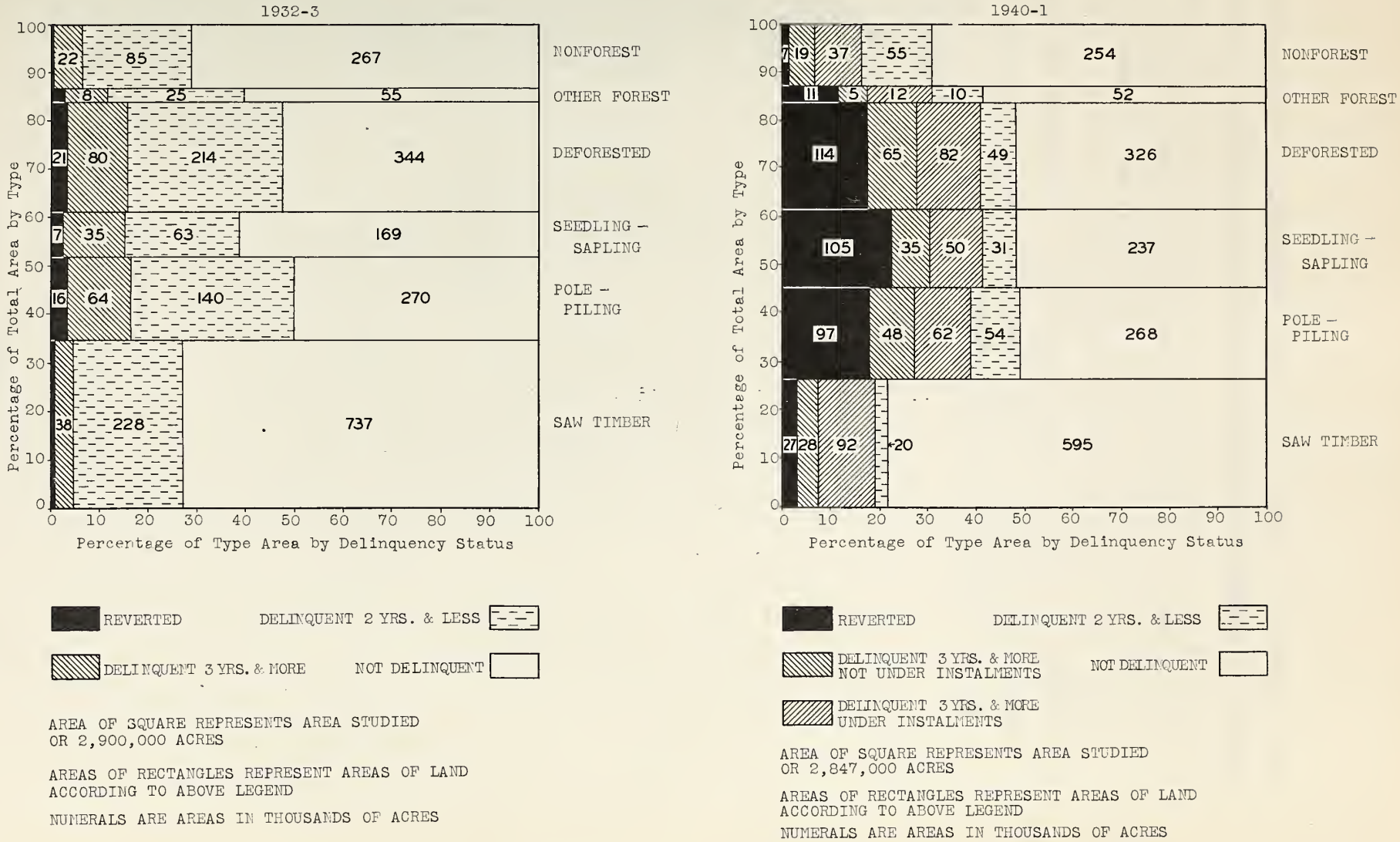


Figure 7.--Tax reverted land and private land tax delinquent and not tax delinquent, by generalized cover type, Grays Harbor & Lewis Counties Washington and Columbia & Coos Counties Oregon, 1932-3 & 1940-1

of back taxes in installments (table 11). About 70 percent of the commercial conifer land involved in long-term delinquency in Grays Harbor and Coos Counties was under such provisions, compared with 40 percent in Lewis and 30 percent in Columbia. Payments were being made on a substantial portion of the acreage thereunder. Over half the area under installment provisions in Coos County supported saw timber. It is significant that about 86 percent of the commercial conifer land under these provisions in Grays Harbor was in types less than saw-timber size, including a large percentage of deforested land.

III. FACTORS BEARING ON THE UNSTABLE OWNERSHIP CONDITION EXISTING DURING THE PERIOD 1932-41

While property taxes were ostensibly responsible for the mass disturbance of forest land ownership during the period under consideration, the whole difficulty cannot be charged to this cause.

In searching for an explanation of impermanence of forest land ownership, many angles might be explored. High on the list is the intent of the owner. From the first day of purchase his philosophy may have been to liquidate the timber and move out. While probably less significant today than a few decades ago, this philosophy created conditions that are now affecting, and will affect for many years to come the problems of unstable land ownership. But even the best of management intentions may be negated. The managers may die. The forest may be destroyed by fire, insects, disease, or wind. Economic forces may impose even greater threats to permanency of forest enterprise. The capital structure may be such as to make the business unstable, and especially vulnerable to slight adversity. Operating capital may be insufficient to execute a prudent management plan. Credit and insurance facilities may not be sufficiently well developed to protect the forest land owner in a period of business or personal adversity, or to spread the physical risks of forest crop production. Under some circumstances taxation may also disturb ownership continuity, especially where saw-timber depletion is under way. As soon as run-down properties begin to appear in a forest area, a set of cumulative forces unfavorable to the remaining productive ownerships is set in motion. The tax burden added to the remaining ownerships further narrows the margin of profitability, wiping out more and more holdings until collapse is complete. Then, too, adverse market trends or shifts in demand for particular types of forest products may be responsible for business reverses. Important as these market factors are they seldom stand alone; their impact is conditioned by the degree to which they are combined with the other disturbing elements. An understanding of the unstable conditions found in the counties investigated in Washington and Oregon requires, therefore, an exploration, not only of taxation and related aspects of public finance, but also an analysis of other forces motivating a relinquishment of property rights.

Ownership Intent

Among the nontax factors affecting ownership stability is the intent of the owner. Imbued with the philosophy of an inexhaustible timber supply, operators frequently have acquired land only for merchantable products already on it--not for forest crops it could produce in the future. Clear-cutting the most accessible timber, moving on to the next most accessible, and then to the next, has been a common practice in the Douglas-fir region. As a result, large areas were deforested and satisfactory natural regeneration excessively delayed. Once this condition develops, the period of rehabilitation is so long and its concomitant costs so great that the present owners and prospective purchasers lose interest in holding or acquiring land.

In Washington, where cutting has been under way for the longer period of time, the effects of this factor are clearly evident. As was shown in table 6, deforested land comprised approximately 27 percent of all commercial conifer land in the counties surveyed and 40 percent of the tax-delinquent and reverted commercial conifer land. Had the owners who acquired these lands for operation approached the task of production with long, rather than short-range objectives, undoubtedly the disturbances reflected in tax delinquency would have been less violent.

Management Practices

Even though the forest land owners may not be definitely committed to exploitation and abandonment, practices are nevertheless pursued that produce results but little less favorable. Failure to observe recognized management practices may lead to abandonment. When large contiguous areas are logged off without provision for conifer restocking, they are likely to be taken over by brush and weedy growth. Failure to dispose of burnable material may result later in loss by fire of both seed and seedlings from which a new crop would ultimately develop. Under these conditions, natural

regeneration becomes a slow filtering-in process. The realization of income becomes so long deferred that the land is rendered unattractive for private ownership.

Another practice common to the region and tending to destroy capital values is that of high grading. Its effects are particularly noticeable in the upper Willamette Valley and the Interior Umpqua Valley. Here high grading has left defective unmarketable trees amounting to as much as 50 to 80 percent of the stand. This process of individual tree selection, disregarding the effects on the forest as a whole, results in inadequate openings for regeneration and re-establishment of a new commercial forest. Once an area has been subjected to this sort of treatment the costs involved in correcting the damage become disproportionate to prospective returns.

Fire

Fire, and the fear of it, have much to do with the instability of forest land ownership. This is illustrated by the reversion experience of pole-piling stands in western Washington and western Oregon. In 1933 the area of pole-piling stands was 2,984,300 acres. Sixty-four percent of this acreage was associated with burned areas.

The fire problem has increased as contiguous areas of logged-off lands have increased in size. Natural firebreaks of large timber have been removed. Chances of fire sweeping the landscape and destroying volunteer young growth have been increased, not only by the loss of these breaks, but also by the inflammable nature of debris, brush, fern, and snags in the logged-off area--exposed to sun, heat, and wind. Then, too, as clear-cutting operations come closer to one another, slash accumulations often extend over long stretches of territory. As a result, slash fires are difficult to control and often become unmanageable.

The man-caused fire record shows that the growth of settlements in forest zones increases the fire risk. A large part of the difficulty is traceable to general public irresponsibility with fire.

Significance of forest regrowth to the economy of the area is not understood. As a result, large areas of clear-cut lands have been burned and reburned, young growth destroyed, and the soils made less productive. Such areas become a liability to any owner--private or public.

Size of Forest Properties

In western Washington and western Oregon, reversion of forest lands to public ownership was proportionately higher among properties under 5,000 acres each in size than among larger ones. The tendency to revert increased as the size of the property decreased. This was true where logging of saw timber was advanced as well as where it was not advanced.

Private ownerships under 5,000 acres each comprised a large proportion of the total number and acreage of private forest-land holdings. For example, ownerships under 5,000 acres each comprised more than 95 percent of the total number and from 25 to 60 percent of the total acreage of private land holdings within selected forest zones of Clallam and Snohomish Counties in Washington, and of Columbia and Douglas Counties in Oregon (table 12). Saw-timber depletion was far advanced in Snohomish and Columbia Counties, much less advanced in Clallam, and just beginning in Douglas. Many ownerships were less than 5,000 acres each: 368 in Snohomish, 544 in Columbia, 411 in Clallam, and 2,036 in Douglas; the majority of these were less than 320 acres each.

Throughout the region small holdings occurred in clusters and in isolated tracts. They were scattered among large private holdings and among public lands. During the 1930's they reverted in clusters and isolated tracts after the manner of their distribution; relatively few were added to large private holdings. The tendency was for small ownerships to decrease in number and total area. County records showed that the decrease was due primarily to reversion to public ownership.

Direct causes for reversion of small forest properties during the period 1932-41 were an accumulated tax bill in excess of the land value, weak financial position of their owners, curtailment and stoppage of an income flow from these properties, and lack of a market for them. Factors contributing to reversion of small properties were: Properties too small for economic independent management on a long-term basis, no unified policy and program of management among their owners, lack of experience in cooperative management, relative inaccessibility of isolated holdings, and lack of credit facilities for long-term operation.

Development of Timber Cutting and Forest Products Manufacture and its Bearing on Ownership Stability

During the study period, forest industries in Oregon were less developed than in Washington. This undoubtedly accounts in part for the more serious ownership dislocations experienced in Oregon, where both delinquency and reversion were approximately 50 percent greater than in Washington (table 2).

The relative underdevelopment of Oregon is evidenced by Statewide data on timber volume and forest products manufacturing capacity. In 1933 Oregon timber volume exceeded that of Washington by 55,698 million board feet.[9/] However, sawmill capacity was 50 percent greater in Washington than Oregon.[10/] In Washington, sawmill capacity was broadly distributed and relatively close to saw-timber supplies. In Oregon, sawmill capacity was concentrated largely in the northwest and at coast ports. Pulp mill capacity in Washington was three times greater than in Oregon as late as 1937.[11/]

9/ Andrews, H.J., and Cowlin, R.W. Forest Resources of the Douglas-fir Region. U.S. Dept. Agric. Pub. 389, Table 6, pp. 30, 31. 1940.

10/ Ibid. Table 31, p. 88.

11/ Ibid. Table 33, p. 93.

The Umpqua and Rogue River units of southern Oregon typify the situation especially well. Although this part of the State has extensive forests, it was the least developed industrially. In 1934, this area had no pulp mill, no veneer or plywood mill, and only about 4 percent of the region's installed sawmill capacity. In the period 1925-33, its cut of logs was only 1 percent of that of the region as a whole. Comparatively little industrial expansion occurred until after 1940.

Taxation and Public Finances

While considerable emphasis has been placed on the point that the instability of ownership found in western Washington and western Oregon counties was due to a complex of factors other than taxation, it was not intended to imply that taxation was without effect. On the contrary, the administrative practices commonly associated with the property tax may have made it an important factor affecting owners' decisions to abandon temporarily or permanently their titles to forest lands. Some properties may have been overassessed; the tax load may have become disproportionally high. State and local fiscal relationships may have been ill-suited to the times; or through lax tax administration, properties may have been permitted to drift into a hopeless state of tax arrears.

Overassessment. Overassessment is a principal direct cause of reversion and long-term tax delinquency. Since assessment is the base upon which the property tax rests, substantial defects in that base affect the superstructure.

In the majority of counties in the Douglas-fir region, timber assessment is founded on the board-foot volume of a tree. An estimate is made of the volume of each commercial species of saw-timber size, usually by 40-acre tracts. Then a flat valuation per thousand board feet, log measure, is made for each species, based usually on sales for immediate conversion and applied to a whole county or to a zone inside the county. This is done without regard to variations in

quality of each tree and species, accessibility of the timber within each property, and the residual value of cut-over land. In this manner, 1,000 board feet may be assessed at $1 when that volume is worth but a few cents in one tree and $4 in another. The total assessed valuation of the 40 acres, arrived at by simple multiplication, is in reality an unsynthesized and perfunctory summation of estimates of segments of trees, the several segments being treated as of identical value.

Flat-rate assessment is similar. It usually appears in this region as a minimum rate per subject of taxation or per segment of subject. Thus we may find a minimum rate of $2.50 or more per acre of deforested land, or $1 per M board feet of Douglas-fir regardless of their true values. Flat-rate assessment is the outgrowth of several processes, two of which are particularly significant. The one is a natural search for a standard unit of measure that is mechanically easy to apply to a large inventory of physically similar items. A thousand board feet, log measure, is a convenient unit but, again, takes no account of variations in trees. The other process arises from a desire to have taxes on small, low-priced properties high enough at least to pay expenses of assessment and collection. A per-acre value arrived at for these small properties is used, becomes established, and is applied to low-priced properties in large blocks.

Discriminatory assessments are common. They appear as differential assessments by classes or subclasses of property and as vertical advances or reductions in assessments of a single property class or of all classes.

Unchanging assessment is also common. For example, an assessed value of $1 per M board feet may have been established in 1925 and persisted year by year, although actual values may have ranged from 75 cents to $2.50.

Failure to correct assessments after timber is cut is a frequent cause of overassessment. It applies most frequently to small logged-off holdings no longer attractive to the owner. The owner neglects to report, and the assessor neglects to deduct the cut. Taxes on such

land are too high for the owner, the land goes delinquent, and eventually reverts to public ownership.

Excessive tax load. However vigilant a community may be in keeping public expenditures down, the raising of necessary revenues may become burdensome. Not only do outlays for public functions tend to grow, but once they are established they tend to become fixed charges. Governmental units containing forest areas that have been heavily cut are almost always hardpressed to meet the standards established when the forests were being logged. During lush times schools have been established, roads opened, and debts incurred, any one of which stoutly resists or may not be subject to curtailment when forest income declines.

Another factor frequently aggravating the severity of property taxes is the special assessment district. Annual charges for fire patrol are commonly handled in the Douglas-fir region by this method. They are applied as a per-acre share in protection costs and have no correlation with values of property subjected to them. On deforested lands and lands supporting stands of less than saw-timber size, these charges frequently amount to as much as property taxes. They encourage delinquency and reversion most when the supporting saw-timber area comprises a small portion of a total forest property, and when cut-over land is detached in ownership from supporting saw timber.

Special assessments for diking, drainage, and irrigation districts directly affect farm woodlands within the boundaries of these districts. But no such districts are known to extend into the forest proper. They indirectly affect forest lands when burdens of special assessments have driven high-valued properties within the district into delinquency; loss of property-tax revenues from these properties may result in a higher tax rate on forest properties.

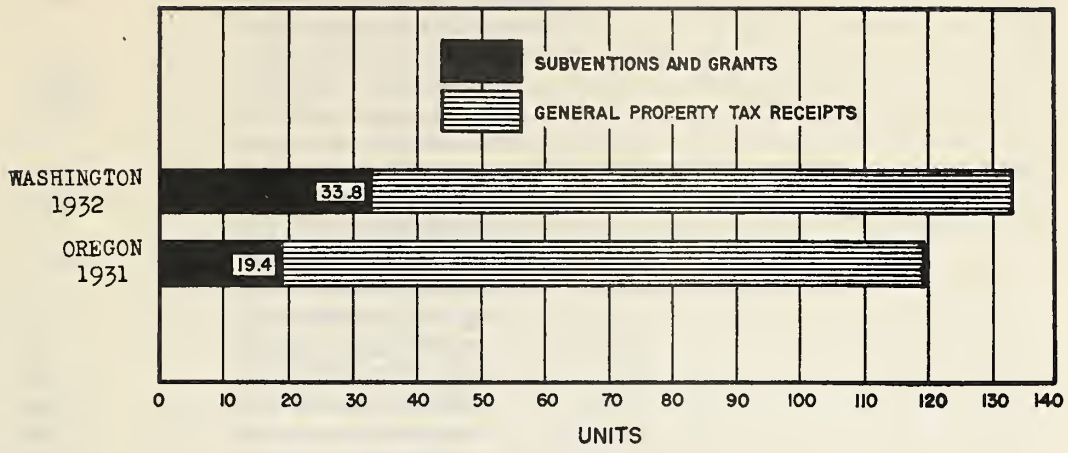
State and local relations. Delinquency was much more severe in the nine Oregon counties selected for study than in the like number in Washington (table 2). One reason for this difference was the rather well-developed system of grants in Washington; the grants

probably mitigated the shock of depression on local governments. This State in 1932 supplied the nine counties with subventions and grants equaling 33.8 percent of the amount levied on property (fig. 8 and table 13). Oregon, on the other hand, gave only 19.4 percent in a like manner (fig. 8 and table 14). This divergence of practice is widened even more when attention is called to the fact that the nine Oregon counties have a higher percentage of rural population than the nine Washington counties. (A well-developed system of grants usually makes relatively larger grants to the less urbanized areas.)

As late as 1941 Washington, where the impact of tax delinquency was much lighter than in Oregon, stood among the five top States in the nation in supplementing local revenue requirements from State sources (fig. 9). On the other hand Oregon provided less revenue for this purpose than any other State. It seems inescapable that this difference in fiscal practice must bear some share of the responsibility for the difference in conditions found in the two States during the depression years.

Again, it is not assumed that local fiscal crises can be entirely avoided even if the best of fiscal arrangements were in vogue. But it does seem reasonable that the usual hardships of lean years can be mitigated. If, for example, a taxing district has lost a considerable portion of its tax base through timber harvesting, it may accordingly be entitled to a relatively larger share of equalization funds for schools, highways, or other services. Certainly, more flexibility exists when a portion of local receipts is derived from State-collected, locally shared revenues than when all revenues are raised by levies on local property.

Faulty collection laws and practices. Faulty collection laws and practices also contribute to tax delinquency. Contributing faults were found in each step in the collection process during early years of the study period. Among the faults were: Elapse of too much time between assessment day and tax-collection day; inefficient methods of tax collection, including failure to prebill taxes; remission of interest and



Subventions and grants compared to general property tax receipts for county governments, school districts, and road districts in the 18 selected counties of the Douglas-fir region.

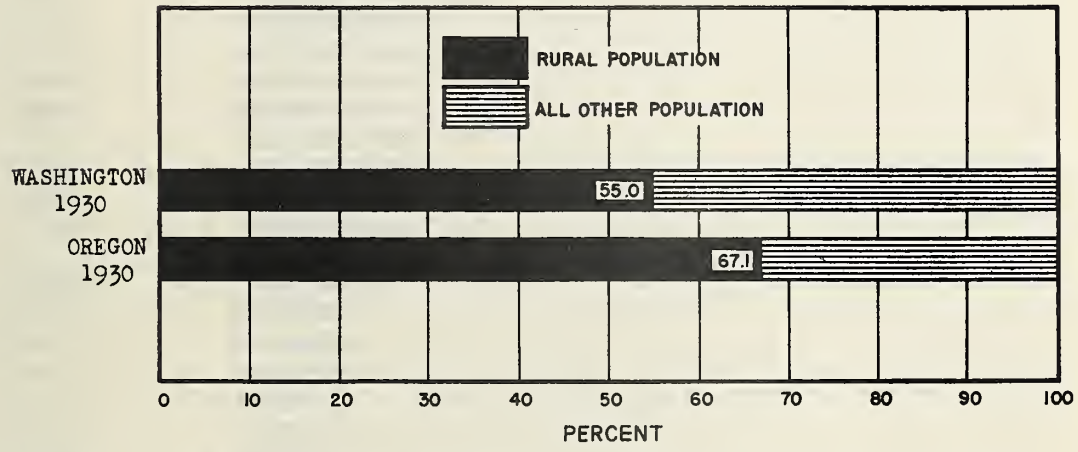
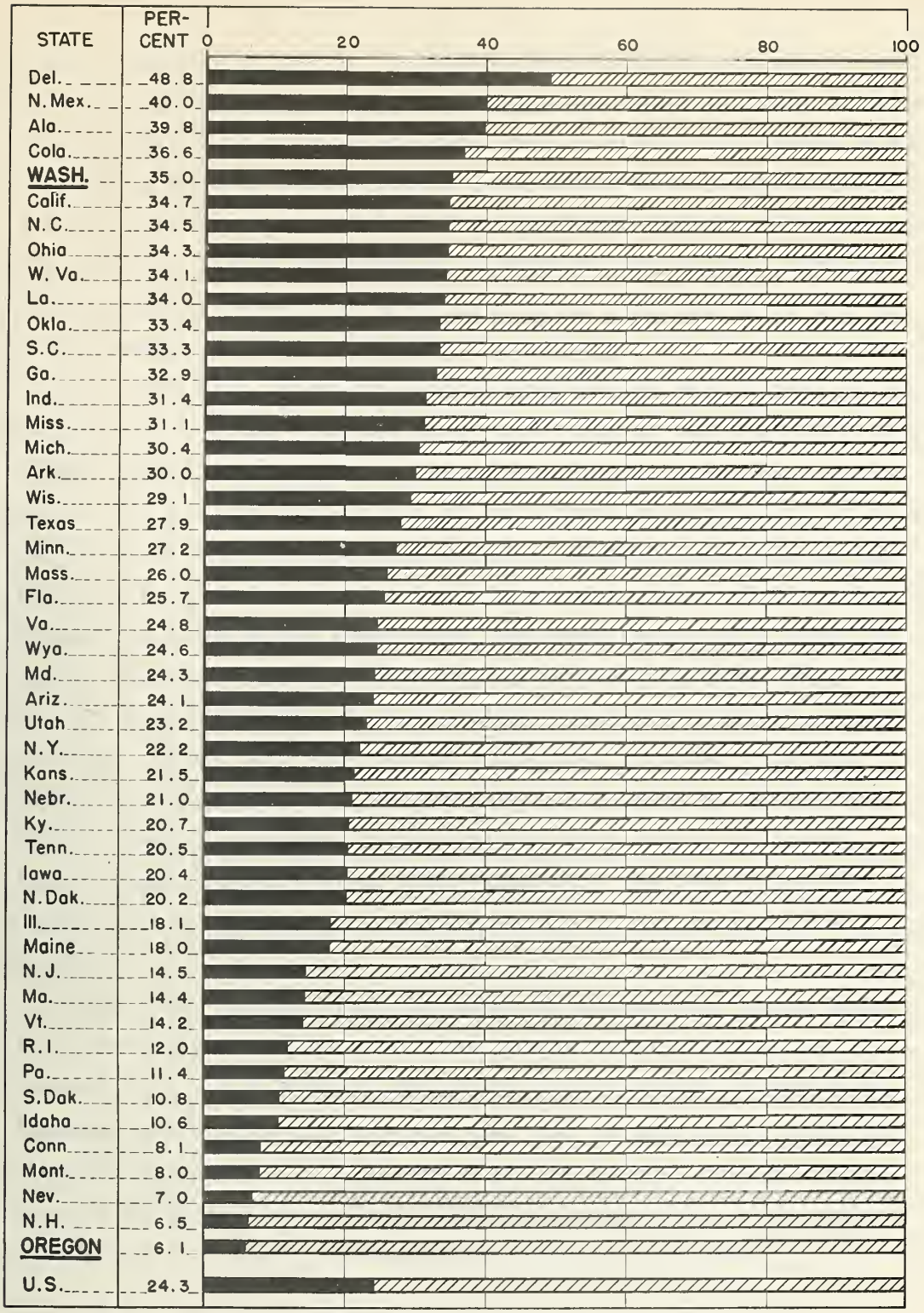


Figure 8.--Rural population compared to total population in the 18 selected counties of the Douglas-fir region



Source: U.S. Census Bureau. Federal and State aid: 1941, table 8. April, 1942

Figure 9.--Percent of local revenue derived from State aid: 1941

penalty on delinquent taxes; inadequate protection of delinquent land from fire and from being stripped of removable items by owner or trespasser; inability of counties to take deed directly from owners whose intent was to abandon nondelinquent land; failure to bring delinquency to a close promptly upon expiration of the legal period; expensive and faulty tax foreclosure proceedings; inadequate tax titles; extended and indeterminate redemption privileges after foreclosure of the tax lien; and unwise sale of the reverted property.

One of the most important contributing faults was failure to bring delinquency to a close promptly upon expiration of the statutory period. In 1933, most of the Oregon counties did not hold foreclosure sales annually, and did not include all of the forfeitable property at these sales. Some of the counties held sales no oftener than once in two years; others had held no sales for six or more years. Still other counties held sales about every year, but were acting only after property was delinquent for three years, as provided by law. This encouraged procrastination in tax paying, permitted a large accumulation of back taxes, and complicated subsequent disposal problems. The Washington counties held foreclosure sales annually on all forfeitable property--property delinquent for five years; prolonged delinquency was discouraged by compliance with the law. (Oregon counties now hold foreclosure sales annually on all forfeitable property.)

Oregon's tax titles generally were not acceptable, while Washington's titles were acceptable. The Oregon difficulty may be attributed to irregularities, omissions, and erroneous computations of the amount of taxes and interest due, and to ambiguity, conflict, and interpretation of law. But whatever the reason, Oregon titles were not acceptable, prompt foreclosure was discouraged, delinquency encouraged, and problems of subsequent disposal increased.

IV. DEVELOPMENTS SINCE 1941 AND THEIR PROBABLE EFFECTS ON THE STABILITY OF FOREST LAND OWNERSHIP IN THE FUTURE

Time enough has elapsed since the period of marked ownership instability that one can take stock of the public and private efforts to lessen the severity of ownership dislocations should another period of economic stress develop. Either consciously, or unconsciously, some lessons must have been learned. The extent of progress toward greater stability, or lack of it, will be considered here.

Ownership Intent

There has undoubtedly been a marked improvement in the avowed policy of forest land owners to manage their properties so as to keep them continuously productive. It is difficult to say how deep-seated this determination is. Under favorable market conditions such as the war period has produced the swing in this direction could be nothing more than a mushroom development. But in the light of dwindling supplies of saw timber and a normal demand for forest products, such policy should endure.

The most obvious expression of the long-range approach to forestry is found in the tree-farm movement. Application for certification as a tree farm and subsequent certification amounts to a declaration of an owner's present intent and current policy to manage a designated forest property for continuous forest production. Retention of certification signifies continuation of that policy plus performance acceptable to the certifiers.

The movement started in the Douglas-fir region in 1941. A total of 72 properties comprising 2,196,830 acres had been, and remained, certified as tree farms at the end of November 1946--49 properties comprising 1,624,354 acres in western Washington; 23 properties comprising 572,476 acres in western Oregon. This certified acreage is the equivalent of approximately one out of every 6 acres of private forest land in the Douglas-fir region. Of the tree farms, two companies owned or controlled 14 properties containing 66 percent of the total acreage, another

18 companies owned 28 percent, and 40 persons and corporations owned the remaining 6 percent. Most of the area certified is of high site quality-- only a small area of low site quality has been included. The two companies owning 66 percent committed to the movement not only cut-over land and young growth but also old growth. Some of the other owners saw fit to commit no more than cut-over and young-growth forests. In all probability the policies of the two companies were already committed to long-range forest management; yet assuredly their action stimulated others to participate in the tree-farm movement and to take a longer look at forest management.

Several large holdings have not been certified as tree farms for one or more of several reasons, such as: Owner is managing his property in a way that would qualify him for certification, but does not choose to apply for certification; owner is managing his property acceptably for certification, but is not ready to apply for certification because he is enlarging his property or has not arrived at a clear-cut management policy for long-term operation of it; ownership is going through reorganization; present ownership is not interested in long-term forest management.

Owners of several small holdings have applied for certification and await inspection. Most applications of small holdings have come from counties in which the Soil Conservation Service operated and the Extension Service has employed farm foresters. Owners of these small properties are residents of the place or live nearby and may be engaged in logging, farming, or some other industry.

The owner who shows least interest in tree farms or forest management is the nonresident whose forest holding is incidental to or remote from his regular business. His concern about the property is limited largely to what he can get out of it now or in the very near future. He represents a substantial proportion of the total private acreage. His tenure is uncertain--his holding unstable.

Numerous trained foresters are employed on west coast tree farms and the services of foresters have been employed by others to assist them in developing forest-management plans, indicating a growing interest in continuous production of forest products.

The strong points of the tree-farm movement appear to be: Declaration of owner's intent to hold and manage a forest property for continuous forest production; designation of specific areas to be held and managed; and enhancement of possibilities for cooperative management of small properties. Enough acreage under several small ownerships can be brought together to pay for a fire warden and a lookout and for some road construction, planting, maintenance, and other improvement. The weak points of the movement appear to be: There are still too few participants; it is dependent upon the current financial strength and state of mind of the owner; and it is pointed toward the highest site-quality properties.

Management Practices

The tree farm movement embraces largely immature stands; the actual practices followed in harvesting merchantable stands represent a mixture of favorable and unfavorable elements.

It is generally recognized that the war demanded accelerated depletion. Clear-cutting and high-grading of broad contiguous areas were common. Operators also cut large volumes of rapidly growing second growth. These practices are definitely on the debit side of the ledger for they favor wholesale abandonment of land during a future depression period.

Nevertheless, many operators have improved their cutting practices so as to leave cut-over lands in relatively better condition for reproduction than they did before 1931. In the course of logging, they have left seed trees for natural regeneration and have reduced snags and other fire hazards. Some operators have built and maintained roads in their cut-over and second-growth areas, and have acquired equipment and hired personnel to protect the growth on these lands from fire.

A few operators have planted trees on part of their holdings. A few have employed trained foresters to manage their forests and to assist in coordinating logging and management plans. This progress has not been sudden--it has been evolutionary rather than revolutionary. It is attributed to the owner's gradual reception of the idea of forest management, his increased experience in managing logged lands, public demand for better forest management, and public passage and enforcement of laws and regulations governing the manner in which an owner shall manage his forest land.

An example of a public law governing private forest land management is the Oregon Forest Conservation Act (L. 1943, ch. 142; L. 1941, ch. 237). Undoubtedly, a stimulus to retention of logged-off lands and improved forest management has been the insistence by Federal agencies that private owners hold and manage their own forest lands as a condition precedent to obtaining Federal timber under cooperative sustained-yield provisions. This does not mean that present performance insures a proper distribution of age or size classes, or even adequate growing stock. It does mean that the lands so managed are more attractive to private ownership than they otherwise would have been. And in case they are abandoned and revert to public ownership, the public costs of management are relatively less than they otherwise would have been.

The Douglas-fir region depends upon natural reseeding for the majority of its reforestation. The industry realizes that artificial planting must be employed to reforest satisfactorily some areas. Interest in artificial planting and actual planting created a demand for seedlings. This demand led to the establishment of the Forest Industries Tree Nursery at Nisqually, Washington. It is owned and operated by the West Coast Lumbermen's Association for the benefit of cooperating members to whom seedlings are available at cost.

Artificial planting lagged during the war years 1941 to 1945, mainly for want of planting labor. After the war, labor became available and planting increased. Approximately five million

seedlings were sold by the Nisqually nursery to cooperating members for planting during the 1946-47 planting season. More could have been sold to members had they been raised. Increased planting demonstrates better forest management and longer-ranged plans by the participants. The owning and operating of a large tree nursery by a strong association of sawmill and timber operators shows broad interest in forest perpetuation.

Fire

The trend of developments in fire protection augurs well for the future. Measures that were nonexistent a few years ago are now available to aid both in organizing for and in fighting fires. Techniques have been improved, more and better access roads have been built, fire detection and fighting have been improved, and public controls over burning and related practices have been strengthened. Important, too, is the redoubling of efforts to educate people generally as to their responsibility for keeping the forests green. Also, both State and Federal governments are providing additional funds for fire-control purposes.

On the other hand, there are some negative factors. Fire hazards have been aggravated by broadening the areas of contiguous cut-over lands. Risks of man-caused fires have been increased by opening of new roads. In some areas unusual fire hazards have developed from slash accumulations, which could not be disposed of either because of unfavorable weather or lack of manpower to control the burning operation. But, in the aggregate, these negative factors do not seem to offset the favorable ones.

Distribution of Forest Holdings

Forest properties abandoned during the years following 1932 are gradually being fitted into the various ownership categories. Some will continue in public ownership; others are being acquired to round out privately owned holdings. Lands definitely submarginal for private use gradually are being weeded out while some of those with promise are being acquired by operators who plan to use them in conjunction with their long-range management plans. In general these readjustments

represent a strengthening of the forest ownership structure.

Other signs of a strengthening structure are evident. Relatively strong organizations, largely corporate in form, have taken over the holdings of operators practically cut out which otherwise might have been abandoned for taxes. They have acquired large and small tracts of saw timber, poles, piling, seedlings, and saplings, as well as tracts of recently cut-over lands. One or two corporations, by their purchases, systematically endeavored to improve the distribution of tree-size classes within their holdings, thus pointing toward long operation more definitely than heretofore. Factors influencing acquisition have been: Advantageous location with respect to other properties; satisfactory restocking to commercial trees; and a rate of forest growth sufficient to classify the site as a good number III or better. A possible influencing factor has been the purchaser's hope that by owning and managing forest lands he might have a better opportunity to obtain publicly owned timber.

But a large acreage of private forest lands remains in weak ownerships. In the main these holdings are not connected with farms or well-managed forests and are too small for practical independent management for continuous production. Some are timbered, others are in young second growth or are recently cut over. The stocking to commercial trees is satisfactory in some cases and unsatisfactory in others. Site qualities run from good to poor. Unless absorbed by public or strong private ownerships some of these holdings are apt to deteriorate and revert to public ownership in a depression.

Development of Timber Cutting and Forest Products Manufacture in Oregon

Although the relatively undeveloped state of forest industries in western Oregon contributed to delinquency and reversion in the 1932-41 period, timber cutting and forest products manufacture in Oregon expanded between 1934 and 1944--rapidly after 1940 (table 15). Between 1934 and 1944, installed capacity of active sawmills increased 46 percent, sawlog production increased 179 percent, and lumber production increased 175 percent. In 1944, Oregon sawmill capacity was

22 percent greater than Washington's, Oregon sawlog production was 39 percent greater, and Oregon lumber production was 24 percent greater. Oregon sawmill capacity also became more broadly distributed and nearer to saw-timber supplies in the period 1941-45 than previously. The capacity of veneer and plywood plants increased while that of pulp mills showed relatively little change. Considerable volumes of logs moved from Oregon forests to Washington mills because of ownership interrelations, a margin of profit permitting long transportation charges and difficulties of moving old and constructing new plants near to the source of logs.

The Umpqua and Rogue River units of southern Oregon also developed industrially between 1934 and 1945, especially after 1940 (table 15). The rate of development exceeded that in the remainder of western Oregon. Between 1934 and 1944 installed capacity of active sawmills increased 210 percent, sawlog production increased 778 percent, and lumber production increased 696 percent. In 1944, this area still had no pulp mill, but it had a plywood and a veneer plant and about 11 percent of the installed capacity of the region's active sawmills. In 1944, its cut of logs and lumber was nearly 9 percent of that of the region as a whole.

Forest Credit

The "net profit" years following 1940 have placed timberland owners in a generally favorable financial position. Tax arrears have been cleaned up, indebtedness has been placed on a manageable basis, and comfortable cash reserves have accumulated. Commercial loans are also available on reasonably favorable terms for operating purposes.

The favorable forest financial situation now existing should not be permitted to bias an appraisal of the extent to which credit arrangements may or may not be responsible for future ownership stability. It does not take many years of losses to wipe out a backlog of savings and make amortization requirements impossible.

There appears to be little over-all basic improvement in forest credit to allow for either the "long run" or the "lean years."

Interest rates have softened, but loans tend to be drawn for short periods of time and with rigid amortization schedules. In 1945, the Coos Bay Lumber Company arranged for a $2,000,000 bank loan with interest at 3 percent per annum on the unpaid portion of the loan. Repayment is to be made in 8 years, beginning in 1946. The Oregon American Lumber Company purchased a tract of lumber from the Ruth Realty Company in 1945 for $1,426,540. By December 31, 1945, $408,309 had been repaid. The balance of $1,018,231 was payable in 10 years at 4 percent interest. In 1945, the Pickering Lumber Corporation issued $1,800,000 of first mortgage bonds bearing 3 percent interest and due in 1952.[12/]

As the emphasis shifts from liquidation to continuous forest production the terms on which credit is available must be modified to meet the new set of requirements. If continuous forest production is to be encouraged, the credit system must serve as a safeguard to the industry in the event a serious depression occurs. Existing lending agencies do not provide dependable sources of credit under adverse business conditions. In their efforts to make their assets more liquid they force operators to abandon long-range forestry programs that may have been initiated.

It is also doubtful whether operators of small and medium-sized forest properties are able to borrow on terms as favorable as the cases cited above would indicate. Forest land owners in this category are barred from direct access to the money market. Commercial banks are seldom willing to serve them beyond their needs for equipment and inventory loans.

Fire Insurance

Fire insurance provides a means of shifting financial losses caused by fire from the individual to the group. The availability or lack of an insurance system has an important bearing on whether

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12/ Moody's Industrials, 1946.

forest land owners decide to manage their lands with long-range objectives, or to pursue exploitive practices. The extent to which progress is made in providing fire insurance is indicative of the attitude of insurance companies and forest owners toward control of fire occurrence and severity.

Forest fire insurance was not available to woodland owners in 1932, nor has any visible progress as yet been made in providing for it. In 1945, the D. K. MacDonald Company offered a blanket forest fire insurance policy to west coast timbermen. Protection was to be supplied on condition that owners of 2,000,000 acres or more of forest land would list their acreage at an initial premium of one and one-half cents per acre. Losses were to be reimbursed to the extent of $10 per acre for any acre burned in excess of 50. The plan was not placed in operation because owners did not list sufficient acreage to meet the conditions of the offer.

Improvements in Utilization of Forest Products

The great demand for lumber, plywood, pulp, and wood fuel from 1941 on led some operators to improve their forest utilization practices. It led them to cut and bring in logs to a smaller top diameter, to prelog areas in order to harvest trees that might otherwise be destroyed in the major logging operations, and to relog areas after major logging operations, bringing out of the woods standing and down material that ordinarily would be left. This meant increased gross income from the forest and, in many instances, reduced fire hazards. Along with closer utilization in the woods has come improved manufacturing processes. For example, the removal of bark from logs and slabs by hydraulic processes has increased the proportion of wood fiber recovered for pulping purposes. Use has been found for sawdust, shavings, slabs, and edgings for conversion to alcohol, protein yeast, wallboard, and plastics. Bark can now be converted to cork or plastics, or used as a carrier for insecticides and an extender for glue.

The demand for forest products also demonstrated the possibilities of interim incomes to be derived from deferred-yield forests--from growing forests. Research had shown the benefits to residual stands derived

from wise thinning of young stands, but without income from thinnings, there was little encouragement to make them. And the average owner was unable and feared to hold a forest over the long period necessary to bring it to merchantable maturity without interim incomes from it. Illustration of the possibilities of interim incomes from thinnings was cause for reducing the fear and increasing willingness to undertake long-term forest ownership and management.

Government and Public Finance

While no startling changes have occurred in the structure, organization, or fiscal policies of government in either Washington or Oregon in the last 10 years, those changes that occurred were for the better.

Notable accomplishment can be cited in the lessening number of governmental units. Washington and Oregon had 2,342 and 3,136 local governments, respectively, in 1933. By 1942, Washington had reduced its number to 1,906--a cut of 19 percent. Oregon made even a better record by bringing its total down to 2,332--a decline of 26 percent. This trimming has occurred principally in the number of school and road-district units, where the need for fewer units was doubtless most urgent. Undoubtedly, a close scrutiny of the situation would reveal that much more streamlining could take place with advantage.

Another modification of particular significance to forestry is the shift from property taxes to other sources of revenue for the support of State and local governments.

The property tax supplied 81.1 percent of all revenues in selected forest counties and 70.3 percent of all revenue in selected agricultural counties of Washington in 1927. The corresponding figures for Oregon, for the combined period 1927 and 1928, were 81.4 percent and 73.1 percent respectively.[13/] The property tax (ad valorem plus special assessments) supplied a large proportion

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13/ Fairchild, F.R. and associates. Forest taxation in the U. S. U.S. Dept. Agric. Misc. Pub. 218, p. 34. 1935.

of all revenue receipts of local governments of Washington in 1932 and of Oregon in 1931 (table 16). It remains the largest single source of government income in both States. However, a material change has occurred in both States. A study made by the Bureau of the Census in 1941[14] shows that Washington and Oregon developed alternative tax sources to the point where property taxes at that time were supplying only 30.1 and 39.8 percent, respectively, of the total requirements for State and local governments.

State-imposed limitations on ad valorem property taxes restrict the property tax field in each State. Washington leans on tax-rate limitations.[15] Oregon leans on aggregate expenditure limitations.[16] But each State liberalizes limitations--may exceed them whenever voters of the governmental unit authorize, or without a vote in certain debt service cases in Washington, and in all debt service cases in Oregon.

Through the years, and particularly since 1933, the States have derived their revenues more and more from sources other than the property tax. Out of a selected group of taxes, licenses, and fees received by the State of Washington, property taxes supplied 42.1 percent of the revenue in 1933, 22.8 percent in 1934, 7.0 percent in 1936, and 4.7 percent in 1939.[17] The corresponding percentages in Oregon are 29.9, 26.3, 18.1, and 6.7.[18] Principals in the selected group are motor fuel, retail sales, and business excise taxes in Washington; income and motor fuel taxes and motor vehicle fees in Oregon. Washington imposes no income tax, Oregon no retail sales tax.

14/ U.S. Census Bureau. Property Taxation. p. 10. 1941.

15/ Washington: Referendum No. 5, General Election Nov. 5, 1940 and previous acts. (This law does not apply to port or power unit levies.)

16/ Oregon: Const: Art. XI, s. 11. (This law applies to all unit levies.)

17/ Compiled from Wash. State Tax Comm. 8th Biennial Rep. Table 1.

18/ Compiled from Ore. State Tax Comm. 15th Biennial Rep. Table of State and Local Revenues from Specific Sources.

In Washington property tax levies for both State and local purposes fell noticeably in 1933 and 1935 and remained at a relatively low and constant level until 1945 (table 17). In Oregon levies for State purposes subsided irregularly after 1929, but those for local purposes showed little change; in fact, the local levies tended to occupy the space vacated by State levies.

Fiscal Aids to Local Governments

With respect to fiscal aids to local governments, Washington was fifth in national rank and Oregon 48th in 1941. Washington maintained its strong position between 1941 and 1947. Oregon strengthened its position, both relatively and absolutely, during 1947.

V. LINES OF ACTION PROPOSED

Without a long-range forestry program, areas primarily dependent on the forests for a livelihood cannot attain general economic stability. Yet it is beyond the compass of a brief report such as this to develop all the features of a forest land ownership stabilization program. Some parts of the program are well understood and admittedly desirable. Other parts of it still need more study. This discussion, therefore, will merely enumerate the items that should be considered in developing a perpetually healthy forest economy in the two leading timber-producing States of the nation.

Further Development of Land-Use Planning

Attention must be given to planning for the best use, so far as may be known, of all land of all types in order to deal adequately with many broad problems of forest land ownership and management. The primary burden for starting and executing a program of prudent use of the land rests with the State. Much of the data essential to reach decisions as to how the land could best be utilized are now available. What is needed is a determination to develop a positive program and adhere rigorously to its provisions.

Closely related to the problem of forest land use is that of management. What type of agency is in the best position to maximize the long-run returns from forest land? Land not suited for private ownership and management should not be abandoned, but should receive the degree of attention its importance in terms of watershed protection, recreational possibilities, or timber supply may warrant. In some instances these potentialities can best be developed by the Federal government, in others by the State; and, too, there are lands that should be owned and managed by local public bodies, such as cities and towns.

Improved Cutting Practices

Stability of forest land ownership depends greatly on how the forests are cut today. In spite of improvements that can be cited, the record of performance is not impressive in the Northwest, or for the nation as a whole.

The type of harvest cutting designed to build up and maintain quality and quantity yields consistent with the full productive capacity of the land, including, whenever needed, timber-stand improvement, planting, and control of grazing, is virtually unknown. Only 4 percent of the cuttings on all classes of private holdings are ratable as "good." Eighty-one percent falls in the "fair" and "poor" categories, and 16 percent is "destructive"; that is, the land is left devoid of timber value and without means for natural reproduction.19/

If earnings were to decline, present owners would soon consider abandoning a large part of those lands harvested in a manner classed as "poor" or "destructive." As the pressure to reduce fixed costs increases, land so treated that prospects for income are not foreseeable for 75 or 100 years is one of the first things to be sloughed off.

Increased Effectiveness in Fire Control

All of the privately owned forest land in the Northwest receives fire protection classed as "good" or "fair." A rating as high as "good" does not necessarily mean that protection is all that is to be desired. It means that judged in terms of present-day practices, "good" represents the level attained on the better-protected public and private lands.

In analyzing the severity of tax delinquency and its relation to abandonment of burned-over land, it was not difficult to see that where one was found the other was also present. There is, therefore, more to be desired in the way of reducing fires. Research in improved control techniques and in the observance of practices that will lessen the fire hazards are items that should stand high in a long-range forestry program.

19/ U. S. Forest Service. The Management Status of Forest Land in the United States, Report No. 3 from A Reappraisal of the Forest Situation, table 13.

Intensification of Efforts to Reduce Waste

Waste reduction, viewed from the distributive side of production, is a broadening and diversification of markets. Basic to this program of market broadening is research to discover ways of making old products better and devising ways to further process materials now unmerchantable. The range of investigations must embrace all phases of the forest production problem, from logging operations on through to the finished product.

> "To this end, research is needed to develop: cheaper methods of collecting and transporting logging waste; new or improved pulping methods to utilize less desirable species. .... and the unused portions of trees cut for other products; more efficient methods of reducing wood to sugar and lignin and converting these to industrial products; processes for manufacturing alcohol and yeast from sulfite waste liquor and for utilizing sulfite lignin; and utilization of small-dimension pieces from slabs, short logs and parts of tree stems."20/

The recently enacted severance tax in the State of Oregon, proceeds from which are to be used for research purposes, is a definite move to broaden the range of marketable forest products.

Further Simplification of the Structure of Government in Areas Devoted Principally to Forest Production

The need for local governments specifically designed to render the public services required is not peculiar to forest communities. In virtually every section of the country, both urban and rural, advantageous adjustments could be made in the boundaries and structure of local governments. In the forest areas, especially those in a serious state of depletion, the urgency of readaptation is particularly apparent. The organization that may have appeared satisfactory in the days when virgin forests were being harvested, or the cut-over land was being tried out for agricultural purposes, is now obviously too elaborate to support an economy restricted to utilization of income rather than liquidation of capital.

20/ Report No. 4, Reappraisal of the Forest Situation, "Wood Waste in the United States," p. 36.

The Council of State Governments in their recent study of State-Local Relations[21] makes these observations as to existing defects and steps that might be taken to effect improvement:

> "The vast majority of local governments are small in area and population, overlapping, and deficient in taxable resources .....
>
> "The present pattern of local government produces inequities in tax burdens which are not in proportion to services rendered; makes it difficult to utilize central purchasing, budgeting, and other measures of modern fiscal administration; dissipates political responsibility and thwarts citizen control of local institutions; produces an unequal level of services at high cost and forestalls community-wide action to meet community-wide problems .....
>
> "Changes in structure have as their goal: the establishment of one local government for one local area; local governments large enough in terms of population to permit effective public services at low cost, and wealthy enough to support a substantial portion of those services; governments that cover an entire integrated community .....
>
> "Integration may be fostered by easing legal impediments and providing simple legal authorizations; making it difficult to establish inadequate units of government; using State funds to encourage area changes; providing for the gradual, rather than complete, equalization of taxes following integration; utilizing adequate publicity programs."

Local Revenue Systems Designed to Lessen the Land Ownership Dislocations During Bad Years

The advantage of "revenue stability" usually cited in any enumeration of property tax characteristics is under some circumstances a questionable claim. Local revenue systems built with too great reliance on the property tax have such a slight degree of flexibility that in periods of severe adversity enforcement of the tax unstabilizes both property ownership and public revenues.

21/ Council of State Governments. State-Local Relations. 1946.

The plan promising most in the way of local revenue flexibility, is one calling for a rather complete integration of State and local revenue systems. Through the State nonproperty revenue, money can be made available for local uses through grants-in-aid. Because of the superior borrowing power of the State, funds needed in times of emergency can be made available at low rates of interest. Furthermore, through sound fiscal planning, State surpluses can be created for the specific purpose of cushioning the impact of a series of bad years on local finances.

The Council of State Governments summarizes the objectives of grants-in-aid well when they say:

> "State assistance should aim to stabilize local revenues and to relieve localities from sharp upward fluctuations in expenditures during depressions. In addition, State aid should be used to establish and maintain certain minimum standards of service; permit localities a large degree of local initiative, above the State-wide minima and in the fields for which no State standards are established; encourage the elimination of archaic and uneconomical units of local government; and be given in accordance with some measure of fiscal capacity and local needs."

Improved Administration of the Property Tax

There are numerous processes of property tax administration, ranging all along the line from the point of assessment through to the handling of delinquencies, which might be performed more expeditiously and economically. With respect to forest properties, however, the weakest link in the chain seems to be the assessment process. Forest land assessments are still made with too little regard for the condition of the forest, the productive quality of the land, accessibility to markets, and other factors affecting value.

The assembly and analysis of data regarding forest resources is essential for making equitable tax appraisals. This requires specialized facilities and skilled technicians for doing the work. Improvement in the technique of interpreting aerial photographs offers great promise in making economically feasible the application to properties

of low unit value the same sort of appraisal techniques that are now commonly applied to high-valued urban properties.

Obviously the responsibility for starting and carrying on a program for more equitable assessment of forest land cannot be left wholly to local governments. The State, through its central tax authority, must provide financial assistance and technical direction. In some sections, direct responsibility for the assessment function might be made to rest exclusively on the State; in others, State guidance with a view to obtaining uniformity of procedure and values throughout the State would be satisfactory.

Development of Credit Facilities Suited to the Peculiarities of Forest Enterprise

National effort is required for provision of adequate forest credit. The position taken by a timber-producing section as important as is the Northwest, however, will have a strong bearing on the line of action pursued and the rate of progress achieved.

Forest credits available at rates and for periods of time suited to forest enterprise provide one of the important tools for effecting greater stability of forest land ownership. Not only are loan rates and the period of time permitted for repayment important, but the amortization schedule must be sufficiently flexible so that foreclosure will not occur when the owner is confronted with adverse conditions that are beyond his control. Flexibility in repayment should also be designed to preserve ownership continuity and sound forest management plans when unfavorable short-run economic conditions might force their abandonment.

It seems unlikely that private lending institutions can fully meet the requirements on their own account. Forest credit facilities are even less adequate than agricultural credit facilities were before the Federal land banks were established in 1916. In the field of forestry, as was the case in agriculture, action on the part of the Federal government appears desirable to develop the field, fill in the gaps, and set the pattern for private lending institutions.

Providing Facilities for the Insurance of Standing Timber

Full development of a forest credit program would appear to be dependent in part on the availability of fire insurance for standing timber. Apart from the correlative relation between insurance and credit, the effect of insurance on stability of ownership is apparent from operation of the insurance principle. Through the transfer of risk from the individual to the group, uncertainty for the individual is largely eliminated. This spreading of the risk over a large number of owners will tend to lessen the number of ownership disruptions due to fire.

Extending Full Program of Technical Aids to Woodland Owners and Wood Processors

Most woodland owners, especially those with small holdings, need on-the-ground advice regarding timber-management problems, methods of harvesting that minimize waste and conserve young growth, and marketing channels that provide good returns and stable requirements. Such on-the-ground advice, now available to some woodland owners through State and Federal efforts, should be extended to all. While forest cooperatives are still in an experimental stage, the successful use of this device in other fields indicates the desirability of earnestly trying to adapt it to the needs of the forest land owner.

Technical assistance should not be limited to woodland owners alone, but should be extended to processors as well. Operators of small units need guidance in the selection of equipment, plant organization and machine operation designed to maximize the returns from raw materials. Healthy forest industries will inevitably be reflected in improved stability of forest land ownership.

Table 1.--Areas studied by broad ownership class in the sample counties of Washington and Oregon, 1932-33

County	Area studied		Percent of area studied that was:			
	Acres	Percent of total county area	Private 1/ and county	State 2/ and municipal	Federal 3/ and Indian	All classes
WASHINGTON						
Clallam	1,105,810	99.1	48.7	6.1	45.2	100.0
Grays Harbor	1,209,641	98.8	67.7	4.7	27.6	100.0
Jefferson	1,137,347	99.2	24.9	16.4	58.7	100.0
Lewis	1,526,626	97.9	64.6	5.0	30.4	100.0
Mason	611,481	99.1	65.0	7.5	27.5	100.0
Snohomish	1,028,634	77.5	34.3	6.8	58.9	100.0
Thurston	347,150	74.2	94.6	4.6	0.8	100.0
Wahkiakum	174,998	99.8	85.3	14.2	0.5	100.0
Whatcom	1,207,595	88.9	24.7	2.8	72.5	100.0
Total & average	8,349,282	92.8	49.7	7.0	43.3	100.0
OREGON						
Benton	310,973	74.3	79.4	1.6	19.0	100.0
Clatsop	536,004	99.3	97.5	1.2	1.3	100.0
Columbia	415,887	98.7	94.2	2.2	3.6	100.0
Coos	1,019,892	98.9	69.0	4.6	26.4	100.0
Douglas	3,204,704	98.9	46.3	1.0	52.7	100.0
Josephine	1,042,745	99.5	30.8	0.7	68.5	100.0
Lane	2,717,786	91.7	38.9	0.1	61.0	100.0
Lincoln	633,573	99.2	69.9	1.2	28.9	100.0
Tillamook	682,858	94.0	82.2	0.3	17.5	100.0
Total & average	10,564,422	95.8	54.2	1.2	44.6	100.0

1/ More than 99 percent of county-owned lands was acquired by deedings for unpaid taxes.

2/ Of the 7 percent in Washington, 6.7 percent was State owned. Of the 1.2 percent in Oregon, 1 percent was State owned.

3/ Of the 43.3 percent in Washington, 40.3 percent was Federal owned. Of the 44.6 percent in Oregon, 44.5 percent was Federal owned.

Table 2.--Area of tax-reverted land and of private land by tax-delinquency status, within areas studied in 18 selected counties of the Douglas-fir region, 1932-33

State and county	Reverted	Delinquent for taxes levied in 1928 & earlier	Delinquent for taxes levied in 1929 & 1930 1/	Not delinquent	Total	Reverted	Delinquent for taxes levied in 1928 & earlier	Delinquent for taxes levied in 1929 & 1930 1/	Not delinquent	Total
	Thousand acres					Percent				
WASHINGTON										
Clallam	46.8	42.5	35.9	413.3	538.5	8.7	7.9	6.7	76.7	100
Grays Harbor	9.8	75.7	176.6	556.9	819.0	1.2	9.2	21.6	68.0	100
Jefferson	29.1	20.8	30.0	203.3	283.2	10.3	7.3	10.6	71.8	100
Lewis	.2	53.4	107.0	824.9	985.5	.0	5.4	10.9	83.7	100
Mason	9.6	29.3	52.2	306.4	397.5	2.4	7.4	13.1	77.1	100
Snohomish	18.6	48.7	65.6	219.6	352.5	5.3	13.8	18.6	62.3	100
Thurston	5.8	29.9	56.8	235.8	328.3	1.8	9.1	17.3	71.8	100
Wahkiakum	5.0	21.4	15.9	106.9	149.2	3.4	14.3	10.7	71.6	100
Whatcom	20.7	33.8	50.4	193.4	298.3	6.9	11.3	16.9	64.9	100
Total	145.6	355.5	590.4	3,060.5	4,152.0	3.5	8.6	14.2	73.7	100
OREGON										
Benton	5.2	19.8	61.7	160.2	246.9	2.1	8.0	25.0	64.9	100
Clatsop	38.1	56.4	137.9	2/ 290.3	522.7	7.3	10.8	26.4	55.5	100
Columbia	29.0	32.4	132.9	197.5	391.8	7.4	8.3	33.9	50.4	100
Coos	17.3	85.5	338.6	262.6	704.0	2.5	12.1	48.1	37.3	100
Douglas	42.3	169.9	330.0	940.2	1,482.4	2.9	11.5	22.3	63.3	100
Josephine	50.8	3.0	59.3	208.5	321.6	15.8	.9	18.4	64.9	100
Lane	25.6	41.2	327.6	662.4	1,056.8	2.4	3.9	31.0	62.7	100
Lincoln	49.5	55.0	109.4	228.7	442.6	11.2	12.4	24.7	51.7	100
Tillamook	75.6	29.5	141.0	315.2	561.3	13.5	5.3	25.1	56.1	100
Total	333.4	492.7	1,638.4	3,265.6	5,730.1	5.8	8.6	28.6	57.0	100
18-County total	479.0	848.2	2,228.8	6,326.1	9,882.1	4.8	8.6	22.6	64.0	100

1/ Does not include lands delinquent for taxes levied in earlier years.
2/ Includes 137.4 M acres delinquent for Port of Astoria tax only.

Table 3.--Trend in area of tax-reverted lands in selected counties of Washington and Oregon 1932-41

Washington				Oregon			
Item & county	1932	1936	1941	Item & county	1932	1936	1941
	Thousand acres				Thousand acres		
Reverted land				Reverted land			
Clallam	46.8	69.1	-	Benton	5.2	19.5	-
Grays Harbor	9.8	-	149.2	Clatsop	38.1	61.7	-
Jefferson	29.1	38.3	-	Columbia	29.0	83.7	90.4
Lewis	.2	36.6	51.3	Coos	17.3	72.4	69.4
Mason	9.6	-	-	Douglas	42.3	151.9	-
Snohomish	18.6	23.6	-	Josephine	50.8	60.2	-
Thurston	5.8	24.1	-	Lane	25.6	72.6	-
Wahkiakum	5.0	-	-	Lincoln	49.5	-	-
Whatcom	20.7	40.5	-	Tillamook	75.6	140.2	-
Total	145.6	232.2	200.5	Total	333.4	662.2	159.8
Private and tax-reverted land	4,152.0	2,786.3	1,804.5	Private and tax-reverted land	5,730.1	5,287.5	1,095.8
	Percent				Percent		
Percent tax-reverted land is of private and tax reverted land	3.5	8.3	11.1	Percent tax-reverted land is of private and tax reverted land	5.8	12.5	14.6

Table 4.--Relation between area and assessed value of tax delinquent lands in western Washington and western Oregon counties, 1932

State and county	Area (excluding reverted lands)		Assessed value	
	Total	Percent delinquent	Total	Delinquent as percent of total
	Thousands acres		Thousands dollars	
Washington				
Clallam	491.7	14.6	9,148	9.2
Grays Harbor	809.2	30.8	11,332	12.2
Jefferson	254.1	17.9	3,616	14.2
Lewis	985.3	16.3	14,345	8.6
Mason	387.9	20.5	3,639	8.8
Snohomish	333.9	32.4	12,072	6.8
Thurston	322.5	26.4	4,839	11.0
Wahkiakum	144.2	25.0	1,324	15.4
Whatcom	277.6	28.2	7,973	9.7
Total	4,006.4		68,288	
Average		22.8		9.7
Equalized value			155,200	
Oregon				
Benton	241.7	33.0	6,382	14.7
Clatsop	484.6	37.2	13,256	36.2
Columbia	362.8	42.2	-	-
Coos	686.7	60.2	12,291	56.3
Douglas	1,440.1	33.8	16,700	32.7
Josephine	270.8	19.3	3,028	19.1
Lane	1,031.2	34.9	17,721	27.8
Lincoln	393.1	37.1	7,370	31.3
Tillamook	485.7	30.4	19,094	26.5
Total	5,396.7		95,842	
Average		37.2		32.3
Equalized value			174,262	

Table 5.--Status of tax delinquency by broad land group within areas studied in the 18 selected counties[1/] of the Douglas-fir region, 1932-33

Status	Washington					Oregon				
	Forest		Nonforest			Forest		Nonforest		
	Commercial conifer	Other	Agricultural	Other	Total	Commercial conifer	Other	Agricultural	Other	Total
AREA IN THOUSAND ACRES										
Reverted	137.6	4.3	1.9	1.8	145.6	283.8	25.8	12.8	11.0	333.4
Delinquent for taxes levied in										
1928 and earlier	319.3	14.7	19.5	2.0	355.5	422.9	25.0	40.6	4.2	492.7
1929 and 1930	497.6	25.1	60.3	7.4	590.4	1,371.7	63.7	193.7	9.3	1,638.4
Reverted and delinquent	954.5	44.1	81.7	11.2	1,091.5	2,078.4	114.5	247.1	24.5	2,464.5
Not delinquent	2,590.0	118.0	321.7	30.8	3,060.5	2,361.1	175.2	686.0	43.3	3,265.6
Total	3,544.5	162.1	403.4	42.0	4,152.0	4,439.5	289.7	933.1	67.8	5,730.1
AREA IN PERCENT										
Reverted	3.9	2.7	.5	4.3	3.5	6.4	8.9	1.3	16.2	5.8
Delinquent for taxes levied in										
1928 and earlier	9.0	9.0	4.8	4.8	8.6	9.5	8.6	4.4	6.2	8.6
1929 and 1930	14.0	15.5	14.9	17.6	14.2	30.9	22.0	20.8	13.8	28.6
Reverted and delinquent	26.9	27.2	20.2	26.7	26.3	46.8	39.5	26.5	36.2	43.0
Not delinquent	73.1	72.8	79.8	73.3	73.7	53.2	60.6	73.5	63.8	57.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
PERCENT OF EACH GROUP IN EACH DELINQUENCY CLASS										
Reverted	94.5	3.0	1.3	1.2	100.0	85.2	7.7	3.8	3.3	100.0
Delinquent for taxes levied in										
1928 and earlier	89.8	4.1	5.5	.6	100.0	85.8	5.1	8.2	.9	100.0
1929 and 1930	84.3	4.3	10.2	1.2	100.0	83.7	3.9	11.8	.6	100.0
Reverted and delinquent	87.4	4.0	7.5	1.1	100.0	84.4	4.6	10.0	1.0	100.0
Not delinquent	84.6	3.9	10.5	1.0	100.0	72.3	5.4	21.0	1.3	100.0
Total	85.4	3.9	9.7	1.0	100.0	77.5	5.0	16.3	1.2	100.0

1/ Washington counties: Clallam, Grays Harbor, Jefferson, Lewis, Mason, Snohomish, Thurston, Wahkiakum, Whatcom.
Oregon counties: Benton, Clatsop, Columbia, Coos, Douglas, Josephine, Lane, Lincoln, Tillamook.

Table 6.--Status of tax delinquency of commercial conifer land by generalized cover type within areas studied in the 18 selected counties of the Douglas-fir region, 1932-33

Cover type	Area of commercial conifer land		Delinquent and reverted area		Reverted (excluding delinquent)		Delinquent				Percentage of area reverted and delinquent (col. 3 ÷ col. 1)
							Long term		Short term		
	Amount	Percent	Amount	Percent	Amount	Percent	Amount	Percent	Amount	Percent	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
WASHINGTON											
Saw timber	1,484.8	41.9	189.8	19.9	25.7	18.7	60.5	19.0	103.6	20.8	12.8
Pole-piling	551.7	15.6	195.2	20.4	37.8	27.5	62.9	19.7	94.5	19.0	35.4
Seedling-sapling	553.2	15.6	185.0	19.4	36.6	26.5	60.9	19.1	87.5	17.6	33.4
Deforested	954.8	26.9	384.5	40.3	37.5	27.3	135.0	42.2	212.0	42.6	40.2
Total	3,544.5	100.0	954.5	100.0	137.6	100.0	319.3	100.0	497.6	100.0	26.9
OREGON											
Saw timber	2,494.2	56.2	1,093.3	52.6	95.4	33.6	216.1	51.1	781.8	57.1	43.8
Pole-piling	963.3	21.7	417.6	20.1	72.6	25.6	102.0	24.1	243.0	17.7	43.4
Seedling-sapling	262.7	5.9	137.3	6.6	41.6	14.7	22.4	5.3	73.3	5.3	52.2
Deforested	719.3	16.2	430.2	20.7	74.2	26.1	82.4	19.5	273.6	19.9	59.8
Total	4,439.5	100.0	2,078.4	100.0	283.8	100.0	422.9	100.0	1,371.7	100.0	46.8

Table 7.--Area of tax-reverted land within areas studied in selected counties of western Washington, by generalized cover type[1/] 1932-33 and 1936-37

County and date	Commercial conifer					Other forest	Non-forest	Total
	Saw timber	Pole-piling	Seedling-sapling	Deforested	Total			
	Thousand acres							
Clallam:								
June 1933	9.9	16.2	12.1	7.2	45.4	0.5	0.9	46.8
Dec. 1936	14.6	19.3	15.0	18.3	67.2	.8	1.1	69.1
Jefferson:								
June 1933	2.2	10.1	8.8	7.3	28.4	.4	.3	29.1
Jan. 1937	3.8	13.5	10.6	9.4	37.3	.6	.4	38.3
Lewis:								
Aug. 1932	.1	.1	2/	.0	.2	.0	2/	.2
Nov. 1936	2.5	2.3	8.6	21.7	35.1	.3	1.2	36.6
Snohomish:								
July 1932	2.2	1.9	3.1	10.9	18.1	.5	2/	18.6
Jan. 1937	2.5	2.6	3.3	14.5	22.9	.7	2/	23.6
Thurston:								
July 1932	.2	.8	2.5	1.4	4.9	.8	.1	5.8
Dec. 1936	.7	1.2	4.4	16.2	22.5	1.2	.4	24.1
Whatcom:								
May 1933	9.4	3.4	3.3	3.7	19.8	.5	.4	20.7
Jan. 1937	17.4	6.5	7.2	6.1	37.2	2.2	1.1	40.5
Total:								
1932-33	24.0	32.5	29.8	30.5	116.8	2.7	1.7	121.2
1936-37	41.5	45.4	49.1	86.2	222.2	5.8	4.2	232.2

1/ Cover-type data taken in 1932-33 were used in the 1936-37 computations.

2/ Less than 50 acres.

Table 8.--Area of tax-reverted land within areas studied in selected counties of western Oregon, by generalized cover type, 1/ 1932-33 and 1935-36

County and date	Commercial conifer					Other forest	Non-forest	Total
	Saw timber	Pole-piling	Seedling-sapling	Deforested	Total			
	Thousand acres							
Benton								
June 1932	2.0	0.7	1.5	0.7	4.9	0.0	0.3	5.2
Mar. 1936	7.7	2.2	2.8	5.4	18.1	.6	.8	19.5
Clatsop								
May, 1932	4.5	11.4	3.9	4.9	24.7	1.6	11.8	38.1
July 1936	9.7	17.1	6.8	12.0	45.6	1.9	14.2	61.7
Columbia								
Apr. 1932	.4	6.4	3.0	17.9	27.7	.5	.8	29.0
July 1936	1.0	10.8	7.2	61.8	80.8	1.0	1.9	83.7
Coos								
May 1933	5.4	7.0	1.5	1.6	15.5	1.2	.6	17.3
Oct.1935	15.7	29.0	8.0	13.8	66.5	2.1	3.8	72.4
Douglas								
Sept.1932	25.6	6.6	2.1	5.8	40.1	.5	1.7	42.3
Dec. 1935	109.9	19.8	4.9	12.1	146.7	1.2	4.0	151.9
Josephine								
May 1933	22.7	12.9	5.6	6.3	47.5	1.8	1.5	50.8
Sept.1935	29.1	13.9	6.0	7.7	56.7	2.1	1.4	60.2
Lane								
May 1933	7.9	7.4	.5	6.6	22.4	1.2	2.0	25.6
May 1936	30.2	15.8	3.0	17.2	66.2	2.1	4.3	72.6
Tillamook								
June 1932	16.6	11.7	22.6	17.9	68.8	4.0	2.8	75.6
Oct.1936 2/	23.2	14.3	4.0	87.7	129.2	6.8	4.2	140.2
Total								
1932-33	85.1	64.1	40.7	61.7	251.6	10.8	21.5	283.9
1935-36	226.5	122.9	42.7	217.7	609.8	17.8	34.6	662.2

1/ For Clatsop and Tillamook Counties, where extensive fires occurred in 1933, new cover-type data were obtained in 1936 for use in the 1936 computations shown here. For other counties, cover-type data taken in 1932-33 were used in the 1935-36 computations.

2/ Data include 32,188 acres deeded by owners to Tillamook County to save costs of foreclosure proceedings.

Table 9.--Area in acres of commercial conifer land in selected counties of the Douglas-fir region by generalized cover type and tax-delinquency status, 1932-33 and 1940-41

County and status	Saw timber		Pole-piling		Seedling-sapling		Deforested		Total	
	1932	1941	1932	1941	1932	1941	1932	1941	1932	1941
	Thousand acres									
Grays Harbor										
Reverted	1.2	11.9	2.5	45.1	2.2	45.1	2.4	37.3	8.3	139.4
Delinquent										
3 yrs & more	13.7	17.9	15.3	28.2	13.1	33.1	27.9	64.3	70.0	143.5
2 yrs & less	23.7	3.5	32.6	8.5	26.9	7.7	72.7	6.3	155.9	26.0
Not delinquent	194.7	124.2	65.8	57.7	71.5	91.1	145.4	96.3	477.4	369.3
Total	233.3	157.5	116.2	139.5	113.7	177.0	248.4	204.2	711.6	678.2
Lewis										
Reverted	.1	2.6	.1	4.1	1/	31.3	-	12.4	.2	50.4
Delinquent										
3 yrs & more	6.6	13.0	5.7	10.9	12.7	27.5	23.8	17.0	48.8	68.4
2 yrs & less	18.4	8.2	12.7	9.6	15.4	14.1	42.2	11.3	88.7	43.2
Not delinquent	444.3	338.2	80.8	85.6	71.7	109.7	111.2	131.9	708.0	665.4
Total	469.4	362.0	99.3	110.2	99.8	182.6	177.2	172.6	845.7	827.4
Columbia										
Reverted	.4	.6	6.4	18.4	3.0	18.0	17.9	50.1	27.7	87.1
Delinquent										
3 yrs & more	.9	3.0	8.0	14.2	2.5	11.6	14.5	22.9	25.9	51.7
2 yrs & less	22.3	.4	21.4	12.9	8.6	7.0	61.9	15.9	114.2	36.2
Not delinquent	23.8	15.7	37.5	42.5	15.6	23.1	64.0	49.2	140.9	130.5
Total	47.4	19.7	73.3	88.0	29.7	59.7	158.3	138.1	308.7	305.5
Coos 2/										
Reverted	5.4	12.3	7.0	29.0	1.5	10.6	1.6	13.7	15.5	65.6
Delinquent										
3 yrs & more	16.8	86.1	34.5	56.5	6.5	12.7	13.8	42.7	71.6	198.0
2 yrs & less	163.1	8.4	73.8	23.2	12.5	2.3	36.8	15.5	286.2	49.4
Not delinquent	74.1	116.8	85.7	82.2	10.4	13.2	23.2	48.9	193.4	261.1
Total	259.4	223.6	201.0	190.9	30.9	38.8	75.4	120.8	566.7	574.1
4-County total										
Reverted	7.1	27.4	16.0	96.6	6.7	105.0	21.9	113.5	51.7	342.5
Delinquent										
3 yrs & more	38.0	120.0	63.5	109.8	34.8	84.9	80.0	146.9	216.3	461.6
2 yrs & less	227.5	20.5	140.5	54.2	63.4	31.1	213.6	49.0	645.0	154.8
Not delinquent	736.9	594.9	269.8	268.0	169.2	237.1	343.8	326.3	1519.7	1426.3
Total	1009.5	762.8	489.8	528.6	274.1	458.1	659.3	635.7	2432.7	2385.2

1/ Less than 50 acres
2/ Data as of 1933 and 1940 in Coos County

Table 10.--Area in percent of commercial conifer land in selected counties of the Douglas-fir region by generalized cover type and tax-delinquency status 1932-33 and 1940-41

County and status	Saw timber		Pole-piling		Seedling-sapling		Deforested		Total	
	1932	1941	1932	1941	1932	1941	1932	1941	1932	1941
	Percent									
Grays Harbor										
Reverted	0.5	7.6	2.2	32.3	1.9	25.4	1.0	18.3	1.2	20.5
Delinquent										
3 yrs & more	5.9	11.3	13.2	20.2	11.5	18.7	11.2	31.4	9.8	21.2
2 yrs & less	10.1	2.2	28.0	6.1	23.7	4.4	29.3	3.1	21.9	3.8
Not delinquent	83.5	78.9	56.6	41.4	62.9	51.5	58.5	47.2	67.1	54.5
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Lewis										
Reverted	1/	.7	.1	3.7	1/	17.1	.0	7.2	1/	6.1
Delinquent										
3 yrs & more	1.4	3.6	5.7	9.9	12.7	15.1	13.4	9.9	5.8	8.3
2 yrs & less	3.9	2.3	12.8	8.7	15.5	7.7	23.8	6.5	10.5	5.2
Not delinquent	94.7	93.4	81.4	77.7	71.8	60.1	62.8	76.4	83.7	80.4
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Columbia										
Reverted	.8	3.0	8.7	20.9	10.1	30.2	11.3	36.3	9.0	28.6
Delinquent										
3 yrs & more	1.9	15.3	10.9	16.1	8.4	19.4	9.2	16.6	8.4	16.9
2 yrs & less	47.1	2.0	29.2	14.7	29.0	11.7	39.1	11.5	37.0	11.8
Not delinquent	50.2	79.7	51.2	48.3	52.5	38.7	40.4	35.6	45.6	42.7
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Coos 2/										
Reverted	2.1	5.5	3.5	15.1	4.9	27.4	2.1	11.3	2.7	11.4
Delinquent										
3 yrs & more	6.5	38.5	17.2	29.6	21.0	32.7	18.3	35.4	12.6	34.5
2 yrs & less	62.8	3.8	36.7	12.2	40.4	5.9	48.8	12.8	50.6	8.6
Not delinquent	28.6	52.2	42.6	43.1	33.7	34.0	30.8	40.5	34.1	45.5
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
4-County total										
Reverted	.7	3.6	3.3	18.3	2.4	22.9	3.3	17.9	2.1	14.4
Delinquent										
3 yrs & more	3.8	15.7	13.0	20.7	12.7	18.5	12.1	23.1	8.9	19.3
2 yrs & less	22.5	2.7	28.6	10.3	23.2	6.8	32.5	7.7	26.5	6.5
Not delinquent	73.0	78.0	55.1	50.7	61.7	51.8	52.1	51.3	62.5	59.8
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

1/ Less than .05 percent.
2/ Data as of 1933 and 1940 in Coos County.

Table 11.--Area of commercial conifer land delinquent three years and more under and not under installment provisions for payment of back taxes, by generalized cover type, 1940-41

County and status	Saw timber	Pole-piling	Seedling-sapling	Deforested	Total
	Thousand acres				
Grays Harbor					
Not under	3.7	8.5	5.1	21.1	38.4
Under	14.2	19.7	28.0	43.2	105.1
Total	17.9	28.2	33.1	64.3	143.5
Lewis					
Not under	8.1	7.5	15.8	10.8	42.2
Under	4.9	3.4	11.7	6.2	26.2
Total	13.0	10.9	27.5	17.0	68.4
Columbia					
Not under	0.5	8.6	9.6	18.1	36.8
Under	2.5	5.6	2.0	4.8	14.9
Total	3.0	14.2	11.6	22.9	51.7
Coos					
Not under	15.7	23.7	4.5	15.2	59.1
Under	70.4	32.8	8.2	27.5	138.9
Total	86.1	56.5	12.7	42.7	198.0
4-County Total					
Not under	28.0	48.3	35.0	65.2	176.5
Under	92.0	61.5	49.9	81.7	285.1
Total	120.0	109.8	84.9	146.9	461.6

Table 12.--Number and area of private forest land holdings by size class within selected forest zones in sample counties of western Washington and western Oregon 1/ 2/

Size Class	Clallam County, Washington				Snohomish County, Washington			
	Number	Area		Average	Number	Area		Average
		Acres	Percent	Acres		Acres	Percent	Acres
Less than 320 acres	380	46,256	14.8	122	315	30,701	15.3	98
320 to 1,279 acres	25	19,812	6.4	792	40	23,660	11.8	592
1,280 to 4,999 acres	6	11,684	3.7	1,947	13	34,238	17.1	2,634
5,000 to 14,999 acres	7	56,584	18.2	8,083	6	43,229	21.6	7,205
15,000 to 34,999 acres	6	121,956	39.1	20,326	1	28,348	14.1	28,348
35,000 and more acres	1	55,342	17.8	55,342	1	40,390	20.1	40,390
Total	425	311,634	100.0	733	376	200,566	100.0	533
	Columbia County, Oregon				Douglas County, Oregon			
Less than 320 acres	486	61,183	25.4	126	1,790	250,467	34.0	140
320 to 1,279 acres	44	24,580	10.2	559	218	117,050	15.9	537
1,280 to 4,999 acres	14	35,647	14.8	2,546	28	77,609	10.5	2,772
5,000 to 14,999 acres	6	56,895	23.6	9,482	12	96,240	13.1	8,020
15,000 to 34,999 acres	0	0	0	0	3	67,458	9.2	22,486
35,000 and more acres	1	62,614	26.0	62,614	2	127,366	17.3	63,683
Total	551	240,919	100.0	437	2,053	736,190	100.0	359

1/ Date of data: Clallam, 1933; Snohomish and Douglas, 1932; Columbia 1928.

2/ All forest land held by one person, partnership, or corporation within the selected area of each county was treated as one ownership. Private forest land appearing to be owned or used with adjacent farm was omitted.

Table 13.--Receipts of county governments, school districts, and road districts from general property taxes, subventions, and grants in selected counties, Washington, 1932 1/

County	Est. population 1930		General property taxes	Subventions & grants	
	Total	Rural as a percent of total		Total	As percent of general property taxes
	Number	Percent	M dollars	M dollars	Percent
Clallam	20,449	50.2	555	130	23.4
Grays Harbor	59,982	42.5	1,206	393	32.6
Jefferson	8,346	52.3	199	47	23.6
Lewis	40,034	67.6	1,023	306	29.9
Mason	10,060	69.3	279	67	24.0
Snohomish	78,861	57.8	1,450	599	41.3
Thurston	31,351	62.6	666	224	33.6
Wahkiakum	3,862	100.0	82	27	32.9
Whatcom	59,128	47.9	1,067	411	38.5
Total 9 counties	312,073	55.0	6,527	2,204	33.8
Total of remaining 30 counties	1,251,323	40.5	28,675	8,917	31.1
Total 39 counties	1,563,396	43.4	35,202	11,121	31.6

1/ U. S. Census Bureau. Financial statistics of State and local governments. 1932, Washington. 1934

Table 14.--Receipts of county governments and school districts from general property taxes, subventions, and grants in selected counties, Oregon, 1931 1/

County	Est. population 1930		General property taxes	Subventions and grants	
	Total	Rural as a percent of total		Total	As percent of general property taxes
	Number	Percent	M dollars	M dollars	Percent
Benton	16,555	54.2	365	90	24.7
Clatsop	21,124	51.0	551	90	16.3
Columbia	20,047	80.1	516	81	15.7
Coos	28,373	57.6	768	202	26.3
Douglas	21,965	80.1	905	135	14.9
Josephine	11,498	59.4	332	84	25.3
Lane	54,493	65.3	1,146	185	16.1
Lincoln	9,903	100.0	324	66	20.4
Tillamook	11,824	78.4	594	136	22.9
Total 9 counties	195,782	67.1	5,501	1,069	19.4
Total of remaining 27 counties	758,004	43.9	19,822	3,666	18.5
Total 36 counties	953,786	48.7	25,323	4,735	18.7

1/ U. S. Census Bureau. Financial statistics of State and local government. 1931, Oregon. 1934.

Table 15.--Installed capacity 1/ of active sawmills, sawlog production, and lumber production, Douglas-fir region, western Oregon and Umpqua-Rogue River units of western Oregon, 1934, 1940, 1944, and 1945 2/

Year	Capacity of active sawmills			Sawlog production			Lumber production		
	Region	Western Oregon 3/	Umpqua-Rogue units	Region	Western Oregon 3/	Umpqua-Rogue units	Region	Western Oregon 3/	Umpqua-Rogue units
	Thousand bd. ft.			Mill. bd.ft., log scale			Mill. bd.ft., lbr. tally		
1934	33,922	13,138	1,230	5,381	2,005	96	4,396	1,709	91
1940	33,100	15,600	1,792	8,400	3,880	296	7,589	3,618	273
1943	--	--	--	9,710	5,555	761	--	--	--
1944	34,900	19,200	3,809	9,644	5,601	843	8,496	4,707	724
1945	33,901	19,682	3,890	7,812	4,833	819	6,588	3,813	658
	Percent of Region			Percent of Region			Percent of Region		
1934	100.0	38.7	3.6	100.0	37.3	1.8	100.0	38.9	2.1
1940	100.0	47.1	5.4	100.0	46.2	3.5	100.0	47.7	3.6
1943	-	-	-	100.0	57.2	7.8	-	-	-
1944	100.0	55.0	10.9	100.0	58.1	8.7	100.0	55.4	8.5
1945	100.0	58.0	11.5	100.0	61.9	10.5	100.0	57.9	10.0

1/ Per 8-hour shift.
2/ U. S. Census Bureau except log production which was compiled by the Pacific Northwest Forest and Range Experiment Station. Census data on log production during 1943 introduced for comparison with estimates of log production during 1944.
3/ Includes Umpqua-Rogue units.

Table 16.--Revenue receipts, State, and local governments, by source, Washington, 1932 and Oregon, 1931

State and source	State and civil division					
	State	Counties	Cities & towns	School districts	Other	Total
	In thousand dollars					
Washington[1/]						
General property taxes	12,755	16,969	17,600	14,071	5,879	67,274
Special assessments	103	55	6,956	--	2,014	9,128
Subventions & grants	4,407	864	167	10,257	46	15,741
Other	23,001	2,284	23,275	1,165	2,362	52,087
Total	40,266	20,172	47,998	25,493	10,301	144,230
Oregon[2/]						
General property taxes	4,612	11,350	9,399	13,973	1,864	41,198
Special assessments	331	--	3,533	--	967	4,831
Subventions & grants	4,638	1,927	--	2,808	11	9,384
Other	20,186	2,448	6,148	537	648	29,967
Total	29,767	15,725	19,080	17,318	3,490	85,380

1/ Bureau of the Census. Financial Statistics of State and Local Governments, Washington, 1932.

2/ Bureau of the Census. Financial Statistics of State and Local Governments, Oregon, 1931.

Table 17.--Property tax levies for State and local purposes on the property tax rolls of Washington and Oregon, 1925-45

Year of levy	Washington[1]			Oregon[2]		
	State	Local	Total	State	Local	Total
	In million dollars					
1925	12.1	55.6	67.7	7.2	37.8	45.0
1927	14.1	59.7	73.8	7.7	42.2	49.9
1929	14.2	66.4	80.6	6.9	42.7	49.6
1931	12.3	61.1	73.4	2.2	40.8	43.0
1933	7.2	46.8	54.0	5.1	36.5	41.6
1935	3.7	38.5	42.2	4.5	36.0	40.5
1937	3.8	37.8	41.6	1.8	38.5	40.3
1939	2.7	38.8	41.5	2.1	40.5	42.6
3/ 1940	-	-	-	1.8	39.8	41.6
1941	2.6	38.2	40.8	-	-	-
1943	2.5	41.1	43.6	-	35.9	35.9
1945	2.7	50.9	53.6	-	44.1	44.1

1/ Washington Division of Municipal Corporations. Annual Statements of Taxes Due, Exhibit 3. Property tax rolls include all ad valorem property taxes, and special assessments other than special city, town, and certain other district assessments.

2/ Oregon State Tax Commission. 18th Biennial Report, table on p. 50 and table on p. 52. Property tax rolls include all ad valorem property taxes, forest fee, forest yield taxes, and special assessments other than special city and town assessments.

3/ Levy year of 1940 instead of 1941 used for Oregon because of change made in fiscal year in 1941.