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AGE OF GAINFUL WORKERS OF THE UNITED STATES, 1920 AND 1930¹

Studies on the Age of Gainful Workers No. 1

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INTRODUCTION

During the past quarter century increasing interest has been manifested in problems involving the age of the gainful worker. More recently questions have arisen that demand for their study the age of the gainful worker specific for occupation. Such questions include, among others, those dealing with child and woman labor, old-age dependency and pensions, occupational morbidity and mortality, unemployment, unemployment insurance, and workmen's compensation for nonaccidental and accidental injuries.

The term gainful worker includes, according to the Bureau of the Census (1), "* * all persons 10 years old and over who usually follow a gainful occupation even though they may not have been actually employed at the time the census was taken. It does not include women doing housework in their own homes without wages and having no other employment, nor children working at home, merely on general household work, on chores, or at odd times on other work."

With the aid of basic data contained in published volumes of the Bureau of the Census, it is purposed in this introductory paper to investigate the age composition of gainful male and female workers in 9 important groups of occupations for the years 1920 and 1930. In the present inquiry the data for the white and colored workers are combined. It is planned in subsequent papers to study for the same census years the age composition of male and female workers in different geographic regions, the age composition of white and Negro workers by sex, and the age composition of male and female workers in specific occupations of two or three occupational groups. Studies such as these are essentially introductory to similar ones of the future and obviously necessary for a better understanding of the facts that will be disclosed by them.

¹ From the Office of Industrial Hygiene and Sanitation, U. S. Public Health Service, Washington, D. C. 124377^o-37-1 (269)

TABLE 1.—Goinful worl	ters in the occupation	United St. Lat groups	ates, 10 ye , 1920 and	ars of age 1 1 9 30	and over, i	n different
	Both	SEXES	м	ales	Fen	ales
Occupational group	1920	1930	1920	1930	1920	1950
<u></u>		<u> </u>	Nu	mb er		
All groups	41, 614, 248	48, 829, 920	38, 064, 7 87	38, 077, 804	8, 549, 511	10, 752, 116
Agriculture, forestry, animal husbandry Extraction of minerals	10, 953, 158 1, 090, 223	10, 722, 467 984, 323	9, 869, 030 1, 087, 359	9, 812, 199 983, 564	1, 084, 128 2, 864	910, 268 759
cal industries. Transportation and commu-	12, 818, 524	14, 110, 652	10, 888, 188	12, 224, 345	1, 930, 341	1, 886, 307
Trade Public service (n. e. c.) ¹	4 , 242, 979 770, 460	6, 081, 467 856, 205	2, 850, 528 8, 575, 187 748, 666	5, 118, 787 838, 622	213, 054 667, 792 21, 794	281, 204 962, 680 17, 583
Professional service. Domestic and personal service. Olerical occupations	2, 143, 889 3, 404, 892 8, 126, 541	3, 253, 884 4, 952, 451 4, 025, 324	1, 127, 391 1, 217, 968 1, 700, 425	1, 727, 650 1, 772, 200 2, 038, 494	1, 016, 498 2, 186, 924 1, 426, 116	1, 526, 234 8, 180, 251 1, 996, 830
			Per	ænt		
All groups	100. 0	100. 0	100. 0	100. 0	100.0	100 . 0
Agriculture, forestry, animal husbendry Extraction of minerals	26 . 3 2. 6	22.0 2.9	29. 9 8. 8	26. 8 2. 6	(12.7 (1)	(³) ^{8.5}
Manufacturing and mechani- cal industries	30.8	28.9	82.9	82.1	22.6	17.5

Т

1 N. e. c. = Not elsewhere classified.

Less than 0.1 of j percent.

Transportation and commu-

Public service (n. e. c.)¹

Professional service...... Domestic and personal service. Olerical occupations......

nication.....

Trade.

GAINFUL WORKERS IN DIFFERENT OCCUPATIONAL GROUPS

7.9

12.5 1.7 6.7 10.1

8.2

8.6

10.8

2.3 8.4 8.7 5.1

9.4

18.4 2.2 4.6 4.7

5.3

2.5

7.8

11.9 25.6 16.7

2

2.6

8.9

.2

29.6 18.5

7.4

10. 2 1. 8

5.2 8.2 7.5

Table 1 shows the gainful workers of both sexes distributed among 9 important groups of occupations for 1920 and 1930, respectively. It will be observed that, when sex is disregarded, the order of the groups of occupations with respect to the percentage of workers in each group remains unchanged with the passage of 10 years. There is a sensible decrease, however, in the percentage of persons in agriculture, forestry, and animal husbandry, and an increase in trade. and domestic and personal service. The orders of the occupational groups for males and females, respectively, are different from each other and different from the order shown for both sexes. For the males, the order is the same at the beginning and end of the decade, while for the females the corresponding orders are different from each The orders for the males for 1920 and 1930, respectively, differ other. from the order for both sexes in that the transportation and communication group and the domestic and personal service group replace each other. The orders for the females at the beginning and end of the

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decade are remarkably different, only 4 of the 9 occupational groups being undisturbed. Domestic and personal service ranks first at the beginning and end of the decade; clerical occupations rank second in 1930, replacing the occupations of manufacturing and mechanical industries. In each sex group there is a perceptible decrease in agriculture, forestry and animal husbandry, and for the males a larger increase in trade than for the females. With respect to the female group, the following changes that occurred during the decade are worthy of noting: In addition to the decrease in agriculture, forestry and animal husbandry, already referred to, there was a decrease in the percentage of females engaged in the manufacturing and mechanical industries, and an increase in both the professional and the domestic and personal services groups.

GAINFUL WORKERS IN DIFFERENT OCCUPATIONAL GROUPS BY AGE

The sex-age distribution of the gainful workers of 1920 and 1930, according to all occupational groups and for particular groups, respectively, is shown in table 2. Regardless of occupation it is observed that the order of importance of the different age groups is by no means the same for the males and females of the same year nor for the males and females, respectively, of different years. In fact, only the age group 25 to 44 years has the same rank when the percentages for the various ages, specific for sex and year, are arranged in decreasing order of magnitude, and this particular age group ranks first. More precisely, in 1920 almost one-half of the male workers and approximately 40 percent of the female workers, respectively, were between the ages of 25 and 45 years. In 1930 the same age group was represented by practically the same percentage of male workers, and by a slightly higher percentage of females.

With respect, further, to the gainful workers in all occupational groups, the table shows that for the males the second highest percentage represented the middle-aged group, 45 to 64 years, the percentage being about the same for both 1920 and 1930, namely, 26 percent. For the females, on the other hand, the middle-aged group ranked third in both years, with 16 percent in 1920 and 18 percent higher in 1930. Of equal interest is the proportion yielded by the age group 10 to 17 years. In 1920 this child group, both male and female, ranked fourth, the percentage for females (11 percent), however, being twice that for the males. In 1930 this ratio remained unchanged, but the male child group dropped to last (6th) place, with less than 4 percent, while the corresponding female group moved to fifth place, with 7 percent. It is of interest to observe that the male child group of 1920, holding at that time fourth place, was supplanted at the end of 10 years by the age group 65 and over, the percentages in both instances being the same (5 percent); the place of the female

			65 and over			4. 520	1.428.9117 486.928 486		6.005	99999999999999999999999999999999999999
			45-64			25.462	22.25.25 25.		27.615	8873888855 8873888855
			25-44	art		45.758	35,917 51,538 52,538 52,952 52,952 52,952 53,952 54,57 50,952 55,952 56,953 57,752 56,953 57,952 56,953 57,953 56,973 57,955 57,9555 57,9555 57,9555 57,9555 57,9555 57,9555 57,9555 57,95555 57,955555 57,95555555555		46. 724	86 578 51 551 51 551 52 596 53 596 53 596 547 547 547 55 596 547 547 547 55 596 547 547 547 547 547 547 547 547 547 547
	930	group	20-24	Perce	h sexes	14.650	12, 161 13, 246 13, 858 15, 045 12, 024 13, 653 13, 653 26, 858 26, 858	fales	12.615	20, 302 10, 241 10, 241 10, 949 20, 383
0001	-	Age	18-19		Bot	5. 211	5,659 4,144 4,144 4,133 4,011 3,347 3,472 9,791 9,791		4.205	5 491 5 491 3 3 909 3 102 3 102 3 455 7 87 2 512 2 7 06 3 102 7 06 7 06 7 06 7 06 7 06 7 06 7 06 7 06
			10-17			4. 309	9.172 1.992 3.307 3.094 3.094 4.233 4.233 4.233 4.233		3. 746	4 4 5 5 5 5 5 5 5 5 5 5
or (dmoif			10 years old and over ¹	Number		48, 786, 489	10, 717, 067 14, 097, 429 3, 839, 339 6, 076, 084 6, 076, 084 8, 854, 484 4, 044, 804 4, 022, 078		38, 046, 775	9, 807, 239 982, 971 982, 971 3, 552, 971 3, 558, 429 5, 114, 555 837, 938 1, 725, 906 1, 725, 906 1, 769, 629 2, 037, 137
****			65 and over			4.068	6. 74 7 9. 2003 9. 2003 9. 2003 9. 2003 1. 24 5 1. 24 5		4. 523	6.715 6.715 7.75 7.55 7.55 7.55 7.55 7.55 7.55
occap			45-64			23.843	27.446 21.7446 21.767 23.107 23.802 23.855 23.855 23.855 23.281 27.281 10.288		25.910	28.231 21.787 29.771 29.7712 29.7713 29.77713 29.77713 29.77713 29.77713 29.77713 20.77712 20.77713 20.77712 20.77713 20.77712 20.777712 20.777712 20.77712 20.77777777777777777777777777777777777
60 60 10	22 41		46.730	39. 325 53. 325 51. 233 48. 391 51. 287 40. 805 40. 805		47.200	40. 23 55. 278 55. 278 55. 278 55. 255 55. 255 55. 255 56. 2			
	820	group	20-24	Pero	h sexes	14. 276	11.564 13.260 13.900 15.545 15.35454 15.3545555555555555555555555555555555555	fales	12.486	11. 508 13. 278 13. 278 13. 278 15. 458 9. 475 9. 282 19. 777 19. 777
hunk	51	Age	18-19		Bot	5.407	4, 835 4, 999 5, 391 5, 234 4, 079 4, 079 4, 079 4, 079 11, 220	4	4.374	4.4.4.4.4.4.4.4.4.4.4.4.4.4.4.4.4.4.4.
[n		-	10-17					6. 676	10.283 6.040 3.511 4.675 4.905 4.905 10.260	
			10 years old and ever ¹	Number		41, 541, 526	10, 942, 669 12, 765, 715 3, 055, 920 3, 055, 920 4, 236, 920 2, 138, 948 2, 138, 948 3, 394, 378 3, 123, 015		33, 007, 662	9, 859, 639 1, 083, 860 11, 083, 867, 341 2, 847, 344 745, 904 1, 214, 279 1, 214, 279 1, 214, 279
			Occupational group			All groups.	Agriculture, forestry, animal husbandry Extraction of minerals. Manufecturing and mechanical industries. Trade. Trade. Public service (n. e. o.) Professional service. Domestic and personal service.		All groups.	Agriculture, forestry, animal husbandry- Extraction of minerals

TABLE 2.—Sex-aae distribution of aginful workers. by occupational group. 1920 and 1930

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			Fe	males						Fe	males			
All groups.	8, 533, 804	11.200	9.401	21. 199	40.045	15.848	2. 307	10, 738, 714	6. 711	8. 776	21.861	42.339	17.884	2.479
Agriculture, forestry, animal husbandry Extraction of minerals. Manufacturing and mechanical industries Transportation and communication. Professional service (n. e. c.) ³ . Professional service. Domestic and personal service. Clerical occupations.	1, 083, 030 2, 855 1, 927, 688 21, 232 686, 028 21, 736 1, 013, 582 2, 181, 090 1, 424, 416	24.884 15.762 15.682 14.420 10.377 10.377 10.377 1.276 5.780 10.147	6.602 10.473 11.119 11.119 10.162 5.444 5.444 15.421	12.076 17.863 19.866 33.220 20.839 13.475 13.475 13.857 33.797 33.797	31. 124 30. 104 37. 882 43. 751 43. 751 43. 751 48. 432 36. 402 36. 402	20.295 14.080 14.080 13.569 13.760 13.760 13.760 25.552 28.062 4.025 4.025	5,019 2,312 1,400 1,111 1,111 1,111 1,083 1,208 2,083 2,083 2,083 2,083 2,083 2,083 2,019 2,000 2,019 2,000 2,000 2,000 2,000 2,000 2,000 2,000 2,000 2,000 2,000 2,000 2,000 2,000 2,000 2,000 2,000 2,000 2,0000	909, 828 757 1, 884, 458 9280, 970 961, 529 17, 548 1, 523, 508 1, 523, 508 1, 523, 508 1, 934, 941	21.918 12.021 10.455 5.183 5.201 4.122 4.122	7, 470 112, 549 111, 657 14, 696 8, 847 6, 430 6, 430 6, 430 12, 567	12.403 19.419 21.051 31.625 18.888 8.901 15.160 33.493 33.493	28 . 787 35. 403 35. 403 45. 454 45. 454 49. 199 49. 199 42. 984	23.408 15.0408 15.643 6.7643 7643 7643 7643 7643 7643 7643 7643	6.014 1.588 3.539 4.065

¹ Excludes a negligible number of unknown age. ² N. e. c.=Not elsewhere classified. 273

child group of 1920, on the other hand, was taken 10 years later by the females of 18 to 19 years of age, and the females of 65 and over were in the last place in both years with approximately equal percentages (2 percent).

The following pertinent questions now arise: Given a particular age group, specific for sex, how do the different occupational groups rank with respect to the proportion of their workers in this age group, and are there any changes in order with the passage of time? The questions are asked primarily with regard to the child, middle-, and old-aged groups, respectively; that is, the age groups, 10-17, 45-64, and 65 and over.

Further reference to table 2 is necessary for a study of the questions proposed. The male child group of 1920 engaged in clerical occupations was 10 percent of the total number of males so employed. No other occupational group furnished a corresponding percentage so large. The female child group for the same year showed approximately the same percentage, which was, however, lower than the corresponding percentages yielded by 5 other occupational groups; the highest percentage (25 percent) was associated with agriculture, forestry, and animal husbandry. The year 1930 showed similar decreases for both males and females in the child group of the clerically employed. both instances the decrease was from 10 percent in 1920 to approximately 4 percent in 1930. In the latter year the male child group clerically engaged was superseded only by agriculture, forestry, and animal husbandry (8 percent); with regard to the female child group, while those engaged in agriculture, forestry, and animal husbandry decreased to 22 percent, the rank of this group of occupations remained unchanged. It will be observed that the number of males and females in the clerical occupations increased during the 10 years, but their proportions, respectively, in the child group were in 1930 less than one-half of the corresponding proportions in 1920. With respect to the boys, all occupational groups, professional service and public service excepted, showed decreases in their proportions at the end of the 10 years. The proportions for the girls, while on a higher level at the beginning of the decade (public service excepted) than those for the boys, were all lower at the end of the decade than at its beginning.

The year 1920 showed the clerically employed males to have 16 percent of their number in the middle-aged group. No other occupational group furnished a corresponding percentage so low; the highest percentages were yielded by domestic and personal service (29.5 percent) and professional service (29.2 percent). The middle-aged female group of clerical workers for the same year was 4 percent of the total females clerically employed, the percentage, as in the instance of the males, being practically the lowest among all occupational groups; the highest percentages were associated with domestic and personal service (26 percent) and public service (25.5 percent). With the passage of 10 years the percentages for the males and females, respectively, in clerical occupations, while increasing by approximately 2 percent, remained the lowest among all occupational groups. For the males the largest increase, from 22 to 27 percent, was associated with the extraction of minerals. There were slight decreases for trade, professional service, and domestic and personal service. The remaining occupational groups showed slight increases. For the middle-aged females the largest increases are shown for trade, 14 to 20 percent, and for public service, 25.5 to 35 percent. As in the instance of the males there was a slight decrease for domestic and personal service. The remaining occupational groups showed slight increases.

With respect to the age group 65 and over all occupational groups, with the possible exception of females in domestic and personal service, showed slightly higher proportions at the end of the decade than at its beginning. In 1920 extraction of minerals ranked first (7 percent) among the males, public service ranking second (6 percent); in 1930 these two occupational groups interchanged places with proportions that amounted to 8 and 8.2 percent, respectively. Among the females, agriculture, forestry, and animal husbandry ranked first (5 percent) in 1920 with domestic and personal service second (4 percent); in 1930 this order remained unchanged.

RATIO OF OBSERVED PERCENTAGE OF GAINFUL WORKERS IN EACH OCCUPATIONAL GROUP TO EXPECTED PERCENTAGE

It is desirable and, at the same time, illuminating to compare the observed percentages constituting the percentage age distribution of gainful workers, specific for sex, occupational group, and census year, with defined "expected" or "normal" percentages. The percentages of all gainful workers distributed among the various age groups, regardless of occupation but specific for sex and census year, may be assumed to be expected or normal percentages for each occupational group specific for sex and census year. The ratio of an observed percentage to its corresponding expected percentage will disclose whether there is a relatively large, a relatively small, or a normal percentage of workers of a particular occupational group in a specific sex-age group and census year. The expected percentages as defined together with those observed are given in table 2.

Reference to the expected percentages has already been made in the previous section. In table 3 the calculated ratios are shown, and figures 1 and 2, respectively, present the ratios graphically for males and females. The dashed line in each figure drawn through 1.00 indicates the normal or expected level of gainful workers; when the expected percentage of persons in a particular age and occupational group is the same as the percentage of persons actually observed in



thus: 1, serioulture, forestry and animal husbandry; 2, extraction of nilnerals; 3, manufacturing and mechanical industrics; 4, transportation and communication; 6, trade; 6, public service (not elsewhere classified); 7, professional service; 8, domestic and personal service; and 9, clerical occupations.





TABLE 3.—Ratio by sex and age, of percente	age of ga	inful wo (pe	rkers in srcentage	a specific s shown	ed occupa in table :	tional gr e)	oup to tl	e percen	tage for	all group	18, 1920 a	nd 19 3 0
			. 10	50					51	30		
			9 92 V	group					Age	group		
Occupational group	10-17	18-19	20-24	25-44	45-64	65 and over	10-17	18-19	20-24	25-44	46-64	65 and over
			W	ales					M	ales		
Agriculture, forestry, animal husbendry Extractions of minerals. Extractionand minerals. Transportation and communication. Trads. Public service (n. e. c.) ¹ . Froidesional service. Domestic and personal service.	1.58 	1.06 1.14 1.00 1.00 1.00 1.50 1.70	0.92 1.06 1.13 1.13 1.23 1.58 1.58 1.58	0.85 1.13 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07	1.09 1.84 	1.48 .46 .60 .89 .141 .1215 .22	2. 553 72 55 72 72 72 72 72 72 72 72 72 72 72 72 72	1. 31 . 94 . 73 . 73 . 73 . 73 . 73 . 73 . 73 . 73	0.96 1.00 1.00 1.00 87 81 81 81 81 81 81 1.62	0.78 1.188 1.088 1.088 1.088 1.088 1.088	1. 888. 888. 888. 888. 888. 888. 888. 8	. 11.12 88 11.12 81 81 11.12 81 81 11.12 81 81 81 81 81 81 81 81 81 81 81 81 81
			Fer	aales					Fei	nales		
Agriculture, forestry, animal husbandry Extraction of minerals. Extraction and mochanical industries. Transportation and communication. Trade. Public sarrice (i. e. c.) ¹ . Prodessional service. Domestic and personal service.	2.22 1.41 1.28 1.28 1.28 1.28 1.28 1.28 1.28 1.2		0. 57 94 1. 57 1. 57 1. 57 1. 59 1. 56 1. 56 1. 56 1. 56 1. 56 1. 56 1. 56 1. 56 1. 57 1. 56 1. 57 1.	0. 78 958 1. 745 1. 21 1. 11 1. 11 1. 11	1. 88. 88. 88. 88. 88. 88. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.	2.18 1.000 1.000 1.12 1.85 1.85 1.85 1.85 1.85 1.05 1.05 1.05 1.05 1.05 1.05 1.05 1.0	3. 27 1. 579 1. 566 1.	1	0.85 86 1.45 1.53 1.53 1.53 1.53 1.53 1.53 1.53 1.5	0.88 84 98 98 98 98 98 1.07 1.07 1.07 1.03	1.31 1.01 1.02 1.12 1.12 1.45 1.12 1.45 1.12 1.45 1.12 1.45 1.12 1.25 1.25 1.25 1.25 1.25 1.25 1.2	211.1. 29882821

¹ N. e. c. = not elsewhere classified.

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that particular group, the bar representing this fact will reach the dashed line. Obviously when the height of a bar is below (or above) the normal level the percentage of persons for the age group and group of occupations represented by the bar is less (or greater) than the percentage expected.

Variability of the ratios in the different age groups.-The first question that logically arises is: How do the number of gainful workers of different occupational groups approach the normal level in the various age groups; in other words, are there some age groups that are characteristically normal, above or below normal with respect to the number of gainful workers in the different occupational groups? The investigation of this question will obviously throw light on an important matter, namely, whether there is with respect to occupational group a dearth of workers in the middle-aged and old-aged groups, and whether there is an excess in the child group. An inspection of figures 1 and 2 immediately reveals that with respect to normality the age groups are by no means similar, and that the greater variability is shown by the females. The occupational groups for the age group 25-44 approach normality most consistently; this holds for females as well as for males, and for both census years. For the males the greatest variability appears to occur in the age group 10-17, followed in order by 65 and over, and 18-19; for the females the picture is remarkably different, considerable variability being found in all of the age groups with the exception of 25-44.

Age changes in the ratios.—For the males of the child group, 10-17 years, agriculture, forestry, and animal husbandry, and clerical occupations show an excess of gainful workers. In 1930 the former occupational group (agriculture, forestry, and animal husbandry) contained more than twice as many boys as expected and showed at the same time an increase over 1920: the clerical contained almost one-fifth more than the expected number but decreased since 1920. In both census years agriculture, forestry, and animal husbandry continued above normal in the age group 18-19, decreased below normal in the subsequent age groups, rose above normal in the middle-aged group, and increased to a high level above normal in the age group 65 and Clerical occupations continued above normal, decreased apover. proximately to normal at 25-44, and fell approximately to 60 and 50 percent of normal, respectively, in the middle- and old-aged groups. Other occupational groups than clerical in the old-aged group showing fewer persons than expected are extraction of minerals, manufacturing and mechanical industries, transportation and communication. and trade, the differences as between 1920 and 1930 being small. An occupational group in the old-aged group remarkably above normal is public service; in no other male age group does this particular group of occupations reach a level so high.

Consider now the material for the females which is shown graphically in figure 2. The child group contrasts notably with the corresponding male group. The female child group shows the clerical occupations below normal, and the agriculture, forestry, and animal husbandry group considerably above normal. In fact in the latter group of occupations there were in 1930 over 3 times as many girls as expected. Furthermore, for both census years there are 2 other occupational groups, extraction of minerals, and manufacturing and mechanical industries, in the female child group that show percentages above normal; in 1920 the occupations connected with transportation and communication were above normal, but in 1930 they show a decrease below normal. Transportation and communication for both years rises abruptly far above normal in the age group 18-19; indeed this level is never reached in any of the subsequent age groups. On the other hand, these occupations are below normal for males of 18-19 years of age. While the professional service group is below normal for males of 20-24, it is about 30 percent greater than the expected number for females of the same age group. As in the instance of the middle-aged males in clerical occupations, the females of the same age and occupational group are below the expected number, the latter being on a still lower level. Transportation and communication also shows an unusually low level with respect to the middle-aged females. Public service, and domestic and personal service are on high levels, and particularly so when compared with the males. These two occupational groups continue to show high levels for the females of 65 and over, public service increasing remarkably from below normal to almost 50 percent above normal in 10 years. Agriculture, forestry, and animal husbandry show the greatest excess in the old-age group. the observed percentage of workers being well over twice the expected percentage in both census years.

SUMMARY

This paper deals with the age of gainful male and female workers of the United States in different occupational groups for the census years 1920 and 1930. The various occupational groups with the workers specific for sex, age, and census year are compared.

The percentage age distribution for each occupational group is compared with the percentage age distribution of all gainful workers regardless of occupation by forming the ratio of corresponding percentages. This ratio is equivalent to the ratio of an observed percentage to its corresponding "expected" or "normal" percentage, and depending upon whether the ratio is 1, less than 1, or greater than 1, indicates whether the number of workers in a particular occupational group is normal, abnormally low, or abnormally high; when the ratio differs from 1, its size indicates the order of magnitude of the abnormality. As a consequence of this definition of normality, the following findings, among others, may be briefly enumerated:

1. The ratios for the females are more variable than those for the males in both census years.

2. The variability of the ratios changes in both sexes with increases in age. The age group 25-44 years is least variable for both males and females in both census years.

3. With respect to the males, the child group, 10-17 years, shows agriculture, forestry and animal husbandry, and clerical occupations to have percentages of gainful workers greater than the expected percentages. The middle-aged group, 45-64 years, shows a dearth of workers principally in the clerical occupations. The old-aged group, 65 years and over, shows a dearth of workers in the following occupational groups: Extraction of minerals, manufacturing and mechanical industries, transportation and communication, trade, and clerical occupations. There is a notable excess in agriculture, forestry and animal husbandry, and public service. These observations hold for both census years.

4. With respect to the females, the child group shows excesses in agriculture, forestry and animal husbandry, extraction of minerals, manufacturing and mechanical industries, and transportation and communication (1920 only). The middle-aged group shows a dearth of workers principally in manufacturing and mechanical industries, transportation and communication, professional service, and clerical occupations. There are notable excesses in agriculture, forestry and animal husbandry, public service, and domestic and personal service. The old-aged group shows a dearth of workers in manufacturing and mechanical industries, transportation and communication, trade, professional service, and clerical occupations. There are striking excesses in agriculture, forestry and animal husbandry, public service (1930 only), and domestic and personal service. With the exceptions noted, these observations hold for both census years.

REFERENCE

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IXODES RICINUS CALIFORNICUS (BANKS) A POSSIBLE VECTOR OF BACTERIUM TULARENSE¹

By GORDON E. DAVIS, Bacteriologist, and GLEN M. KOHLS, Assistant Entomologist, United States Public Health Service

On April 18, 1936, two adult *Ixodes ricinus californicus* (1) were recovered near Grants Pass, Oreg., from a recently dead jack rabbit (*Lepus californicus californicus*). The rabbit's spleen was approxi-

¹ Contribution from the Rocky Mountain Laboratory, U. S. Public Health Service, Hamilton, Mont.

On April 22 the ticks were placed in a feeding capsule on a guinea pig. One attached immediately; the other died within 24 hours. The guinea pig's temperature was normal for 8 days, rose to 39.8° C. on the 9th day and 40.4°, 40.4°, 40.0°, 40.2°, respectively, on the following 4 days. On the fourteenth day it was killed for autopsy. The spleen was approximately normal in size. There were a few small abscesses in both spleen and liver.

Transfers were made by a suspension of spleen tissue and by testicular washings. The two guinea pigs receiving the latter died, following a febrile period, on the twentieth and twenty-fifth days, respectively. One showed a spleen enlarged approximately five times, studded with necrotic foci. There was also a focal necrosis of the liver and peritoneal wall with excess fluid in the abdominal cavity. The other showed a spleen slightly enlarged with focal necrosis in both spleen and liver. One of the two guinea pigs receiving spleen tissue died on the twentieth day, also showing lesions typical of tularaemia, including enlarged and caseated inguinal nodes. The other was killed on the fourteenth day. The spleen was slightly enlarged and showed pinpoint necrotic foci. The omentum major was caseated.

Transfers, by cutaneous vaccination with spleen tissue, were again made from one of each of the above pairs of guinea pigs. Blood taken on the seventh day from one of these second transfer guinea pigs yielded a pure culture of *Bacterium tularense*.

The following facts suggest that *I. ricinus californicus* may be a carrier of tularaemia to human beings: (1) It infests species of rodents known to be commonly infected in nature; (2) naturally infected adults have been found in nature; and (3) the adults frequently bite man.

REFERENCE

(1) Kohls, Glen M., and Cooley, R. A.: North American records of the tick *Ixodes ricinus californicus* (Banks). (The following article.—Ed.)

NORTH AMERICAN RECORDS OF THE TICK IXODES RICINUS CALIFORNICUS (BANKS)¹

By GLEN M. KOHLS, Assistant Entomologist, and R. A. COOLEY, Entomologist, United States Public Health Service

With the recent finding of *Ixodes ricinus californicus* naturally infected with *Bacterium tularense* in Oregon by Davis and Kohls (1) it seems desirable to summarize host and locality data of this common tick of the Pacific Coast region. In this note there are assembled all

¹ Contribution from the Rocky Mountain Laboratory, U. S. Public Health Service, Hamilton, Mont.

of the known published records of this tick, together with new records that have been obtained by this laboratory.

Banks (2) records specimens from California as follows: Claremont, Santa Clara County, Santa Cruz Mountains, and Redwood Creek. Humboldt County. The hosts were gray fox and black-tail deer. Neumann (3) records this species on a bird, Toxostoma crissalis Wagl.; locality, California. Clarke (4) lists it as a parasite of blacktail deer, and Boynton (5) notes its occurrence on the southern blacktail. Odocoileus columbianus scaphiotus, and the Rocky Mountain mule-tail deer, O. hemionus hemionus. Jellison (6) states that "the adult tick is a serious pest of deer, livestock, and dogs and frequently bites man * * *". The same paper records the finding of an engorged nymph on a dog in Santa Clara County, larvae and nymphs on alligator lizards, Gerrhonotus scincicauda scincicauda, in San Luis Obispo County, on Gerrhonotus coeruleus in Humboldt County, and on blue-bellied lizards, Sceloporus occidentalis occidentalis, in Monterey County, San Benito County, and San Luis Obispo County, all in California. Finally, Gregson (7) reports it from Vancouver Island and the coast of British Columbia. The lizard Gerrhonotus multicarinatus Blainville was found to be a host of the immature stages.

As a result of field studies conducted by members of the staff of the Rocky Mountain Laboratory, it is possible to add several new host species, representative records of which follow:

Hosts of adult stage.—Jack rabbit, Lepus californicus californicus, Grants Pass, Oreg.; brush rabbit, Sylvilagus bachmani, Corvallis, Oreg.; cougar, Felis oregonensis, Roseburg, Oreg. (R. E. Dimick); domestic cat, Gasquet, Calif.; horse, Orcas Island, Wash.; and coyote, Canis sp., Grants Pass, Oreg.

Hosts of immature stages.—Jack rabbit, Lepus californicus californicus, Grants Pass and Corvallis, Oreg. (larvae and nymphs); ground squirrel, Citellus douglasii, Grants Pass, Oreg. (nymphs); mouse (probably Mus musculus), Grants Pass, Oreg. (larvae); and Citellus sp., Redding, Calif. (nymph).

Distribution.—The writers have collected adults by dragging as far south as San Juan Hot Springs, San Diego County, Calif. Undoubtedly the species extends south into Lower California. The most inland record is Bass Lake, Madera County, Calif. (Jellison (6)). Gregson (7) gives as the most northerly point of collection Campbell River, 30 miles north of Courtenay, Vancouver Island. Judging from the paucity of records of its collection in Washington and northern Oregon, the species is probably sparsely distributed in that section of the Pacific coast region.

Seasonal occurrence.—The adults are most abundant during the winter and early spring months. We have an engorged female collected in January from a dog at Duncan, B. C. Jellison, in California,

March 5, 1937

during March and Anril found adults on vegetation in considerable numbers and also infesting dogs, horses, and man. The present writers found that the number of adults that could be collected from vegetation in California declined with the advance of spring, and during the summer months adults were practically absent. However, we have records from a covote, Grants Pass, Oreg., August 15, 1935 (1 specimen), and from a black-tail deer, Green Mountain, Oreg., October 18, 1935 (1 specimen).

As to the seasonal occurrence of the immature stages the data are even more fragmentary. Jellison found them infesting lizards in numbers during March and April 1932, in California. Many larvae and nymphs were found on 2 jack rabbits from Grants Pass, Oreg., April 17, 1936. Two ground squirrels, Citellus douglasii, from the same area, examined July 17 and September 18, 1935, respectively, were each infested with a single nymph. Gregson states that only 1 of 59 lizards, G. multicarinatus, from West Vancouver, examined October 4 was infested by a tick. Thus it seems likely that the seasonal occurrence of immature stages on host animals coincides more or less with that of adults.

REFERENCES

(1) Davis, Gordon E., and Kohls, Glen M.: Ixodes ricinus californicus (Banks) a possible vector of Bacterium tularense. (Preceding Article.-Ed.)

(2) Banks, Nathan: A revision of the Ixodoidae, or ticks, of the United States. U. S. Dept. of Agri. Bur. of Ent. Tech. Ser. 15, p. 24 (1908).

(3) Neumann, L. G.: Ixodidae, p. 27 (1911).
(4) Clarke, F. C.: Parasites of the black-tail deer. Thesis. Univ. of California Library (May 1912). (6) Boynton, W. H.: Deer as carriers of anaplasmosis. Science, 78: 559-560

(1933).

(6) Jellison, W. L.: The parasitism of lizards by Ixodes ricinus californicus. J. Parasitology, 20: 243 (June 1934). (7) Gregson, J. C.: A preliminary report of the lizard-tick relationship on the

coast of British Columbia. Proc. Ent. Soc. B. C. No. 31, pp. 17-21 (February 1935).

DEATHS DURING WEEK ENDED FEBRUARY 13, 1937

(From the Weekly Health Index, issued by the Bureau of the Census, Department of Commerce)

	Week ended Feb. 13, 1937	Correspond- ing week, 1936
Data from 85 large cities of the United States: Total deaths. Average for 3 prior years. Total deaths, first 6 weeks of year. Deaths under 1 year of age. Average for 3 prior years. Deaths under 1 year of age, first 6 weeks of year. Deaths under 1 year of age, first 6 weeks of year. Deaths in force. Number of death claims. Death claims per 1,000 policies in force, annual rate. Death claims per 1,000 policies, first 6 weeks of year, annual rate.	10, 452 9, 189 64, 370 616 503 3, 847 69, 161, 259 13, 490 10, 2 11, 5	10, 317 57, 047 638

PREVALENCE OF DISEASE

No health department, State or local, can effectively prevent or control disease without knowledge of when, where, and under what conditions cases are occurring

UNITED STATES

CURRENT WEEKLY STATE REPORTS

These reports are preliminary, and the figures are subject to change when later returns are received by the State health officers

Reports for Weeks Ended February 20, 1937, and February 22, 1936

Cases of certain communicable diseases reported by telegraph by State health officers for weeks ended Fcb. 20, 1937, and Feb. 22, 1936

	Diph	theria	Infi	uenza	Me	asles	Mening meni	ococcus ngitis
Division and State	Week ended Feb. 20, 1937	Week ended Feb. 22, 1936	Week ended Feb. 20. 1937	Week ended Feb. 22, 1936	Week ended Feb. 20, 1937	Week ended Feb. 22, 1936	Week ended Feb. 20, 1937	Week ended Feb. 22, 1936
New England States: Maine		4	512	1	5	272	0	1
New Hampshire					20	24	Ó	٠Ŏ
Vermont					2	370	0	.0
Massachusetts	8	11			833	357	6	8
Connecticut	1		14		205	32	1	2
Middle Atlentic States	0		908	•	906	<i>1</i> 8	I	4
New York	51	37	1 74	102	402	1 810	19	90
New Jersev	8	12	110	11	1 251	100	10	20
Pennsylvania	46	34			204	616	ġ	Ă
F t North Central States:								
Ohio	20	29	270	70	54	108	9	8
Indiana	6	20	220	34	12	11	3	2
Illinois	31	31	131	64	26	29	8	13
Michigan	32	13	12	4	56	50	4	2
Wisconsin	1	1	306	58	14	137	0	3
Minnesoto		1			10	100		•
Iowa		11	ณี	L L	10	100	ိ	, v
Missouri	12	22	1 565	402		25	5	3
North Dakota	2	~	41	10	2	~	î l	0
South Dakota	ī	2	ii		2	1	3	â
Nebraska		6	15		ī	40	ĩ	3 a
Kansas	8	16	240	22	6	16	il	ž
South Atlantic States:		- 1					- 1	_
Delaware			8		129	78	1	0
Maryland ²	13	5	389	34	412	136	5	14
District of Columbia	.5	21	27	3		8	2	4
Virginia	15	14			188	70	8	33
North Caroline	12		(20)	131	3	ᇤ		5
South Caroline &	20	4	1 114	: 279	10	17	+1	10
Georgia J	13	ลี่ไ	1 190	1 059			51	10
Florida 3	ii l	2	36	51	8	·····i	2	9
East South Central States:		- 1			Ŭ	•	- 1	~
Kentucky	9	9	521	104	70	154	24	9
Tennessee	22	12	750	246	21	202	6	8
Alabama ³	14	14	1, 154	1, 189	2	11	6	2
Mississippi ?	3	1		· · · · · · · · · ·			0	1

See footnotes at end of table.

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March 5, 1937

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·	Dipt	theria	Inft	10028	Me	asles	Menin men	gococcus ingitis
Division and State	Week ended Feb. 30, 1937	Week ended Feb. 22, 1936	Week ended Feb. 20, 1937	Week ended Feb. 22, 1936	Week ended Feb. 20, 1937	Week ended Feb. 22, 1936	Week ended Feb. 20, 1937	Week ended Feb. 22, 1936
West South Central States: Arkansas Louisiana Oklahoma 4 Teras 3 Muntein States	6 13 8 56	6 14 5 56	798 375 1,018 4,284	283 24 227 751	3 1 6 522	70 1 174	3 1 5 8	2 5 9 17
Monitani States. Monitana. Idaho Wyoming. Coloredo New Mexico	42	2 	276 9 1 287	57 2 	29 1 1 63	30 44 4 14 9	2 1 0 0 2	1 0 4 1 0
Arizona Utah * Pacific States: Washington Oregon	2 2 1	2 3 1 27	401 51 352	148 5 020	208 11 12 12	40 10 236 642	2 0 1 0	0 0 2 1
Total	512	506	21,931	11,870	5, 546	8. 126	184	223
First 7 weeks of year	4, 059	4, 670	189, 832	36, 664	31, 676	44, 460	1, 041	1, 338
<u></u>	Polion	ıyelitis	Scarle	t fever	Sma	llpox	Ty phoi	d fever
Division and State	Week ended Feb. 20, 1937	Week ended Feb. 22, 1936	Week ended Feb. 20, 1937	Week ended Feb. 22, 1936	Week ended Feb. 20, 1937	Week ended Feb. 22, 1936	Week ended Feb. 20, 1937	Week ended Feb. 22, 1936
New England States: Maine. New Hampshire. Vermont. Massachusetts. Rhode Island. Connecticut.	0 0 0 0 0	0 0 1 0 0	23 6 11 252 58 105	24 16 16 241 17 78	0 0 0 0 0	0 0 0 0 0	0 0 2 1 1	1 0 0 1 0 0
Middle Atlantic States: New York	0 0 1	0 1 1	1, 107 204 834	858 296 511	0 0 0	0 0 0	6 2 4	5 3 3
East North Central States: Ohio Indiana Illinois Michigan Wisconsin	0 1 0 2 0	0 0 1 0 0	212 165 657 785 320	290 358 706 813 573	1 2 40 0 5	1 1 6 0 12	1 6 2 0	2 1 4 3 1
Minnesota Iowa Minnesota Missouri North Dakota South Dakota Nebraska Kansas	1 0 0 0 0 0	0 0 0 0 0 0 0	199 288 301 59 69 112 279	273 178 215 64 68 150 325	8 29 70 6 3 3 20	16 5 5 10 23 42 7	0 0 1 2 0 0 0 0	1 5 1 0 0 0
Boutin Atiantic States: Delaware	0 0 1 1 0 0 1 0	0 1 0 0 0 0 0 0 0	18 42 23 16 57 42 8 7 8	6 78 20 38 38 24 4 25 4	0 0 0 8 0 0 0 0	0 0 0 1 0 1 0	3 1 1 2 1 1 5 8 2	0 2 1 1 1 2 1

Cases of certain communicable diseases reported by telegraph by State health officers for weeks ended Feb. 20, 1937, and Feb. 22, 1936—Continued

See footnotes at end of table.

Division and State Week ended Feb. Week 22, 20, 1936 Week 20, 1937 Week ended Feb. Week ended Feb. Week ended Feb. Week ended Feb. Week ended Feb. Week 22, 20, 1937 Week 20, 1937 Week 20, 1937 Week 20, 1937 Week Ended Feb. Week ended Feb. Week Ended Feb. Week Ended Feb. Week Ended Feb. Week Ended Feb. Week Ended Feb. Week Ended Feb. Week Edended Feb. Week Edended Feb. <th>Typhoid fever</th> <th>pox 7</th> <th>Smal</th> <th>t fever</th> <th>Scarle</th> <th>1yelitis</th> <th>Polion</th> <th></th>	Typhoid fever	pox 7	Smal	t fever	Scarle	1 ye litis	Polion	
East South Central States: 2 1 43 63 0 0 11 Tennessee 0 0 28 27 0 0 7 Alabama * 0 0 13 27 0 1 3 Mississippl * 0 0 0 7 16 1 0 4 West South Central States: 3 0 10 17 4 0 0 Arkansas 1 0 8 15 0 3 5 Okishoma 4 1 31 31 0 0 2 10 Mountain States: 0 0 51 124 11 11 1 Idaho 1 0 32 28 4 5 4 Wyoming 0 018 133 2 2 10 Mountain States: 0 0 11 83 0 10 0	Week anded Feb. 20, 1937 Week ended Feb. 22, 1936	Week V ended e Feb. 22, 1936	Week ended Feb. 20, 1937	Week ended Feb. 22, 1936	Week ended Feb. 20, 1937	Week ended Feb. 22, 1936	Week ended Feb. 20, 1937	Division and State
Xentucky 2 1 43 63 0 0 11 Tennessee 0 0 28 27 0 0 7 Alabama ' 0 0 13 27 0 0 7 Mississippi ' 0 0 7 16 1 0 4 West South Central States: 3 0 10 17 4 0 0 Arkansas 1 0 8 15 0 3 5 Okiahoma ' 1 1 31 31 1 0 2 10 Mountain States: 0 0 51 124 11 11 1 Idaho 1 0 32 88 4 5 4 Wyoming 0 0 18 30 7 5 0 Colorado 0 0 34 33 2 2 1 0 New Mexico 0 0 34 33 3 3 3								Fast South Central States:
Tennessee 0 0 28 27 0 0 7 Alabama * 0 0 13 27 0 1 3 Mssissippi * 0 0 7 16 1 0 4 West South Central States: 0 0 7 16 1 0 4 Arkansas 1 0 8 15 0 3 5 Oklahoma * 1 1 31 31 1 0 2 Mountain States: 0 0 51 124 11 11 1 Mountain States: 0 0 51 124 11 11 1 Mode contana 0 0 32 88 4 5 4 Wyoming 0 0 34 130 7 5 0 New Mexico 0 0 34 30 7 5 0 New Mexico 0 0 30 28 0 0 2	11 6	0	0	63	43	1	2	Kentucky.
Alabama * 0 0 13 27 0 1 3 Massissippi * 0 0 7 16 1 0 4 Arkansas 3 0 10 17 4 0 0 Arkansas 1 0 8 15 0 3 5 Oklahoma * 1 1 31 31 1 0 2 Texas * 3 0 108 133 2 2 10 Mountain States: 3 0 108 133 2 2 10 Montana 1 0 32 88 4 5 4 Wyoming 0 0 11 83 0 10 0 Colorado 0 0 34 330 7 5 0 New Mexico 0 0 328 30 3 3 3 3 Vacha* 0 0 30 28 0 0 2 2	7 2	ŏ	ŏ	27	28	ō	ō	Tennessee
Mississippi * 0 0 7 16 1 0 4 West South Central States: 3 0 10 17 4 0 0 Arkanses. 1 0 8 15 0 3 5 Okiahoma 4 1 1 31 31 1 0 2 Texas 4 3 0 108 133 2 2 10 Mountain States: 0 0 51 124 11 11 1 Idaho 1 0 32 88 4 5 4 Wyoming 0 011 83 0 10 0 0 Colorado 0 0 34 130 7 5 0 New Mexico 0 0 34 33 0 2 2 Utah * 0 0 34 30 7 5 0 Nountain States: 0 0 34 30 7 5 0 0	31 0	ĭ	ŏ	27	13	ŏ	ŏ	Alabama ³
West South Central States: 3 0 10 17 4 0 0 Arkansas 3 0 10 17 4 0 0 Louisiana 1 0 8 15 0 3 5 Okishoma 4 1 1 31 31 1 0 2 Texas 4 3 0 108 133 2 2 10 Mountain States: 0 0 51 124 11 11 1 Idabo 1 0 32 98 4 5 4 Wyoming 0 0 11 83 0 10 0 Colorado 0 0 34 130 7 5 0 New Mexico 0 0 30 28 0 0 2 Utah ¹ 0 0 34 10 0 0 2 Pacific States: 0 0 14 11 0 0 2 Washing	4 1	ō	il	16	7	Ō	Ŏ	Mississippi 1
Arkansas 3 0 10 17 4 0 0 Louisiana 1 0 8 15 0 3 5 Okiahoma 4 1 1 31 31 1 0 2 Texas 5 3 0 108 133 2 2 10 Mountain States: 0 0 51 124 11 11 1 Idaho 1 0 32 88 4 5 4 Wyoming 0 0 11 83 0 10 0 0 Celorado 0 0 34 130 7 5 0 New Mexico 0 0 30 28 0 0 2 Utah 2 0 11 0 0 33 0 3 3 Vominig 0 0 34 130 7 5 0 New Mexico 0 0 30 28 0 0 2 2	- 1 -	•	-			•		West South Central States:
Louisiana	0 4	0	4	17	10	0	3	Arkansas
Oklahoma * 1 1 31 31 1 0 2 Texas * 3 0 108 133 2 2 10 Mountain States: 0 0 51 124 11 11 1 Montana	5 3	3	ô	15	- 8	ŏ	ĭ	Louisiana
Texas 1 3 0 108 133 2 2 10 Mountain States: 0 0 51 124 11 11 1 Montain States: 0 0 51 124 11 11 1 Idaho 1 0 32 88 4 5 4 Wyoming 0 0 11 83 0 10 0 Colorado 0 0 34 130 7 5 0 New Mexico 0 0 30 28 0 0 2 Utah * 0 0 14 111 0 0 0 Washington 0 0 52 91 2 27 1	2 3	ň	i l	31	31	ĭ	ī	Oklahoma 4
Mountain States: 0 0 100 124 11 11 11 Idaho 1 0 32 88 4 5 4 Wyoming 0 0 11 83 0 10 0 Colorado 0 0 34 130 7 5 0 New Mexico 0 0 30 28 0 0 2 Utah ² 0 0 14 111 0 0 Pacific States: 0 0 52 91 2 27 1 Ometrington 0 0 52 91 2 27 1	10 4	2	2	133	108	ō	3	Teres 1
Montana 0 0 51 124 11 11 1 Idaho 1 0 32 88 4 5 4 Wyoming 0 0 11 83 0 10 0 Colorado 0 0 34 130 7 5 0 New Mexico 0 0 30 28 0 0 2 Utah ² 0 0 14 111 0 0 0 Washington 0 0 52 91 2 27 1		-1	- 1			v	Ů	Mountain States:
Idaho	1 1	11	11	124	51	0	0	Montana
Wyoming 0 0 11 83 0 10 0 Colorado 0 0 34 130 7 5 0 New Mexico 0 0 34 130 7 5 0 Arizona 0 0 30 28 0 0 2 Utah ² 0 0 14 111 0 0 0 Pacific States: 0 0 52 91 2 27 1 Owner 0 0 52 91 2 27 1		18 I	1		32	ň	Ť	Idebo
Colorado 0 34 130 7 5 0 New Mexico 0 0 40 43 3 0 3 Arizona 0 0 30 28 0 0 2 Utah * 0 0 14 111 0 0 0 Washington 0 0 52 91 2 27 1	ā š	10	ā l	83	11	ň	ō	Wyoming
New Mexico		18	71	130	34	ŏ	ň	Colorado
Arizona 0 0 30 28 0 0 2 Utah * 0 0 14 111 0 0 0 Washington 0 0 52 91 2 27 1		ă l		43	40	ň	ň	New Mexico
Utah 1 0 0 14 111 0 0 0 Pacific States: 0 0 52 91 2 277 1 Omega 0 0 52 91 2 277 1		× I	Ň I	70	30	ŏ	ň	Arizona
Pacific States: Washington		× I	× I	111	14	ŏ	Ň	Titoh 2
Vashington 0 0 52 91 2 27 1	0 0	•	v I		13		· · ·	Dania States
	1 0	97		01	5 9	0		Weshington
			10	50	41	Ň	ň	Oregon
		+ 1	18	269	252	ĭ	Ň	California
	2 9	1	8	308	204	1,	v	Салюгша
Total 19 8 7,067 7,251 253 196 105	105 79	196	253	7, 251	7,067	8	19	Total
First 7 weeks of year	795 698	1,455	2,081	51, 351	43, 529	124	164	First 7 weeks of year

Cases of certain communicable diseases reported by telegraph by State health officers for weeks ended Feb. 20, 1937, and Feb. 22, 1936—Continued

¹ New York City only. ² Week ended earlier than Saturday. ³ Typhus fever, week ended Feb. 20, 1937, 12 cases, as follows: South Carolina, 1; Georgia, 4; Florida, 5; Alabama, 1: Texas, 1. 4 Francisco of Obstance Obstanc

• Exclusive of Oklahoma City and Tulsa.

SUMMARY OF MONTHLY REPORTS FROM STATES

• The following summary of cases reported monthly by States is published weekly and covers only those States from which reports are received during the current week:

State	Menin- gococ- cus menin- gitis	Diph- theria	Influ- enza	Mala- ria	Mea- sles	Pel- lagra	Polio- my o - litis	Scarlet fever	Small- pox	Ty- phoid lever
January 1937										
Georgia Idaho Indiana Iowa Louisiana Maryland Minesota New Jersey New Jersey Nevada. Ohio Oregon Pennsylvania South Dakota	14 4 14 2 29 11 6 17 1 36 2 25 4	71 6 103 15 51 6 57 69 32 55 55 167 3 197 3	1, 719 1, 356 1, 579 8, 136 780 645 1, 179 400 135 895 614 1, 511 5, 928 1, 285	442 1 29 4 1	27 390 48 17 137 345 1, 152 184 135 1, 839 247 42 395 14	4	8 1 0 1 5 0 0 4 4 2 1 10 4 2 2	93 129 909 621 56 94 341 2, 515 653 653 40 1, 601 178 2, 388 2, 388 359	5 49 33 92 2 0 0 62 0 36 85 0 44	19 3 28 28 29 5 7 4 4 0 17 3 40 17 3

Summary of monthly reports from States-Continued

Junuary 1957	
Actinomycosis:	Cases
Minnesota	1
Penneylvania	1
Chicken pox:	910
Idabo	236
Indiana	545
lowa	283
Maine	535
Maryland	732
Michigan Minnesota	2, 597
New Jersey	2,032
Nevada	28
Onegon	2,048
Pennsylvania	5, 082
South Dakota	104
Georgia	8
Idaho	8
Maryland	1
Georgia	6
Diarrhea:	
Maryland	Ð
enteritis included)	10
Dysentery:	10
Georgia (amoedic)	18
Louisiana (amoebic)	13
Louisiana (bacillary)	2
Michigan (bacillary)	0 2
Minnesota (amoebic)	2
Minnesota (bacillary)	1
Ohio (baciliary)	i
Oregon (amoebic)	2
Pennsylvania (amoe-	1
Encephalitis, epidemic or	1
lethargic:	
10wa Michigan	1
New Jersey	2
Oregon	1
German measles:	1
Idaho	10
LOW8	18
Maryland	38
Michigan	119
New Jersey	101 /

January 1937—Continue	əd
German measles-Contd.	Cases
Ohio	26
Pennsylvania	65
HOOKWORHI:	1 236
Louisiana	10
Impetigo contagiosa:	
Maryland	7
Oregon	38
Jaunuice, infectious:	1
Lead poisoning:	•
Michigan	10
Ohio	8
Mumps:	~~~
I Georgia	223
Indiana	117
Iows.	149
Louisiana	35
Maine	806
Maryland	849
Micolgan	1, 100
Ohio	209
Oregon	86
Pennsylvania	1, 630
South Dakota	5
Optinalimia neonatorum:	
New Jersey	9
Ohio	54
Pennsylvania	1
Paratyphoid fever:	
Louisiana	1
Description	1
Georgia	2
Ohio	
Rabies in animals:	
Indiana	48
Louisiana	22
Michigan	- 1
New Jersev	5
Scables:	
Oregon	49
Septic sore throat:	
Ueorgia	- 84 A
Iowa	ī
Louisiana	2
Maine	5
Maryland	32
Michigan	72
Ohio	139
Oregon	10

January 1937—Continue	be
Tetanus:	Cases
Georgia	1
Maryland	â
New Jersey	ĭ
Trachoma:	•
Michigan	2
South Dakota	
Trichinosis:	
Maryland	2
Michigan	ค์
New Jersey	2
Ohio	៊
Tularaemia:	•
Georgia	8
Louisiana	5
Marviand	7
Michigan	ġ
Minnesota	ĭ
New Jersey	ī
Ohio	21
Oregon	ĩ
Pennsylvania	
Twnhus fever	-
Georgia	83
Undulant favor	00
Georgia	5
Inwa	ĕ
Lonigiana	ĭ
Maine	1
Maryland	1
Michigan	Å
Minneento	š
New Jarsey	÷
Ohio	12
Donnevivania	10
Vincent's infection	
Moine	
Maryland	15
Michigan	12
Oregon	13
Whooning cough	10
Georgia	134
Ideho	41
Indiana	100
Tows	72
Larrielene	52
Maina	253
Maryland	622
Michigan	1 362
Minnesota	238
New Iereav	640
Nevede	5
Ohio	1 371
Oregon	179
Pennevivania	2 611
South Dakate	
South Darvia	0

WEEKLY REPORTS FROM CITIES

City reports for week ended Feb. 13, 1937

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This table summarises the reports received weekly from a selected list of 140 cities for the purpose of showing a cross section of the current urban incidence of the communicable diseases listed in the table. Weekly reports are received from about 700 cities, from which the data are tabulated and filed for reference.

State and city	Diph-	Inf	luenza	Mea-	Pneu-	Scar- let	Small-	Tuber-	Ty- phoid	Whoop- ing	Deaths,
	Cases	Cases	Deaths	Cases	deaths	fever cases	cases	deaths	fever cases	cough cases	causes
Maine:											
Portland	0	8	0	0	9	5	0	0	0	3	24
Concord	0		6	0	1	0	0	1	0	0	16
Manchester	Ó		Ó	Ó	Ō	Ō	Ó	Ō	Ŏ	Ŏ	18
Nashua	0			0		0	0		0	0	
Barre	0		0	1	0	1	0	0	0	2	1
Burlington	0		0	0	0	3	0	0	Ó	Ō	12
Kutiand	U			1	1	U	0	1	U	0	9
Boston	1		4	11	48	48	0	7	0	160	328
Fall River	0		4	63	5	2	0	0	0	4	81
Worcester	ŭ		ŏ	142	17	4	ů č	1	1	16 35	48 75
Rhode Island:	•					•	, v	-	•	~	
Pawtucket	0	4	0	19	0	1	0	0	0	0	26
Connecticut:	U	19		1.54	18	41	U	3		14	113
Bridgeport	0	4	0	32	8	16	0	1	0	3	39
Hartford	0	32	1	1	6	14	0	1	0	2	57
New Haven	U	23	Z	-	Ð	2	U	1	0	0	64
New York:											
Buffalo	0	9	10	24	24	23	0	. 9	0	29	169
New York	21	50	19	- 04	172	261	Ň	104	2	37	1,586
Syracuse	Ŏ		2	20	7	51	ŏ	3	ĭ	14	65
New Jersey:	,										
Vamden	1	10	ĩ	284	11	13	N N	S S	N N		28
Trenton	ĭ	2	ō	Ĩ	6	5	ŏ	ĭ	ŏ	3	89
Pennsylvania:	~							-			
Philadelphia	3	18	12	ŝ	22	104	Ň	32		84	601 192
Reading	ŏ		1	2	ō	iŏ	ŏ	ī	ŏ	28	36
Scranton	0			0		16	0		0	1	
Ohio								1			
Cincinnati	7		3	34	17	25	0	9	0	17	130
Cleveland	0	229	8	0	61	51	0	17	0	72	286
Toledo	ō	5	2	5	13	8	ŏ	6	ŏ	25	89
Indiana:		-					-	-	· · ·	~	
Anderson	0		9	0	4	7	0	0	0	3	15
Indianapolis	i		10	2	26	15	ŏ	8	Š I	11	29 133
Muncie	ō	17	2	ō	1	ĩ	ŏ	ŏ	ŏ	Ö	14
South Bend	0		• •	0	5	4	0	0	0	2	26
Terre Haute	U U		- 1	۷I	•	•	۷I	U U	•	- 1	26
Alton	0		0	1	0	10	0	0	0	1	6
Chicago	12	49	13	20	56	215	0	34	1	102	778
Eigin Moline	2			i i	2	1	Š.	8 I	N I	ă I	12
Springfield	ī	3	ĭ	ō	10	2	ŏ	ŏ	ŏ	2	83
Michigan:			_						.		
Detroit	14		2		32	387	8	10		57	292
Grand Rapids.	ŏ	4	2	15	7	19	ŏ	ŏ	ō	12	43
Wisconsin:							_				
Kenosha	N.		N N	8	1	4	N N	N I	N N	1	9
Milwaukee	ŏ		5	6	16	57	ŏl	4	ŏ	33	112
Racine	Ŏ.		<u>ŏ</u>	i	1	2	Ō	Ő	Ō	Ö	12
Superior	0 .		0	1	1	8	0	0	0	4	5
Minnesota:							1				
Duluth	0		2	0	3	0	0	0	0	4	26
Minneapolis	1.		3	1	8	17	<u>s</u>	3	<u> </u>	10	107
St. I'au				.	U '		v ·	U '	v ·		01

City reports for week ended Feb. 13, 1937-Continued

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State and site	Diph-	Inf	luenza	Mee-	Pneu-	Scar-	Small	Tuber	Ty-	Whoop	Deaths,
olucatu (ily	CERCE	Case	Deaths	Cases	deaths	fever cases	cases	deaths	fever cases	cough cases	COLLISES
Iowa:											
Daventort	ŏ					3	Ĭ		ŏ		
Des Moines	ŏ			ŏ		27	ŏ		ŏ	Ŏ	38
Sioux City	0			1		21	0		0	0	
W-6V00100	U V			e e		21			U		
Kansas City	0		11	0	29	- 76	0	6	0	. 5	141
St. Jeseph	Ó		0	Ó	7	12	58	8	Ó	<u>i</u>	49
St. Louis	.9	23	2	1	13	46	0	8	0	71	227
Farm	0		اه ا	0	2		2	0	0	6	۵
Grand Forks	Ŏ			Ŏ		ŏ	Ō		ŏ	4	
Minot	0		0	0	0	0	0	0	0	0	5
Bouth Dakota:	0			0					•		
Sioux Falls	ŏ		0	ŏ	0	ĩ	ŏ	0	ŏ	ŏ	7
Nebraska:											
Omaha	0		3	1	9	6	0	0	0	5	58
Lawrence	0	10		0	8	0	0	0	0	0	
Topeka											
Wichita	0	1	1	0	9	7	2	0	0	1	35
Bolowara											
Wilmington	0		0	26	6	0	0	0	0	3	35
Maryland:					-						
Baltimore	5	72	8	307	44	18	0	9	0	85	272
Frederick	ŏ	1	ŏ	ő		5	Ň	6		ő	11 5
District of Col.	, v		Ť	· · · ·	- 1	- 1	° I	-	ľ,		. •
Washington	6.	53	10	32	30	17	0	8	0	19	207
Virginia;	·0		_								19
Norfolk	ĭ	7	2	ĭ	6	3	ŏ	ŏ	ŏ	ŏ	27
Richmond	õ		2	3	7	4	Ŏ	3	Ŏ		66
Roanoke	1		0	- 44	3	3	0	• 1	0	2	22
West Virginia:			1	6		2		6			24
Huntington	ô			ŏ		ŏ	ŏ		ŏ	ŏ	•••
Wheeling	0		0	0	2	0	0	1	0	2	25
North Carolina:		.									
Raleigh	ő	-	ŏ	ĭ	3	ő	ŏ	il	il	ŏ	19
Wilmington	ŏ		ŏ	ō	i	ŏ	ŏ	ī	ō	ŏ	5
Winston-Salem_	0	1	0	2	1	1	0	4	0	0	15
Bouth Carolina:	,	194				1	•	1			97
Columbia	ô	101	ŏ	ŏ	4	ô	ŏl	ô	ŏl	ŏ	. 29
Florence	Ő		0	Ū,	0	Ó	Ó	0	0	Ó	7
Greenville	1		0	0	1	0	0	0	0	0	-6
Atlanta	1	450	9	0	21	7	0	5	0	0	131
Brunswick	ō	ĩ	i	· ŏ	ō	ŏ	ŏ	ō	ŏ	ŏ	2
Savannah	0	124	1	0	2	0	0	1	0	6	32
Florida: Miemi	0			2	0	2			6	2	33
Tampa	2	ĭ	ĭ	õ	ŏ	õ	ŏ	3	ĭ	īl	32
								- 1		1	
Kentucky:			1								0
Covington	ŏ.		·····	ŏ.	7	ŏ	Å.	3	ă	ől	21
Lexington	ŏ	15	ō	5	i	ŏ	ŏ	8	ŏ	5	25
Tennessee:		_	.								
Knozville	Z	23		-4		8	N I			14	38
Nashville	i			ō	6	5	ŏ	8	ŏ	2	56
Alabama:			<u> </u>							_	
Birmingham	1	185	2	9	12	6	2	3	<u> </u>	3	84 99
Montromerv	51	10	2		•	2	81	1		51	44
AND DESCRIPTION &	۳I	• I		Ŭ l		- 1	~ ·		~ [Ĩ,	
Arkanses:										_ 1	
Fort Smith	9 - 1			8-		4	8.	;-		×I.	16
Louisiana:	* I	-7	۳I	~ I	~	-	~ I	- 1	~ "I	"	
Lake Charles	o	·		1	.1	<u>o</u>	0	.0	0	0	6
New Orleans	4	89	16	9 I	16	8		"	<u>s</u>	2	172
omevehore	v I.	'	T.,		14 '	• •		<i>.</i>	V 1	↓ [~

	Diph-	Inf	luenza	Mea-	Pneu-	Scar-	8mall-	Tuber-	Ty-	Whoop-	Deaths,
State and city	cases	Cases	Deaths	sies cases	deaths	fever cases	cases	deaths	fever cases	cough cases	all Causes
Oklahoma:									•		
Oklahoma City.	0	42	4	0	17	3 2 7		2	0	2	62
Тетая:	•			v			v			7	
Dallas	4	81	13	7	28	19	0	4	2	7	115
Fort Worth	0		6	42	6	8	0	0	1	1	46
Usiveston	<u>.</u>			N N	94	U A	Ň	9	0	0	21
San Antonio	อี	1	22	n	15	2	ŏ	10	Ō	3 2	90 96
Montana:											
Billings	Ö	1	1	0	1	1	0	0	1	0	10
Great Falls	Ň	101		¥.	t t	N N		N N	2	0	8
Missoula	ŏ	101	ŏ	ā	ŏ	ő	ŏ	ň	Ň	ň	8
Idaho:			-		· · · ·	Ť	Ŭ	Ŭ Ŭ	Ť	•	U
Boise	0		0	2	2	0	0	1	0	3	15
Colerado:											
Colorado											
Denver				3	22	13	Ň	t i			114
Pueblo	ō		ŏ	ŏ	1	3	ŏ	ŏ	ŏ	ä	6
New Mexico:	Ť				-		-	-	- 1	-	•
Albuquerque	0	65	1	1	2	4	0	2	0	1	- 14
Utah:		1									
Sait Lake City.	- 1		4	ð	0	10	U	0	0	. 8	48
Weshington:	1				1	1					
Senttle	0		11	4	17	4	0	8	ol	1	100
Spokane	Õ	4	4	Ō	6	ĩ	Ő	ŏ	ŏ	ō	42
Tacoma	0		3	0	6	3	0	0	0	1	43
Oregon:		-					_	. 1			
Portiand	•	39	12	2	15	2	8	11	U I	7	113
Los Angeles	أع	330	41	14	128	34	3	81	0	66	601
Sacramento	ĭ	414	3	ï	18	12	ŏ	4	ŏ	Ϋ́Ι	63
San Francisco	ī	51	9	3	30	14	ŏ	8	ŏ	33	230
	1	1			1	1		1			

City reports for week ended Feb. 13, 1937-Continued

State and city	Menin meni	Meningococcus meningitis		State and city	Menin meni	Polio- mye-	
•	Cases	Deaths	Cases		Cases	Deaths	Cases
Massachusetts: Beston	3 4 0 1 3 1 4 1 3 2 1 0 2 1	1 2 1 1 0 0 0 0 0 1 1 1	1 0 0 0 0 0 0 0 0 0 0 0	West Virginia: Charleston	1 1 0 1 0 1 1 1 1 1 1 1 1	0 0 2 1 0 1 1 0 0 7 0 1	0 0 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
				1 1			

Encephalitis, epidemic or lethargic.—Cases: New York, 1; Newark, 1; Cleveland, 1; Columbus, 1; Kansas City, 2; Baltimore, 1; Denver, 2. Pellogra.—Cases: Charleston, S. C., 2; Atlanta, 2; Birmingham, 1; Dallas, 1; Los Angeles, 1. Typhus fever.—Cases: New Haven, 1; Wilmington, N. C., 1; Savannah, 1.

FOREIGN AND INSULAR

CANADA

Provinces—Communicable diseases—2 weeks ended January 30, 1937.—During the 2 weeks ended January 30, 1937, cases of certain communicable diseases were reported by the Department of Pensions and National Health of Canada as follows:

Disease	Prince Edward Island	Nova Scotia	New Bruns- wick	Que- bec	Onta- rio	Mani- toba	Sas- katch- ewan	Alber- ta	British Colum- bia	Total
Cerebrospinal meningitis					1	1				2
Diphtheria	2	16 17	3	396 98 1	828 36 2	116 6	105	32	144 6	1, 638 167 3
Erysipelas Influenza	4		63	19	4 1, 140	8 512	2 121	8	8 2, 296	44 4, 155
Leprosy Lethargic encephalitis Measles		2	177	1 808	551		803		1, 851	1 1 4, 593
Mumps Pneumonia Poliommolitie	4	3	34 1	- -	590 60	22 	44 9	15 	137 47	1, 149 123
Scarlet fever		12	11	202	362	133	100	122 3	53 1	955 4
Trachoma Tuberculosis		29		114	87	1 32	24	3	83	3 321
Undulant fever	1	16	2	23 2 366	3 201	10	25	4		5 684
		1								

CUBA

Provinces—Notifiable diseases—4 weeks ended February 6, 1937.— During the 4 weeks ended February 6, 1937, cases of certain notifiable diseases were reported in the Provinces of Cuba as follows:

Disease	Pinar del Rio	Ha- bana	Matan- zas	Santa Clara	Cama- guey	Oriente	Total
Cancer Chicken pox Diphtheria Leprosy Melaria Measlee Poliom yelitis Tuberculosis Typhoid fever Yaws	1 	2 5 1 5 42 73 34	1 1 4 1 21 1 1 15 8	5 9 3 	 135 	4 	13 15 13 6 1, 162 41 2 180 120 1

CZECHOSLOVAKIA

Communicable diseases—December 1936.—During the month of December 1936, certain communicable diseases were reported in Czechoslovakia as follows:

Disease	Cases	Deaths	Disease	Cases	Deaths
Anthrax Cerebrospinel meningitis. Chicken pox	3 5 334 2,865 10 11,644 1 20	2 193 3 28 1 1	Paratyphoid fever Poliomyelitis Puerperal sopticemia Scarlet fever. Trachoma. Typhoid fever. Typhus fever	15 10 35 2,277 77 488 3	 14 41 47 1

YUGOSLAVIA

Communicable diseases—January 1937.—During the month of January 1937 certain communicable diseases were reported in Yugo-slavia as follows:

Disease	Cases	Deaths	Disease	Cases	Deaths
Anthrax. Carebrospinal meningitis. Diphtheria and croup. Dysaniery. Encephalitis. Ervsipelas. Influenza. Messles.	26 94 767 18 1 255 600 312	3 6 95 12 13 4	Paratyphoid fever Poliomyelitis. Scarle fever Sepsis. Tetanus Typhoid fever Typhus fever	5 4 330 12 19 300 148	1 2 10 3 9 30 15

CHOLERA, PLAGUE, SMALLPOX. TYPHUS FEVER, AND YELLOW FEVER

NOTE.—A table giving current information of the world prevalence of quarantinable diseases appeared in the PUBLIC HEALTH REPORTS for February 26, 1937, pages 255-267. A similar cumulative table will appear in the PUBLIC HEALTH REPORTS to be issued March 26, 1937, and thereafter, at least for the time being, in the issue published on the last Friday of each month.

Cholera

India (French)—Chandernagor Territory.—During the period December 20, 1936, to January 9, 1937, 13 cases of cholera with 10 deaths were reported in Chandernagor Territory, India (French).

Plague

British East Africa—Tanganyika.—On February 15, 1937, 10 suspected cases of plague with 9 deaths were reported in Tanganyika, British East Africa.

Formosa-Taihoku District.-From December 1 to 10, 1936, one case of plague was reported in Taihoku District, Formosa.

Hawaii Territory—Island of Hawaii—Hamakua District—Paauhau Sector.—A rat found February 20, 1937, in Paauhau Sector, Hamakua District, Island of Hawaii, Hawaii Territory, has been proved plagueinfected.

X

Smallpox

Algeria—Department of Algiers.—From January 11 to 23, 1937, two cases of smallpox were reported in the Department of Algiers, Algeria Indochina—Saigon-Cholon.—During the week ended January 9, 1937, two cases of smallpox were reported in Saigon-Cholon, Indochina.

Typhus Fever

Peru.—During the month of November 1936, 60 cases of typhus fever were reported in Peru, by Departments as follows: Apurimac, 3 cases; Arequipa, 10 cases; Ayacucho, 3 cases; Cuzco, 17 cases; Huancavelica, 1 case; Huanuco, 5 cases; Libertad, 9 cases; Puno, 12 cases.

Yellow Fever

Brazil—Matto Grosso State—Maracaju.—On January 13, 1937, one death from yellow fever was reported in Maracaju, Matto Grosso State, Brazil.

French Equatorial Africa—Gabon—Libreville.—On February 8, 1937, a death from suspected yellow fever was reported in Libreville, Gabon, French Equatorial Africa.

Gold Coast—Accra.—On February 4, 1937, one case of yellow fever was reported at Accra, Gold Coast.

Ivory Coast—Bouake.—On January 17, 1937, a doubtful case of yellow fever was reported in Bouake, Ivory Coast. The diagnosis was not confirmed.