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Location of the area studied in relation to the small-grains area of the Pacific Northwest.

Land Values, Mortgages, Rents, and Wheat Yields of Northern Idaho Wheat Lands*

A. NORMAN NYBROTEN[†]

Introduction

General

VARIOUS groups have showed rather intense interest in the Market value of farm land, particularly since the outbreak of the war. Buyers and sellers of land, of course, always are interested. Those who advise in farm management, shifting of agricultural production and planning, need basic information on land values and potential productivities. Lending agencies of all types, although constantly alert on land values, show an unusual interest in their efforts to obtain data and information. County assessors are in need of land-value data. Above all, farm operators need information on values based on potential net income, in order to make the choice of renting or owning, and to learn what type of land to acquire at current rents and prices.

Information on values based on productivity also is needed in order to provide adequate incentives to bring about soil-conserving practices and general land improvement and to arrest certain practices that deplete the land. The current selling prices of land overvalue the poorer lands and undervalue the better lands compared with the difference in productivity. This means that the premium, on the land market, for building up the land is too small as is also the penalty for depleting the land.

Although somewhat over a thousand mortgages and about the same number of rural real estate transfers were studied, all the cases could not be used for all purposes because some were lacking in data and some were not applicable to the problem at hand. For example, it was not possible to use all the cases in studying wheat vields.

Fortunately the farm-land market has been very active in the three counties studied. It was possible to obtain selling prices on land having a total market value of almost five million dollars. Of the three counties included in this study, Lewis County is the most active and this, together with its relatively large proportion of good farm land, whose values are set largely by the price and production of wheat, makes it an ideal place to determine what certain types of land are worth.

^{*}Data on wheat yields were obtained from a study made cooperatively by the Works Progress Administration and the Department of Agricultural Economics, Agricultural Experiment Station, University of Idaho. Reports of this study were published under the supervision of Paul A. Eke. Several students, some of them paid by the National Youth Administration, assisted in gathering and tabulating the data.

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Sources and Scope of Data and Information

The data used in this study were obtained from Latah, Lewis, and Nez Perce counties. Wheat production in northern Idaho is by no means restricted to these three counties, but they contain the major portion of the wheat lands and their economic problems are quite representative of the whole area.

County records were the main sources of data on selling prices, assessed values, and mortgages. Records on mortgages were obtained from only two of the three counties—Nez Perce and Latah. Those drawn between the beginning of the year 1930 and ending with 1940 were studied. In the case of real estate transfers a 5-year period (1936-1940) was used. This was a period of unusually stable land values—the latter half of the period showing an increase of only about 1 per cent over the first half. Because the land market was so stable, it was not necessary to adjust the data for the trend. No effort was made to determine which land transfers included crops and which did not. However, the differences which result from this should be compensatory in most instances, but where they are not attention is called to the fact.

Those selling prices obtained by the inquiry method are undoubtedly of the highest validity. Table 1 shows that 124 ques-tionnaires were answered. Using the assessed value as a comparative basis shows that the values obtained by this method were higher than those obtained either by copying the considerations shown on the deed records or by computing values from the revenue stamps shown. The selling prices received by questionnaire were 220.8 per cent of the assessed values while those from considerations shown on deeds 197.7, and those computed from revenue stamps were 194. This seems to show that those from considerations shown were about 10.5 per cent too low (89.5 per cent of those from questionnaires) and those from the revenue stamps were about 12.1 per cent too low. Since all these were consolidated throughout the report it might be fair to assume that the values consistently are slightly below the market. However, the problem is mainly one of determining the relationship of the values of lands of various qualities rather than one of determining the level of the land market.

The Territorial Distribution of Land Values

Figures 1, 2, and 3 are largely self-explanatory. In the case of Latah County (Fig. 1) the western part of the county has the highest land values. In general the physical breaks in the land are the most decisive factor in outlining areas of different values. No attempt was made to study the effect of roads and cities upon the values in any of these counties. The values shown include improvements and, although the values seem generally higher near the roads and cities, it may be that these were placed in the better areas to begin with. However, the land of comparable wheat yields declined in value somewhat as one proceeded in an easterly direction in the county. Although this observation could be made, it has been impossible to ascertain why there is a premium

on lands in the western part of the county. It may be that the people like to live in a more densely populated area, nearer to the cities, or it may be that it is possible to farm on a larger and

Table 1.—Selling prices obtained from different sources compared with assessments. Latah, Lewis, and Nez Perce Counties, Idaho, 1936-1940

		Source	of information on	selling prices
Item	All three sources	Received by questionnaire	Considerations shown on deeds*	Computed from internal revenue stamps*
Number of transfers Number of acres Amount sold for Amount assessed for	850 153,447 \$4,522,297 \$2,234,112	124 20,762 \$675,322 \$305,882	257 49,204 \$1,435,666 \$ 726,350	469 112,239 \$2,411,982 \$1,201,880
of amount sold for	49,40	45.29	50,59	49.83
for is of assessment	202.40	220.80	197.70	194.00

"The records were investigated for any mortgages in these cases and, if any were found, they were added to either the consideration shown or the value computed from the internal revenue stamps paid.

more efficient scale in the western part of the county because the land is more uniform.

Lewis County (Fig. 2) is bounded almost entirely by canyon land. On the east side along the Clearwater River there is a canyon wall varying generally from 1 mile to 2 miles in width which is land of low value and used for timber and grazing, and wasteland. The southwest panhandle and the land west of Winchester is nearly 100 per cent non-tillable and of low value. Except for minor breaks and canyons the rest of the county is very good crop land. Geologically Lewis County is not part of the Palouse' proper, but economically it can be considered as such. The land has the main advantage over the other two counties of being better adapted to large-scale farming. The scale of farming is much larger than the size of ownership units would indicate. The main reasons for this are that there is a considerable amount of land rented (part owners) by operators who own some land, and there is considerable cooperation in combined management and use of machinery among owners of smaller farms. Although there is a trend away from naked fallow toward rotational crops, some vegetable-seed production, and a slight shift toward more livestock, the dominant factor in the value of farm lands is the potential wheat production.

Of these three counties Nez Perce (Fig. 3) contains the land that is most difficult to generalize. The physical features are more irregular, consequently a more varied type of agriculture, and there probably are greater differences in value because of locational factors. (Because their problems are greatly different from the general, the Lewiston Orchards were omitted from the study.) The county was divided into seven areas. (See Fig. 3). These areas were treated separately in studying the status of the assessment

³The Palouse is a land area the major part of which is located in Whitman County, Washington, and Latah County, Idaho, but extending irregularly into adjoining counties. The soil is generally fertile Palouse silt loam (a black deep prairie-grass soil). The area is typified by a rolling to hilly relief. The summers are dry with sufficient fall and winter precipitation. Conditions are very favorable for fall grains, peas, or extensive seed crops needing favorable harvesting weather.



Figure 1.-Selling prices per acre, Latah County, Idaho, 1936-1940.

and excepting area 7, which was about 40 per cent above the county average, the percentage of market value shown in the assessment was reasonably constant. Excepting area 7, which contains timber, grazing, and waste land, wheat production is scattered throughout the county with generally poorer wheat yields in area 2 than in the other areas. All the areas containing wheat lands have lands ranging from excellent wheat land to very poor canyon land. The line drawn between areas 2 and 4 is somewhat arbitrary, but both wheat yields and land values increase as one begins at Canyon Creek and proceeds toward Lapwai. The line was drawn in such manner that there would be as much difference as possible in the quality and value of the land in the two areas. Other area lines generally followed more distinct physical land features.



Figure 2.-Selling prices per acre, Lewis County, Idaho, 1936-1940.

Farmers' opinions on the value of farm land were invited in all three counties. Ordinarily the opinions were either so few or so varied that no general idea could express them, but there seemed to be a fair consensus in Lewis County that good farm land was selling at about ten thousand dollars a quarter. The actual selling prices studied bore this out well for 30-bushel land or better. These opinions also revealed that it was relatively easy to pay, out of farming operations, for the better farm lands at the going prices.

Mortgages Where Mortgagees Are Banks or Individuals

The mortgaged indebtedness against Idaho farms has been declining since about 1920. Since that time the Federal Land Bank has become more important in financing long-term farm credit in Idaho. According to the Bureau of Agricultural Economics,¹ the Federal Land Bank and Land Bank Commissioner loans in Idaho totaled about 35 million out of the total Idaho farmmortgage debt of 87 million dollars. The same reference shows

¹Bureau of Agricultural Economics, U.S.D.A., "Agricultural Loans in Idaho" Washington, D. C., April 1942.



Figure 3.—Selling prices per acre, Nez Perce County, Idaho, 1936-1940.

that the farm-mortgage interest rate has steadily declined from 8.5 per cent in 1910 to 5.3 per cent in 1940 for all lenders and to 6.4 per cent on mortgages held mainly by banks and individuals.

Apparently interest rates in Nez Perce and Latah counties have been somewhat below the state average. The Bureau of Agricultural Economics shows that the average interest rates for the mortgages held by individuals and banks for the state was 7.2 per cent in 1930 and 6.4 per cent in 1940, while the respective figures for Latah and Nez Perce counties (*Table 2*) were 6.74 and 5.22 (based on the "weighted" average).

It was generally the case that mortgages on larger acreages with larger principals and longer duration had lower interest rates. It is logical that these should be lower because the lenders had less bother for each dollar of interest received. Note from Table 2 that the "weighted" interest rate was consistently lower than the "unweighted." This merely means that the larger mortgages, which affected the "weighted" rate relatively more than the "unweighted," had the lower rates. Both large and small, however, show a downward trend.

In some respects it is not entirely fair to compare interest rates in the individual-held mortgages with the rates given by other lenders. In Latah and Nez Perce counties (*Table 3*) it is quite evident that long-term credit is generally not furnished by individuals or local banks. The typical duration of the mortgage is only 5 years. Generally those of longer duration contain lower interest rates. It is noteworthy that the mortgages that called for interest rates of 7 per cent and more are of very short duration the great majority of them being for 3 years or less. Rather than financing the purchasing of land the individuals and banks are financing the purchasing of livestock, equipment, improvements, machinery, and other things, and taking mortgages on the land as security. Although 12 out of the 162 mortgages having interest

	Number of		Total insignitual	Deinsignt	Avera rate in	ge interest i per cent	Interest
icar	mortgages	mtged	of mortgages	per acre	Weighted*	Unweighted*	per annun
$\begin{array}{c} 1930\\ 1931\\ 1932\\ 1933\\ 1933\\ 1934\\ 1935\\ 1936\\ 1937\\ 1938\\ 1939\\ 1940\\ \end{array}$	151 145 131 63 26 71 82 107 72 95 92	$\begin{array}{r} 31393\\ 32608\\ 25580\\ 12579\\ 13443\\ 14728\\ 16305\\ 27254\\ 15405\\ 17900\\ 21922 \end{array}$	\$540,414 558,875 402,022 258,759 117,941 213,785 262,581 479,998 307,652 305,276 \$401,018	\$17.22 17.14 15.72 20.57 8.77 14.52 16.10 17.61 19.97 17.05 \$18.29	6.74 6.47 6.55 5.08** 5.83 5.71 5.44 5.41 5.16 5.09 5.22	$\begin{array}{c} 6.93 \\ 6.89 \\ 6.63 \\ 6.12 \\ 5.90 \\ 5.76 \\ 5.75 \\ 5.65 \\ 5.61 \\ 5.45 \\ 5.28 \end{array}$	\$1.16 1.11 1.03 1.05 0.51 0.83 0.88 0.95 1.03 0.87 \$0.95

Table 2.—Interest rates, amounts, and annual interest payments per acre in 1035 bankand individual-held mortgages drawn during 1930-1940, Nez Perce and Latah counties, Idaho.

"The "weighted" average interest rate gives weight to the mortgages in proportion to amounts of the principals. If one were to buy all the mortgages and collect the stipulated interest, this is the rate he would realize on his investment. The "unweighted" is merely an average of all the rates found in the mortgages disregarding the amounts of the principals.

realize on his investment. The unweighted is inerely an average of an the rates found in the mortgages disregarding the amounts of the principals. **In this year there was an abnormally large mortgage with a 3 per cent interest rate. Omitting this mortgage leaves a weighted average interest rate of 5.78 per cent, but the interest per acre per annum would not be increased because the amount of principal per acre was high in this mortgage.

Table 3.-Interest rates and duration of 887 mortgages where the mortgagees are local banks or individuals, Latah

				Number	of mortgage	es grouped	by the int	terest rate a	down on t	he mortgag	record		
iration in years	All rates	Less than 3	3.0 to 3.49	3.5 to 3.99	4.0 to 4.49	4.5 to 4.99	5.0 to 5.49	5.5 to 5.99	6.0 to 6.49	6.5 to 6.99	7.0 to 7.49	7.5 to 7.99	8 and over
l year or less	105				1		2	1	15		10		71
0	70				3	-	2	1	21	-	=		25
3	157		1		5	0	23	+	59	4	30		32
+	58		53		3	53	19	3	23		-		2
5	361	3			18	6	16	11	159	14	35	-	20
9	20				2		11		9		-		
7	13						3	1	8		-		
8	6				-		1		3	1	-		63
6	11				-	+	4		2				
10	59				6	2	21	2	10		-		x
er 10 urs	24		-4		2		5	4	5	-	-		. 61
rtgages	887		2		42	23	192	30	311	21	95	-	162

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rates of 8 per cent and over (most of these were an even 8 per cent) were for periods longer than 5 years, the typical rates for mortgages of longer duration were 5 and 6 per cent. The trend was toward 5 rather than 6.

Forces That Affect the Market of Farm Land in the Area

The three groups that apparently have been most instrumental on the land market have been the landlords, farm operators, and lenders who accept farm land as security. The part played by each of these groups is not the same as that of the others. In fact, the influence of the farm operator is considerably different from that of the other two as it affects the value of the land. In fact his influence frequently seems to be entirely nullified by the other two.

The Influence of Farm Mortgages on Land Values

It has been a rather general observation in other areas that those who accept farm land as security for loans overrate the poorer lands and underrate the better lands. Table 4 shows that the mortgages in Latah and Nez Perce counties held by banks and individuals are generally higher on lands with higher wheat vields but there is not as much difference as the difference in vield would warrant. It should be borne in mind that these mortgages are not merely upon the bare land but also include improvements. This may account for some of the abnormally high mortgages on land with low wheat yields—such as the case in the 20-24.9-bushel class mortgaged for 60 dollars or more per acre. In order to offset this it is safer to reason about the more normal cases in each class. In general the mortgages are well below the average selling price in each class of land, but, as will be shown later, this is not a relatively good measure of loan-carrying capacity on all grades of land.

Table 5 shows that generally the larger the tract mortgaged the smaller the amount of the mortgage per acre. Causes for this are probably varied and it would certainly be somewhat speculative to make an effort to enumerate all of them, but it follows that there is a tendency to borrow (or lend) the same amount of money despite the difference in security for the loan. This seems

Table 4.—Amount of mortgage per acre and wheat yields in 647 bank- and individual-held mortgages, Latah and Nez Perce counties, Idaho, 1930-40

Amount of	Number	of mortgag	es grouped	by wheat-yi	eld classes	in bushels	per acre.	
mortgage per acre	Over 50 bushels	40-49.9	30—39.9	25—29.9	20-24.9	15-19.9	Under 15 bushels	Total
Over-\$60 55-59.99 50-54.99		2	14 4 10	6 2 5	1	2		21 8 17
45-49.99 40-44.99 35-39.99	1	2 3 3	7 14 20	4 7 11	3 3 4	43		$ \begin{array}{r} 17 \\ 31 \\ 41 \end{array} $
30 - 34.99 25 - 29.99 20 - 24.99 15 - 19.99 10 - 14.99	1	4 4 4 6 4	19 26 21 27 33	22 26 19 32 17	6 20 10 19 22		1 1 1	56 80 61 96 90
5—9.99 \$0—4.99 Total	2	4 2 38	26 10 231	26 11 188	20 11 119	9 6 62	2 2 7	87 42 647

Number	Num	ber of mo	rtgages gro	uped by do	llars of mo	rtgage per	acre	
of acres in tract	Less than \$5	5 to 9.99	10 to 19.99	20 to 29.99	30 to 39.99	40 to 49.99	\$50 and over	All mtges.
Less than 40 40-79 80-119 120-159 160-199 200-239 240-279 280-319 320-359 360-399 400-799 800-1199 1200-1599	9 10 30 1 14 8 6 1 15 8 4	17 26 30 67 11 18 10 16 8 9 4	$\begin{array}{c} 1\\ 32\\ 58\\ 50\\ 102\\ 15\\ 12\\ 10\\ 13\\ 2\\ 22\\ 5\end{array}$	$ \begin{array}{c} 1\\ 26\\ 31\\ 22\\ 45\\ 4\\ 10\\ 9\\ 8\\ 3\\ 14\\ 2\\ \end{array} $	$ \begin{array}{c} 1\\ 25\\ 22\\ 10\\ 29\\ 13\\ 5\\ 2\\ 5\\ 1\\ 15\\ \end{array} $	4 14 6 15 4 4 1 2 3	$ \begin{array}{c} 2 \\ 13 \\ 9 \\ 10 \\ 2 \\ 1 \\ 2 \\ 3 \\ 1 \\ 2 \end{array} $	5 117 173 137 2988 50 64 42 53 16 80 19 4
1600—& over Total	107	1 217	322	175	128	53	58	1060

Table	5.—Size of tract mortgaged and amount of mortgage per acre	in 1060
	bank- and individual-held mortgages, Latah and	
	Nez Perce counties, Idaho, 1930-1940.	

to point to the conclusion that some farmers have more land because they had more to buy it with, rather than having bought more because they were able to borrow more to buy it with. Undoubtedly the efficiency in farming, in many instances, could be increased materially if the operators would, or could, borrow more in order to obtain larger and better units. It probably is true that in many of the cases showing a large mortgage on a small acreage that the character of the borrower (particularly his capacity as a laborer) has influenced the size of the loan. This, of course, should not be condemned; but it leads to over-lending and consequently overvaluation of some types of land which frequently are not of the best. Because the labor factor is relatively more important on poorer lands and smaller units, these are more likely to be overvalued by this practice.

Selling Prices, Wheat Yields, and Assessments

The land in the three counties varies considerably in wheat production. The wheat-yield data used in Table 6 were obtained from a study using average yields of 1929 to 1932 inclusive. While the average yield for the area is probably in the neighborhood of 27 bushels per acre, the average yield of the land sold was 29.6 bushels. Some of the land runs over 40 bushels and some below 20 bushels.

Values Based on Productivity Compared with Selling Prices and Assessments

The main influence in determining the value of the land shown in Table 6 has been the expected wheat production. Since wheat production has been by far the most dominant farm enterprise, it has largely determined how much could be paid for the land. It has not been the only factor in the value of land to be sure, because distance from market, type of road, slope of land, degree of weed infestation, size of fields, and others, are factors; but the expected wheat yield has been the one dominant factor.

The total average annual wheat production on the 57,560 acres of crop land shown in Table 6 was 1,702,024 bushels. From this it is possible to set up a relationship of the total production and the selling price of the land. The total consideration (selling price) of the 57,560 acres was \$3,174,871. This means that for every bushel of wheat produced per harvest, \$1.87 worth of land value arose. This was the average for all the wheat-yield classes. Note that more value per bushel arose (or less production results per dollar of land value) on the poorer lands. Assuming that a

			Wheat yiel	ds in bushels	per acre	
Item*	All yields	40 to 49.9	30 to 39.9	25 to 29.9	20 to 24.9	15 to 19.9
1. Number of transfers 2. Number of crop acres 3. Total production (bushels)	$\begin{array}{r} 450\\ 57,560\\ 1,702,024\\ 3,174,871\\ 1,007,300\\ 694,724\end{array}$	17 3,864 173,880 279,100 67,620 106,260	$157 \\ 21,533 \\ 753,655 \\ 1,327,536 \\ 376,828 \\ 376,827 \\ 376,827 \\ \end{array}$	$\begin{array}{r} 106 \\ 14,023 \\ 385,633 \\ 681,937 \\ 245,403 \\ 140,230 \end{array}$	126 14,281 321,323 727,624 249,918 71,405	44 3,859 67,533 158,674 67,533
 Selling price of land per bu. above fixed costs Selling price of land per total bushels 	\$4.57 1.87	\$2.63 1.61	\$3.52 1.76	\$4.86 1.77	\$10.19 2.26	2.35
 Selling price per crop acre Productivity value based on amt. above fixed costs Productivity value based on 	55.16 55.16	72.23 125.68	61.65 79.98	48.63 45.70	50.95 22.85	41.12 5.00**
total yield	\$55.16	\$84.15	\$65.45	\$51.43	\$42.08	\$32.73

Table 6.—Selling prices and two types of productivity value on various wheat yields, Latah, Lewis, and Nez Perce counties, Idaho, 1936-1940

*Item 5 is the amount of production (marginal yield) that would give an average return to operators if they would neither have to pay rent nor buy their land. These are costs that remain the same regardless of the yield. Item 7 was obtained by dividing item 4 by item 6, which shows that, on the average, a bushel above the fixed costs gives rise to \$4.57 of land value but shows different results for different grades of land. Item 8 was obtained by dividing item 4 by item 3 and the \$1.87 (average) represents the land value arising from each bushel produced—not allowing for the fixed costs. Item 10 was obtained by multiplying \$4.57 by the amount of yield above fixed costs, (above 17.5 bushels) and item 11 by multiplying the total yield by \$1.87. **This land merely returns the fixed costs, consequently should not fetch rent or have any value for growing wheat, but has an estimated value of \$5.00 for grazing.

bushel of wheat in excess of all costs other than rent is a bushel of wheat whether raised on poor land or good land the same amount of land value ought to arise in either case. Item 11 in Table 6 shows the value that would have resulted had a bushel of wheat given rise to \$1.87 on all grades of wheat land. On this basis the better land would have risen above the market price and the poorer land would have fallen below. Above and beyond this, those costs which are the same regardless of the differences in yield were not allowed for in the "gross-productivity" values.

An effort was made to study the costs of producing wheat in the area. It was found, by observation and gathered data, that lands which produced less than 17.5 bushels of wheat did not remain in continuous production. From this it was assumed that it took at least this amount of production to cover expenses other than rent, including an average labor-plus-management income to the operator. Actual costs of farm operations necessary to wheat production were studied. Tenants' returns on average land upon giving a one-third share to the landlord (the most common system of leasing in the area) were calculated. The results of these three approaches to the problem seemed to indicate that the costs that remain the same regardless of differences in yield are in the neighborhood of 17.5 bushels. These costs do not include any land rent or interest on any investment in land.

The "Productivity value based on amount above fixed costs" in Table 6 was calculated by assuming that the amount left over after all other costs are paid gives rise to land value. The "fixed costs" which remain the same and are unavoidable on poor as well as good land must be paid before any land rent can be paid or any land value arises. Multiplying 57,560, the number of acres, by 17.5 bushels gives fixed costs of 1,007,300 bushels. Deducting this from the total production leaves 694,724 bushels to give rise to the land value of \$3,174,871, or 1 bushel above fixed costs, on the average land, gives rise to \$4.57 in land value. This differs greatly among the various grades of land however. Multiplying the amount of production above fixed costs on the 45-bushel (40-49.9) land, which is 45-17.5, or 27.5 bushels, by \$4.57 results in a value of \$125.68, which is very much above the market value. The values resulting for the lands of lower yields are considerably below the market value. Figure 4 shows that these values are not so far apart on the middle groups but considerably different on either the high-yielding or low-yielding lands.

The assessed values (Fig. 4) are quite uniform per crop acre despite the differences in productivity or selling prices. Table 7 is based on total acres, including the value of improvements, rather than being only the value of the bare crop land. It is evident that land of higher value per acre is assessed at a relatively lower per cent of its market value than is the land of lower value per acre. In some instances this works no hardship because the poor land and good land may both be owned by the same party, but in instances of different ownership the owner of the poor land pays relatively more taxes. The discrimination is among grades of land rather than among taxpayers. The data shown on Table 8 are related to the same problem. The more valuable parcels are assessed relatively lower than the less valuable parcels. Some of this, as is indicated in Table 7, is caused by relatively lower assessments on land which is more valuable per acre; but the differences in Table 8 are much greater than those in Table 7. Consequently it can be concluded that not only are the better lands underassessed in comparison with the poorer lands, but the larger holdings are assessed lower than the smaller holdings. This indicates that the larger holdings of better land are likely to be assessed lowest. A solution of these problems would require more public enlightenment, with more technical and clerical aid to assessors.

Owner-Operator Influence Different from Landlord Influence on Land Values

The typical method of leasing on wheat lands in northern Idaho has been a one-third share to the landlord. In some instances the landlord "throws in" pasture land without additional cost to the tenant, but usually such land is relatively unimportant on the

typical wheat farm. The one-third share has been rather constant on good and poor land alike. This leads to an unusual interest in land values on the part of the landlord.

Since the landlord expects to get a third of the crop, he is interested in the gross-productivity value (Fig. 4). To the landlord 40-bushel land is worth just twice as much as 20-bushel land



Figure 4.-Net- and gross-productivity values, selling prices, and assessed values in 450 transfers of wheat land, Latah, Lewis, and Nez Perce counties, Idaho, 1936-40.

¹The net-productivity values were calculated by dividing the total selling price by the total wheat production, less 17.5 bushels per crop acre (allowed for costs remaining the same regardless of differences in yields). This gave an average figure of \$4.57. The average was applied to all grades. For 45-bushel land the formula becomes $45 - 17.5 = 27.5 \times $4.57 = 125.68 . The gross-productivity values were calculated by dividing the total selling price by the total wheat production, giving an average of \$1.87 of land value per bushel produced. This figure was then multiplied by the yield in each class. (See Table 6 and text.) The net productivity in the lowest yield class (15-19.9 bushels) is approximately zero based on wheat raising but has an estimated value of \$5 for grazing.

Table 7.—Percentage the assessment is of the selling price on lands of various prices per acre, Latah, Lewis, and Nez Perce counties, Idaho, 1936-1940¹

•

n	A 11				Number	of transfers	grouped by	the price pa	id per acre				
assessment to is of price	ansfers	Less than \$10.00	\$10 to \$19.99	\$20 to \$24.99	\$25 to \$29.99	\$30 to \$34.99	\$35 to \$39.99	\$40 to \$44.99	\$45 to \$49.99	\$59.99 \$59.99	\$60 to \$69.99	\$70 to \$79.99	\$80 &
09.9 1019.9 1019.9 37039.9 50059.9 6069.9 8089.9 9099.9 90099.9 90099.9 90099.9 90099.9	$\begin{array}{c} 1\\26\\81\\110\\145\\110\\170\\61\\61\\25\\105\\888\\888\end{array}$	223 223 223 223 223	, 20 116 116 8 8 8 116 116 116 116 116 116 1	ທີ ເປັນເປັນເປັນເປັນເປັນເປັນເປັນເປັນເປັນເປັນ	20010182148 200182148	HH8007000 08	04400000004 4	00000000000000000000000000000000000000	22 10 10 10 10 10 10 10 10 10 10 10 10 10 1	26 11 26 12 26 12 26 12 26 12 26 12 26 12 26 12 27 26 12 20 22 20 22 20 20 20 20 20 20 20 20 20 20 20 20 2	$^{+1}_{-1}$	6 8 4 4 1 1 08	50 1 60 50 1 50 50 50

Selling price	Consideration (selling price)	Assessment	Number of transactions	Per cent the assessment is of selling price
Less than \$1,000	\$ 87,154	\$ 82,496	170	94.771.160.152.352.645.943.543.952.4
1,000 to 2,499	295,723	210,213	164	
2,500 to 4,999	660,517	397,267	181	
5,000 to 7,499	687,224	359,173	115	
7,500 to 9,999	759,200	399,324	88	
10,000 to 14,999	903,733	414,899	75	
10,000 to 14,999	327,791	142,737	19	
20,000 and over	665,051	292,117	25	
All groups*	\$4,386,393	\$2,298,226	837	

Table 8.—Value of parcel and level of tax assessment in 837 transfers of rural land, Latah, Lewis, and Nez Perce counties, Idaho, 1936-1940¹

¹For Latah and Lewis counties the assessment for the year 1940 was used. For Nez Perce County the 1938 assessment was used but, according to the assessor, there had been no sigificant change between this and the 1939 and 1940 assessments. A few transfers which took place in 1935 and 1941 were included in the tabulation.

*A general effort was made to include only transfers containing some farm land. On this basis 75 transfers were omitted. One more transfer was omitted because it was abnormally large both in value and acreage.

so long as he gets the same fraction of the crop on either land. This is considerably different from the interest of those who purchase land in order to operate it.

The owner-operator bases his value upon the gross productivity (or total crop) only insofar as he has to meet the competition of landlord buyers. His situation is different from that of the landlord because he has to pay the fixed operating costs which remain constant on poor as well as good land. These were found to be about 17.5 bushels in the area. If he were to place relative values on 40-bushel and 20-bushel land he would first deduct 17.5 bushels from each yield and his values would be in the proportion of 2.5 to 22.5 because this would be the amount above fixed costs. The reason that land values have not been in these proportions in the past is that the landlord has been able to set values on the basis of receiving a third of the crop. When the prospective land purchaser has estimated what land is worth to him as an operator, he has calculated the value of the share he would have to give a landlord if he were to rent rather than buy. However, the value arrived at in this manner overvalues the poorer land and undervalues the better land.

Owner-operator costs were budgeted on the various classes of wheat land. On the basis of the selling prices found in the study, the average owner operator on average land would realize a return of about 4.5 per cent on his investment. This, however, is an average for all wheat land. On 45-bushel land the return was 8.7 per cent, on 35-bushel 6.4 per cent, while on 22.5-bushel land it was only 1.4 per cent. The net-productivity values, which were calculated, would give owner operators average returns on their investment on all grades of land.

Rental Adjustments and Land Values

There are indications of a growing trend toward breaking away from the customary one-third share rent on all grades of land. Particularly in Lewis County, higher shares are given to the landlord on better land and, in a few instances, less than onethird is given as rent on poorer-than-average land. Cash rents are taking the lead in this—rising relatively more on the better land. Figure 5 shows what these shares would be on wheat lands of different potential yields if the tenant were to have equal opportunity on all grades. Although not at all common as yet, the tendency seems to point in the direction of conforming somewhat with the shares shown on Figure 5. Should this tendency continue to grow, it will have serious effects on the relative values of different grades of land. The landlord's influence will then conform





with the owner operator's influence which will bring about land values more in keeping with the *net-productivity values* rather than the gross productivity values. This is not restricted to the wheat lands in northern Idaho, but, since so much more is being learned about the potential yields of land, will affect other areas with customary crop-share rents. The shock of this readjustment could be materially softened by guiding the land values by placing price ceilings on land in terms of potential wheat production in periods of rising prices.

Summary

During the decade of 1930-1940 the average interest rate in Latah and Nez Perce counties in loans secured by farm mortgages, and in which the mortgagees were either local banks or individuals, decreased from about 7 per cent to slightly over 5 per cent. The typical duration of these loans was only 5 years. Generally the loans made for larger amounts and for longer duration contained lower interest rates. Apparently only a small number of the loans made by local banks and individuals actually financed the purchase of farm land. Poorer lands have been overrated in lending policies while better lands have been underrated.

Selling prices correlate very well with the total wheat yields. However, the selling prices do not correlate very well with the probable net income from land to operators. The amount out of which an owner operator must pay for his land is the income above costs other than land costs. While present market prices are in effect the owner operator has better opportunities on the better land—with a probable return of about 8.7 per cent on his land investment on 45-bushel land and only 1.4 per cent on 22.5bushel land. The market value of wheat land has been gauged to landlord incomes, based on a constant share of rent on all grades of land, rather than to owner-operator income. A slight trend toward giving the landlord larger shares on the better land and smaller shares on the poorer land is evident. Should this continue and grow, the market values of poorer land will decline relatively and that of the better lands will rise. Control of land values during the war should offer opportunity for adjusting the relative values of various grades of land with the minimum amount of shock.

