

# ADEQUACY OF BENEFIT DURATION IN MICHIGAN, 1938-39: A Survey of Experience in a Minor Depression

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*This study of benefit recipients in Michigan measures the adequacy of benefit payments in terms of their duration. An early issue of the Bulletin will carry a supplementary study of benefit recipients in Wayne County, Michigan, which includes the Detroit area. This study will analyze the extent to which those who exhausted their benefit rights remained unemployed and received supplementary relief. It is hoped that additional analyses of benefit-payment experience in other States may be presented in subsequent issues.*

DURING THE PAST YEAR, as the initial administrative problems of unemployment compensation agencies in most States have been substantially overcome, interest has been increasingly focused on basic questions which affect the future direction of the program. The existence in many States of rapidly growing reserves, which have resulted from a continued excess of collections over current benefit payments, has called forth conflicting proposals for reduction in contribution rates and increases in the scale and duration of benefits. A decision as to the wisdom of pursuing either course must depend on an examination of benefit experience to determine how successfully the unemployment compensation system is achieving the objectives for which it was created.

Although there is much controversy over the exact objectives and proper scope of unemployment compensation, it is possible to outline certain tests which may be applied in measuring the adequacy of benefits. Benefit payments are presumably designed to furnish income to normally employed workers whose employment has been involuntarily interrupted, without compelling them to exhaust their savings and credit and without forcing them to go through the process of obtaining relief based on proof of need. To be adequate, therefore, benefits should continue for a sufficiently long period to cover the interval between jobs (or between lay-off and rehiring) for those beneficiaries who may be expected to obtain employment before joining the great pool of the long-time unemployed. The extent to which individuals exhaust their benefit rights before being reemployed is therefore an important measure of adequacy. The significance of benefit exhaustion

depends, of course, on the nature of post-exhaustion experience, specifically, whether beneficiaries remain unemployed and the extent to which they are subsequently forced to apply for relief.<sup>1</sup>

Adequacy may also be tested in terms of the size of the weekly benefit payments, which presumably should be large enough to constitute a real addition to family resources and to preclude, in most cases, the need for supplementary relief. Available data indicate that this type of inadequacy has not been of major importance in Michigan, although it looms large in certain States.<sup>2</sup>

The present study deals with benefit duration in a State in which excess reserves have not accumulated. In the first year of benefit-payment experience (July 1938-June 1939), payments from the Michigan unemployment compensation fund exceeded collections by more than \$18.7 million, and despite the more favorable employment situation during 1939-40 the fund remains below the level which existed when benefits began.<sup>3</sup> Only a few other States have had experience indicating an equally precarious financial future. There is some evidence, however, that many of the States which have been accumulating increased reserves have done so largely because of provisions in their laws which tend to prevent large numbers of claimants from qualifying for benefits, or result in the payment of benefits in extremely small

<sup>1</sup> The detailed study of benefit recipients in Wayne County, Michigan, made jointly by the Social Security Board and the Michigan Unemployment Compensation Commission, will present data gathered from a check of relief records of individuals exhausting benefits and information concerning the dates of their subsequent reemployment in covered industry.

<sup>2</sup> For the proportion of Detroit households concurrently receiving relief and unemployment benefits, see "Public Assistance Statistics for Urban Areas," carried monthly in the *Bulletin*.

<sup>3</sup> On June 30, 1939, 1 year after benefits became payable, funds available for benefits were 29.7 percent below the total available on July 1, 1938. On June 30, 1940, such funds were still 5.4 percent below that total.

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weekly amounts or for relatively short durations.<sup>4</sup>

Under conditions prevailing in Michigan during 1938 and 1939, the benefit provisions of the Michigan law have furnished larger benefit amounts, and benefits over a longer period, than were provided by most States during their first year of benefit experience. This situation may be attributed not only to employment and unemployment conditions but also to the provision of the Michigan law adjusting the benefit formula for claimants whose benefit years began July 1, 1938. The law defined base period as the "first 8 of the last 9 completed calendar quarters immediately preceding the first day of the individual's benefit year." Since wage records were available for only 3 base-period quarters (i. e., July 1937-March 1938) when benefits became payable, the

<sup>4</sup> See Creamer, Daniel, and Bloom, Marvin, "Notes on Adequacy of Unemployment Compensation," *Social Security Bulletin*, Vol. 3, No. 1 (January 1940), pp. 6-9.

law provided that "total wages earned during the base period" should be computed as 8 times the total of the claimant's wages during the 3 base-period quarters divided by 3. In other words, this provision was designed to give all claimants the equivalent of rights based on earnings in a full 8-quarter base period.

Although the Michigan provisions apparently represent the maximum which can be provided with the existing contribution rate, the data presented here suggest that the duration of benefits was insufficient to cover the entire unemployment period experienced by a large proportion of beneficiaries in the first benefit year.

#### Period Covered by the Study

The data cover 55,260 workers, comprising a 20-percent sample of beneficiaries whose first compensable week, i. e., the first week for which they received benefits, was in July, August, or

**Table 1—Distribution of Michigan beneficiaries,<sup>1</sup> percent of covered workers receiving benefit rights, and exhaustion ratios,<sup>2</sup> by industries, benefit year ended June 30, 1939**

Industry	Beneficiaries				Percent of covered workers receiving benefits	Beneficiaries exhausting benefits			Exhaustion ratio <sup>1</sup>		
	Total	Male	Female			Total	Male	Female	Total	Male	Female
			Number	Percent of total							
Total.....	55,260	46,900	8,351	15.1	23.0	25,302	20,133	5,169	45.8	42.0	61.9
Total, excluding manufacture of automobiles, bodies, and parts..	21,808	16,462	5,356	24.5	14.0	11,237	10,396	3,841	65.3	63.2	71.7
Mining and quarrying.....	648	647	1	2	10.0	446	445	1	63.7	68.7	.....
Contract construction.....	1,324	1,304	20	1.5	10.1	900	883	17	68.0	67.7	( <sup>1</sup> )
Manufacturing, total.....	47,664	40,656	6,908	14.5	30.6	20,182	16,078	4,104	42.4	39.5	69.4
Automobiles, bodies, and parts.....	33,452	30,487	2,965	9.0	41.6	11,065	9,737	1,328	33.1	32.0	44.3
Other durable goods, total.....	11,443	8,207	2,936	25.7	22.6	7,304	5,242	2,062	63.8	61.6	70.2
Basic lumber.....	300	295	5	1.7	12.0	240	235	5	80.0	79.7	( <sup>1</sup> )
Finished lumber products.....	600	588	102	14.8	12.0	471	397	74	68.3	67.5	72.5
Stone, clay, and glass products.....	217	125	92	42.4	13.3	176	94	82	81.1	75.2	( <sup>1</sup> )
Iron and steel and their products.....	5,211	3,641	1,570	30.1	25.5	3,300	2,192	1,108	63.3	60.2	70.6
Nonferrous metals and their products.....	904	653	251	27.8	22.9	540	362	178	59.7	55.4	70.9
Electrical machinery.....	1,551	1,051	500	32.2	32.4	987	628	359	63.6	59.8	71.8
Machinery other than electrical.....	2,111	1,803	308	14.6	23.3	1,275	1,098	175	60.4	60.9	57.5
Miscellaneous.....	450	351	108	23.5	20.5	315	230	70	68.6	67.2	73.1
Nondurable goods.....	2,669	1,692	977	36.0	9.3	1,813	1,099	714	67.9	65.0	73.1
Food.....	623	469	154	24.7	4.0	404	367	127	70.3	78.3	82.5
Textile-mill products.....	308	143	165	53.6	13.3	148	51	97	48.1	35.7	68.8
Apparel.....	231	50	181	78.4	13.3	203	41	162	87.9	( <sup>1</sup> )	89.5
Paper and allied products.....	327	204	123	37.6	9.0	236	134	101	71.9	65.7	82.1
Printing, publishing, and allied industries.....	240	153	87	36.2	6.6	164	93	71	68.3	60.8	( <sup>1</sup> )
Chemicals.....	432	347	85	19.7	7.6	320	257	63	74.1	74.1	( <sup>1</sup> )
Rubber products.....	337	228	109	32.3	18.4	182	90	42	39.2	39.5	38.5
Other.....	171	98	73	42.7	5.0	117	66	51	68.4	( <sup>1</sup> )	( <sup>1</sup> )
Transportation, interstate railroads.....	563	643	20	3.6	10.9	225	212	13	40.0	39.0	( <sup>1</sup> )
Transportation, other.....	443	410	24	5.4	12.1	230	215	15	51.9	51.3	( <sup>1</sup> )
Communication.....	60	37	22	46.4	3.5	52	26	26	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )
Utilities.....	188	179	7	3.8	5.9	157	153	4	83.3	84.4	( <sup>1</sup> )
Wholesale and retail trade.....	2,738	1,954	784	28.0	8.5	1,893	1,319	574	69.1	67.5	73.2
Finance, insurance, and real estate.....	333	216	117	35.1	6.3	243	148	95	73.0	68.5	81.2
Service.....	1,187	783	404	34.0	9.6	821	523	298	69.2	66.8	73.8
Professional services.....	29	16	13	44.8	1.3	21	14	7	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )
Miscellaneous.....	174	153	21	12.1	11.6	133	117	16	76.4	76.5	( <sup>1</sup> )

<sup>1</sup> Based on 20-percent sample selected at random from approximately 280,000 beneficiaries of unemployment compensation in Michigan whose benefit year ended June 30, 1939.

<sup>2</sup> Represents percent of beneficiaries who exhausted benefit rights.  
<sup>3</sup> Base includes less than 100 cases.

September 1938. All these individuals had a benefit year ending June 30, 1939.<sup>5</sup> The industrial composition of the sample,<sup>6</sup> which is almost identical with the industrial distribution for the universe from which the sample was taken, indicates that 33,452 workers, or more than 60 percent, had been last employed in automobile manufacturing (table 1). More than half of the remaining beneficiaries had been last employed

<sup>5</sup> Approximately 280,000 beneficiaries, representing about 67 percent of all claimants who received benefits during the first year that benefits were payable, completed their first compensable week in the calendar quarter July-September 1938. Since the Michigan law provided that the benefit year for any individual should be "the 4 consecutive calendar quarters beginning with the calendar quarter which contains the week with respect to which benefits are first payable to him," the benefit year for all these individuals would begin July 1, 1938, and end June 30, 1939.

<sup>6</sup> The industrial distribution for claimants whose benefit year began in July 1938 is somewhat different from the distribution for groups whose benefit years began in October 1938, January 1939, and April 1939, since automobile workers made up a smaller proportion of the total in the later periods. Nevertheless, since more than 67 percent of the first payments in the first year of Michigan's benefit-payment experience were made to individuals whose benefit year ended on June 30, 1939, the group covered by this study is fairly representative of recipients for the entire year.

in other durable-goods manufacturing, principally in the iron and steel industry, nonelectrical machinery manufacturing, electrical machinery manufacturing, nonferrous-metal manufacturing, and finished-lumber manufacturing—primarily furniture. The number of workers from other industrial groups was relatively small.

Benefit payments began at the trough of a short but severe recession. Employment in covered industries dropped from 1,279,000 in October 1937 to 991,000 in January 1938, and to a low of 834,000 in July 1938, the month when benefits became payable. Employment rose only slightly in August, but thereafter it rose sharply to 935,000 in September, 1,008,000 in October, and 1,051,000 in December 1938. The net decline from October 1937 to July 1938 was 34.8 percent, while almost exactly half this loss was recovered by the end of the year (table 2). The rapid recovery during the first few months of benefit pay-

**Table 2.—Fluctuations in employment in industries covered by the Michigan unemployment compensation law, during specified periods of 1937-38, by industries**

Industry	Maximum employment July-December 1937		July 1938		December 1938		Net change July-De- cember 1938 as percent of 1937 maxi- mum	Percent of re- covery July-De- cember 1938 <sup>1</sup>
	Month	Number of workers (in thou- sands)	Number of workers (in thou- sands)	Percent below maxi- mum	Number of workers (in thou- sands)	Percent below maxi- mum		
Total.....	October.....	1,278.9	834.2	34.8	1,051.4	17.8	+17.0	48.8
Total, excluding manufacture of automobiles, bodies, and parts.....	October.....	883.2	675.1	23.6	736.7	16.6	+7.0	29.6
Mining and quarrying.....	October.....	20.8	17.0	18.3	17.0	18.8	0	0
Contract construction.....	September.....	43.1	25.1	41.8	20.2	53.1	( <sup>2</sup> )	.....
Manufacturing, total.....	October.....	809.2	455.0	43.8	645.3	20.3	+23.5	63.7
Durable goods, total.....	October.....	658.1	322.4	51.0	510.4	22.4	+28.6	56.0
Automobiles, bodies, and parts.....	October.....	395.7	159.2	59.8	314.6	20.5	+39.8	65.7
Durable goods, total, excluding automobiles, bodies, and parts.....	October.....	262.4	163.2	37.8	195.8	25.4	+12.4	32.9
Basic lumber.....	October.....	12.9	7.4	42.7	8.2	86.4	+6.8	14.5
Finished lumber products.....	August.....	31.6	22.8	27.8	24.4	22.8	+5.0	18.2
Stone, clay, and glass products.....	July.....	8.7	7.1	18.4	7.0	19.6	( <sup>2</sup> )	.....
Iron and steel and their products.....	October.....	107.4	54.4	49.3	77.5	27.8	+21.5	43.6
Nonferrous metals and their products.....	October.....	17.7	10.8	38.0	13.9	21.5	+17.5	44.9
Electrical machinery.....	July.....	23.6	12.2	48.3	14.8	37.3	+11.0	22.8
Machinery other than electrical.....	September.....	54.3	41.1	24.8	41.6	23.4	+9	8.6
Other.....	October.....	11.3	7.4	34.5	8.4	25.7	+8.8	25.6
Nondurable goods, total.....	August.....	158.8	132.5	16.3	134.9	14.8	+1.5	9.3
Food.....	August.....	58.4	49.8	15.0	45.4	22.8	( <sup>2</sup> )	.....
Textile-mill products.....	October.....	10.0	6.4	36.0	8.4	16.0	+20.0	55.6
Apparel.....	October.....	9.1	8.4	7.7	8.1	11.0	( <sup>2</sup> )	.....
Paper and allied products.....	October.....	19.0	16.3	14.2	17.7	6.8	+7.4	61.9
Printing, publishing, and allied industries.....	October.....	19.5	17.2	11.8	17.7	9.2	+2.6	21.7
Chemicals.....	August.....	22.5	19.5	13.3	19.6	12.9	+4	3.3
Rubber products.....	September.....	9.7	6.1	37.1	8.8	9.8	+27.8	75.0
Other.....	September.....	10.1	9.4	6.9	9.2	8.9	( <sup>2</sup> )	.....
Transportation, interstate railroads.....	August.....	36.8	27.7	24.7	30.8	16.3	+8.4	34.1
Transportation, other.....	July.....	23.0	17.2	25.2	19.4	15.7	+9.5	37.9
Communication.....	September.....	14.1	13.0	7.8	13.4	5.0	+2.8	36.4
Utilities.....	September.....	21.4	19.6	8.4	19.2	10.8	( <sup>2</sup> )	.....
Wholesale and retail trade.....	October.....	104.1	157.4	18.9	180.7	6.9	+12.0	63.5
Finance, insurance, and real estate.....	October.....	31.6	29.9	5.4	29.5	6.6	( <sup>2</sup> )	.....
Service.....	September.....	77.1	64.3	16.0	65.9	14.5	+2.1	12.5
Professional services.....	October.....	3.2	2.7	15.6	2.6	18.7	( <sup>2</sup> )	.....
Miscellaneous.....	October.....	9.7	5.4	44.3	7.3	24.7	+19.6	44.2

<sup>1</sup> Net increase from July 1938 to December 1938 as percent of net decline from 1937 maximum to July 1938.

<sup>2</sup> Decline.

ments indicates a situation in which a large number of beneficiaries were rapidly reemployed before exhausting benefit rights.

The industrial composition of the benefit population and the relative amount of benefit exhaustion among workers from various industries were markedly affected by differences in the depth of the decline from the 1937 peak in various industries, and by differences in the relative rate of recovery in the last 6 months of 1938. While the decline for all industries was 34.8 percent, for automobile manufacturing it was 59.8 percent; for iron and steel, 49.3 percent; and for electrical machinery manufacturing, 48.3 percent. The only other individual industry groups in which the decline was greater than that for the State as a whole were construction, with a decline of 41.8 percent, textile manufacturing, 36 percent, basic lumber, 42.7 percent, and nonferrous metal, 39.0 percent.

For nearly all other industries the decline in employment was much less severe. The drop from the 1937 peak was between 15 and 20 percent in the mining and quarrying and nondurable-goods manufacturing industries, and in trade, service industries, and professional services; and less than 10 percent in communication, utilities, and finance, insurance, and real estate. Transportation registered a decline of about 25 percent. Declines slightly less than the rate for the State, but above 20 percent, occurred in finished-lumber, rubber, and nonelectrical machinery manufacturing.

In view of these variations in the amount of fluctuation among industrial groups, it would be expected that benefit recipients from the automobile and other industries which suffered sharp declines in employment would represent a larger proportion of the total working force of these industries than was the case in nondurable-goods manufacturing and the various other industries which had suffered relatively minor declines. Data on the number of benefit recipients per 100 covered workers (table 1) indicate that this was the case. In the industries in which sharp declines occurred, the bulk of the beneficiaries were presumably a part of the regular labor force of the industry and thus could be expected to have both substantial benefit rights and good prospects of reemployment. Where the decline was slighter, on the other hand, many benefit recipients were undoubtedly marginal or intermittent workers, who would be likely

to have restricted benefit rights and less prospect of quick reemployment. These expectations are confirmed by the fact that the exhaustion ratio<sup>7</sup> was generally lowest in those industries which had a large number of benefit recipients per 100 covered workers, while high exhaustion ratios were found in industries which had a small number of recipients per 100 covered workers. The ratio of exhaustion was, of course, also affected by the extent of recovery during the last half of 1938.

#### *Proportion of Beneficiaries Exhausting Benefit Rights*

The exhaustion of benefit rights within the benefit year indicates the probable existence of a period of unemployment, whether short or long, during which the protection of the insurance system was not available. A high proportion of exhaustions may therefore be taken as definite evidence of inadequacy in the duration of benefits, since even the 16-week maximum is well within the period of short-time unemployment against which unemployment compensation is designed to protect workers. Nearly half (45.8 percent) of the beneficiaries covered by the study exhausted their benefit rights before being reemployed. The exhaustion ratio was considerably higher among women (61.9 percent) than among men (42.9 percent). This difference results in part from the fact that a larger proportion of women workers are employed only in intermittent and temporary jobs; thus they qualify for a shorter duration of benefits and are less likely to be steadily employed during the benefit year. At least in part, however, the difference was due to the fact that relatively few women are employed in the automobile industry, in which the exhaustion ratio for both men and women was much lower than the State ratio, whereas they form a relatively large part of the labor force in such industries as trade and service, in which the exhaustion ratios for both men and women were high.

The exhaustion ratios as computed were unquestionably much lower than they would have been if benefits had been payable in January rather than July 1938, since a large amount of uncompensated unemployment was experienced by many beneficiaries in the first half of the year.

<sup>7</sup>The term "exhaustion ratio" is used, for purposes of brevity, to indicate the percentage of all beneficiaries in the specified benefit year, or in a given class of beneficiaries, who exhausted their benefit rights.

**Table 3.—Number of industries with 100 persons or more, and less than 100 persons, receiving unemployment benefits in Michigan,<sup>1</sup> by exhaustion ratio <sup>2</sup>**

Exhaustion ratio <sup>1</sup> (percent)	Industries with 100 persons or more receiving benefits	Industries with less than 100 persons receiving benefits
Total.....	40	26
Less than 40.....	2	0
40-49.9.....	3	1
50-59.9.....	3	2
60-64.9.....	7	5
65-69.9.....	8	3
70-74.9.....	8	5
75-79.9.....	3	5
80-84.9.....	5	2
85 and over.....	1	3

<sup>1</sup> See table 1, footnote 1.

<sup>2</sup> See table 1, footnote 2.

In the special study of beneficiaries in the Detroit area, the amount of "uncompensated" unemployment before benefits became payable was computed from the date on which the worker was separated from his last covered employment. This study indicated that 43 percent of the men and 53 percent of the women who did not actually exhaust benefits would have done so if weeks of unemployment occurring before July 1 had been available for waiting-period credit or as compensable weeks. If such "potential" exhaustions were added to the number of cases in which benefits were actually exhausted, the exhaustion ratios would be 68 percent for men and 80 percent for women. Comparable ratios would probably be obtained for the State as a whole, under the same assumptions. There is also some evidence that many beneficiaries who did not actually exhaust benefit rights failed to apply for their final benefit check, which represented only a fraction of the usual benefit amount, although they remained unemployed long enough to have exhausted their benefits (see p. 26). Throughout the following discussion, however, the actual exhaustion ratios are used.

In evaluating the significance of the exhaustion ratio, it is important to know whether exhaustion occurred early or late in the benefit year. Exhaustion near the end of the year would not necessarily indicate a serious problem of inadequacy, since the claimant could presumably qualify for additional benefits in the near future. The data on Detroit beneficiaries, who comprise over half of the State total, make it clear that most exhaustions occurred relatively early in the benefit year, leaving a period of several months

in which the individual might have been unemployed without having the protection of the insurance system. More than 80 percent of those whose benefits were exhausted drew their last check at least 4 months before they could qualify for a new benefit year, i. e., in February 1939 or earlier. More than 70 percent had at least 6 unprotected months after exhaustion occurred, and nearly 19 percent had at least 8 unprotected months.

### *Inter-Industry Variations in Exhaustion Ratio*

A comparison of the exhaustion experience of beneficiaries in different industries indicates the characteristics of the workers for whom the existing benefit provisions proved most inadequate during the period covered by the study. It also provides a basis for measuring the relationship between the data on exhaustion of benefits and independent data on employment trends in various industries; from these data estimates might be made of the adequacy of alternative duration provisions under similar conditions, or at different stages of the business cycle.<sup>3</sup>

There were significant differences in the exhaustion ratios among workers classified by industry of last employment (table 1). Automobile workers, with a ratio of 33.1 percent, showed the least tendency to exhaust their rights. Exhaustion ratios above 80 percent were found in 6 of the 40 industry groups which had 100 or more cases in the sample (table 3), as well as in several smaller industries. The highest ratio (88 percent) was in apparel manufacturing, a highly seasonal industry, while several of the other industries with high ratios have definite seasonal characteristics—basic lumber manufacturing; clay, glass, and stone manufacturing; and food manufacturing (table 1). Apart from the automobile industry the lowest exhaustion ratios were found in rubber manufacturing, which in Michigan is predominantly the

<sup>3</sup> Comparison of the exhaustion experience of beneficiaries from different industries also yields some rather significant data bearing on the validity of certain types of "experience-rating" provisions which disregard the duration of an individual worker's unemployment. It is sometimes held that when a worker has once become unemployed and receives benefits his prospects of reemployment depend on the general state of the labor market, and that his previous employer's liability should have no relation to the duration of his unemployment. A demonstrated relationship between industry of last employment and the tendency to exhaust benefits would seem to indicate that experience-rating systems which ignore the duration of unemployment may operate to give an arbitrary advantage to employers in those industries in which long spells of unemployment prevail, and result in excessively heavy charges against employers whose workers tend to draw benefits for a short period only.

**Table 4.—Number and percentage distribution of Michigan beneficiaries<sup>1</sup> with specified weekly benefit amounts, by number of full weeks of potential duration**

Weekly benefit amount	Total		Percentage distribution by number of full weeks of potential duration									
	Number	Percent	Less than 8	8-8.9	9-9.9	10-10.9	11-11.9	12-12.9	13-13.9	14-14.9	15-15.9	16
All beneficiaries.....	55,260	100.0	1.0	2.4	1.7	1.8	2.4	3.3	4.5	6.3	14.4	62.2
Less than \$7.00.....	455	100.0	42.0	13.4	9.2	8.0	4.6	5.3	6.4	3.7	3.3	3.6
7.00-9.50.....	7,218	100.0	4.5	5.6	4.4	4.9	7.1	9.2	9.1	9.5	16.3	29.3
10.00-12.50.....	8,640	100.0	.6	5.0	3.5	3.1	4.0	5.1	7.1	9.7	25.0	36.9
13.00-15.50.....	11,405	100.0	-----	3.0	1.5	1.9	2.6	3.7	6.1	10.6	20.7	43.9
16.00.....	27,542	100.0	-----	.3	.4	.4	.6	.9	1.8	2.6	5.6	87.4

<sup>1</sup> See table 1, footnote 1.

manufacture of automobile tires; in textiles, and in railway and other transportation.

Many of the principal industrial divisions—including mining and quarrying, construction, non-durable-goods manufacturing, trade, and service industries—had exhaustion ratios between 65 and 69.9 percent. The ratio for durable-goods manufacturing (except automobiles) was about 64 percent; for finance, insurance, and real estate it was 73 percent. The only industrial divisions with ratios below 60 percent were automobile manufacturing and transportation; a ratio above 75 percent was found only in the group of miscellaneous industries.

In most of the nonautomotive industries, the exhaustion ratios tended to cluster around the nonautomotive ratio of 65 percent. This general clustering is indicated in table 3, which shows that 23 of the 40 industry groups which covered at least 100 cases in the sample had exhaustion ratios between 60 and 75 percent, and that 18 of the 26 smaller industry groups had ratios between 60 and 80 percent.

In order to interpret the variations among industries shown in table 3, it will be useful to examine data on the employment fluctuations which occurred in these industries in 1937 and 1938 (table 2). As has been noted, the average decline in employment from the highest month in the last half of 1937 to July 1938 was approximately 35 percent, though the decline ranged from 60 percent for the automobile industry to 5 percent in finance and related industries. From July through December 1938 there was an average recovery equal to half the decline from the 1937 peak, though a few industries experienced further declines, and a recovery of 40 percent or more occurred only in seven industry groups: automobiles, iron and steel, nonferrous metals, textiles, paper, rubber, and trade.

Despite certain exceptions, the lowest exhaustion ratios were found in industries which had experienced a sharp decline followed by a sharp rise; examples are automobile manufacturing, textiles, rubber, nonferrous metals, and transportation. Similarly, the highest exhaustion ratios were in industries which experienced a relatively slight decline from 1937 to 1938, or failed to make any substantial recovery during the last half of the latter year. In a few industries, such as construction, food manufacturing, apparel manufacturing, utilities, and finance, employment in December 1938 was actually lower than in July.

In general, these data indicate that high and low exhaustion ratios reflect differences in the employment trend of the industries in which the claimant had last been employed.<sup>9</sup> The data appear, in addition, to establish the fact that an individual's prospect of reemployment before his benefits are exhausted is dependent on employment trends in the industry which furnishes his usual employment, and relatively independent of general trends in other industries. Thus, workers in certain industries which are definitely seasonal in character, such as construction, apparel manufacturing, and some divisions of the food-manufacturing group, will apparently experience relatively prolonged unemployment even in normal years.

As previously mentioned, with very few exceptions the exhaustion ratio tends to be low for industries in which there was a high ratio of benefit recipients to covered workers, and vice versa (see table 1). The low exhaustion ratio for the automobile industry is not, from some points of view, very convincing evidence that present duration provisions are adequate even for this group of

<sup>9</sup> These employment trends affect the claimant's base-period experience and hence his weekly benefit amount and potential duration of benefits, as well as his prospects of reemployment.

workers. Since nearly 45 percent of the industry's workers drew benefits in the benefit year ended June 30, 1939, an exhaustion ratio of 33 percent means that 15 percent of the workers in the industry, or more than 55,000 individuals, exhausted their benefits before being reemployed. Thus the number of exhaustions per 100 covered workers—which is a measure of the proportion of employees who experience unemployment which is not compensated under existing provisions of the law—was actually much higher for this industry than for nonautomotive industries. The total for the latter, with about 14 benefit recipients per 100 covered workers and an exhaustion ratio of 65 percent, would represent about 10 exhaustions per 100 covered workers.

The general tendency toward higher exhaustion ratios among women, already noted, was found in nearly every industry. In 15 of the 19 industry groups which contained at least 100 workers of each sex, the exhaustion ratio for women was at least 5 percent higher than for men, and there were only two groups (rubber manufacturing and nonelectrical machinery) in which the ratio for women was slightly lower. The largest differences between exhaustion ratios for men and women (over 10 percent) were in automobiles, textiles, nonferrous metals, electrical machinery, iron and steel, and paper manufacturing.

#### *Relationship Between Potential Duration and Exhaustion of Benefits*

The Michigan law, like that of most other States, provides for a variable maximum duration of benefits, controlled by the amount earned by the claimant in his base period. During the benefit year covered by the study, maximum benefits could not exceed one-third of the amount of the 3-quarter base-period earnings (see p. 20) and were further subject to an absolute maximum limit of 16 times the weekly benefit amount.<sup>10</sup> The potential benefits established in Michigan, however, were distinctly higher than those afforded in 1938 by many other States, which limited benefits to one-sixth or one-eighth of earnings in a base period which nominally included 6 or 8 quarters, but for which wage credits were available for only 3 or 4 quarters when benefits began.

<sup>10</sup> The distribution of claimants by weeks of potential benefits under this provision was similar to that found under the provision of the present law, which limits the maximum to 16 weeks or one-fourth of the amount earned in a base period of 4 calendar quarters.

With a few exceptions, it was generally true that beneficiaries with the maximum duration were those who had been most regularly employed in the base period, while those with short potential durations had experienced a substantial amount of unemployment in the base period. It is thus evident that, to the extent that the pattern of base-period employment tends to repeat itself

**Table 5.—Number of beneficiaries exhausting benefits in Michigan <sup>1</sup> and exhaustion ratios <sup>2</sup> for beneficiaries, by weekly benefit amount and full weeks of potential duration**

Number of full weeks of potential duration	Beneficiaries exhausting benefit rights		Exhaustion ratio by weekly benefit amount of—				
	Number	Exhaustion ratio <sup>2</sup>	Less than \$7.00	\$7.00-9.50	\$10.00-12.50	\$13.00-15.50	\$16.00
All beneficiaries.	25,302	45.8	84.2	73.4	59.9	49.1	32.1
16.....	10,247	29.8	75.0	68.0	50.0	24.0	28.0
15-15.0.....	5,119	64.4	80.0	77.6	70.9	60.4	53.2
14-14.0.....	2,375	68.2	94.1	70.7	65.4	70.3	65.0
13-13.0.....	1,802	72.3	86.2	78.0	72.9	69.1	67.5
12-12.0.....	1,429	76.3	87.5	79.6	77.9	80.1	79.1
11-11.0.....	1,080	80.9	90.5	78.9	79.1	84.0	84.1
10-10.0.....	807	82.0	79.5	82.4	81.9	83.6	78.9
9-9.0.....	804	84.5	76.2	82.4	87.1	87.5	82.0
8-8.0.....	1,112	85.2	85.2	88.5	81.4	86.4	84.0
Less than 8.....	527	93.1	85.3	96.6	100.0	-----	-----

<sup>1</sup> See table 1, footnote 1.

<sup>2</sup> See table 1, footnote 2.

during an individual's benefit year, persons with short potential durations may be expected to experience a greater amount of unemployment in the benefit year, and thus be most likely to exhaust their benefit rights.

The average potential duration for beneficiaries whose benefit year ended in June 1939 was 15 weeks. More than 62 percent qualified for the full 16-week period, while only 3.4 percent qualified for less than 9 weeks, and less than 10 percent were entitled to less than 12 weeks of benefits. Individuals with low benefit amounts tended in general, as indicated in table 4, to qualify for a shorter potential duration than did those whose benefit amount was above \$10. Low benefit rates and short potential durations were especially characteristic of workers engaged in intermittent or casual work.

The exhaustion ratio was closely related to the potential duration of benefits to which claimants were entitled (table 5). The exhaustion ratio among beneficiaries whose potential duration was 16 weeks was only 29.8 percent, or less than two-thirds the average ratio for all beneficiaries (45.8

percent). For every duration class below 16 weeks, the exhaustion ratio was more than twice as high as for the 16-week class, and it increased steadily as the potential duration fell further below 16 weeks.

Even the high exhaustion ratios which are indicated for all groups whose potential duration was less than 16 weeks are apparently an understatement of the inadequacy of benefit duration in relation to the actual incidence of unemployment. A distribution of beneficiaries by potential duration, in terms of number of weeks of actual benefits received (table 6), shows that, in every duration class below 16 weeks, a large proportion of the individuals who did not exhaust their benefits had less than one full week of unpaid benefits after drawing the last check which they received. For example, among those whose potential duration was 15 to 15.9 weeks, 11.3 percent drew at least 15 weeks of benefits. The corresponding percentages range from 23.0 to 49.0 percent among beneficiaries who did not exhaust their benefits and who had potential durations of 8 to 14.9 weeks.

Under the Michigan law the final benefit check, for those beneficiaries who fail to qualify for the 16-week maximum, is usually a fraction of the weekly benefit amount. Either because of ignorance of their rights or because it was possible for them to obtain relief or WPA employment without drawing a final unemployment benefit check which represented a relatively slight addition to their income, many beneficiaries apparently failed to draw the final check, and a large proportion of these undoubtedly remained unemployed through the final week although they are not shown as

exhausting their benefit rights. For each potential duration bracket below 16 weeks, the true exhaustion ratio is probably from 4 to 7 percent higher than is shown in table 5.

#### *Exhaustion Ratio Among Low-Paid Workers*

A high exhaustion ratio may be considered less serious among workers who earn high wages than among workers whose wage rates are low, since the former are presumably more able, when employed, to set aside a reserve to tide them over periods of unemployment. Since the benefit rate is related to the claimant's earnings (4 percent of high-quarter wages), the workers with low benefit rates are also the low-paid workers. It is therefore significant that the exhaustion ratio is lowest (32 percent) among workers with the maximum benefit rate and highest (84 percent) among workers with benefit rates of less than \$7 a week (table 5). Consequently, the worker who had the lowest earnings and hence least opportunity to provide for a period of unemployment was most likely to find his benefits terminated before he was reemployed.

There is some evidence that workers with low earnings had high exhaustion ratios primarily as a result of the shorter duration for which they qualified rather than from any direct tendency for low-paid workers to exhaust benefit rights. Short potential durations, as indicated in table 4, were especially common among workers with low benefit rates; for example, 64.6 percent of the claimants with benefit rates of less than \$7 qualified for less than 10 weeks of benefits, while for those with a benefit rate of \$16 the corresponding percentage was only 0.7. Workers with short

**Table 6.—Number and percentage distribution of Michigan beneficiaries<sup>1</sup> with specified potential durations who did not exhaust benefit rights, by number of full weeks of benefits received**

Number of full weeks of potential duration	Number of beneficiaries not exhausting benefits	Percentage distribution by number of full weeks of benefits received									
		Total	Less than 8	8-8.9	9-9.9	10-10.9	11-11.9	12-12.9	13-13.9	14-14.9	15-15.9
Total.....	29,958	100.0	51.0	7.7	6.0	6.5	6.0	5.7	5.8	5.5	4.9
16.....	24,160	100.0	54.0	7.3	6.5	6.1	5.5	5.3	5.1	4.5	4.8
15-15.9.....	2,823	100.0	33.6	8.0	7.7	7.0	6.9	6.6	8.2	10.7	11.3
14-14.9.....	1,108	100.0	31.0	7.5	7.2	7.9	7.0	7.4	9.0	23.0	.....
13-13.9.....	691	100.0	32.5	6.7	7.5	6.9	10.1	10.1	26.2	.....	.....
12-12.9.....	373	100.0	37.2	9.1	6.7	8.3	14.5	24.2	.....	.....	.....
11-11.9.....	255	100.0	38.5	8.6	7.8	13.7	31.4	.....	.....	.....	.....
10-10.9.....	177	100.0	32.9	11.3	15.8	40.0	.....	.....	.....	.....	.....
9-9.9.....	147	100.0	40.1	10.9	40.0	.....	.....	.....	.....	.....	.....
8-8.9.....	103	100.0	52.9	47.1	.....	.....	.....	.....	.....	.....	.....
Less than 8.....	39	100.0	100.0	.....	.....	.....	.....	.....	.....	.....	.....

<sup>1</sup> See table 1, footnote 1.

<sup>2</sup> Of these beneficiaries, 27 had potential duration of 7-7.9 weeks, 15 or 55.6 percent of whom received benefit payments for at least 7 weeks.



potential durations, as would be expected, have higher exhaustion ratios (table 5); about 93 percent of those with less than 8 weeks of potential benefits exhausted benefit rights, but this was true of only 30 percent of those with 16 weeks' duration. It seems likely, therefore, that the high exhaustion ratios of low-paid workers are directly related to shorter potential duration of benefits.

The relationship of short potential duration and high exhaustion ratios is further indicated by an examination of data on workers with specified benefit rates. The exhaustion ratio tended to rise as the potential duration was reduced (table 5), and as the benefit amounts increased, the exhaustion ratios tended to be lower.

There was also some tendency, among workers with a specified potential duration, for the exhaustion ratio to be higher for those with lower benefit rates. This was particularly true of the workers whose potential maximum was 15 or 16 weeks. In the 16-week class, 75 percent of workers with benefit amounts of less than \$7 exhausted their benefit rights, while only 28 percent of those with benefit amounts of \$16 experienced a termination of benefits. The differences in this class may be due to the fact that many automobile workers (whose exhaustion ratio was low) had the maximum duration and a benefit amount of \$16, while the workers with the maximum potential duration but low benefit amounts came from industries in which the business recovery was not so pronounced and exhaustion of benefits was more frequent.

Since other available data indicate that a combination of low benefit amount and short duration was most common among women (who are less likely to be family heads), there may be some indication that inadequacy of duration is somewhat less serious, in terms of family needs, than would be the case if the exhaustion ratio were equally high among male beneficiaries.

The higher exhaustion ratios recorded for workers with short durations and low benefit amounts naturally raise the question whether such workers are intrinsically more likely to experience prolonged unemployment or whether their exhaustion ratios result primarily from limited benefit rights. A partial answer to this question may be obtained by comparing the actual benefit duration of beneficiaries with their potential duration. When the factor of exhaustion is removed by

considering only benefit durations below the potential duration for a class of beneficiaries, it appears that individuals who qualified for the longer durations were more likely to experience shorter periods of compensable unemployment than those who qualified for relatively short periods of potential duration. As indicated in table 7, 48.2 percent of the claimants entitled

**Table 7.—Number and percent of Michigan beneficiaries<sup>1</sup> according to number of full weeks of potential duration, by specified number of weeks of benefits received**

Number of full weeks of potential duration	Number of beneficiaries	Percent receiving benefits for—					
		Less than 4 weeks	4-6.9 weeks	7-9.9 weeks	Summary		
					Less than 7 weeks	Less than 10 weeks	10-16 weeks
Total.....	55,200	10.4	13.6	15.9	24.0	39.9	60.1
16.....	34,397	15.2	18.0	15.0	33.2	48.2	51.8
15-14.9.....	7,945	2.8	6.5	8.2	9.3	17.5	82.5
14-13.9.....	3,483	2.8	4.8	4.9	7.6	12.5	87.5
13-12.9.....	2,463	2.4	5.0	5.5	7.4	12.9	87.1
12-11.9.....	1,801	2.8	3.7	4.5	6.5	11.0	89.0
11-10.9.....	1,335	2.2	4.2	4.1	6.4	10.5	89.5
10-9.9.....	984	1.0	3.5	5.0	5.1	10.7	89.3
9-8.9.....	951	1.5	3.2	( <sup>2</sup> )	4.7	100.0	.....
8-7.9.....	1,305	1.7	4.1	( <sup>2</sup> )	5.8	100.0	.....
Less than 8.....	550	3.0	47.4	( <sup>2</sup> )	50.4	100.0	.....

<sup>1</sup> See table 1, footnote 1.

<sup>2</sup> Class contains all remaining cases, since potential duration is less than 10 weeks.

to 16 weeks of benefits, 17.5 percent of those entitled to 15 weeks, and less than 13 percent of those entitled to from 10 to 14 weeks drew less than 10 weeks of benefits. Similarly, 33.2 percent of the beneficiaries whose potential duration was 16 weeks, 9.3 percent of those whose potential duration was 15 weeks, and 6.5 percent or less of those whose potential duration was below 13 but above 8 weeks drew less than 7 weeks of actual benefits. Individuals with limited benefit rights (usually because of low or irregular earnings in the base period) were therefore apparently least likely to experience short periods of unemployment during the benefit year.

### Conclusion

From these data it is clear that the workers who had been least regularly employed during the base period, and who were thus least likely to have accumulated savings to tide them over a long period of unemployment, were the group for whom the benefit provisions of the Michigan law proved

most inadequate in terms of duration. Other Michigan data, to be summarized in a later issue of the Bulletin, show that nearly one-third of the beneficiaries who exhausted their benefits in the Detroit area during the benefit year covered by the study were known to public relief agencies either prior to receipt of benefits or after exhaustion of benefits or in both periods during the 18 months studied. It appears, therefore, that the present "variable duration" provision tends to compel a large number of workers, who are sufficiently attached to the covered labor market to qualify for some benefits, to obtain some other type

of assistance because their benefits do not last for a sufficiently long period. The attempt to maintain an arbitrary mathematical relationship between wage credits and benefit rights—on the theory that a worker's insurance rights should be related to the contributions previously paid on his behalf—is thus to a great degree responsible for the failure of unemployment compensation in Michigan during 1938 and 1939 to bridge the interval between jobs without compelling the unemployed worker to pass through the cumbersome and morale-destroying process of obtaining relief based on proof of need.