

FOURTEENTH CENSUS OF THE UNITED STATES: 1920

DEPARTMENT OF COMMERCE

BULLETIN

BUREAU OF THE CENSUS  
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POPULATION : CANAL ZONE

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INTRODUCTION.

This bulletin gives the results of the census of the Canal Zone, which was taken by the Governor of The Panama Canal as of January 1, 1920, in accordance with plans prescribed by the Director of the Census, as required by the act of Congress approved March 3, 1919, providing for the Fourteenth and subsequent decennial censuses of the United States.

**Acquisition.**—The United States acquired sovereignty over the territory now comprising the Canal Zone by a treaty of November 18, 1903, concluded with the Republic of Panama, which was formerly a department of the Republic of Colombia. By this treaty Panama granted to the United States “in perpetuity the use, occupation, and control of a zone of land and land under water” of the width of 10 miles for “the construction, maintenance, operation, sanitation, and protection” of a ship canal across the Isthmus of Panama. The cities and harbors of Panama and Colon were expressly excluded from this grant, but the United States was given authority to prescribe and enforce sanitary ordinances in these cities and under extraordinary circumstances to maintain public order there. Compensation to Panama in the form of a lump-sum payment and an annual rental, payable beginning nine years after the exchange of ratification, was provided for. The treaty was ratified on February 26, 1904.

**Area.**—The extent of the Canal Zone was defined in the treaty of November 13, 1903, with Panama as follows:

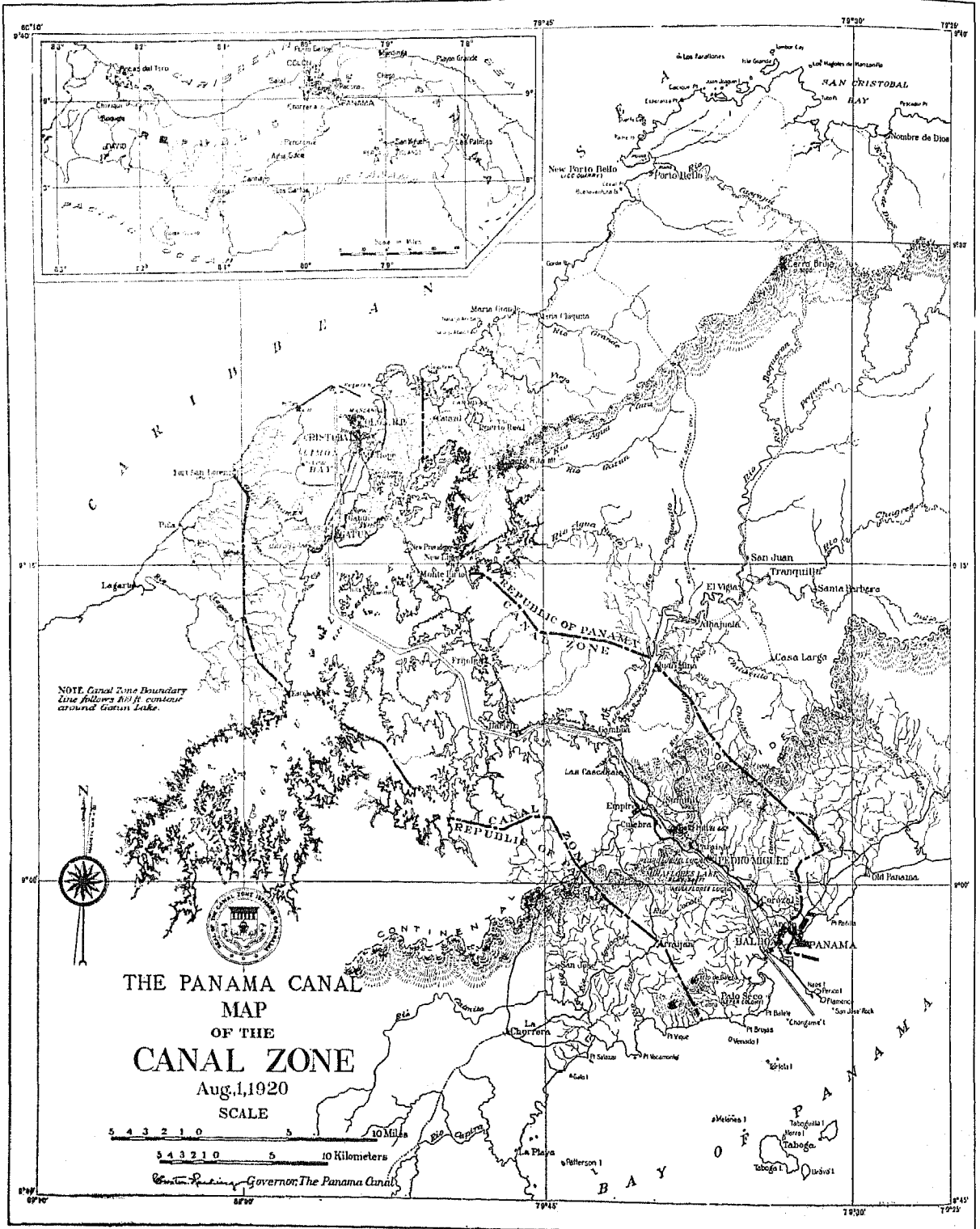
The Republic of Panama grants to the United States in perpetuity the use, occupation, and control of a zone of land and land under water \* \* \* of the width of ten miles extending to the distance of five miles on each side of the center line of the route of the canal to be constructed; the said zone beginning in the Caribbean Sea three marine miles from mean low water mark and extend-

ing to and across the Isthmus of Panama into the Pacific Ocean to a distance of three marine miles from mean low water mark with the proviso that the cities of Panama and Colon and the harbors adjacent to said cities, which are included within the boundaries of the zone above described, shall not be included within this grant.

The grant further included “all islands within the limits of the zone above described and in addition thereto the group of small islands in the Bay of Panama, named Perico, Naos, Culebra, and Flamenco.”

The Republic of Panama further granted “in perpetuity the use, occupation, and control of any other lands and waters outside of the zone above described which may be necessary and convenient for the construction, maintenance, operation, sanitation, and protection of the said canal or of any auxiliary canals or other works necessary and convenient for the construction, maintenance, operation, sanitation, and protection of the said enterprise.”

Under the provisions of the treaty the United States subsequent to a decree from Panama of May 17, 1912, took over the islands in Lake Gatun, the shores of the lake up to an elevation of 100 feet above mean sea level, and the peninsulas bordering on it to which there is no access except from the lake or from land in the Canal Zone. The boundaries of this area were established in a convention of September 2, 1914, ratified in 1915, between the United States and Panama. This convention also effected a readjustment of boundaries, mainly by the exchange of lands adjoining the city of Panama for certain harbor areas in the city of Colon needed to bring within the Canal Zone all the terminal construction along the mole and all the water area in front of Toro Point in Limon Bay in the lee of the breakwater.



The present area of the Canal Zone, including land and water, within the limits of 5 miles on either side of the center line of the canal but not including the area within the 3-mile limit from the Atlantic and Pacific ends, is 441.5 square miles. The land area of the 10-mile strip is 332.4 square miles. The areas outside the original 5-mile limits which are under the control of the United States Government are officially

designated as auxiliary areas of the Canal Zone and include, in addition to portions of Gatun Lake and its shores, several small areas taken over for canal or military purposes. The area of the portions of Gatun Lake outside the original 10-mile strip is 61 square miles, but a detailed survey of the entire area bordering the lake has not been made.<sup>1</sup>

#### NUMBER OF INHABITANTS.

**Censuses of population.**—In 1904, the year in which the United States took over control of the Canal Zone, a census was taken by order of the newly appointed Isthmian Canal Commission. In 1906, between March 8 and 10, a census of towns in the Canal Zone was taken by the Sanitary Department, showing the number of "whites," "blacks," and "yellows"; and it was stated that an addition of 5 or 10 per cent should be made for persons living in outlying districts who were indirectly connected with canal work. Between March 3 and June 23, 1908, a census of population was taken by the Canal Commission of the towns, villages, and labor camps adjoining the Panama Railroad, and the totals for this were added to the results of a census of rural districts taken in July, 1907. These returns showed data for towns according to race and sex, and a distribution according to nationality for the total number enumerated, with the number of employees of the Canal Commission and the Panama Railroad, besides the number of single and married men and women, respectively, and the number of children, by sex, for white persons from the United States.

In 1912 a complete and detailed enumeration was made of all the inhabitants of the Canal Zone, which comprised the military and naval population and included also figures for employees of the Isthmian Canal Commission and the Panama Railroad living outside the Canal Zone proper at Canal Commission settlements. In addition all employees of the Isthmian Canal Commission and the Panama Railroad who were employed in the Canal Zone but resided in the cities of Panama or Colon were enumerated, but were not included in the total for the Canal Zone.

At the census of 1912, which was the only enumeration prior to 1920 giving details as to the characteristics of the population, the data shown comprised for each town and the rural part of each administrative district figures as to sex, color or race, and broad age groups, as well as the number of employees of the Canal Commission or the Panama Railroad and the number of other persons gainfully employed, the latter being shown by broad occupation classes. For the total population of the Canal Zone data were

given as to country of birth (for persons born in the United States also the state of birth), citizenship, number single or married among those born in the United States, illiteracy, and number, according to birthplace, whose first residence in the zone dated from a period before the ratification of the first treaty with Panama.

Under a presidential order of December 5, 1912, referred to as the depopulation order, the chairman of the Canal Commission was authorized to take possession in behalf of the United States of all land in the Canal Zone. As the work of depopulating the zone progressed, the inhabitants who were not in the employ of the United States either removed to the terminal cities or left the Isthmus altogether. During the fiscal year 1913-14 house-to-house canvasses of the population were made by the police at frequent intervals, but figures for only two of these enumerations are available. In December, 1914, and July, 1915, censuses were also taken by the police, since which time there has been an annual police census near the end of the fiscal year.

The census of 1920, which is the first census of the Canal Zone taken under the supervision of the Bureau of the Census, presents details as to sex, race or color, nativity, parentage, age, marital condition, and illiteracy for the total population and for the civilian and the military and naval population separately. Separate figures for the two population groups are given as regards school attendance and inability to speak English. Data as to occupations are presented for the civilian population.

**Population changes.**—Table 1, on the next page, shows the population of the Canal Zone as returned at successive enumerations made since the United States took over the control of the territory. At the police censuses, and probably at the early censuses, the methods of enumeration differed from that followed at the Federal census of 1920, and therefore only the most general comparisons can be made of the figures given in this table.

<sup>1</sup> See Circular No. 651-1 of Aug. 23, 1920, signed by the Governor of The Panama Canal. (The Panama Canal Record, Sept. 8, 1920, p. 54.)

## POPULATION—CANAL ZONE.

TABLE 1.—POPULATION: 1904 TO 1920.

CENSUS DATE.	POPULATION.		
	Total.	Civilian.	Military and naval.
1920, Jan. 1.....	22,858	17,904	4,894
1919, Aug. 20 to 31.....	(1)	21,759	(1)
1918, June 23 to 30.....	(5)	21,707	(5)
1917, June 10 to 30.....	(5)	23,295	(5)
1916, June 1 to 10 <sup>2</sup> .....	31,048	22,830	8,218
1915, July 10 <sup>2</sup> .....	29,926	23,483	6,443
1914, Dec. 22, to Jan. 1, 1915 <sup>2</sup> .....	31,160	27,397	3,793
1914, June 16 to 30 <sup>2</sup> .....	37,706	35,459	2,247
1914, Jan. 31 to Feb. 10 <sup>2</sup> .....	45,296	(3)	(3)
1912, Feb. 1.....	62,810	(3)	(3)
1908, Mar. 3 to June 23 <sup>4</sup> .....	50,003	(3)	(3)
1906, Mar. 8 to 10.....	62,137	(3)	(3)
1904.....	9,742	(3)	(3)

<sup>1</sup> No figures for military and naval population published.

<sup>2</sup> Police census. These censuses include some classes not covered by the Federal census, e. g.: Transient boarders or lodgers and short-term prisoners whose permanent place of abode is outside the Canal Zone; workers temporarily residing in the Canal Zone but having their homes in the Republic of Panama; servants in Canal Zone homes whose ordinary sleeping place is in the Republic.

<sup>3</sup> Separate figures not available.

<sup>4</sup> Estimated at 1,200. See The Panama Canal Record, Mar. 21, 1917.

<sup>5</sup> Data for rural districts relate to July, 1907.

<sup>6</sup> For towns only; from 5 to 10 per cent should be added for the population of outlying territory.

The population of the Panama Canal Zone may be said to have been created or called into existence by the construction of the Panama Canal, and the growth and decline of the population have been mainly determined by the labor requirements for that work.

In 1904, when the United States first assumed control of the strip of land 10 miles wide extending from ocean to ocean across the Isthmus and constituting the Canal Zone, the territory contained a population of less than 10,000 people. Eight years later, as shown by the census of 1912, the population had increased to over 60,000, the increase, of course, consisting mainly of laborers who had come to the zone from other parts of the world to work on the canal. Since that census there has been a general decrease in the civilian population, with the exception of slight increases shown by the police censuses of June, 1917, and August, 1919. The population shown at the police census of 1919 was much larger than the figure for the Federal census of January 1, 1920, the difference representing largely transients and workers temporarily residing in the Canal Zone but permanently domiciled in the Republic of Panama. A large part of the decrease in population since 1912 is due to the Executive order of December 5, 1912, previously mentioned, which resulted in the depopulation of the

Canal Zone of native landowners and squatters; but obviously another important factor is the reduction of the force of employees consequent upon the completion of the construction work on the canal. The census of 1912 was taken at a time when the force employed was nearing its maximum, the greatest working force (including contractors' forces) ever reported being 44,733 on March 26, 1913. It should be noted that employees living in the cities of Panama and Colon, which are outside the Canal Zone, are not included in the census figures presented in this bulletin.

The readjustment of boundaries in 1915 did not materially affect comparisons of the total population, as the number of persons in the section taken from the Canal Zone did not differ greatly from the number in the added area.

The population of the Canal Zone is still largely a transient one, fluctuating according to the amount of work involved in the maintenance and operation of the canal and in providing for the needs of canal and railroad employees.

On the basis of a land area of 333 square miles, representing the original 10-mile zone, the density of the population (including military and naval) in 1920 was 68.6 persons per square mile.

In Table 2, for purposes of comparison, the population as reported at the census of February, 1912, has been distributed according to areas conforming as nearly as possible to those shown for 1920; corresponding figures from the police census of June, 1916, have been included.

TABLE 2.—POPULATION, BY DISTRICTS: 1920, 1916, AND 1912.

DISTRICT.	1920	1916	1912	PER CENT OF DECREASE.	
				1916-1920	1912-1916
Total.....	22,858	31,048	62,810	26.4	50.6
Balboa district.....	14,350	21,450	34,711	33.1	38.2
Cristobal district.....	8,508	9,598	28,099	11.4	68.8

It should be noted that the figures for 1916 probably include some classes not covered by the Federal census of 1920 or the earlier census taken by the Canal Zone authorities.

COMPOSITION AND CHARACTERISTICS OF THE POPULATION.

COLOR OR RACE, NATIVITY, AND PARENTAGE CLASSES.

Color or race, nativity, and parentage.—Of the civilian population of the Canal Zone, 42.9 per cent are white and 56.8 per cent Negro, the remainder (0.3 per cent) being Chinese. The military and naval population is 95.2 per cent white.

TABLE 3.—POPULATION, BY COLOR OR RACE, NATIVITY, PARENTAGE, AND SEX: 1920.

COLOR OR RACE, NATIVITY, AND PARENTAGE.	POPULATION: 1920.						
	Both sexes.	Male.	Female.	Per cent distribution.			Number of males to 100 females
				Both sexes.	Male.	Female.	
TOTAL.							
All classes.....	22,858	14,586	8,272	100.0	100.0	100.0	176.3
White.....	12,370	8,555	3,815	54.1	58.7	46.1	224.2
Negro.....	10,429	5,972	4,457	45.6	40.9	53.9	134.6
Other colored <sup>1</sup> .....	59	59	.....	0.3	0.4	.....	.....
Native white.....	10,753	7,463	3,290	47.0	51.2	39.8	226.8
Native parentage.....	7,734	5,345	2,389	33.8	36.6	28.9	223.7
Foreign or mixed par.....	3,019	2,118	901	13.2	14.5	10.9	235.1
Foreign-born white.....	1,617	1,092	525	7.1	7.5	6.3	208.0
Native Negro.....	2,757	1,391	1,366	12.1	9.5	16.5	101.8
Foreign-born Negro.....	7,072	4,581	3,091	33.6	31.4	37.4	148.2
CIVILIAN.							
All classes.....	17,964	10,305	7,659	100.0	100.0	100.0	134.5
White.....	7,711	4,377	3,334	42.9	42.5	43.5	131.3
Negro.....	10,207	5,882	4,325	56.8	57.1	56.5	136.0
Other colored <sup>2</sup> .....	46	46	.....	0.3	0.4	.....	.....
Native white.....	6,660	3,894	2,866	37.1	36.9	37.3	133.2
Native parentage.....	4,771	2,714	2,057	26.6	26.3	26.9	131.9
Foreign or mixed par.....	1,889	1,090	799	10.5	10.6	10.4	136.4
Foreign-born white.....	1,051	573	478	5.9	5.6	6.2	119.9
Native Negro.....	2,719	1,364	1,355	15.1	13.2	17.7	104.7
Foreign-born Negro.....	7,488	4,518	2,970	41.7	43.8	38.8	152.1
MILITARY AND NAVAL.							
All classes.....	4,894	4,281	613	100.0	100.0	100.0	695.4
White.....	4,659	4,178	481	95.2	97.6	78.5	868.6
Negro.....	222	90	132	4.5	2.1	21.5	68.2
Other colored <sup>3</sup> .....	13	13	.....	0.3	0.3	.....	.....
Native white.....	4,093	3,659	434	83.6	85.5	70.8	843.1
Native parentage.....	2,963	2,531	332	60.5	61.5	54.2	792.5
Foreign or mixed par.....	1,130	1,028	102	23.1	24.0	16.6	1,067.8
Foreign-born white.....	566	519	47	11.6	12.1	7.7	(9)
Native Negro.....	38	27	11	0.8	0.6	1.8	(9)
Foreign-born Negro.....	184	63	121	3.8	1.5	19.7	32.1

<sup>1</sup> Includes 48 Chinese, 10 Filipinos, and 1 Japanese.  
<sup>2</sup> All foreign-born Chinese.  
<sup>3</sup> Includes 10 Filipinos, 2 Chinese, and 1 Japanese.  
<sup>4</sup> Ratio not shown when base is less than 100.

All persons born in the United States or any of its possessions are classed as native. The native population of the Canal Zone, as thus defined, comprises the native white, practically all of whom were born in the United States or are children of persons born in the United States, and the native colored, most of whom were born in the Canal Zone. After the President's order of depopulation, as already stated, those natives of the Canal Zone who were not in the employ of the United States moved to the terminal cities or other places outside the zone. The majority of the foreign-born Negroes are natives of the British West Indies,

most of them being from Jamaica or the Barbados. The "other colored" in 1920 comprised in the case of the civilian population 46 Chinese and in the case of the military and naval population 10 Filipinos, 2 Chinese, and 1 Japanese.

The native whites form 47 per cent of the total population of the Canal Zone and 86.9 per cent of the total white population. In the civilian population the native whites constitute a lower percentage (37.1) of the total population, but about the same proportion (86.4 per cent) of the total white population.

In the Balboa district, which comprises the Pacific terminal of the canal and the headquarters of the Government and of The Panama Canal and the Panama Railroad, about one-half (50.4 per cent) of the civilian population of 11,547 are white. (See Table 4.) All of the remainder, with the exception of 29 Chinese, are Negroes. In the Cristobal district, on the other hand, which includes the Atlantic terminal of the canal, only 29.4 per cent of the 6,417 persons in the civilian population are white, 70.3 per cent being Negroes.

TABLE 4.—POPULATION OF EACH DISTRICT, BY COLOR OR RACE AND SEX: 1920.

COLOR OR RACE.	POPULATION: 1920.								
	Total.			Civilian.			Military and naval.		
	Both sexes.	Male.	Female.	Both sexes.	Male.	Female.	Both sexes.	Male.	Female.
CANAL ZONE.									
All classes.....	22,858	14,586	8,272	17,964	10,305	7,659	4,894	4,281	613
White.....	12,370	8,555	3,815	7,711	4,377	3,334	4,659	4,178	481
Negro.....	10,429	5,972	4,457	10,207	5,882	4,325	2,222	90	132
Other colored.....	59	59	.....	46	46	.....	13	13	.....
BALBOA DISTRICT.									
All classes.....	14,359	8,747	5,613	11,547	6,309	5,238	2,803	2,438	365
White.....	8,525	5,614	2,911	5,825	3,215	2,610	2,707	2,419	281
Negro.....	5,792	3,084	2,712	5,693	3,195	2,628	99	15	84
Other colored.....	33	33	.....	29	29	.....	4	4	.....
CRISTOBAL DISTRICT.									
All classes.....	8,508	5,839	2,669	6,417	3,996	2,421	2,091	1,843	248
White.....	3,845	2,021	1,824	1,886	1,162	724	1,959	1,759	200
Negro.....	4,637	2,832	1,745	4,514	2,817	1,697	123	75	48
Other colored.....	26	26	.....	17	17	.....	9	9	.....

<sup>1</sup> Includes 48 Chinese, 10 Filipinos, and 1 Japanese.  
<sup>2</sup> All foreign-born Chinese.  
<sup>3</sup> Includes 10 Filipinos, 2 Chinese, and 1 Japanese.

Sex ratios.—The ratio of males to females in the civilian population of the Canal Zone in 1920 was 134.5 per 100, as compared with 106 per 100 in continental United States in 1910. In the case of the native Negroes, the only strictly indigenous element, the ratio of males to 100 females was 101. This compares with 98.9 for Negroes in the United States in 1910. For the several classes of whites in the civilian population of the Canal Zone the ratio of males to

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100 females ranged from 119.9 for the foreign-born whites to 136.4 for the native whites of foreign or mixed parentage. As explaining the excess of males in the native white population, it may be noted that very few of the native whites were born in the Canal Zone. Most of them are natives of the states, who came to the zone attracted by the opportunities for employment.

In the military and naval population there were from about eight to eleven times as many males as females in each class of the white population. The colored elements were unimportant numerically.

Comparison with 1912.—It will be noted by reference to Table 5 that the excess of males in the population of the Canal Zone is much smaller now than it was in 1912, when the construction work on the canal was at its height. At that time the ratio of males to females was 256 to 100. Even at the present time the males in the white population outnumber the females by more than two to one, which is of course a condition very far from normal.

TABLE 5.—POPULATION, BY COLOR AND SEX: 1920 AND 1912.

COLOR AND CENSUS YEAR.	Both sexes.	Males.	Females.	PER CENT OF TOTAL.			Number of male to 100 females.
				Both sexes.	Males.	Fe-males.	
Total:							
1920.....	22,858	14,588	8,272	100.0	100.0	100.0	176.3
1912.....	62,810	45,163	17,647	100.0	100.0	100.0	255.9
White:							
1920.....	12,370	8,555	3,815	54.1	58.7	46.1	221.2
1912.....	19,413	11,959	4,454	30.9	33.1	25.2	335.9
Colored:							
1920.....	10,488	6,031	4,457	45.9	41.3	53.9	135.3
1912.....	43,397	30,204	13,193	69.1	66.9	74.8	298.9

The percentage of colored in the total population of the Canal Zone, as shown by the above table, declined from 69.1 in 1912 to 45.9 in 1920.

COUNTRY OF BIRTH OF THE FOREIGN BORN.

In Table 6 the foreign-born civilian population in 1920 is distributed by country of birth, figures being given for the white and colored of each sex.

TABLE 6.—FOREIGN-BORN CIVILIAN POPULATION, BY COLOR, SEX, AND COUNTRY OF BIRTH: 1920.

COUNTRY OF BIRTH.	FOREIGN-BORN CIVILIAN POPULATION: 1920.								
	Total.			White.			Colored.		
	Both sexes.	Male.	Female.	Both sexes.	Male.	Female.	Both sexes.	Male.	Female.
Total foreign born.....	8,585	5,137	3,448	1,051	573	478	7,534	4,564	2,970
AMERICA.....	7,751	4,600	3,151	333	129	204	7,418	4,471	2,947
Canada and Newfoundland.....	72	39	33	69	37	32	3	2	1
Mexico.....	23	15	8	11	3	8	12	2	1
Bermuda.....	2	2					2		
West Indies.....	6,095	3,645	2,450	42	18	24	6,053	3,627	2,426
British West Indies.....	5,737	3,302	2,345	27	14	13	5,710	3,378	2,332
Barbados.....	2,472	1,540	932	6	5	1	2,466	1,535	931
Jamaica.....	2,309	1,265	1,044	10	6	4	2,293	1,259	1,034
Other British West Indies.....	956	587	369	5	3	2	951	584	367
Cuba.....	16	5	11	8	1	7	8	4	4
French West Indies.....	329	237	92	2	1	1	327	237	90
Haiti.....	10	8	2	2	2		8	8	
Other West Indies.....	3	3		3	3				
Central America.....	1,196	638	558	137	39	98	1,059	599	460
Panama.....	1,125	600	525	103	27	76	1,022	573	449
Costa Rica.....	44	19	25	18	2	16	26	17	9
Other Central America.....	27	19	8	16	10	6	11	9	2
South America.....	353	261	102	74	32	42	289	229	60
EUROPE.....	747	474	273	708	440	268	39	34	5
Great Britain.....	213	117	96	212	117	95	1		1
England.....	158	80	78	157	80	77	1		1
Scotland.....	49	33	16	49	33	16			
Wales.....	6	4	2	6	4	2			
Ireland.....	57	50	31	57	56	31			
Germany.....	73	44	29	73	44	29			
Scandinavian countries.....	139	92	47	139	92	47			
Norway.....	47	27	20	47	27	20			
Sweden.....	52	34	18	52	34	18			
Denmark.....	40	31	9	40	31	9			
France.....	27	15	12	26	14	12	1	1	
Switzerland.....	17	13	4	17	13	4			
Spain.....	55	41	14	37	23	14	18	18	
Italy.....	30	23	7	23	16	7	7	7	
Russia.....	14	14		14	14				
Finland.....	19	13	6	19	13	6			
Austria.....	13	5	8	12	5	7	1		1
Hungary.....	16	5	8	16	5	8			
Greece.....	12	12		12	12				
Other Europe.....	32	21	11	28	20	8	4	1	3
ALL OTHER.....	87	63	24	10	4	6	77	50	18
Asia.....	50	49	1	2	1	1	48	48	
Africa.....	4	3	1	2	1	1	2	2	
Australia.....	2	1	1	2	1	1			
Atlantic Islands.....	1	1		1	1				
Country not specified.....	29	8	21	3		3	1	1	
Born at sea.....	1	1		1	1		26	8	18

Four-fifths of the foreign-born colored in the civilian population are West Indians, three-fourths being from the British West Indies. It is probable that a large proportion of the natives of Panama reported are children of West Indians. Various countries contributed to the foreign white population, but more than one-third of the total number are from English-speaking countries.

AGE AND MARITAL CONDITION.

Age.—A large proportion of the civilian inhabitants of the Canal Zone are in the most active period of adult life, the percentage from 25 to 44 years of age in 1920 being 44.5, whereas in the United States, according to the census of 1910, only about 29 per cent of the population fall within that age period (see Table 8). The percentage 45 years of age and over in the Canal Zone is but 9.9, as compared with 18.9 in the United States; and the percentage of old people, 65 years of age and over, is but 0.5, as compared with 4.3 in the United States.

TABLE 7.—POPULATION, BY AGE AND SEX: 1920.

AGE PERIOD.	POPULATION: 1920.								
	Total.			Civilian			Military and naval.		
	Both sexes.	Male.	Female.	Both sexes.	Male.	Female.	Both sexes.	Male.	Female.
All ages.	22,858	14,586	8,272	17,961	10,305	7,659	4,894	1,251	613
Under 5 years.	2,500	1,308	1,252	2,465	1,213	1,222	125	65	60
Under 1 year.	540	285	255	515	269	246	25	16	9
5 to 9 years.	2,297	1,161	1,136	2,214	1,121	1,093	83	40	43
10 to 14 years.	1,197	552	645	1,154	522	632	43	30	13
15 to 19 years.	1,542	1,006	536	890	399	491	652	607	45
20 to 24 years.	2,968	2,238	700	1,707	613	594	1,761	1,655	106
25 to 29 years.	3,252	2,129	1,123	2,171	1,174	997	1,081	955	126
30 to 34 years.	2,050	1,954	996	2,450	1,528	922	500	128	74
35 to 39 years.	2,244	1,563	681	1,940	1,308	632	304	255	49
40 to 44 years.	1,581	1,069	512	1,433	960	473	148	100	39
45 to 49 years.	967	687	280	873	613	260	94	71	20
50 to 54 years.	546	402	144	491	363	131	52	39	13
55 to 59 years.	256	180	67	233	175	58	23	14	9
60 to 64 years.	113	61	52	100	57	43	13	4	9
65 to 69 years.	49	21	28	45	21	24	4	.....	4
70 to 74 years.	25	9	16	24	8	16	1	.....	1
75 to 79 years.	10	4	6	10	4	.....	.....	.....	.....
80 to 84 years.	2	.....	2	2	.....	.....	.....	.....	.....
85 to 89 years.	1	.....	1	.....	.....	.....	.....	.....	.....
Age not reported.	268	203	65	258	196	62	10	7	3

The percentage of children under 10 years of age in the Canal Zone, 26, is larger than in the United States, where it is 22.2; but the percentage of the population from 10 to 24 years of age is relatively small, being only 18.1, as compared with 29.6 in the United States. It may be said, therefore, that while there is a fairly large number of young children and infants in the civilian population of the Canal Zone, there are comparatively few older children or young people. The explanation may be found in the fact that the large population that immigrated to the Canal Zone from the United States or other countries something more than 10 years ago probably included comparatively few infants and young children, who would now be in the period of

youth. But, on the other hand, the birth rate in the Canal Zone is comparatively high, so that the number of children born since their parents came there is relatively large.<sup>1</sup>

In the civilian population of the Canal Zone the much higher proportion under 15 years of age in the case of females as compared with males is due to the fact that there is a great excess of males among adults, whereas among the children, as in a normal population, the sexes tend to approach numerical equality. The per cent 45 years of age and over was 12 for males and 7.1 for females in the civilian population.

TABLE 8.—PER CENT DISTRIBUTION BY AGE OF THE CIVILIAN POPULATION OF THE CANAL ZONE, 1920, IN COMPARISON WITH SIMILAR DISTRIBUTION FOR THE TOTAL POPULATION OF THE UNITED STATES, 1910.

AGE PERIOD.	PER CENT DISTRIBUTION OF POPULATION BY AGE.					
	Civilian population of Canal Zone, 1920.			Population of United States, 1910.		
	Both sexes.	Male.	Female.	Both sexes.	Male.	Female.
All ages.	100.0	100.0	100.0	100.0	100.0	100.0
Under 5 years.	13.7	12.1	16.0	11.6	11.4	11.8
Under 1 year.	2.9	2.6	3.2	2.4	2.4	2.5
5 to 9 years.	12.3	10.9	14.5	10.6	10.4	10.8
10 to 14 years.	6.4	5.1	8.5	9.9	9.7	10.1
15 to 19 years.	5.0	3.9	6.4	9.9	9.6	10.2
20 to 24 years.	6.7	5.9	7.8	9.8	9.7	10.0
25 to 29 years.	12.1	11.4	13.0	8.9	9.0	8.8
30 to 34 years.	13.6	14.8	12.0	7.6	7.7	7.4
35 to 39 years.	16.8	17.7	15.3	7.0	7.1	6.8
40 to 44 years.	8.9	9.3	8.2	5.7	5.9	5.5
45 to 49 years.	4.9	5.9	2.4	4.9	5.0	4.7
50 to 54 years.	2.7	3.5	1.7	4.2	4.5	4.0
55 to 59 years.	1.3	1.7	0.8	3.0	3.1	2.9
60 to 64 years.	0.6	0.6	0.6	2.5	2.5	2.4
65 years and over.	0.5	0.3	0.6	4.3	4.2	4.4
Age not reported.	1.4	1.9	0.8	0.2	0.2	0.1

The above statements refer to the civilian population of the Canal Zone. The military and naval population consists mainly of adults who have not reached the period of middle life, only 5.1 per cent of the total being children under 15 years of age, and only 3.8 per cent being 45 years of age and over.

Color or race, nativity, and age.—The Negro civilian population of the Canal Zone includes a much larger proportion of young children than the white, as well as a larger actual number, 3,184, or 31.2 per cent, of the Negroes being under 10 years of age, as compared with 1,495, or 19.4 per cent, of the white population; and while the total number of Negroes exceeds the total

<sup>1</sup> The birth rate of the civilian population in the fiscal year 1919 was 31.14 per 1,000. In 1918 the rate was 31.07; in 1917, 19.61; and in 1916, 20.61. The rates for the last two years are higher than those for the registration states of the United States for the calendar years 1917 and 1918, which are, respectively, 21.6 and 24.4. The infant mortality or number of deaths of infants under 1 year per 1,000 births in the Canal Zone was 84.1 in 1919 (fiscal year), 116 in 1918, 136 in 1917, and 170 in 1916. Thus there appears to have been a steady decline in this rate, which now compares favorably with recent rates available for the United States and most other countries.

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number of whites by nearly one-third, more whites than Negroes were reported in each age group above 35. (See Table 9.)

Of the native Negroes more than nine-tenths are under 15. The majority of these are probably children of the West Indian Negroes, who form the greater part of the labor force employed on the canal.

The age distribution of the native whites differs materially from that of the foreign-born whites. The

foreign-born whites include a much smaller proportion of children and a somewhat larger proportion of persons in the early and middle years of adult life than the native whites, the percentage under 15 for the two classes being, respectively, 8.3 and 29.6 and the percentage 15 to 44 years, respectively, 62.5 and 58.6. The percentage 45 and over was also higher among the foreign-born whites than among the native whites (29.2 as compared with 11.7).

TABLE 9.—CIVILIAN POPULATION, BY COLOR OR RACE, NATIVITY, AND AGE: 1920.

AGE PERIOD.	CIVILIAN POPULATION: 1920.											
	Total.	White.					Negro.					Chinese.
		Total.	Male.	Female.	Native.	Foreign-born.	Total.	Male.	Female.	Native.	Foreign-born.	
	NUMBER.											
All ages.....	17,964	7,711	4,377	3,334	6,669	1,051	10,207	5,882	4,325	2,719	7,488	146
Under 5 years.....	2,465	757	404	353	741	16	1,708	839	869	1,449	259	.....
Under 1 year.....	515	146	77	69	144	2	369	192	177	350	19	.....
5 to 9 years.....	2,214	738	368	370	708	30	1,476	753	723	972	504	.....
10 to 14 years.....	1,154	566	251	315	325	41	588	271	317	185	403	.....
15 to 19 years.....	890	398	171	227	346	52	492	228	264	27	465	.....
20 to 24 years.....	1,207	457	211	246	389	68	749	401	348	16	733	1
25 to 34 years.....	4,621	1,946	1,070	876	1,726	220	2,606	1,623	1,043	41	2,625	9
35 to 44 years.....	3,373	1,758	1,138	620	1,441	317	1,593	1,108	485	16	1,577	22
45 to 54 years.....	1,367	819	599	220	598	221	535	364	171	6	529	13
55 to 64 years.....	333	209	139	70	141	68	123	92	31	3	120	1
65 years and over.....	82	57	24	33	39	18	25	9	16	1	24	.....
Age not reported.....	258	6	2	4	6	.....	252	194	58	3	249	.....
	PER CENT DISTRIBUTION.											
All ages.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Under 5 years.....	13.7	9.8	9.2	10.6	11.1	1.5	16.7	14.3	20.1	53.3	3.5	.....
Under 1 year.....	2.9	1.9	1.8	2.1	2.2	0.2	3.6	3.3	4.1	12.9	0.3	.....
5 to 9 years.....	12.3	9.6	8.4	11.1	10.6	2.9	14.5	12.8	16.7	35.7	6.7	.....
10 to 14 years.....	6.4	7.3	5.7	9.4	7.9	3.9	5.8	4.6	7.3	6.8	5.4	.....
15 to 19 years.....	5.0	5.2	3.9	6.8	5.2	4.9	4.8	3.9	6.1	1.0	6.2	.....
20 to 24 years.....	6.7	5.9	4.8	7.4	5.8	6.5	7.3	6.8	8.0	0.6	9.8	2.2
25 to 34 years.....	25.7	25.2	24.4	26.3	25.9	20.9	26.1	27.6	24.1	1.5	35.1	19.6
35 to 44 years.....	18.8	22.8	26.0	18.6	21.6	30.2	15.6	18.8	11.2	0.6	21.1	47.8
45 to 54 years.....	7.6	10.6	13.7	6.6	9.0	21.0	5.2	6.2	4.0	0.2	7.1	28.3
55 to 64 years.....	1.9	2.7	3.2	2.1	2.1	6.5	1.2	1.6	0.7	0.1	1.6	2.2
65 years and over.....	0.5	0.7	0.5	1.0	0.6	1.7	0.2	0.2	0.4	( <sup>2</sup> )	0.3	.....
Age not reported.....	1.4	0.1	( <sup>2</sup> )	0.1	0.1	.....	2.5	3.3	1.3	0.1	3.3	.....

<sup>1</sup> All foreign-born males.

<sup>2</sup> Less than one-tenth of 1 per cent.

**Broad age groups: 1920 and 1912.**—At the census of 1912 the only age groups distinguished in the published returns were those comprising children under 6 and 6 to 14 years of age and persons 15 years and over. Of the 45,163 males in the Canal Zone population in 1912 (see Table 10), 2,747, or 6.1 per cent, were under 6 years; 2,360, or 5.2 per cent, were from 6 to 14 years; and 40,056, or 88.7 per cent, were 15 years of age and over. The corresponding percentages for the 17,647 females were 15.9, 14.2, and 69.9.

In Table 10 the proportions under 15 years of age among white and colored males and females, respectively, are compared for 1920 and 1912. For both white and colored there has been a very marked increase in the proportion of children under 15 years of age, this change being one which would be expected to accompany the completion of the canal and the

transition from construction work to the more permanent work of operation and maintenance.

TABLE 10.—POPULATION UNDER 15 AND 15 YEARS OF AGE AND OVER, RESPECTIVELY, BY COLOR AND SEX: 1920 AND 1912.

COLOR AND SEX.	1920			1912			PER CENT UNDER 15 YEARS OF AGE.	
	Total.	Under 15 years of age.	15 years of age and over. <sup>1</sup>	Total.	Under 15 years of age.	15 years of age and over.	1920	1912
Total.....	22,858	6,084	16,774	62,810	10,425	52,385	26.6	16.6
Male.....	14,588	3,021	11,565	45,163	5,107	40,056	20.7	11.3
Female.....	8,272	3,063	5,209	17,647	5,318	12,329	37.0	30.1
White.....	12,370	2,297	10,073	19,413	2,704	16,709	18.6	13.9
Male.....	8,555	1,147	7,408	14,059	1,338	13,021	13.4	8.9
Female.....	3,815	1,150	2,665	4,454	1,366	3,088	30.1	30.7
Colored.....	10,488	3,787	6,701	43,397	7,721	35,676	38.1	17.8
Male.....	6,031	1,874	4,157	30,204	3,769	26,435	31.1	12.5
Female.....	4,457	1,913	2,544	13,193	3,952	9,241	42.9	30.0

<sup>1</sup> Includes persons whose age was not reported.



**Marital condition.**—In the civilian population of the Canal Zone in 1920, 40.6 per cent, or about two-fifths, of the adult males, or males 15 years of age and over, were single, as compared with 19.2 per cent, or about one-fifth, of the adult females. In almost any country or community the percentage single is larger for males than for females, because males as a rule remain single longer than females, or, in other words, marry at an older age. But the very marked and unusual difference between the sexes as regards the percentage single in the Canal Zone is doubtless due in large measure to excess of males in the total adult civilian population, in which there are 157.4 males to 100 females.

The percentage of single men in the United States, 38.7, according to the census of 1910, is somewhat smaller than it is in the civilian population of the Canal Zone (40.6); but the percentage of single women, on the other hand, is much larger in the United States, being 29.7, as compared with 19.2 in the Canal Zone.

TABLE 11.—MARITAL CONDITION OF THE MALE AND FEMALE POPULATION 15 YEARS OF AGE AND OVER: 1920.

MARITAL CONDITION.	POPULATION: 1920.					
	Total.		Civilian.		Military and naval.	
	Male.	Female.	Male.	Female.	Male.	Female.
	NUMBER.					
15 years of age and over <sup>1</sup> .....	11,565	5,209	7,410	4,712	4,146	497
Single.....	6,582	1,026	3,013	906	3,569	120
Married.....	4,720	3,927	4,191	3,579	529	348
Widowed.....	155	237	142	200	13	28
Divorced.....	61	12	38	11	23	1
Marital condition not reported.....	47	7	35	7	12	.....
	PER CENT DISTRIBUTION.					
15 years of age and over <sup>1</sup> .....	100.0	100.0	100.0	100.0	100.0	100.0
Single.....	56.9	19.7	40.6	19.2	86.1	24.1
Married.....	40.8	75.4	56.5	76.0	12.8	70.0
Widowed.....	1.3	4.5	1.9	4.4	0.3	5.6
Divorced.....	0.5	0.2	0.5	0.2	0.6	0.2
Marital condition not reported.....	0.4	0.1	0.5	0.1	0.3	.....

<sup>1</sup> Includes persons whose age was not reported.

It may be noted from Table 11 that there are 612, or 17.1 per cent, more married men than married women in the civilian population of the Canal Zone, which means probably that there are about that number of married men in the zone whose wives have not

accompanied them but have remained at home either in the United States or in some other country or locality outside the zone. This is a condition which results naturally from the temporary character of the population and the unfavorable climate.

In the military and naval population of the Canal Zone in 1920, as would be expected, a great majority of the adult males were single, nearly seven-eighths (86.1 per cent) of the 4,146 males 15 years of age and over being so reported. Only about one-eighth (12.8 per cent) were married and less than 1 per cent widowed or divorced. Of the 497 adult females in this group less than one-fourth (24.1 per cent) were single, 70 per cent being married and the remainder, with the exception of 1 reported as divorced, being widowed.

As shown by Table 12, the percentage single is much higher among males than among females in every age group of the civilian population, but the contrast is most marked relatively in the age groups "25 to 29 years" and "30 to 34 years," which comprise more than one-third of the adult males and females, the percentage single being, respectively, 55.3 and 35.2 for males and 12.5 and 6.1 for females.

TABLE 12.—MARITAL CONDITION OF THE MALE AND FEMALE CIVILIAN POPULATION 15 YEARS OF AGE AND OVER, BY AGE: 1920.

SEX AND AGE PERIOD.	CIVILIAN POPULATION 15 YEARS OF AGE AND OVER: 1920.								
	Total.		Single.		Married.		Widowed.	Divorced.	Marital condition not reported.
	Number.	Per cent distribution.	Number.	Per cent.	Number.	Per cent.			
Males.....	7,419	100.0	3,013	40.6	4,191	56.5	142	38	35
15 to 19 years.....	390	5.4	391	98.0	3	0.8	.....	.....	5
20 to 24 years.....	613	8.3	509	83.0	112	18.3	.....	1	.....
25 to 29 years.....	1,174	15.8	649	55.3	511	43.5	.....	2	1
30 to 34 years.....	1,528	20.6	838	55.2	664	43.1	19	7	.....
35 to 44 years.....	2,268	30.6	821	37.4	1,489	70.1	43	13	2
45 to 54 years.....	976	13.2	249	25.5	664	68.0	48	14	1
55 to 64 years.....	292	3.1	52	22.4	169	72.8	10	1	.....
65 years and over	33	0.4	3	(1)	20	(1)	10	.....	.....
Age not reported	196	2.6	10	5.1	159	81.1	1	.....	20
Females.....	4,712	100.0	906	19.2	3,579	76.0	209	11	7
15 to 19 years.....	491	10.4	424	86.4	65	13.2	.....	.....	2
20 to 24 years.....	594	12.6	178	30.0	409	68.9	5	1	1
25 to 29 years.....	967	21.2	125	12.5	858	86.1	9	2	3
30 to 34 years.....	922	19.6	56	6.1	852	92.4	12	2	.....
35 to 44 years.....	1,105	23.5	82	7.4	977	88.4	42	4	.....
45 to 54 years.....	391	8.3	32	8.2	362	77.2	56	1	.....
55 to 64 years.....	101	2.1	3	3.0	55	54.5	42	1	.....
65 years and over	49	1.0	2	(1)	9	(1)	38	.....	.....
Age not reported	62	1.3	4	(1)	52	(1)	5	.....	1

<sup>1</sup> Per cent not shown when base is less than 100.

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TABLE 13.—MARITAL CONDITION OF THE MALE AND FEMALE CIVILIAN POPULATION 15 YEARS OF AGE AND OVER, BY COLOR AND AGE: 1920.

AGE PERIOD.	MALES 15 YEARS OF AGE AND OVER.							FEMALES 15 YEARS OF AGE AND OVER.						
	Total.	Single.	Married, widowed, or divorced.				Marital condition not reported.	Total.	Single.	Married, widowed, or divorced.				Marital condition not reported.
			Total.	Married.	Widowed.	Divorced.				Total.	Married.	Widowed.	Divorced.	
TOTAL.														
Total.....	7,419	3,013	4,371	4,191	142	38	35	4,712	906	3,799	3,579	209	11	7
15 to 19 years.....	399	391	3	3	.....	.....	5	491	424	65	65	.....	.....	2
20 to 24 years.....	613	500	113	112	.....	1	.....	594	178	415	409	5	1	1
25 to 44 years.....	4,970	1,808	3,159	3,061	73	22	3	3,021	263	2,758	2,687	68	8	3
45 to 64 years.....	1,208	301	906	833	58	15	1	492	35	457	357	98	2	.....
65 years and over.....	33	3	30	20	10	.....	.....	49	2	47	9	38	.....	.....
Age not reported.....	196	10	169	159	1	.....	26	62	4	57	52	5	.....	1
WHITE.														
Total.....	3,354	1,162	2,187	2,072	80	35	5	2,296	478	1,815	1,689	116	10	3
15 to 19 years.....	171	167	2	2	.....	.....	2	227	199	28	28	.....	.....	.....
20 to 24 years.....	211	164	47	46	.....	1	.....	216	89	156	154	1	1	1
25 to 44 years.....	2,298	697	1,599	1,453	36	19	3	1,496	174	1,320	1,276	36	8	2
45 to 64 years.....	738	132	606	555	36	15	.....	290	16	274	222	51	1	.....
65 years and over.....	24	1	23	15	8	.....	.....	33	.....	33	5	28	.....	.....
Age not reported.....	2	1	1	1	.....	.....	.....	4	.....	4	4	.....	.....	.....
COLORED.														
Total.....	4,065	1,851	2,184	2,119	62	3	30	2,416	428	1,984	1,890	93	1	4
15 to 19 years.....	228	224	1	1	.....	.....	3	264	225	37	37	.....	.....	2
20 to 24 years.....	402	336	66	66	.....	.....	.....	348	89	259	255	4	.....	.....
25 to 44 years.....	2,762	1,111	1,651	1,611	37	3	.....	1,525	89	1,438	1,411	27	.....	1
45 to 64 years.....	470	169	300	278	22	.....	1	202	19	183	135	47	1	.....
65 years and over.....	9	2	7	5	2	.....	.....	16	2	14	4	10	.....	.....
Age not reported.....	194	9	159	155	1	.....	26	58	4	53	48	5	.....	1

In the male civilian population of the Canal Zone the percentage single is greater for the colored than for the white; in the female population the difference is the other way, the percentage single being in general higher for the white women than for the colored. This may be explained, at least in part, by the fact that the excess of men is considerably larger for the colored race in the zone than for the white, the number of adult males per 100 adult females being 168 for the colored and 146 for the white.

Attention has already been called to the fact that the population of the Canal Zone as compared with that of the United States has a larger percentage of single men and a smaller percentage of single women. The contrast is emphasized when the comparison is made by age groups as presented in Table 14, the difference being very marked in the population above 25 years.

In the census of 1912 returns as to marital condition in the Canal Zone were tabulated only for persons 15 years of age and over born in the United States or its territorial possessions, and all these persons are shown either as "single" or "married." Among the white males 15 years of age and over born in the United States or its outlying territory, 58.9 per cent were reported as single. When compared with this the percentage single for white males (nearly all native) in 1920, as given in Table 14, 34.6, shows a very material reduction, resulting naturally from the fact that the

ratio of males to 100 females has fallen off from 256 in 1912 to 176 in 1920, all of which is indicative of progress towards more normal conditions since the construction work on the canal was at its height. In the case of the female population, the percentage single, as might be expected in view of the continuous excess of males, shows little change, being 19.9 for native white females in 1912 and 20.8 for white females in 1920.

TABLE 14.—PER CENT SINGLE IN THE ADULT POPULATION OF THE CANAL ZONE (CIVILIAN), 1920, AND OF THE UNITED STATES, 1910.

SEX AND AGE PERIOD.	PER CENT SINGLE IN POPULATION 15 YEARS OF AGE AND OVER.			
	Civilian population of Canal Zone: 1920.			United States: 1910.
	Total.	White.	Colored.	
Males 15 years of age and over <sup>1</sup> .....	40.6	34.6	45.5	38.7
15 to 19 years.....	98.0	97.7	98.2	98.3
20 to 24 years.....	81.6	77.7	83.6	74.9
25 to 44 years.....	36.4	31.6	40.2	27.0
45 to 64 years.....	24.9	17.9	36.0	16.1
65 years and over.....	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	6.2
Females 15 years of age and over <sup>1</sup> .....	19.2	20.8	17.7	28.7
15 to 19 years.....	86.4	87.7	85.2	87.9
20 to 24 years.....	30.0	36.2	25.6	48.3
25 to 44 years.....	8.7	11.6	5.8	16.8
45 to 64 years.....	7.1	5.5	9.4	8.0
65 years and over.....	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	6.3

<sup>1</sup> Includes those whose age was not reported.  
<sup>2</sup> Per cent not shown when base is less than 100.

## SCHOOL ATTENDANCE, ILLITERACY, AND INABILITY TO SPEAK ENGLISH.

School attendance.—In 1920, 3,026 persons, or considerably more than two-thirds (71.1 per cent) of the civilian population 5 to 19 years of age, reported that they had attended school at some time during the current school year.

TABLE 15.—NUMBER ATTENDING SCHOOL IN THE CIVILIAN POPULATION, BY COLOR, AGE, AND SEX: 1920.

COLOR AND SEX.	Total number of persons attending school.	PERSONS 5 TO 9 YEARS OF AGE.			PERSONS 10 TO 14 YEARS OF AGE.			PERSONS 15 TO 19 YEARS OF AGE.		
		Attending school.		Total.	Attending school.		Total.	Attending school.		Total.
		Num-ber.	Per-cent.		Num-ber.	Per-cent.		Num-ber.	Per-cent.	
Total.....	3,026	2,214	1,680	75.9	1,154	1,063	92.1	890	283	31.8
Male.....	1,462	1,121	850	75.8	522	483	92.5	399	129	32.3
Female...	1,564	1,093	830	75.9	632	580	91.8	491	154	31.4
White.....	1,336	738	564	76.4	566	549	97.0	398	223	56.0
Colored.....	1,690	1,476	1,116	75.6	588	514	87.4	492	60	12.2

There is little difference apparently either between the sexes or between the white and colored children as regards the percentage attending school, except in the case of the older children 15 to 19 years of age, in which age group the percentage is much higher for the white children (56) than for the colored (12.2). The higher percentage represents largely pupils attending a high school or industrial courses conducted for white children.

The percentages of children attending school in the Canal Zone, as shown in Table 15, do not differ very much from the corresponding percentages for most of the Northern states, as reported in the census of 1910.

For the fiscal year ending June 30, 1919, the net enrollment in the schools, as stated in the annual report of the Governor of The Panama Canal, was 3,006. This is about the same as the number who at the census of 1920 were reported as having attended school for a longer or shorter period at some time between September 1, 1919, and January 1, 1920; but it should be noted that the enrollment figures include some children of canal employees who live outside the Canal Zone and therefore are not covered by the census of 1920.

The following statement giving the average daily attendance and the net enrollment, so far as figures are available, for the white and colored schools separately during the school years 1905 to 1919, is compiled from the reports of the Governor of The Panama

Canal and from a review of the average daily attendance in the Canal Zone public schools contained in The Panama Canal Record of December 17, 1919 (Vol. XIII, p. 240). It shows a general increase in average daily attendance up to 1913, the year when the maximum force was employed on the canal, and fluctuations after that year. Since 1916 there has been a steady increase both in the net enrollment and in the average daily attendance.

TABLE 16.—AVERAGE DAILY ATTENDANCE IN SCHOOLS OF THE CANAL ZONE, 1905 TO 1919, AND NET ENROLLMENT, 1914 TO 1919.

SCHOOL YEAR ENDING—	SCHOOL ATTENDANCE IN THE CANAL ZONE.					
	Net enrollment.			Average daily attendance.		
	Total.	White schools.	Colored schools.	Total.	White schools.	Colored schools.
1919.....	3,006	1,778	1,228	2,154	1,424	756
1918.....	2,774	1,764	1,010	1,993	1,323	640
1917.....	2,373	1,513	855	1,799	1,213	496
1916.....	2,149	1,336	783	1,591	1,065	1,436
1915.....	2,576	1,146	1,430	1,762	1,066	756
1914.....	2,762	1,270	1,492	1,683	968	715
1913.....	.....	.....	.....	1,828	1,029	799
1912.....	.....	.....	.....	1,714	980	734
1911.....	.....	.....	.....	1,395	839	556
1910.....	.....	.....	.....	1,259	682	577
1909.....	.....	.....	.....	1,287	529	748
1908.....	.....	.....	.....	1,159	385	765
1907.....	.....	.....	.....	1,138	167	971
1906.....	.....	.....	.....	1,197	167	1,000
1905.....	.....	.....	.....	150	.....	.....

\* Reduced attendance in colored schools for 1916 due to rule excluding children of nonresident alien employees from free school privileges.

The fact that notwithstanding a decrease between 1912 and 1920 of 41.6 per cent in the total number of children under 15 years of age (see Table 10) the average daily school attendance was larger in 1919 than in 1912 indicates considerable improvement in the matter of school attendance or in school facilities.

As the total number of persons between the ages of 5 and 19, inclusive, in the military and naval population of the Canal Zone in 1920 was only 778 and about five-sixths (652) of these were 15 to 19 years of age, most of them being actively engaged in the military or naval service, the figures as to school attendance for this group are not important enough to call for special comment. Of the 126 persons 5 to 14 years of age, 97, or 77 per cent, attended school, and of the 652 persons 15 to 19 years of age, 25, or 3.8 per cent.

Illiteracy.—Table 17 shows the number and per cent illiterate among males and females of each class of the civilian population of the Canal Zone in 1920. All persons unable to write have been classified as illiterate, although some of them may be able to read.

POPULATION—CANAL ZONE.

TABLE 17.—ILLITERATES AMONG PERSONS 10 YEARS OF AGE AND OVER IN THE CIVILIAN POPULATION, BY COLOR OR RACE, NATIVITY, AND SEX: 1920.

COLOR OR RACE AND NATIVITY.	CIVILIAN POPULATION 10 YEARS OF AGE AND OVER: 1920. <sup>1</sup>								
	Both sexes.			Male.			Female.		
	Total.	Illiterate.		Total.	Illiterate.		Total.	Illiterate.	
		Num-ber.	Per cent.		Num-ber.	Per cent.		Num-ber.	Per cent.
All classes.....	13,285	751	5.7	7,941	514	6.5	5,344	237	4.4
White.....	6,216	19	0.3	3,605	13	0.4	2,611	6	0.2
Native.....	5,211	19	0.3	3,054	13	0.4	2,157	6	0.2
Foreign born.....	1,005	19	1.9	551	13	2.4	454	6	1.3
Negro.....	7,023	714	10.2	4,290	483	11.3	2,733	231	8.5
Chinese.....	46	18	(2)	46	18	(2)	46	18	(2)

<sup>1</sup> Includes persons whose age was not reported.  
<sup>2</sup> Per cent not shown when base is less than 100.

TABLE 18.—ILLITERATES AMONG PERSONS 10 YEARS OF AGE AND OVER IN THE CIVILIAN POPULATION, BY COLOR, AGE, AND SEX: 1920.

AGE PERIOD.	CIVILIAN POPULATION 10 YEARS OF AGE AND OVER: 1920.								
	Both sexes.			Male.			Female.		
	Total.	Illiterate.		Total.	Illiterate.		Total.	Illiterate.	
		Num-ber.	Per cent.		Num-ber.	Per cent.		Num-ber.	Per cent.
TOTAL.									
10 years of age and over.....	13,285	751	5.7	7,941	514	6.5	5,344	237	4.4
10 to 14 years.....	1,151	5	0.4	522	3	0.6	632	2	0.3
15 to 19 years.....	1,590	24	2.7	399	17	4.3	491	7	1.4
20 to 24 years.....	1,297	33	6.9	613	65	10.6	594	18	3.0
25 to 34 years.....	4,621	230	5.0	2,702	138	5.8	1,919	72	3.8
35 to 44 years.....	3,373	200	5.9	2,268	136	6.0	1,105	64	5.8
45 to 54 years.....	1,397	121	8.9	976	87	8.7	391	36	9.2
55 to 64 years.....	323	35	10.5	232	24	10.3	101	11	10.9
65 years and over.....	82	12	(1)	33	4	(1)	49	8	(1)
Age not reported.....	253	41	15.9	196	22	11.2	62	19	(1)
WHITE.									
10 years of age and over.....	6,216	19	0.3	3,605	13	0.4	2,611	6	0.2
10 to 14 years.....	566	3	0.5	251	3	1.2	315	—	—
15 to 19 years.....	398	—	—	171	—	—	227	—	—
20 to 24 years.....	457	1	0.2	211	1	0.5	246	—	—
25 to 34 years.....	1,946	7	0.4	1,070	4	0.4	876	3	0.3
35 to 44 years.....	1,758	3	0.2	1,138	3	0.3	620	—	—
45 to 54 years.....	819	3	0.4	599	2	0.3	220	1	0.5
55 to 64 years.....	299	1	0.5	139	—	—	70	1	(1)
65 years and over.....	57	1	(1)	24	—	—	33	1	(1)
Age not reported.....	6	—	—	2	—	—	4	—	—
COLORED.									
10 years of age and over.....	7,069	732	10.4	4,336	501	11.6	2,733	231	8.5
10 to 14 years.....	588	2	0.3	271	—	—	317	2	0.6
15 to 19 years.....	492	24	4.9	228	17	7.5	264	7	2.7
20 to 24 years.....	750	82	10.9	402	64	15.9	348	18	5.2
25 to 34 years.....	2,675	223	8.3	1,632	154	9.4	1,043	69	6.6
35 to 44 years.....	1,615	197	12.2	1,130	133	11.8	485	64	13.2
45 to 54 years.....	548	118	21.5	377	83	22.0	171	35	20.5
55 to 64 years.....	124	34	27.4	93	24	(2)	31	10	(1)
65 years and over.....	25	11	(1)	9	4	(1)	16	7	(1)
Age not reported.....	252	41	16.3	194	22	11.3	58	19	(1)

<sup>1</sup> Per cent not shown when base is less than 100.

In 1920 only 751 persons, or 5.7 per cent of the civilian population of the Canal Zone 10 years of age and over, were reported as unable to write. No illiterate persons were reported among the native whites, and the percentage illiterate among the foreign-born whites was only 1.9, which is lower than that for the native whites in the United States in 1910 (3). The low percentage for the whites is not surprising, inasmuch as the work on the canal which requires no education is in large measure performed by the "silver force," made up principally of West Indian Negroes, and the white employees are for the most part engaged in work for which the ability to read and write is important.

It will be noted that within each population class which included illiterate persons the percentage of illiteracy is slightly higher for males than for females. This is contrary to the situation in the United States, where for all classes combined and for each individual class except the native whites the percentage for females in 1910 was the higher.

In each age group under 45 the percentage illiterate, as shown in Table 18, is higher among all males than among all females, but in the case of the colored there are slight exceptions.

It is a fact of some significance as indicating the influence of the recently established school system in the Canal Zone that the colored children 10 to 14 years of age are as free from illiteracy as the white children in the same age group. At older ages, and especially above the age of 45, the illiteracy of the colored population is very high, while for the white population cases of illiteracy are but few.

TABLE 19.—PER CENT ILLITERATE IN THE CIVILIAN POPULATION OF THE CANAL ZONE IN 1920 AND IN THE POPULATION OF THE UNITED STATES IN 1910, BY AGE.

AGE PERIOD.	PER CENT ILLITERATE.		
	Civilian population of the Canal Zone, 1920.	United States, 1910.	
		All classes.	Native white.
Population 10 years of age and over <sup>1</sup> .....	5.7	7.7	3.0
10 to 14 years.....	0.4	4.1	1.7
15 to 19 years.....	2.7	4.0	1.9
20 to 24 years.....	6.9	6.9	2.3
25 to 34 years.....	5.0	7.3	2.4
35 to 44 years.....	5.9	8.1	3.0
45 to 54 years.....	8.9	9.0	4.5
55 to 64 years.....	10.5	12.0	6.0
65 years and over.....	(2)	14.5	7.3

<sup>1</sup> Includes persons whose age was not reported.  
<sup>2</sup> Per cent not shown when base is less than 100.

For nearly every age group, as shown by Table 19, the percentage illiterate in the Canal Zone is below that shown for all classes combined in continental United States, although slightly higher than that for the native white alone.

TABLE 20.—ILLITERATES IN THE MILITARY AND NAVAL POPULATION 10 YEARS OF AGE AND OVER: 1920.

COLOR, SEX, AND AGE PERIOD.	MILITARY AND NAVAL POPULATION 10 YEARS OF AGE AND OVER: 1920.		
	Total.	Illiterate.	
		Number.	Per cent.
10 years of age and over.....	4,686	39	0.8
Males.....	4,176	24	0.6
Females.....	510	15	2.9
10 to 14 years.....	43		
15 to 19 years.....	652	4	0.6
20 to 24 years.....	1,761	13	0.7
25 to 34 years.....	1,551	12	0.8
35 to 44 years.....	452	7	1.5
45 to 54 years.....	146	2	1.4
55 to 64 years.....	36	1	(1)
65 years and over.....	5		
Age not reported.....	10		
White.....	4,464	24	0.5
Colored.....	222	15	6.8

<sup>1</sup> Per cent not shown when base is less than 100.

In the military and naval population in 1920, as shown by Table 20, the percentage illiterate was higher among females 10 years of age and over than among males of that group and considerably higher for the colored than for the white.

TABLE 21.—ILLITERATES IN THE TOTAL POPULATION 15 YEARS OF AGE AND OVER, BY COLOR: 1920 AND 1912.

COLOR AND CENSUS YEAR.	POPULATION 15 YEARS OF AGE AND OVER. <sup>1</sup>		
	Total.	Illiterate.	
		Number.	Per cent.
Total:			
1920.....	16,774	785	4.7
1912.....	52,385	12,668	24.2
White:			
1920.....	10,073	49	0.4
1912.....	16,709	2,430	14.5
Colored:			
1920.....	6,701	745	11.1
1912.....	35,676	10,238	28.7

<sup>1</sup> Includes persons whose age was not reported.

Separate figures as to illiteracy among persons 10 years of age and over in 1912 are not available, but Table 21 gives the number and per cent illiterate in

## OCCUPATIONS.

The occupations of 7,730 residents of the Canal Zone were reported in the present census. The total number of males returned as gainfully employed (7,008) constituted 94.5 per cent of the civilian male

the total population 15 years of age and over, by color, as reported at the censuses of 1920 and 1912; and it will be noted that since 1912, when the construction work on the canal was near its height, there has been a marked reduction in the percentage of illiteracy in the adult population of each class.

**Inability to speak English.**—Of the total civilian population of the Canal Zone, only 490 persons, or 3.7 per cent of those 10 years of age and over, were reported as unable to speak English, 400 of this number being foreign-born Negroes.

TABLE 22.—PERSONS UNABLE TO SPEAK ENGLISH IN THE CIVILIAN POPULATION: 1920.

CLASS OF POPULATION.	CIVILIAN POPULATION 10 YEARS OF AGE AND OVER: 1920. <sup>1</sup>		
	Total.	Unable to speak English.	
		Number.	Per cent.
All classes.....	13,285	490	3.7
Males.....	7,941	383	4.8
Females.....	5,344	107	2.0
White.....	6,216	56	0.9
Native.....	5,211		
Foreign born.....	1,005	56	5.6
Negro.....	7,069	406	5.8
Native.....	295	6	2.0
Foreign born.....	6,774	400	5.9
Chinese.....	46	28	(2)

<sup>1</sup> Includes persons whose age was not reported.  
<sup>2</sup> Per cent not shown when base is less than 100.

The low percentage unable to speak English is due to the fact that the majority of the foreign-born Negroes, as well as a large proportion of the foreign-born whites, came from English-speaking countries. Moreover, the white males employed in the Canal Zone are for the most part engaged in work which requires some education and probably some knowledge of English.

Less than 1 per cent of the military and naval population 10 years of age and over were reported as unable to speak English, such persons comprising 9 of the 4,686 persons of the specified age in this group.

population 15 years of age and over in 1920. Employed females numbered only 722, and constituted but 15.3 per cent of the female population 15 years of age and over.

TABLE 23.—OCCUPATIONS OF THE CIVILIAN POPULATION, CLASSIFIED BY SEX AND COLOR: 1920.

INDUSTRY OR SERVICE.	PERSONS GAINFULLY EMPLOYED: 1920.					
	Total number.	Per cent distribution.	Male.	Female.	White.	Colored.
All occupations.....	7,730	100.0	7,008	722	3,566	4,164
Agriculture, forestry, and animal husbandry.....	237	3.1	237	.....	34	1,203
Manufacturing and mechanical industries.....	2,564	33.2	2,532	32	1,495	1,069
Transportation.....	2,693	27.1	2,654	39	612	1,481
Water transportation.....	1,312	17.0	1,312	.....	329	983
Railroad transportation.....	591	7.6	591	.....	164	427
Other transportation.....	190	2.5	151	39	119	71
Trade.....	166	2.1	138	28	81	285
Public service (not elsewhere classified).....	709	9.2	708	1	286	423
Professional service.....	403	5.2	263	140	371	32
Domestic and personal service.....	673	8.7	335	337	63	610
Clerical occupations.....	885	11.4	740	145	624	261

<sup>1</sup> Includes 38 Chinese.   <sup>2</sup> Includes 5 Chinese.   <sup>3</sup> Includes 1 Chinese.

As the total number of employees of The Panama Canal and Panama Railroad was 22,328<sup>1</sup> on January 7, 1920, it will be seen that the gainfully occupied population of the Canal Zone includes only about one-third (34.6 per cent) of the total number of employees of The Panama Canal and the Panama Railroad. It is evident, therefore, that the occupation statistics here presented do not convey a true impression of the magnitude of the industrial operations being carried on within the Canal Zone. This is due to the fact that many of the employees of The Panama Canal and the Panama Railroad reside outside the Canal Zone.

The occupation returns were classified, as nearly as possible, in accordance with the standardized census method; but as some of the enumerators returned the industry merely as "Panama Canal" or "Panama Railroad," it was not always possible to distinguish between persons engaged in the manufacturing and mechanical industries and those employed in the actual operation and maintenance of the canal.

The largest occupation group, including one-third of the gainfully employed population of the Canal Zone, is composed of those engaged in the various manufacturing and mechanical industries directly connected with the operation and maintenance of The Panama Canal and the Panama Railroad.

More than one-fourth (27.1 per cent) of the occupations reported were classified under transportation. As would naturally be expected, the proportion of the gainfully occupied population engaged in pursuits peculiar to transportation is much larger in the Canal Zone than it was in the United States in 1910 (6.9 per cent). The occupations of 591 persons were classified under railroad transportation, who represent only 8 per cent of the 7,358<sup>1</sup> employees of the Panama

<sup>1</sup> Data furnished by the Washington office of The Panama Canal.

Railroad reported at work on January 7, 1920. The explanation of the difference is found in the fact that the great majority of the Panama Railroad employees reside in the terminal cities of Colon and Panama, both of which are situated outside of the Canal Zone.

In Table 24 a comparison is made of the per cent distribution, by occupation groups, of the population of the United States and of the Canal Zone engaged in gainful pursuits.

TABLE 24.—PER CENT DISTRIBUTION, BY OCCUPATION GROUPS, OF THE GAINFULLY EMPLOYED CIVILIAN POPULATION OF THE CANAL ZONE IN 1920, AND OF THE UNITED STATES IN 1910.

OCCUPATION GROUP.	PER CENT DISTRIBUTION.	
	Canal Zone: 1920.	United States: 1910.
All groups.....	100.0	100.0
Agriculture, forestry, and animal husbandry.....	3.1	33.2
Extraction of minerals.....	.....	2.5
Manufacturing and mechanical industries.....	33.2	27.1
Transportation.....	27.1	6.1
Trade.....	2.1	9.7
Public service (not elsewhere classified).....	9.2	1.1
Professional service.....	5.2	4.4
Domestic and personal service.....	8.7	9.5
Clerical occupations.....	11.4	4.6

A majority (56.5 per cent) of the 4,120 gainfully occupied Negroes residing within the Canal Zone were returned as laborers (1,969) or servants (360). On the other hand, only 87 white persons were so returned, and they constituted but 3.6 per cent of the total number of laborers and servants residing in the Canal Zone.

Table 25 shows, by race, the number of laborers and servants in each of the major occupation groups, and the percentage which each race contributes to the total number reported, in comparison with the total number of persons in all occupations.

TABLE 25.—LABORERS AND SERVANTS RESIDING IN THE CANAL ZONE, BY COLOR: 1920.

OCCUPATION GROUP.	Total.	WHITE.		COLORED.	
		Number.	Per cent of total.	Number.	Per cent of total.
All occupations.....	7,730	3,566	46.1	4,164	53.9
Laborers and servants.....	2,432	87	3.6	2,345	96.4
Agriculture.....	153	16	10.5	137	89.5
Manufacturing and mechanical industries.....	344	11	3.2	333	96.8
Transportation.....	1,236	37	3.0	1,199	97.0
Water transportation.....	837	32	3.8	805	96.2
Railroad transportation.....	396	5	1.3	391	98.7
All other transportation.....	3	.....	.....	3	100.0
Public service (not elsewhere classified).....	290	1	0.3	289	99.7
Domestic and personal service <sup>3</sup> .....	409	22	5.4	387	94.6

<sup>1</sup> Includes 44 Chinese.   <sup>2</sup> Includes 16 Chinese.   <sup>3</sup> Includes porters not in stores.