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IN THE PACIFIC COAST STATES  
1923-1942

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EDWARD G. DANIEL

*Minor Professor of Business Administration  
University of Oregon*

DEPARTMENT OF BUSINESS RESEARCH  
SCHOOL OF BUSINESS ADMINISTRATION  
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ORDINARY life insurance represents, from the individual's point of view, the voluntary purchase of increased financial security. The possession of a policy gives immediate financial protection to the family in event of the insured's death. In the long run, as premiums are regularly paid in and the cash value of the policy increases, insurance becomes an important form of voluntary saving. Purchase of life insurance indicates on the part of the individual a realization of financial responsibility toward the family; and it represents a voluntary sacrifice, to the amount of the insurance premium, in order to meet this responsibility.

Any significant change in life-insurance sales per capita, therefore, not only produces a change in the security of the average American family but also indicates some change in the disposition or ability of individuals to purchase additional security for themselves. Examination of insurance sales data for the last decade should be illuminating in view of the recent growth of compulsory social-security plans. Although the experience of any one state cannot be taken as typical, it is significant that one-fourth of the 2,132 Massachusetts families reached by the T.N.E.C. survey of 1939 were receiving some form of public assistance and, therefore, lacked financial security.<sup>1</sup>

Total life-insurance premiums paid during the thirteen years from 1929 through 1941 averaged 5.47 per cent of total national income payments.<sup>2</sup> For this reason, life insurance must be considered as an important segment of American business. At least eight university research bureaus list life-insurance sales as an indicator of business activity, and three of these include life-insurance sales data as a component part of an index of general business activity.

Furthermore, life insurance affects the economic life of the vast majority of American families. The T.N.E.C. survey shows that 92 per cent of the representative families contacted were either carrying life insurance or had carried it at some time, and

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<sup>1</sup> *Families and Their Life Insurance* (temporary National Economic Committee, U. S. Government Printing Office, Washington, D. C., 1940), p. 9.

<sup>2</sup> Insurance premiums from the *Spectator Yearbook*; national income payments from the *Survey of Current Business* (1942 Supplement), p. 6.

that 79 per cent were actually carrying life insurance at the time the survey was made. During the five-year period from 1937 through 1941, a total of \$10.1 billion was saved through life insurance, savings deposits in "all active banks", and postal savings. Of this total, approximately 75.7 per cent was saved through the agency of life insurance.<sup>3</sup> Savings from these sources account for a significant portion of the total savings stream; life insurance, consequently, provides for the average American family one of the most important means of saving for the future.

Life-insurance premiums are invested by the insurance companies, and life insurance thereby provides an important source of the nation's capital. With reference to a period ending in 1939, a recent study by The Brookings Institution concludes that "The savings effected through life insurance companies alone greatly exceeded the aggregate volume of corporate flotations, including stocks, in every year after 1931."<sup>4</sup> In view of this important connection with capital formation, insurance sales data over a period of years can profitably be inspected for business-cycle fluctuations. It is also important to ascertain whether the propensity to purchase life insurance changes significantly as income rises and falls.

In this study, attention will be focused on the ordinary life-insurance sales in the Pacific Coast region, with special emphasis upon the data which apply to Oregon.

The computations and conclusions are based on data compiled by the Life Insurance Sales Research Bureau, Hartford, Connecticut. These basic data represent the sales of new paid-for ordinary life insurance, exclusive of group and wholesale business, increases, dividend additions, annuities, and reinsurance from other companies. For the three years 1940 through 1942, ordinary life-insurance sales averaged 66.4 per cent of total life-

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<sup>3</sup> This estimate is based upon the annual increments to these two classes of savings deposits and the annual increments of the admitted assets of life-insurance companies. Data on savings in "all active banks," exclusive of postal savings, are from the annual reports of the Comptroller of the Currency. Postal-savings data are from the annual reports of the Postmaster General. Admitted assets of life-insurance companies were obtained from the reports of the Association of Life Insurance Presidents as recorded in the 1942 supplement of the *Survey of Current Business*, p. 68.

<sup>4</sup> H. G. Moulton, *et al.*, *Capital Expansion, Employment, and Economic Stability* (Brookings Institution, Washington, D. C., 1940), p. 40.

insurance sales. The data are compiled from 53 contributing companies which account for approximately 81 per cent of all the business. The volume has been raised by the bureau to represent total sales of ordinary life insurance of all companies in the continental United States. A ratio of the sales of the 53 companies to annual sales of all companies in each state based upon four years' aggregate experience is used to raise the volume figures to 100 per cent.

## DOLLAR VOLUME OF SALES

The dollar volume of ordinary life-insurance sales for Oregon, Washington, and California and the percentage relationship of this volume in each of these three states to total ordinary life-insurance sales in the United States are shown in Table I. The annual volume of sales for Oregon during this twenty-year period was much smaller than the sales in Washington and California. On the average, Washington sales were 171 per cent of Oregon sales, and California sales were 707 per cent of Oregon sales.

TABLE I. ORDINARY LIFE-INSURANCE SALES IN PACIFIC STATES, 1923-1942\*

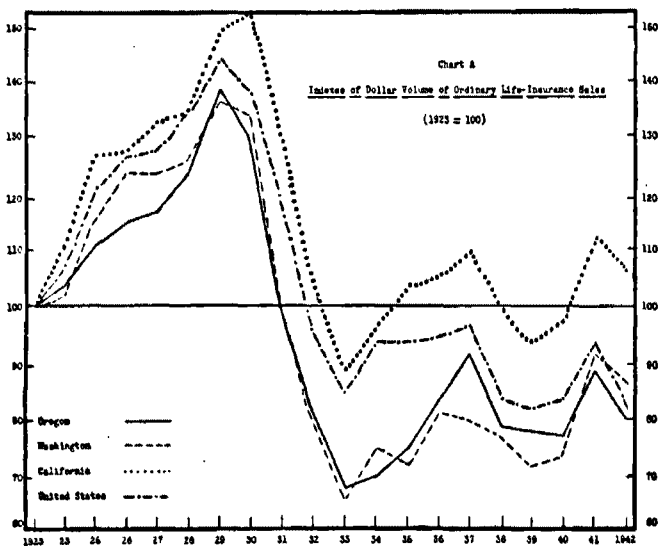
Year	Volume of Sales (Thousands)			Per Cent of Total U. S. Sales		
	Oregon	Washington	California	Oregon	Washington	California
1923	\$70,639	\$121,705	\$413,912	.91%	1.57%	5.34%
1924	73,465	124,139	463,582	.89	1.49	5.58
1925	73,608	141,519	523,848	.83	1.49	5.54
1926	80,966	151,425	529,086	.82	1.54	5.38
1927	82,585	151,425	550,249	.83	1.52	5.52
1928	87,540	152,939	561,254	.84	1.46	5.38
1929	98,045	166,704	617,379	.87	1.48	5.49
1930	91,182	163,370	635,900	.85	1.51	5.91
1931	70,130	121,833	534,690	.75	1.29	5.70
1932	57,402	96,087	436,653	.76	1.27	5.79
1933	47,594	79,043	370,043	.72	1.19	5.60
1934	49,745	91,812	402,526	.68	1.26	5.52
1935	53,153	88,361	433,325	.73	1.21	5.95
1936	59,443	98,563	442,772	.81	1.34	6.02
1937	64,607	97,926	455,883	.86	1.29	6.05
1938	55,533	82,662	416,178	.85	1.26	6.37
1939	55,099	88,392	398,425	.86	1.37	6.20
1940	54,665	90,599	406,112	.83	1.38	6.18
1941	62,818	112,541	469,591	.86	1.53	6.41
1942	56,281	110,887	440,232	.89	1.75	6.95
Ave.	\$67,475	\$116,597	\$475,082	.82%	1.41%	5.84%

\* Computed from data supplied by the Life Insurance Sales Research Bureau.

Examination of the percentage figures shows that during the general business upswing from 1923 through 1929 the sales of Oregon and Washington rose less rapidly than United States sales and therefore display a falling percentage of the national total.

California sales rose more than United States sales and show a rising percentage of national sales.

During the downswing from 1929 through 1933, Oregon and Washington sales fell more rapidly than United States sales; thus the ratio of sales in these states to national sales continued to decline. The sales of California fell less during the depression than United States sales and thus constituted a continued rise in the percentage of national sales.



By 1942, Washington had more than regained her 1923 percentage of total United States sales, and Oregon had nearly regained her former relative position. Throughout the twenty-year period, the California figures show a steady increase in the percentage of United States sales, reflecting a more rapid trend of growth. The percentage figures indicate that the general business depression had a relatively greater depressing effect upon the sales of Oregon and Washington than upon the sales of California or the United States.

In order to visualize better the comparative movements of sales in these areas, index numbers have been constructed on the basis of 1923=100. These relative movements are shown on Chart A. The index numbers are given in Appendix I, page 21.

The absolute volume of sales grew markedly for the three Pacific Coast states and for the United States from 1923 through 1929. During the depression the absolute volume of sales declined rapidly in all these areas until the bottom was reached in 1933. Beginning in 1933, there was a steady growth in sales through 1937. After 1937, the volume of sales decreased significantly during the general business slump which endured until the beginning of the war program in 1939. By 1942, none of these areas had even closely approached the sales volume experienced in 1929, and only California sales regained the magnitude of 1923. It is quite evident from Chart A that ordinary life-insurance sales have shown wide cyclical fluctuations—falling in depression and rising in the more prosperous periods.

This conclusion is further substantiated by a comparison of the index of insurance sales with the Federal Reserve index of physical volume of production for the United States during the twenty-year period under consideration. The broad movements in the insurance-sales index were similar to the cyclical fluctuations displayed in the index of the physical volume of production until the production figures were distorted by the outbreak of war in 1939.<sup>6</sup>

Additional evidence is provided by the fact that, during the wide swings of national income from 1929 to 1940, the percentage ratio of per capita insurance sales to per capita income varied only between 15.3 and 8.7, a fairly close correlation between insurance sales and income for the United States. Hence, if national money income is substituted for the physical volume of production as an index to general business activity, the same general movement with insurance sales is found to exist.<sup>6</sup>

Further examination of Chart A reveals certain differences among these areas in the movement of insurance sales. The growth of sales from 1923 to 1929 was greater and more rapid for California than for Oregon, Washington, or the United States. The California index did not drop as low in 1933 as in these other areas, and its recovery after 1933 was greater. The indexes of the dollar volume of sales, like the percentage ratios in Table I, indicate that the depression produced a greater relative effect upon

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<sup>6</sup> The indexes of physical volume of production and of ordinary life-insurance sales are given in Appendix II, page 21.

<sup>6</sup> See Table V, page 14.

the insurance sales of Oregon and Washington than upon California or national sales.

Since the war program began, ordinary life-insurance sales in the United States have not kept pace with the increase in general business activity. Although insurance sales during 1941 exceeded 1940 sales by 11.5 per cent, the physical volume of production in 1941 exceeded the volume in 1940 by 26.4 per cent. In 1942, the absolute decrease was quite marked: 1942 sales were only 86 per cent of 1941 sales, whereas the 1942 physical volume of production was 115 per cent of the 1941 figure.

The percentage changes in ordinary life-insurance sales after the war program began are shown in Table II.

TABLE II. PERCENTAGE CHANGES IN ORDINARY LIFE-INSURANCE SALES\*  
(Annual percentage changes based on previous year)

Year	Oregon	Washington	California	Pacific Coast	United States
1940	-.79	2.50	1.93	1.74	2.15
1941	14.91	24.22	15.63	16.97	11.49
1942	-10.40	-1.47	-6.25	-5.82	-13.48

\*Computed from the sales data of the Life Insurance Sales Research Bureau.

The changes in sales during 1940 were not significant, but the increase during 1941 is marked in all areas. Washington shows a greater percentage increase than the other Pacific Coast states for 1941, but in all three states the percentage increase was greater than in the nation at large. More significant is the large decline of sales in the United States during 1942. Since the war, insurance sales in Washington have held up better than in the other areas here considered: the increase was greatest during 1941 and the decrease in 1942 was least in that state. The percentage decline during 1942 was greater in Oregon than in Washington or California, but less than the national average. The decline in 1942 for the three Pacific Coast states taken together was considerably less than for the country as a whole. This may be due to the presence of lumber, airplane, and shipbuilding industries which have drawn into this region more than a proportional share of defense expenditures.

Several separate factors have cooperated to cause the 13.5 per cent decline in ordinary life-insurance sales during 1942 for the country at large.



First, nearly 30 per cent of the prewar life-insurance sales force is now in the armed services or in defense industries.<sup>7</sup>

Secondly, the war has produced a redistribution of income from the large-income to the small-income groups. The large-income groups are suffering severe curtailments of available income because of the rise in living costs, highly progressive income taxation, and purchase of war bonds, and because their businesses or those in which they hold equities have been adversely affected by the impact of the war program. On the other hand, the war industries have made huge income payments to labor as employment and wage rates have increased. This shift in the distribution of income operates to decrease insurance sales because the greatest demand for insurance comes from the large-income groups. The Institute of Life Insurance has estimated that 68 per cent of the dollar volume of ordinary life-insurance sales is made to persons with incomes exceeding \$2,000 per year.<sup>8</sup>

A third factor decreasing the sale of *ordinary* life insurance is the growth of *group* life insurance. Millions of war workers now receiving increased incomes are buying group insurance. Group insurance now covers 14,000,000 employees of 34,000 companies, and the average-size coverage is \$1,500. Almost one-half of these employees have no other form of life insurance. The bulk of the new buyers of group insurance are in the war industries. The group insurance in force in the United States and Canada in 1938 totaled \$13.5 billion; by the end of 1942 this total had risen to \$21 billion—an increase of 55.5 per cent.<sup>9</sup> Data provided by the Association of Life Insurance Presidents indicate that, whereas in 1942 the dollar volume of ordinary life-insurance sales dropped by approximately 12 per cent, the volume of group life insurance increased by approximately 36 per cent.<sup>10</sup> Thus it may be seen that, while the shift of income is decreasing the purchasing ability of the best buyers of ordinary life insurance, those groups receiving the greatest increase in available income spend a smaller percentage of their income for life insurance than do the higher-income groups, and a growing proportion of the funds which the former groups

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<sup>7</sup> *Best's Insurance News* (Feb. 1943), p. 47.

<sup>8</sup> *Best's Insurance News* (Oct. 1942), p. 22.

<sup>9</sup> *Best's Insurance News* (Feb. 1943), p. 22.

<sup>10</sup> *Ibid.*, p. 5. The estimates of this association differ slightly from those of the Life Insurance Sales Research Bureau used above in Table II.

do spend on life insurance is expended for group rather than for ordinary insurance.

The sudden and rapid growth in the volume of war insurance provided for the armed forces by the Federal government may be a fourth factor working to decrease the sale of ordinary insurance. Approximately one-third of life-insurance policies are sold to males under thirty years of age. This group is now providing the great bulk of our armed forces; and the armed forces are eligible for the purchase of the cheaper Federal war insurance.

The percentage distribution of the dollar volume of ordinary life-insurance sales in the United States for the period 1923 through 1942 is given by regions in Table III.<sup>11</sup> For this twenty-year period, the sales in the three states of the Pacific Coast region averaged 8.1 per cent of total United States sales. After 1934, the Pacific Coast region achieved an increasing percentage of total national sales. The most significant increase is the rise of Pacific Coast sales in 1942 to 9.6 per cent of total sales. This reflects the fact, already noted, that sales in the Pacific Coast states declined less during 1942 than in the nation as a whole. The Middle Atlantic region attained the largest percentage of total sales, but after 1934 this region experienced the greatest relative decline in sales. The percentages for this region show an inverse correlation with the business cycle: the share of total sales rising in depression and falling during the more prosperous years. The share of Pacific Coast sales shows direct correlation with the business cycle: the percentage of total sales falling in depression and rising in the period of business recovery. For the twenty-year period, however, the Pacific Coast states show a gradual upward trend in their share of the total ordinary life-insurance sales of the nation.

#### PER CAPITA SALES

Per capita ordinary life-insurance sales and the indexes of per capita sales are given in Table IV. The annual per capita sales for California averaged \$83.49 for the twenty-year period as compared with the average of \$66.51 for the United States. The average was \$73.23 for Washington; the Oregon average of \$69.79 was the lowest among the three Pacific Coast states but still above

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<sup>11</sup> See Appendix III, p. 22, for the dollar volume of sales by regions. See Appendix IV, p. 23, for the regional grouping of states adopted by the Sales Research Bureau.

TABLE III. PERCENTAGE DISTRIBUTION OF ORDINARY LIFE INSURANCE SALES BY REGIONS, 1923-1942\*

<i>Year</i>	<i>United States</i>	<i>New England</i>	<i>Middle Atlantic</i>	<i>East North Central</i>	<i>West North Central</i>	<i>South Atlantic</i>	<i>East South Central</i>	<i>West South Central</i>	<i>Mountain</i>	<i>Pacific Coast</i>
1923	7,743.6	7.0	27.1	21.8	11.0	9.4	5.2	8.0	2.6	7.8
1924	8,300.3	7.1	28.8	21.6	10.4	8.9	4.8	7.9	2.6	8.0
1925	9,442.6	7.0	28.9	21.3	10.5	9.3	4.8	7.9	2.5	7.9
1926	9,828.6	7.1	29.0	21.6	10.4	9.2	4.7	7.8	2.4	7.7
1927	9,955.7	7.0	29.5	22.2	10.1	9.1	4.6	7.2	2.4	7.9
1928	10,423.7	7.1	30.0	22.4	10.1	8.6	4.5	7.2	2.4	7.7
1929	11,225.8	7.1	30.1	22.8	9.9	8.3	4.3	7.1	2.5	7.9
1930	10,751.9	7.1	31.0	22.2	10.1	8.4	4.1	6.5	2.5	8.3
1931	9,376.3	7.6	32.1	22.2	9.8	8.5	3.7	6.1	2.3	7.8
1932	7,532.2	7.7	32.2	22.3	9.4	8.2	3.6	6.5	2.2	7.8
1933	6,606.2	8.1	30.8	22.4	9.9	8.2	4.0	7.0	2.2	7.5
1934	7,282.4	7.6	30.4	22.5	9.8	8.7	3.8	7.3	2.4	7.5
1935	7,281.1	7.4	30.0	22.5	9.7	9.0	3.9	7.3	2.4	7.9
1936	7,344.3	7.4	29.3	22.6	9.7	9.0	3.8	7.3	2.7	8.2
1937	7,533.5	7.5	28.7	23.0	9.7	9.0	3.9	7.4	2.7	8.2
1938	6,526.6	7.0	28.3	21.3	10.3	9.2	4.0	8.8	2.8	8.5
1939	6,425.6	7.7	27.2	22.5	10.2	9.4	3.9	7.8	2.8	8.4
1940	6,564.2	7.5	27.2	22.5	9.7	9.9	3.9	7.7	2.6	8.4
1941	7,319.0	7.9	27.1	22.9	9.3	10.1	4.1	7.3	2.5	8.8
1942	6,331.8	7.9	26.4	22.6	9.8	9.8	4.2	7.2	2.6	9.6
<b>Ave.</b>	<b>8,189.8</b>	<b>7.4</b>	<b>29.4</b>	<b>22.1</b>	<b>10.0</b>	<b>9.0</b>	<b>4.1</b>	<b>7.4</b>	<b>2.5</b>	<b>8.1</b>

\*Computed from the sales data provided by the Life Insurance Sales Research Bureau.

the national average. Certainly an important cause of the greater per capita sales for California is her higher per capita income of \$737 as compared with \$514 for the United States, \$543 for Washington, and \$501 for Oregon.<sup>12</sup>

Because of isolation of the varying population factor, per capita sales come closer to reflecting the purely cyclical fluctuations of insurance sales than does the dollar volume of sales.

TABLE IV. PER CAPITA SALES, AND INDEXES OF PER CAPITA SALES, OF ORDINARY LIFE INSURANCE, 1923-1942\*

Year	Per Capita Insurance Sales			Indexes of Per Capita Sales (1923=100)				
	Oregon	Washington	California	U. S.	Oregon	Washington	California	U. S.
1923	\$ 83.94	\$ 85.34	\$ 98.93	\$ 69.43	100.0	100.0	100.0	100.0
1924	85.60	85.81	100.44	73.32	102.0	100.6	101.5	105.6
1925	89.86	96.47	109.99	82.21	107.1	113.0	111.2	118.4
1926	90.83	101.81	106.61	84.34	108.2	119.3	107.8	121.5
1927	90.95	100.43	107.22	84.23	108.4	117.7	108.4	121.3
1928	94.67	100.08	105.79	86.96	112.9	117.3	106.9	125.2
1929	104.16	107.65	113.31	92.37	124.1	126.1	114.5	133.0
1930	95.13	104.12	112.01	87.35	113.3	122.0	113.2	125.8
1931	72.51	76.88	92.00	75.55	89.4	90.1	93.0	108.8
1932	58.54	60.04	73.44	60.27	69.7	70.4	74.2	86.8
1933	47.88	48.82	62.70	52.53	57.0	57.2	63.4	75.7
1934	49.72	55.90	66.92	57.51	59.2	65.5	67.6	82.8
1935	52.07	53.20	71.85	57.10	62.0	62.3	72.6	82.2
1936	57.48	58.79	72.17	57.19	68.5	68.9	73.0	82.4
1937	61.68	57.28	70.65	58.28	73.5	67.1	71.4	83.9
1938	52.34	48.35	62.24	50.12	62.4	56.7	62.9	72.2
1939	51.30	51.22	58.98	49.07	61.1	60.0	59.6	70.7
1940	50.16	52.01	58.79	49.85	59.8	60.9	59.4	71.8
1941	56.82	61.91	66.42	55.20	67.7	72.5	67.1	79.5
1942	50.17	58.53	59.29	47.43	59.8	68.6	59.9	68.3

\*Computed from aggregate ordinary life-insurance sales data provided by the Life Insurance Sales Research Bureau. Population figures used are from the U. S. Bureau of the Census and from the bureaus of vital statistics of the respective states.

During the upswing of general business activity from 1923 to the peak in 1929, the percentage increase in per capita sales was greater for Washington than for either California or Oregon, but lower in each of these states than in the United States at large. Whereas the indexes of the dollar volume of sales, shown in Chart A, indicate both a more rapid and a greater percentage growth for California than for the other areas under consideration, the per capita figures show California to have the smallest percentage growth during the period ending in 1929.

Per capita insurance sales in all these areas show a significant downward trend from 1929 to 1940. The percentage decline during this twelve-year period was 51.8 for Oregon, 51.7 for Washington, 48.1 for California, and 46.0 for the United States. For this period

<sup>12</sup> Average per capita income payments, 1929-1940, were computed from data published in the *Survey of Current Business* (Aug. 1941), p. 14.

the per capita figures support the same conclusion derived from the indexes of the dollar volume of sales; namely, that the depression in general business produced a relatively greater effect upon the insurance sales of Oregon and Washington than upon California or national sales. Furthermore, the percentage decline after 1929 was greater for the Pacific Coast region than for the nation as a whole.

The bottom of the depression in general business activity was reached in 1933, and the years 1929 through 1933 mark the depression phase of the business cycle. During this period the percentage decline of per capita sales was greater for Oregon and Washington than for California, and greater for each of the Pacific Coast states than for the country at large.

During the years of general business recovery after 1933, per capita sales in Oregon and Washington rose above the 1933 low, while per capita sales declined rather steadily in California and in the United States as a whole, the indexes being lower in 1940 than in 1933. Whereas per capita sales from 1933 through 1940 increased in Oregon by 4.76 per cent and in Washington by 6.53 per cent, they dropped by 6.24 per cent in California and by 5.10 per cent in the country at large.

In view of the fact that per capita sales in Oregon and Washington display a greater percentage decline than in California or the United States during the depression and display a greater percentage recovery after 1933, it can be concluded that Oregon and Washington sales have been more sensitive to business-cycle fluctuations than have California or United States sales.

The reason for this difference in the degree of cyclical fluctuations is, on the basis of available data, purely a matter of conjecture. However, a plausible explanation is found from a comparison of the per capita income payments during these years. During the downswing from 1929 through 1933, per capita income payments declined 47.8 per cent in Oregon, 45.4 per cent in Washington, 44.2 per cent in California, and 45.0 per cent in the United States. It is not unreasonable to suppose that an important cause of the greater decline of life-insurance sales in Oregon and Washington was the correspondingly greater decline, in these states, of money income out of which insurance premiums are paid.

Similarly, the per capita income payments in Oregon and

Washington rose after 1933 by a greater degree than in California or in the United States as a whole. This increase from 1933 through 1940 was 70.8 per cent for Oregon and 67.0 per cent for Washington, but only 51.6 per cent for California and 54.0 per cent for the United States. The greater recovery of insurance sales in Oregon and Washington is probably due in a large measure to this greater increase in money income.<sup>13</sup>

Conjecture as to cause and effect may be pursued further by suggesting that these divergent movements of income payments themselves were due to the fact that Oregon and Washington are far more dependent, compared with California or the United States, upon a single industry, lumber, which is unusually susceptible to cyclical influences. The lumber industry displays wide fluctuations during the business cycle for two reasons. First, cyclical fluctuations are always greater in the capital-goods industries than in the consumer-goods industries, and lumber is an important capital good. Secondly, among the various capital-goods industries, the depression in the construction industry was comparatively great; and lumber is a basic material for both new construction and repair.

TABLE V. PERCENTAGE RATIOS OF PER CAPITA ORDINARY LIFE-INSURANCE SALES TO PER CAPITA INCOME PAYMENTS, 1929-1940\*

<i>Year</i>	<i>Oregon</i>	<i>Washington</i>	<i>California</i>	<i>United States</i>
1929	15.8	15.5	11.7	13.6
1930	16.7	16.2	12.7	14.4
1931	15.2	14.8	12.3	14.8
1932	16.2	15.3	12.2	15.3
1933	13.9	12.9	11.6	14.1
1934	12.6	12.8	11.3	13.5
1935	11.6	11.1	10.4	12.4
1936	10.7	10.2	9.6	10.8
1937	11.0	9.6	9.0	10.4
1938	10.0	8.5	8.5	9.8
1939	9.3	8.5	7.7	9.1
1940	8.5	8.2	7.2	8.7
<b>Ave.</b>	<b>12.6</b>	<b>12.0</b>	<b>10.3</b>	<b>12.2</b>

\* Computed for Table IV, p. 12, and Appendix V, p. 23.

It seems reasonable to suggest that the relatively greater fluctuations in the lumber industry account for a significant portion of the fluctuations of per capita income in Oregon and Washington, and that these variations in per capita income account, to a significant degree, for the relatively greater fluctuations in the life-insurance sales of these two states.

<sup>13</sup> See Appendix V, p. 23, for per capita income payments.

Most of what has been said above about lumber applies to wheat and other basic agricultural raw materials; but it does not seem profitable to carry these speculations further.

The per capita ordinary life-insurance sales as a percentage of per capita income payments are shown in Table V. These percentages averaged 12.2 for the United States over the whole period from 1929 through 1940, and averaged about the same for Oregon and Washington as for the nation at large. This average was only 10.3 for California. This indicates a smaller average effort to carry ordinary life-insurance protection.

TABLE VI. TYPES OF INSURANCE PREMIUMS AS A PERCENTAGE OF TOTAL LIFE-INSURANCE PREMIUMS, 1930-1940\*

Year	Percentage of Total Life-Insurance Premiums			
	Annuities	Group	Industrial	Ordinary
1930	3.15	3.29	25.81	67.75
1931	5.26	3.30	24.91	66.53
1932	5.70	3.22	25.28	65.80
1933	8.39	3.32	24.13	64.16
1934	12.52	3.42	22.81	61.25
1935	14.19	3.54	21.72	60.55
1936	12.95	3.85	22.75	60.45
1937	10.90	4.23	23.91	60.96
1938	11.36	4.20	23.66	60.78
1939	10.03	4.40	23.91	61.66
1940	10.99	4.77	22.77	61.47
Ave.	9.59	3.77	23.79	62.85

\*Computed from figures of life-insurance premiums compiled by the Association of Life Insurance Presidents and reported in 1942 supplement of the *Survey of Current Business*, p. 69.

The most outstanding fact revealed by these percentages is that in all of these areas insurance sales have steadily declined in relation to income since 1930. Since the depth of the depression in 1933, per capita insurance sales have not increased as rapidly as per capita income, and the decrease in the percentage of insurance sales to income is significantly large. Several reasons for this decline suggest themselves. The transfer of income from the higher-income to the lower-income groups has undoubtedly exerted a depressing effect upon the demand for ordinary life insurance for the reason explained above. It is conceivable, though not deducible from the data, that the compulsory forms of social insurance have to some extent decreased the demand for life insurance as a means of increasing financial security.

Another possible explanation is strongly suggested by the fact that, since 1930, investments in annuities and in group insurance have increased relative to investments in ordinary life insurance.

Table VI shows the annual premiums paid on four forms of life insurance as a percentage of total life-insurance premiums. Whereas the ratio of ordinary-insurance premiums to total premiums decreased by 9.3 per cent, the ratio of group-insurance premiums and annuity premiums to total premiums increased by 44.9 per cent and 217.1 per cent, respectively. The corresponding ratio for industrial-insurance premiums decreased by 11.7 per cent.

In magnitude, the increase in annuity premiums is the most important. It is a matter of experience that, as opportunities for direct industrial investment decrease, persons with surplus funds turn to annuities as an alternative for the same reason that they turn to Federal bonds. The growth of annuities in relation to total insurance could be explained by a mere absolute growth of annuity purchases at the expense of direct industrial investments. However, it is also possible and plausible that some portion of the increase in annuities occurred at the expense of ordinary life-insurance sales. The growth of group insurance, though considerably smaller, is likely to have influenced ordinary-insurance sales in the same direction.

#### SIZE OF NEW POLICIES SOLD AND SIZE OF POLICIES IN FORCE

The average size of new policies sold and the average size of policies in force for the period 1938 through 1942 are shown, for the three Pacific Coast states, in Table VII.

TABLE VII. AVERAGE SIZE OF NEW POLICIES SOLD, AND AVERAGE SIZE OF POLICIES IN FORCE, 1938-1942\*

Year	Average Size of New Policies Sold			Average Size of Policies in Force		
	Oregon	Washington	California	Oregon	Washington	California
1938	\$2,084	\$2,094	\$2,222	\$2,135	\$2,117	\$2,337
1939	1,998	2,072	2,024	2,136	2,112	2,303
1940	1,943	1,965	1,945	2,122	2,099	2,269
1941	2,011	2,082	2,078	2,102	2,092	2,250
1942	2,216	2,309	2,264	2,100	2,092	2,230
Ave.	2,050	2,104	2,107	2,119	2,102	2,278

\* Life Insurance Sales Research Bureau. These data apply to ordinary life insurance only.

Over this five-year period, the average for California exceeded the averages for Oregon and Washington in both the size of new policies and the size of policies in force. The averages for the size of new policies sold over this period in each of these three states



TABLE VIII. AVERAGE SIZE OF NEW POLICIES SOLD BY REGIONS, 1938-1942\*

<i>Year</i>	<i>United States</i>	<i>New England</i>	<i>Middle Atlantic</i>	<i>East North Central</i>	<i>West North Central</i>	<i>South Atlantic</i>	<i>East South Central</i>	<i>West South Central</i>	<i>Mountain</i>	<i>Pacific Coast</i>
1938 .....	\$2,110	\$2,014	\$2,204	\$2,046	\$1,929	\$2,287	\$2,099	\$2,074	\$1,932	\$2,188
1939 .....	1,832	1,659	1,765	1,788	1,798	2,116	1,950	1,993	1,846	2,029
1940 .....	1,808	1,632	1,721	1,782	1,744	2,171	2,004	2,008	1,770	1,948
1941 .....	1,889	1,679	1,812	1,822	1,734	2,207	2,142	2,108	1,914	2,051
1942 .....	2,010	1,766	1,944	1,955	1,779	2,342	2,307	2,227	1,985	2,263
<b>Ave.</b> .....	<b>1,930</b>	<b>1,750</b>	<b>1,889</b>	<b>1,878</b>	<b>1,797</b>	<b>2,225</b>	<b>2,100</b>	<b>2,082</b>	<b>1,889</b>	<b>2,096</b>

\*Life Insurance Sales Research Bureau.

TABLE IX. AVERAGE SIZE OF POLICIES IN FORCE BY REGIONS, 1938-1942\*

<i>Year</i>	<i>United States</i>	<i>New England</i>	<i>Middle Atlantic</i>	<i>East North Central</i>	<i>West North Central</i>	<i>South Atlantic</i>	<i>East South Central</i>	<i>West South Central</i>	<i>Mountain</i>	<i>Pacific Coast</i>
1938 .....	\$2,165	\$2,087	\$2,295	\$2,050	\$1,980	\$2,276	\$2,123	\$2,198	\$2,008	\$2,276
1939 .....	2,140	2,071	2,254	2,029	1,969	2,277	2,128	2,139	2,001	2,252
1940 .....	2,117	2,046	2,212	2,010	1,954	2,277	2,128	2,130	1,986	2,225
1941 .....	2,084	1,909	2,102	1,950	1,890	2,301	2,143	2,168	2,049	2,138
1942 .....	2,072	1,901	2,080	1,943	1,882	2,300	2,157	2,175	1,778	2,141
<b>Ave.</b> .....	<b>2,116</b>	<b>2,003</b>	<b>2,189</b>	<b>1,986</b>	<b>1,935</b>	<b>2,286</b>	<b>2,136</b>	<b>2,162</b>	<b>1,964</b>	<b>2,206</b>

\* Life Insurance Sales Research Bureau.

exceeded the national average of \$1,930. The average size of policies in force in California exceeded the national average of \$2,116, the average for Oregon only slightly exceeded the national average, and the Washington average fell slightly below that for the nation as a whole.

Comparison of the size of new policies sold with the size of policies in force gives an indication of trend, because the size of the new policies sold each year affects the average size of total policies in force. It is clear from this comparison, as well as from the annual size of policies in force, that for Oregon and California the size of policies shows an uneven trend downward. This same downward trend is shown for Washington until the year 1942, which appears to be erratic. This trend may signify that the sale of ordinary life insurance in recent years has been extended to include a larger proportion of lower-income groups. However, a five-year period is too short to justify any definite conclusion on this point.

The size of new policies and of policies in force are shown, by regions, in Tables VIII and IX. In both respects the average of the Pacific Coast area for this period exceeded the national average, and also exceeded the average of each individual area except the South Atlantic. This fact and the volume of sales per capita both indicate that the inhabitants of the Pacific Coast display a relatively high propensity to seek financial security through the purchase of ordinary life insurance.

#### CONCLUSIONS

(1) The annual dollar volume of ordinary life-insurance sales in Oregon during the twenty-year period from 1923 through 1942 was much smaller than the sales in Washington or in California. On the average, Washington sales were 171 per cent of Oregon sales, and California sales were 707 per cent of Oregon sales.

(2) The dollar volume of ordinary life-insurance sales has shown wide cyclical fluctuations—falling during periods of general business depression and rising during the more prosperous years. Movements in life-insurance sales correlate closely with

the cyclical variations of both the physical volume of production and the per capita money-income payments.

(3) The general business depression after 1929 produced a relatively greater depressing effect upon the dollar volume of ordinary life-insurance sales in Oregon and Washington than upon the sales in California or in the United States as a whole.

(4) In each of the areas examined, the volume of insurance sales in 1942 fell markedly below 1941 sales. This decline for the nation as a whole was 13.8 per cent.

(5) After 1934, the Pacific Coast region achieved an increasing percentage of national sales; and the decline during 1942 was less in this region than in the country at large.

(6) Whereas the indexes of the aggregate *dollar volume of sales* during the period of prosperity ending in 1929 indicate a greater percentage growth of sales in California than in the other areas considered, the *per capita* indexes show California to have had the smallest percentage growth during these years.

(7) Per capita ordinary life-insurance sales show a significant downward trend in all of these areas from 1929 to 1940. The percentage decline for this twelve-year period was 51.8 for Oregon, 51.7 for Washington, 48.1 for California, and 46.0 for the United States. The per capita figures, as well as the aggregate dollar volume of sales, indicate that the business depression produced a relatively greater effect upon the insurance sales in Oregon and Washington than upon California or national sales.

(8) The percentage decline, after 1929, in the aggregate dollar volume of sales and in per capita sales was greater in the Pacific Coast region than in the country at large.

(9) Ordinary life-insurance sales in Oregon and Washington have been more sensitive to business-cycle fluctuations than have California or national sales.

(10) The average size of new policies sold and the average size of policy in force in California exceeded the averages in Oregon and Washington during the five-year period from 1938 through 1942. These averages for the Pacific Coast region exceeded the national averages as well as the averages of every other

region in the United States except the South Atlantic. These averages, as well as the per capita sales figures, indicate a relatively high propensity of Pacific Coast inhabitants to seek financial security through the purchase of ordinary life insurance.

### APPENDIX I

#### INDEXES OF THE DOLLAR VOLUME OF ORDINARY LIFE-INSURANCE SALES IN OREGON, WASHINGTON, CALIFORNIA, AND THE UNITED STATES, 1923-1942\* (1923=100)

Year	Oregon	Washington	California	Average Pacific	United States
1923	100	100	100	100	100
1924	104	102	111	108	107
1925	111	116	127	123	121
1926	115	124	128	125	127
1927	117	124	133	129	128
1928	124	126	135	132	135
1929	139	137	149	145	144
1930	130	134	153	146	138
1931	99	100	129	120	120
1932	81	79	105	97	96
1933	67	65	89	82	85
1934	70	75	97	90	94
1935	75	72	104	94	94
1936	84	81	106	99	95
1937	92	80	110	102	97
1938	79	77	100	92	84
1939	78	72	96	90	82
1940	77	74	98	91	84
1941	89	92	113	106	94
1942	80	91	106	92	82

\*Computed from sales data provided by the Life Insurance Sales Research Bureau.

### APPENDIX II

#### INDEXES OF THE VOLUME OF ORDINARY LIFE-INSURANCE SALES AND THE PHYSICAL VOLUME OF INDUSTRIAL PRODUCTION IN THE UNITED STATES, 1923-1942\* (1923=100)

Year	Insurance Sales	Industrial Production
1923	100	100
1924	107	93
1925	121	102
1926	127	109
1927	128	108
1928	135	113
1929	144	125
1930	138	103
1931	120	85
1932	96	66
1933	85	78
1934	94	85
1935	94	99
1936	95	117
1937	97	128
1938	84	101
1939	82	123
1940	84	140
1941	94	177
1942	82	205

\*Calculations based on data supplied by the Life Insurance Sales Research Bureau, and the *Federal Reserve Bulletin* index of physical volume of industrial production.

APPENDIX III

VOLUME OF ORDINARY LIFE-INSURANCE SALES BY REGIONS, 1923-1942\*  
(Millions of dollars)

Year	United States	New England	Middle Atlantic	East North Central	West North Central	South Atlantic	East South Central	West South Central	Mountain	Pacific Coast
1923	7,743.6	545.9	2,102.3	1,690.5	855.2	725.2	400.3	616.7	201.2	606.3
1924	8,300.3	588.3	2,386.8	1,795.0	859.7	742.4	396.8	655.8	214.3	661.2
1925	9,442.6	661.9	2,728.4	2,010.3	995.6	875.5	450.6	742.4	233.9	744.0
1926	9,838.6	696.0	2,849.5	2,125.8	1,021.9	905.2	463.6	764.6	240.5	761.5
1927	9,955.7	698.9	2,938.2	2,206.4	1,010.4	903.9	454.7	720.7	238.2	784.3
1928	10,423.7	744.6	3,123.1	2,329.9	1,053.3	896.7	469.5	755.3	249.6	801.7
1929	11,225.8	791.5	3,382.9	2,561.8	1,116.3	929.9	484.1	799.1	278.1	882.1
1930	10,751.9	759.4	3,328.3	2,387.5	1,083.3	903.0	436.2	699.9	263.8	890.5
1931	9,376.3	713.3	3,009.6	2,085.8	916.4	792.5	342.0	574.9	214.2	726.6
1932	7,532.2	578.6	2,422.6	1,680.8	709.1	619.4	270.2	492.3	169.1	590.1
1933	6,606.2	536.2	2,032.6	1,478.2	654.6	539.5	263.5	461.3	143.6	496.7
1934	7,282.4	553.2	2,214.0	1,640.4	711.5	636.2	276.4	533.0	173.6	544.1
1935	7,381.1	541.0	2,175.6	1,641.4	706.4	653.2	281.2	530.7	176.8	574.8
1936	7,344.3	545.7	2,153.1	1,658.2	713.1	657.5	278.4	539.3	198.2	600.8
1937	7,533.5	561.6	2,162.0	1,733.0	730.9	675.2	294.3	555.2	202.9	618.4
1938	6,526.6	454.6	1,845.8	1,389.5	672.9	598.5	258.2	571.9	180.8	554.4
1939	6,425.6	495.2	1,744.9	1,448.3	655.2	606.0	253.8	502.6	177.7	541.9
1940	6,564.2	493.2	1,788.5	1,508.3	640.0	651.0	255.0	503.2	173.6	551.4
1941	7,319.0	581.5	1,980.2	1,677.5	678.8	738.7	297.0	537.2	183.2	644.9
1942	6,331.8	501.0	1,673.3	1,429.8	623.2	617.9	254.8	456.8	167.6	607.4
Ave.	8,189.8	602.1	2,402.1	1,823.9	820.4	733.4	344.1	600.6	204.0	659.2

\* Life Insurance Research Bureau.

## APPENDIX IV

### REGIONAL GROUPING OF STATES

<b>I. New England</b> Connecticut Maine Massachusetts New Hampshire Rhode Island Vermont	<b>II. Middle Atlantic</b> New Jersey New York Pennsylvania	<b>III. East North Central</b> Illinois Indiana Michigan Ohio Wisconsin
<b>IV. West North Central</b> Iowa Kansas Minnesota Missouri Nebraska North Dakota South Dakota	<b>V. South Atlantic</b> Delaware District of Columbia Florida Georgia Maryland North Carolina South Carolina Virginia West Virginia	<b>VI. East South Central</b> Alabama Kentucky Mississippi Tennessee
<b>VII. West South Central</b> Arkansas Louisiana Oklahoma Texas	<b>VIII. Mountain</b> Arizona Colorado Idaho Montana Nevada New Mexico Utah Wyoming	<b>IX. Pacific</b> California Oregon Washington

## APPENDIX V

### PER CAPITA INCOME PAYMENTS, 1929-1940\*

Year	Oregon	Washington	California	United States
1929	\$658	\$694	\$968	\$677
1930	568	642	877	606
1931	477	518	749	512
1932	362	391	575	394
1933	343	379	540	372
1934	394	438	594	426
1935	449	477	692	461
1936	534	578	750	531
1937	562	598	787	560
1938	522	570	729	511
1939	552	604	765	541
1940	586	633	819	573
<b>Ave.</b>	500.58	543.50	737.08	513.67

\*Survey of Current Business (Aug. 1941), p. 14.