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APPENDIX I.

CHECK LIST OF REGISTRATION OFFICIALS.

REPORTS AND BULLETINS CONTAINING VITAL STATISTICS. ESTIMATED POPULATIONS FOR 1907 AND 1908.

EXPLANATORY NOTE.—This is a revised list containing corrections supplied by state authorities as late as December, 1907. The original list, showing the personnel of American registration service in all places (cities, towns, and boroughs) in the United States having a population of 8,000 or over in 1900, was based upon the replies to a circular request for information issued July 24, 1907, and sent directly to the local registration offices. The list was printed provisionally as Appendix B of Census pamphlet No. 107, Modes of Statement of Cause of Death and Duration of Illness upon Certificates of Death, a copy of which was mailed to each state and city registration office, so that opportunity has been afforded for verification and amendment. It is difficult in some instances, however, in the nonregistration states to secure information as to the status of registration, or even to ascertain whether there is any local registrar or not. The apparent inconsistency that a "state law" may be reported as operating in one city of a state, and no statement, or a contradictory statement, be made for another city of the same state, may be explained by understanding that this table undertakes to show the actual condition of registration of deaths, and that a state law may be nominally upon the statute books, although of no effect for practical purposes.

For the convenience of state and city registrars estimated populations have been presented for the years 1907 and 1908, thus enabling current death rates to be computed upon a uniform basis throughout the country for mortality reports and bulletins. It should be understood, of course, that the advance estimates for the year 1908 will be subject to correction for any territorial changes or for sudden variations of population in the areas stated.

Publications are indicated as follows: a=annual report; b=biennial report; w=weekly bulletin; m=monthly bulletin; q=quarterly bulletin. *The Bureau of the Census desires to preserve complete files of all official publications in the United States containing vital statistics. It is requested that registration officials, who may note omission of their publications, will kindly correct this list and regularly transmit copies of all reports and bulletins to the Library of the Census; penalty labels will be provided for this purpose upon request.*

Registration states and registration cities making returns of deaths directly to this Bureau are designated by an asterisk (*) before each name. Registration cities in registration states whose returns are received through their respective state offices are indicated by a dagger (†).

STATE AND CITY. (Reports and bulletins—see explanatory note, page 453.)	ESTIMATED POPULATION.		State law or city ordinance.	Name and official title of registrar.
	1907	1908		
ALABAMA (a) ¹	2,049,407	2,080,936	State law.....	W. H. Sanders, M. D., State Health Officer, Montgomery.
Anniston.....	10,932	10,945	State law.....	
Birmingham.....	47,097	48,325	State law.....	
Huntsville.....	8,117	8,125	State law.....	
*Mobile.....	43,642	44,382	City ordinance.....	D. T. Rogers, Secretary Board of Health.
Montgomery.....	41,847	42,887	State law.....	
Selma (m).....	12,192	12,337	Both.....	I. C. Skinner, M. D., Registrar.
ARKANSAS.....	1,439,910	1,458,246		
Fort Smith.....	23,879	24,253	City ordinance.....	D. B. Sparks, City Clerk.
Hot Springs.....	11,345	11,533		
Little Rock (a, m) ²	41,202	42,445	City ordinance.....	F. M. Oliver, City Clerk.
Pine Bluff ³	13,202	13,366		None.
*CALIFORNIA (b, m).....	1,675,211	1,702,377	State law.....	N. K. Foster, M. D., Secretary State Board of Health and Registrar of Vital Statistics, Sacramento.
†Alameda (a).....	20,173	20,703	State law.....	L. W. Stidham, M. D., City Physician.
†Berkeley.....	(⁴)	(⁴)	State law.....	J. J. Benton, M. D., Health Officer.
†Fresno.....	13,625	13,790	State law.....	T. M. Hayden, M. D., Health Officer.
†Los Angeles (a, m).....	(⁴)	(⁴)	State law.....	L. M. Powers, M. D., Health Officer.
†Oakland (a, m).....	(⁴)	(⁴)	State law.....	E. N. Ewer, M. D., Health Officer.
†Pasadena.....	(⁴)	(⁴)	State law ⁵	S. P. Black, M. D., Health Officer.
†Sacramento (m).....	31,311	31,600	State law ⁶	H. L. Nichols, M. D., Health Officer.
†San Diego (m).....	(⁴)	(⁴)	State law.....	F. H. Mead, M. D., Health Officer.
†San Francisco (a, m).....	(⁴)	(⁴)	State law.....	H. Gunn, M. D., Health Officer.
†San Jose.....	23,908	24,252	State law.....	J. C. Corcoran, Assistant Secretary Board of Health.
†Stockton.....	(⁴)	(⁴)	State law.....	S. W. R. Langdon, M. D., Health Officer.
*COLORADO (b, m).....	628,216	640,861	State law.....	H. L. Taylor, M. D., Secretary State Board of Health, Denver.
†Colorado Springs (m).....	30,489	31,640	State law.....	P. O. Hanford, M. D., Health Commissioner.
†Denver (a).....	153,522	155,124	Both.....	W. H. Sharpley, M. D., Health Commissioner.
†Leadville.....	13,904	14,111	State law.....	A. J. McDonald, M. D., Health Officer.
†Pueblo (m).....	31,190	31,557	State law.....	L. MacLean, M. D., Health Commissioner.

¹ None issued since 1894.

² Reports made by city physician.

³ No record is kept of deaths. Burials in city cemeteries are recorded, showing cause of death, etc.

⁴ No estimate.

⁵ City ordinance also, but simply supplemental.

⁶ And city charter.

MORTALITY STATISTICS.

STATE AND CITY—continued. (Reports and bulletins—see explanatory note, page 453.)	ESTIMATED POPULATION.		State law or city ordinance.	Name and official title of registrar.
	1907	1908		
*CONNECTICUT (a, m)	1,021,933	1,038,149	State law	J. H. Townsend, M. D., Secretary State Board of Health, Hartford.
†Ansonia ¹	14,318	14,552	State law	A. P. Kirkham, Town Clerk.
†Bridgeport (m) ^{1, 2}	86,487	88,700	State law	J. N. Booth, Town Clerk.
†Bristol town ³	11,225	11,451	State law	S. H. Mason, Town Clerk.
†Danbury town ³	19,474	19,474	State law	E. M. Bulkeley, Town Clerk.
†Greenwich town ³	13,600	13,804	State law	R. Wellstood, Town Clerk.
†Hartford (a, m) ¹	98,484	101,146	State law	C. P. Botsford, M. D., Registrar of Vital Statistics.
†Manchester town (m)	12,266	12,504	State law	S. M. Benton, Town Clerk.
†Meriden town (a) ³	30,984	31,311	State law	H. Hess, Town Clerk.
†Middletown town ³	19,082	19,310	State law	W. C. Howard, Town Clerk.
†Naugatuck borough ¹	13,565	13,998	State law	H. Heanes, Town Clerk.
†New Britain town ³	34,641	35,560	State law	L. D. Penfield, Town Clerk.
†New Haven (a, m) ¹	123,427	125,627	State law	J. J. Carr, Registrar of Vital Statistics.
†New London ¹	20,201	20,580	State law	F. L. Kenyon, Town Clerk.
†Norwalk town	21,460	21,679	State law	H. R. Smith, Town Clerk.
†Norwich town ³	25,750	25,909	State law	C. S. Holbrook, Town Clerk.
†Stamford town ³	21,036	21,350	State law	W. F. Waterbury, Town Clerk.
†Stonington town ³	9,488	9,624	State law	E. B. Hinckley, Town Clerk.
†Torrington town ³	16,935	17,576	State law	W. W. Bierce, Town Clerk.
†Vernon town	8,257	8,224	State law	F. B. Skinner, Town Clerk.
†Wallingford town	10,692	10,934	State law	J. A. Martin, Town Clerk.
†Waterbury ¹	63,696	65,489	State law	F. P. Brett, Town Clerk.
†Windham town ⁴	10,209	10,220	State law	F. P. Fenton, Town Clerk.
DELAWARE (b)	196,104	197,728	State law	A. Lowber, M. D., Secretary State Board of Health, Wilmington.
*Wilmington (a)	86,420	87,700	City ordinance	J. Wigglesworth, Registrar of Vital Statistics.
*DISTRICT OF COLUMBIA (a, w) ⁶	312,548	317,380	(c)	W. C. Woodward, M. D., Health Officer, Washington.
FLORIDA (a, m)	646,142	662,942	State law	J. Y. Porter, State Health Officer, Jacksonville.
*Jacksonville (m)	38,040	39,423	City ordinance	C. D. Taylor, Clerk Board of Health.
*Key West	21,851	22,528	City ordinance	J. N. Fogarty, M. D., Health Officer.
*Pensacola	23,007	23,759	City ordinance	L. G. Aymard, Clerk Board of Health.
*Tampa	25,616	27,013	City ordinance	J. A. Barnes, M. D., City Physician.
GEORGIA	2,481,617	2,519,514		
Athens	11,371	11,531		
*Atlanta (a)	107,265	100,545	City ordinance	L. Thornton, Clerk Board of Health.
Augusta (a)	43,739	44,353	City ordinance	E. C. Goodrich, M. D., Secretary Health Department.
Brunswick (a)	9,515	9,577	City ordinance	J. A. Butts, M. D., Health Officer.
Columbus (a, m)	17,831	17,862	City ordinance	M. M. Moore, Secretary Board of Health.
Macon (m)	32,765	32,838	City ordinance	T. L. Massenburg, Secretary Board of Health.
*Savannah	69,880	71,163	City ordinance	W. F. Brunner, M. D., Health Officer.
ILLINOIS (a, m)	5,518,190	5,617,700	State law	J. A. Egan, M. D., Secretary State Board of Health, Springfield.
Alton (m)	16,953	17,344	State law	G. Gray, City Clerk.
*Aurora (a)	27,268	27,714	State law	C. W. Geyer, M. D., Health Officer.
*Belleville	22,568	22,831	City ordinance	G. H. Beineke, City Clerk.
Bloomington (a, m)	25,793	26,080	State law	H. E. Rhoads, City Clerk.
Carro	14,134	14,358	State law	None.
Champaign	11,379	11,730	State law	None.
*Chicago (a, w) ⁷	2,107,620	2,166,055	Both	M. O. Heckard, M. D., Registrar of Vital Statistics.
Danville	25,963	26,675	State law	G. W. Draper, City Clerk.
*Decatur	25,069	25,401	State law	A. Leach, City Clerk.
East St. Louis	42,530	44,102	State law	C. S. Lambert, City Clerk.
Elgin	25,660	26,121	Both	W. F. Sylla, City Clerk.
Evanson	23,563	24,177	State law	J. F. Hahn, City Clerk.
Freeport	18,406	18,803	State law	W. Waterstradt, City Clerk.
Galesburg	20,945	21,280	State law	B. J. Huff, jr., City Clerk.
*Jacksonville (m)	16,576	16,791	City ordinance	G. E. Baxter, M. D., Health Officer.
Joliet	32,657	33,129	State law	M. Besscheid, City Clerk.
Kankakee	16,794	17,251	State law	None.
Kewanee	11,049	11,431	State law	O. D. Peterson, City Clerk.
Lansalle	10,859	10,918	State law	None.
Lincoln	11,131	11,371	State law	C. E. Barrow, City Clerk.
Mattoon	11,620	11,908	City ordinance	B. B. Cole, City Clerk.
Moline	20,932	21,886	State law	A. H. Arp, M. D., Health Commissioner.
*Ottawa	11,288	11,888	State law	F. Mendel, City Clerk.
Pekin	9,869	10,077	Both	F. C. Gale, M. D., Health Officer.
Peoria (a, m)	67,704	69,043	State law	J. F. Wolf, Registrar of Vital Statistics.
*Quincy (a)	39,583	40,058	City ordinance	P. W. Reardon, Health Officer.
Rock Island	23,594	24,180	State law	M. T. Rudgren, City Clerk.
Rockford (m)	36,701	37,351	State law	C. E. Crawford, M. D., Commissioner of Health.
*Springfield (a, m)	39,631	42,129	State law	J. E. Smith, City Clerk.
Streator (a)	16,037	16,302	State law	W. L. Smith, M. D., President Board of Health.
Waukegan	12,583	13,034	State law	H. Thacker, City Clerk.
*INDIANA (a, m)	2,743,305	2,775,711	State law	J. N. Hurty, Secretary State Board of Health, Indianapolis.
†Anderson	26,785	27,728	State law	O. E. McWilliams, M. D., Secretary Board of Health.
†Columbus	9,117	9,258	State law	A. M. Kirkpatrick, M. D., Secretary Board of Health.
†Elkhart	17,884	18,267	State law	I. W. Short, M. D., Secretary Board of Health.
†Elwood	20,278	21,324	State law	T. S. Owen, M. D., Secretary Board of Health.
†Evansville (a, m)	65,282	66,115	State law	J. Y. Welborn, M. D., Secretary Board of Health.
†Fort Wayne (a)	52,219	53,199	State law	H. O. Bruggeman, M. D., Secretary Board of Health.
†Hammond (a)	17,356	18,066	State law	J. T. Clark, M. D., Secretary Board of Health.
†Huntington	11,272	11,498	State law	E. Wright, M. D., Secretary Board of Health.
†Indianapolis (a)	227,698	234,774	State law	E. Buehler, M. D., Secretary Board of Health.
†Jeffersonville	10,850	10,860	State law	W. H. Sheets, M. D., Secretary Board of Health.
†Kokomo	12,253	12,487	State law	W. H. Martin, M. D., Secretary Board of Health.
†Lafayette (a, m)	19,425	19,613	State law	W. S. Campbell, M. D., Secretary Board of Health.

¹ Town and city or borough coextensive.
² Published by Board of Health, E. A. McLellan, M. D., Health Officer.
³ Includes city or borough.
⁴ Includes Willimantic city.

⁵ Coextensive with city of Washington.
⁶ Registration is effected under an ordinance of the late board of health, duly legalized by Congress.
⁷ Quarterly Statistics, published by Bureau of Statistics and Municipal Library.

STATE AND CITY—continued. (Reports and bulletins—see explanatory note, page 453.)	ESTIMATED POPULATION.		State law or city ordinance.	Name and official title of registrar.
	1907	1908		
*INDIANA (a, m)—Continued.				
†Logansport.....	18,219	18,506	State law.....	W. A. Holloway, M. D., Secretary Board of Health.
†Marion (a).....	25,003	25,976	State law.....	O. W. McQuown, M. D., Secretary Board of Health.
†Michigan City.....	17,700	18,108	State law.....	W. Bowers, M. D., Secretary Board of Health.
†Muncie (a).....	28,284	29,275	State law.....	W. W. Kemper, M. D., Secretary Board of Health.
†New Albany.....	20,628	20,628	State law.....	C. C. Funk, M. D., Secretary Board of Health.
†Peru.....	11,834	12,019	State law.....	L. O. Malsbury, M. D., Secretary Board of Health.
†Richmond (a, q).....	19,932	19,932	Both.....	C. S. Bond, M. D., Secretary Board of Health.
†South Bend (a).....	46,005	47,405	State law.....	D. W. McNamara, M. D., Secretary Board of Health.
†Terre Haute.....	53,707	54,608	State law.....	M. A. Boor, M. D., Secretary Board of Health.
†Vincennes (a).....	11,605	11,837	Both.....	P. H. Caney, M. D., Secretary Board of Health.
†Wabash.....	10,165	10,387	State law.....	N. H. Thompson, M. D., Secretary Board of Health.
†Washington.....	10,293	10,541	State law.....	R. W. Wilford, M. D., Secretary Board of Health.
IOWA (b, m).....	2,201,331	2,196,970	State law.....	L. A. Thomas, M. D., Secretary State Board of Health, Des Moines.
Boone.....	9,692	9,788	State law.....	
Burlington (a, m).....	26,164	26,587	State law.....	J. P. Harrell, M. D., Health Officer.
Cedar Rapids.....	30,000	30,620	State law.....	None.
Clinton.....	22,779	22,790	State law.....	
Council Bluffs (a, m).....	25,003	24,889	Both.....	N. J. Rice, M. D., Health Officer.
Davenport.....	41,614	42,522	State law.....	None.
Des Moines (a).....	81,020	83,717	State law.....	J. E. Miller, M. D., Health Officer.
Dubuque (m) ¹	44,198	45,327	City ordinance.....	E. A. Linchan, City Recorder.
Fort Dodge.....	15,251	15,792	State law.....	
Fort Madison.....	8,563	8,461	State law.....	
Keokuk (m).....	14,590	14,583	State law.....	H. T. Moore, Clerk of Council.
Marshalltown.....	12,245	12,345	State law.....	
Muscatine (a).....	15,492	15,695	Both.....	J. D. Fulliam, M. D., Health Officer.
Oskaloosa.....	10,372	10,457	State law.....	
Ottumwa (m).....	20,914	21,281	State law..... ⁽²⁾	J. A. Hull, M. D., Physician to Board of Health.
Sioux City.....	44,088	45,656	State law.....	G. J. Ross, M. D., City Health Officer.
Waterloo.....	19,627	20,405	State law.....	
KANSAS (b, m) ³	1,651,331	1,690,871	State law.....	S. J. Crumbine, M. D., Secretary State Board of Health, Topeka.
Atchison.....	19,365	19,859	State law.....	C. H. Linley, M. D., Secretary of the City Board of Health.
Emporia.....	10,322	11,231	State law.....	J. M. Parrington, M. D., County Health Officer.
Fort Scott.....	14,547	16,461	City ordinance.....	J. O. Brown, City Clerk.
Hutchinson.....	14,005	14,086	State law.....	F. A. Forney, M. D., County Health Officer.
Kansas City (a).....	80,522	83,132	City ordinance.....	E. J. Lutz, M. D., Secretary Board of Health.
Lawrence.....	12,387	12,651	City ordinance.....	F. D. Brooks, Secretary and Treasurer of Cemeteries.
*Leavenworth (a, m).....	23,857	25,547	Both.....	J. F. Wallace, M. D., Secretary Board of Health.
†Pittsburg.....	17,337	18,710	State law.....	G. E. Cole, M. D., County Health Officer.
†Topeka.....	42,792	43,608	City ordinance.....	M. R. Mitchell, M. D., City Physician.
*Wichita.....	36,898	38,255	Both.....	R. M. Dorr, City Clerk.
KENTUCKY.....	2,349,151	2,378,006		
Bowling Green (a).....	8,470	8,513	City ordinance.....	W. H. Philips, City Clerk.
*Covington (a).....	50,495	51,105	City ordinance.....	L. E. Brinker, M. D., Health Officer.
Frankfort.....	10,606	10,765		
Henderson (a).....	15,409	15,617	Both.....	B. L. Powell, City Clerk.
Lexington (a).....	29,729	30,209	City ordinance.....	J. E. Cassidy, City Clerk.
*Louisville (a).....	229,599	233,069	City ordinance.....	G. A. Schneider, Registrar.
*Newport (a, w).....	30,667	31,006	City ordinance.....	G. W. Brown, M. D., Health Officer.
Owensboro.....	14,672	14,884	None.....	None.
*Paducah (a).....	22,966	23,469	City ordinance.....	W. T. Graves, M. D., Health Officer.
LOUISIANA (b).....	1,565,752	1,592,055	State law.....	W. S. Ingram, M. D., Secretary State Board of Health.
Baton Rouge.....	11,822	11,901	Both.....	L. J. Granary, City Auditor.
*New Orleans (b, m).....	318,652	323,157	State law.....	W. F. O'Reilly, M. D., Chairman Board of Health.
Shreveport (a, w, m).....	18,135	18,439	State law.....	L. H. Pirkie, M. D., Secretary Board of Health.
*MAINE (a, m).....	717,832	721,170	State law.....	A. G. Young, M. D., Secretary State Board of Health and Registrar of Vital Statistics.
†Auburn (a).....	14,141	14,311	State law.....	G. W. Bumpus, City Clerk.
†Augusta.....	12,494	12,009	State law.....	E. E. Newbert, City Clerk.
†Bangor (a).....	23,774	24,048	State law.....	V. Brett, City Clerk.
†Bath (a).....	11,703	11,879	State law.....	A. J. Grassy, City Clerk.
†Biddeford.....	17,335	17,505	State law.....	A. O. Marcille, City Clerk.
†Lewiston.....	25,203	25,409	State law.....	L. N. LaJunesse, City Clerk.
†Portland (a, m).....	56,003	56,839	State law.....	F. P. Driscoll, City Clerk.
†Rockland (a).....	8,150	8,150	State law.....	A. L. Orne, City Clerk.
†Waterville.....	11,136	11,373	State law.....	F. W. Clair, City Clerk.
*MARYLAND (a).....	1,290,000	1,304,566	State law.....	M. L. Price, M. D., Secretary State Board of Health, Baltimore.
†Annapolis (m).....	9,169	9,261	State law.....	W. S. Welch, M. D., Health Officer.
*Baltimore (a, m).....	561,120	568,571	Both.....	J. Bosley, M. D., Commissioner of Health and Registrar of Vital Statistics.
†Cumberland.....	20,207	20,647	State law.....	C. H. Brace, M. D., Secretary Board of Health.
†Frederick (m).....	10,006	10,177	Both.....	I. J. McCurdy, M. D., Health Officer.
†Hagerstown.....	16,020	16,368	State law.....	C. Scheller, M. D., County Health Officer.

¹ Published by Board of Health, Charles Paley, M. D., Physician to Board.² Resolution of Board of Health.³ Kansas State Board of Agriculture.⁴ "Ordinance requires doctors and undertakers to make reports of deaths, but it is almost ignored. Births the same."

MORTALITY STATISTICS.

STATE AND CITY—continued. (Reports and bulletins—see explanatory note, page 453.)	ESTIMATED POPULATION.		State law or city ordinance.	Name and official title of registrar.
	1907	1908		
*MASSACHUSETTS (a)	3,083,013	3,122,680	State law	Hon. W. M. Olin, Secretary of State, Boston.
†Adams town.....	13,026	13,296	State law.....	F. H. B. Memton, Town Clerk.
†Amesbury town.....	8,587	8,461	State law.....	N. E. Collins, Town Clerk.
†Arlington town (a).....	10,094	10,307	State law.....	T. J. Robinson, Town Clerk.
†Attleboro town.....	13,248	13,521	State law.....	F. I. Babcock, Town Clerk.
†Beverly (a).....	15,758	16,026	State law.....	L. S. Herrick, City Clerk.
*Boston (a, m) ¹	609,175	616,072	State law.....	E. W. McGlenen, City Registrar.
†Brockton (a, m) ²	50,886	52,432	State law.....	D. C. Packard, City Clerk.
†Brookline town (a).....	24,836	25,536	State law.....	E. W. Baker, Town Clerk.
†Cambridge (a).....	99,653	100,762	State law.....	E. J. Brandon, City Clerk.
†Chelsea (a).....	38,575	39,218	State law.....	C. H. Reed, City Clerk.
†Chicopee (a).....	20,600	20,805	State law.....	J. C. Buckley, City Clerk.
†Clinton town (a).....	12,881	12,769	State law.....	J. H. Carr, Town Clerk.
†Danvers town (a).....	9,271	9,375	State law.....	J. Peale, Town Clerk.
†Everett (a).....	31,021	31,976	State law.....	J. H. Cannell, City Clerk.
†Fall River.....	106,121	106,301	State law.....	A. B. Brayton, City Clerk.
†Fitchburg.....	33,617	33,915	State law.....	W. A. Davis, City Clerk.
†Framingham town (a).....	11,646	11,695	State law.....	F. E. Hemenway, Town Clerk.
†Gardner town.....	12,491	12,731	State law.....	L. W. Wood, Town Clerk.
†Gloucester (a).....	25,967	25,945	State law.....	J. J. Somes, City Clerk.
†Haverhill (a).....	38,092	38,223	State law.....	W. W. Roberts, City Clerk.
†Holyoke (a, m).....	51,622	52,466	State law.....	J. F. Sheehan, City Clerk.
†Hyde Park town.....	15,016	15,269	State law.....	H. B. Terry, Town Clerk.
†Lawrence (m) ³	73,046	74,544	State law.....	C. J. Corcoran, City Clerk.
†Leominster town (a).....	15,059	15,440	State law.....	R. L. Carter, Town Clerk.
†Lowell (a).....	95,157	95,141	State law.....	G. P. Dadman, City Clerk.
†Lynn (a).....	86,453	82,159	State law.....	J. W. Attwell, City Clerk.
†Malden (a, m).....	39,786	40,660	State law.....	J. P. Litch, Clerk Board of Health.
†Marlboro (a).....	14,258	14,351	State law.....	P. B. Murphy, City Clerk.
†Medford.....	20,262	20,550	State law.....	A. P. Joyce, City Clerk.
†Melrose (a).....	14,828	15,094	State law.....	W. D. Jones, City Clerk.
†Milford town.....	12,306	12,542	State law.....	D. J. Sullivan, Town Clerk.
†Natick town (a).....	9,657	9,681	State law.....	J. McManus, Town Clerk.
†New Bedford.....	79,130	81,514	State law.....	D. B. Leonard, City Clerk.
†Newburyport (a).....	14,753	14,792	State law.....	F. O. W. Little, City Clerk.
†Newton (a) ⁴	38,123	38,771	State law.....	J. F. Kingsbury, City Clerk.
†North Adams (a).....	21,330	20,920	State law.....	C. S. Brooker, City Clerk.
†Northampton (a).....	20,482	20,745	State law.....	C. D. Chase, City Clerk.
†Peabody town.....	13,728	14,043	State law.....	E. M. Poor, Town Clerk.
†Pittsfield (a).....	26,265	26,942	State law.....	W. R. N. Barker, City Clerk.
†Plymouth town (a).....	11,729	12,034	State law.....	E. Le Brugen, Town Clerk.
†Quincy (a).....	29,746	30,581	State law.....	H. A. Keith, City Clerk.
†Revere town (a).....	13,564	14,017	State law.....	A. J. Brown, Town Clerk.
†Salem.....	38,295	38,629	State law.....	J. C. Entwisle, Agent Board of Health.
†Somerville (a).....	72,823	73,849	State law.....	F. W. Cook, City Clerk.
†Southbridge town.....	11,590	11,585	State law.....	W. W. Buckley, Town Clerk.
†Springfield (a).....	78,132	80,428	State law.....	E. A. Newell, City Clerk.
†Taunton (a).....	30,940	30,926	State law.....	E. A. Tetlow, City Clerk.
†Wakefield town (a).....	10,659	10,854	State law.....	C. F. Hartshorne, Town Clerk.
†Waltham (a).....	27,402	27,962	State law.....	L. N. Hall, City Clerk.
†Ware town (a).....	8,726	8,792	State law.....	A. F. Richardson, Town Clerk.
†Watertown town (a).....	11,878	12,158	State law.....	F. E. Critchett, Town Clerk.
†Webster town.....	10,503	10,746	State law.....	L. J. Upham, Town Clerk.
†Westfield town.....	14,131	14,391	State law.....	C. N. Oakes, Town Clerk.
†Weymouth town (a).....	11,689	11,741	State law.....	J. A. Raymond, Town Clerk.
†Woburn (a).....	14,461	14,490	State law.....	J. H. Finn, City Clerk.
†Worcester (a, m) ⁴	132,020	133,963	State law.....	E. H. Towne, City Clerk.
*MICHIGAN (a, m)	2,611,790	2,639,050	State law.....	Hon. G. A. Prescott, Secretary of State, Lansing.
†Adrian.....	11,450	11,706	State law.....	J. Mawdsley, City Clerk.
†Alpena.....	12,804	13,013	State law.....	R. J. Crable, City Recorder.
†Ann Arbor (m).....	14,697	14,689	State law.....	R. Granger, City Clerk.
†Battle Creek.....	24,951	25,863	State law.....	T. Thorne, City Clerk.
†Bay City.....	40,561	40,585	State law.....	C. Freiberg, M. D., Health Officer.
†Detroit (a).....	397,494	376,174	State law.....	G. F. Kiefer, M. D., Health Officer.
†Escanaba.....	12,259	12,047	State law.....	T. J. Burke, City Clerk.
†Flint.....	15,919	16,265	State law.....	D. E. Newcombe, City Clerk.
†Grand Rapids (a, m).....	101,832	103,871	State law.....	W. De Lano, M. D., Health Officer.
†Iron Mountain.....	8,093	7,928	State law.....	J. B. Calvi, City Clerk.
†Ironwood.....	10,255	10,333	State law.....	W. D. Schneider, City Clerk.
†Ishpeming.....	10,399	9,991	State law.....	J. D. West, City Recorder.
†Jackson.....	25,390	25,420	State law.....	J. H. De May, M. D., Health Officer.
†Kalamazoo (a).....	33,816	35,100	State law.....	D. Levy, M. D., Health Officer.
†Lansing.....	23,119	24,097	State law.....	M. F. Gray, City Clerk.
†Manistee.....	11,564	11,176	State law.....	C. A. Gnewuch, City Clerk.
†Marquette (m).....	11,120	11,272	State law.....	D. S. Donovan, City Recorder.
†Menominee.....	9,804	9,374	State law.....	B. T. Phillips, M. D., Health Officer.
†Muskegon.....	20,956	20,976	State law.....	P. P. Misner, City Recorder.
†Owosso.....	9,481	9,594	State law.....	A. H. Dumond, City Clerk.
†Pontiac.....	12,234	12,527	State law.....	G. H. Drake, M. D., Health Officer.
†Port Huron (m).....	20,681	20,898	State law.....	W. S. Henderson, M. D., Health Officer.
†Saginaw.....	49,808	50,875	State law.....	D. C. Bell, City Clerk.
†Sault Ste. Marie.....	12,120	12,346	State law.....	J. J. Griffin, M. D., Health Officer.
†Traverse City.....	12,610	13,067	State law.....	T. H. Gillis, City Clerk.
MINNESOTA (a, m)	2,071,318	2,117,022	State law ⁵	H. M. Bracken, M. D., Secretary State Board of Health, St. Paul.
*Duluth (a, m).....	69,731	72,125	State law.....	D. D. Murray, M. D., Health Commissioner.
*Mankato (a).....	11,154	11,233	Both.....	A. O. Bjelland, M. D., Health Officer.
*Minneapolis (a, m).....	285,676	297,527	State law.....	P. M. Hall, M. D., Commissioner of Health.
†St. Cloud.....	9,725	9,877	State law.....	J. B. Dunn, M. D., City Health Officer.
*St. Paul (a, m).....	210,006	217,397	State law.....	G. A. Renz, M. D., Commissioner of Health.
†Stillwater.....	12,481	12,504	State law.....	W. H. Pratt, M. D., Health Officer.
*Winona (a, m).....	20,582	20,706	State law.....	D. B. Pritchard, M. D., Health Officer.

¹ Monthly bulletin published by Health Department, Samuel H. Durgin, M. D., chairman; and weekly and monthly mortality from reports of the Board of Health in Monthly Bulletin of the Statistics Department, published quarterly, by Edward M. Hartwell, M. D., Secretary.

² Monthly bulletin by Board of Health, J. H. Lawrence, M. D., Health Officer.

³ By Board of Health.

⁴ Monthly bulletin by Board of Health.

⁵ New law in effect, 1907.

STATE AND CITY—continued. (Reports and bulletins—see explanatory note, page 453.)	ESTIMATED POPULATION.		State law or city ordinance.	Name and official title of registrar.
	1907	1908		
MISSISSIPPI	1,734,439	1,760,606		
Meridian.....	20,981	21,459		
Natchez (b, m) ¹	13,686	13,897	City ordinance.....	G. T. Eiseli, City Clerk.
Vicksburg.....	15,856	16,002		
MISSOURI	3,405,901	3,448,649		
Carthage.....	10,422	10,565	None.....	None.
Hannibal.....	12,780	12,780	City ordinance.....	A. S. Lilleman, City Clerk.
Jefferson City.....	11,708	12,000	City ordinance.....	J. E. Lopp, M. D., Health Officer.
Joplin.....	37,279	38,887	City ordinance.....	F. E. Rohan, M. D., Health Officer.
* Kansas City.....	185,479	188,582	City ordinance.....	H. L. Ebert, Secretary Board of Health.
Moberly.....	8,012	8,012	None.....	None.
* St. Joseph (a).....	120,504	123,004	City ordinance.....	W. H. Hartigan, Secretary Health Department.
* St. Louis (a, w).....	661,666	674,012	City ordinance.....	H. W. Bond, M. D., Health Commissioner.
Sedalia.....	16,043	16,160	City ordinance.....	C. E. Baker, City Clerk.
Springfield.....	24,260	24,401	City ordinance.....	J. S. Tillery, M. D., Health Commissioner.
Webb City.....	12,328	12,759	None.....	None.
MONTANA (b, m)	313,615	323,655	State law ²	T. D. Tuttle, M. D., Secretary State Board of Health, Helena.
Anaconda (a).....	12,734	13,202	Both.....	H. W. Stephens, M. D., Health Officer.
Butte (a).....	45,492	47,360	State law.....	C. T. Pigot, M. D., Health Officer.
Great Falls.....	22,595	23,690	State law.....	C. A. Brady, Health Officer.
Helena.....	17,770	18,770	State law.....	J. S. Tooker, Secretary Board of Health.
NEBRASKA	1,068,849	1,069,214	State law.....	E. J. C. Sward, M. D., Secretary State Board of Health, Oakland.
* Lincoln (m).....	49,590	50,949	Both.....	W. C. Rohde, Health Officer.
* Omaha (a).....	127,768	131,370	City ordinance.....	J. Barker, Registrar.
South Omaha.....	38,558	40,352	Both.....	J. J. Gelley, City Clerk.
*NEW HAMPSHIRE (a)	436,128	439,634	State law.....	I. A. Watson, M. D., Secretary State Board of Health and Registrar of Vital Statistics, Concord.
†Berlin (a).....	12,497	13,012	State law.....	P. J. Smyth, City Clerk.
†Concord (a, m).....	21,472	21,734	State law.....	H. E. Chamberlain, Registrar of Vital Statistics.
†Dover (a).....	13,500	13,541	Both.....	F. E. Quimby, City Clerk.
†Keene (a).....	10,368	10,540	State law.....	F. H. Whitecomb, City Clerk.
†Laconia (a).....	8,042	8,042	State law.....	J. F. Frank, City Clerk.
†Manchester (m) ³	65,989	67,275	State law.....	E. C. Smith, City Clerk.
†Nashua (a).....	27,110	27,569	State law.....	A. L. Cyr, City Clerk.
†Portsmouth.....	11,204	11,285	State law.....	L. Hilton, City Clerk.
†Rochester (a).....	9,215	9,322	State law.....	H. L. Worcester, City Clerk.
*NEW JERSEY (a)	2,248,332	2,300,427	State law.....	H. Mitchell, M. D., Secretary State Board of Health, Trenton.
†Atlantic City (a).....	41,495	43,446	State law.....	A. T. Glenn, Registrar of Vital Statistics.
†Bayonne.....	46,078	47,986	State law.....	See Jersey City.
†Bloomfield town.....	12,468	12,868	State law.....	W. L. Johnson, Registrar of Vital Statistics.
†Bridgeton.....	13,509	13,451	State law.....	F. L. Hewitt, City Recorder.
†Camden.....	86,334	87,819	State law.....	I. V. Bradley, City Clerk.
†East Orange (a).....	26,642	27,376	State law.....	L. E. Rowley, City Clerk.
†Elizabeth.....	63,860	65,536	State law.....	J. F. Kenah, City Clerk.
†Hackensack village (m).....	11,760	12,091	State law.....	W. P. Ellery, Assessor.
†Harrison town (a, m).....	13,713	14,158	State law and county ordinance.....	See Jersey City.
†Hoboken (a).....	67,909	69,130	State law.....	J. Tucker, Registrar of Vital Statistics.
†Jersey City (a, m).....	243,205	248,458	State law and county ordinance.....	C. J. Rooney, Clerk Board of Health and Vital Statistics of Hudson County.
†Kearny town (m).....	14,683	15,224	State law.....	C. Schiller, Registrar of Vital Statistics.
†Long Branch.....	12,807	13,209	State law.....	E. B. Blaisdell, Secretary Board of Health and Registrar.
†Millville.....	12,404	12,604	State law.....	L. H. Hogate, City Recorder.
†Montclair town (a).....	17,332	17,814	Both.....	C. H. Wells, Health Officer.
†Morristown town (a).....	12,497	12,673	City ordinance.....	D. H. Wilday, Registrar of Vital Statistics.
†New Brunswick.....	24,383	25,008	Both.....	J. A. Morrison, City Clerk.
†Newark (a, w).....	295,979	302,324	State law.....	J. F. Connelly, City Clerk.
†Orange.....	26,885	27,277	State law.....	W. B. Gano, City Clerk.
†Passaic (a).....	41,761	43,723	Both.....	G. F. Grear, Registrar of Vital Statistics.
†Paterson (a, m).....	114,072	115,343	State law.....	C. S. Gall, Registrar of Vital Statistics.
†Perth Amboy.....	29,173	30,812	State law.....	C. M. MacWilliam, City Clerk.
†Phillipsburg town.....	14,072	14,432	State law.....	F. Kneidler, Town Clerk.
†Plainfield (a).....	19,707	20,327	State law.....	Miss H. O. Mattison, Registrar of Vital Statistics.
†Trenton (a).....	88,529	90,703	State law.....	T. B. Holmes, care of Board of Health Office.
†Union town.....	17,732	18,096	State law and county ordinance.....	See Jersey City.
†West Hoboken town.....	31,477	32,674	State law.....	See Jersey City.
*NEW YORK (a, m)	8,386,673	8,546,356	State law.....	E. H. Porter, M. D., State Commissioner of Health, Albany.
*Albany (a).....	99,268	99,999	City ordinance.....	W. G. Van Zandt, Registrar of Vital Statistics.
*Amsterdam.....	24,537	24,902	State law.....	S. W. Brumley, Registrar of Vital Statistics.
*Auburn (a, m).....	33,309	33,835	State law.....	A. H. Brown, M. D., Health Officer.
*Batavia village.....	10,587	10,774	State law.....	E. J. Hogan, Registrar of Vital Statistics.
*Binghamton (a).....	44,475	45,165	State law.....	J. T. Lamm, Secretary Board of Health.
*Buffalo (a).....	386,724	391,629	City ordinance.....	F. C. Gram, M. D., Registrar of Vital Statistics.
*Cohoes.....	24,123	24,154	State law.....	J. M. Adey, M. D., Registrar of Vital Statistics.
*Corning.....	14,388	14,863	State law.....	E. W. Bryan, M. D., Health Officer.
*Cortland (a).....	11,866	12,202	State law.....	E. S. Dalton, City Clerk.
*Dunkirk (a, m).....	16,629	17,345	State law.....	L. N. Murray, Registrar of Vital Statistics.
*Elmira.....	35,744	35,754	State law.....	S. A. Warner, Registrar of Vital Statistics.
*Geneva.....	12,551	13,197	State law.....	J. M. O'Malley, City Clerk.
*Glens Falls village.....	15,464	15,871	State law.....	D. I. Howe, Registrar of Vital Statistics.
*Gloversville.....	18,669	18,715	State law.....	J. Edwards, M. D., Health Officer.
*Hornell (m).....	13,635	13,880	State law.....	B. R. Hollands, Registrar of Vital Statistics.
*Hudson.....	10,998	10,865	State law.....	L. Van Hoesen, M. D., Registrar of Vital Statistics.
*Ithaca.....	15,040	15,312	State law.....	W. O. Kerr, Secretary Board of Health.
*Jamestown.....	27,250	27,872	State law.....	C. B. Jones, Registrar of Vital Statistics.
*Johnstown.....	9,619	9,546	State law.....	F. Bogaskie, City Clerk.
*Kingston (m).....	25,760	25,935	State law.....	W. B. Scott, Secretary Board of Health.
*Little Falls.....	11,300	11,431	State law.....	J. G. Hazlett, Registrar of Vital Statistics.

¹ Semimonthly.² New law in effect, 1907.³ Published by Board of Health.

MORTALITY STATISTICS.

STATE AND CITY—continued. (Reports and bulletins—see explanatory note, page 453.)	ESTIMATED POPULATION.		State law or city ordinance.	Name and official title of registrar.
	1907	1908		
* NEW YORK (a, m)—Continued.				
†Lockport	17,766	17,935	State law	J. R. Compton, Registrar of Vital Statistics.
†Middletown (a, m)	16,146	16,378	State law	J. G. Gray, Registrar of Vital Statistics.
†Mt. Vernon	26,410	27,150	State law	A. T. Banning, M. D., Health Officer.
†New Rochelle	22,653	23,786	State law	W. B. Croft, Clerk Board of Health.
*New York (a, w, g)	4,225,681	4,338,322	City ordinance	W. H. Guilfooy, M. D., Registrar of Records, Department of Health.
†Bronx borough	300,026	314,243	City ordinance	A. J. O'Leary, M. D., Assistant Registrar of Records.
†Brooklyn borough	1,430,515	1,468,320	City ordinance	S. J. Byrne, M. D., Assistant Registrar of Records.
†Manhattan borough	2,204,062	2,254,629	City ordinance	C. J. Burke, M. D., Assistant Registrar of Records.
†Queens borough	215,773	224,741	City ordinance	R. Campbell, M. D., Assistant Registrar of Records.
†Richmond borough	75,305	76,489	City ordinance	J. W. Wood, M. D., Assistant Registrar of Records.
†Newburg (a)	26,868	27,143	State law	A. P. Templeton, Registrar of Vital Statistics.
†Niagara Falls (a)	29,222	30,617	State law	W. P. Horne, Registrar of Vital Statistics.
†North Tonawanda	10,561	10,774	State law	J. H. Tillitson, Registrar of Vital Statistics.
†Ogdensburg (a)	14,868	14,894	State law	D. J. Crichton, jr., City Clerk.
†Olean (a)	10,325	10,448	State law	T. B. Loughlen, M. D., Registrar of Vital Statistics.
†Oswego (a)	22,455	22,491	State law	E. A. Cooke, Clerk Board of Health.
†Peekskill village	14,336	14,904	State law	A. Barger, jr., Registrar of Vital Statistics.
†Plattsburg	11,780	11,115	State law	T. F. Mannix, City Clerk.
†Port Jervis	9,819	9,881	State law	J. F. Cleary, City Clerk.
†Poughkeepsie (a)	25,592	25,815	State law	E. Burgess, City Chamberlain.
†Rochester (a, m)	189,384	193,066	State law	W. F. Hitchcock, Registrar of Vital Statistics.
†Rome (m)	18,123	18,520	State law	A. T. Huggins, Registrar of Vital Statistics.
†Saratoga Springs village	13,235	13,353	State law	C. I. Leggett, Registrar of Vital Statistics.
†Schenectady (a)	65,625	69,331	State law	D. E. Hart, City Clerk.
†Syracuse (a, m)	120,631	123,232	State law	J. Metz, Registrar of Vital Statistics.
†Troy (m)	76,756	76,999	State law	E. Bolton, Registrar of Vital Statistics.
†Utica (a)	66,552	68,005	State law	T. W. Fogarty, Secretary Board of Health.
†Watertown (m)	26,708	27,424	State law	F. W. Streater, City Clerk.
†Watervliet	14,545	14,577	State law	F. E. Holahan, City Clerk.
*Yonkers (a, m)	66,806	69,503	City ordinance	J. J. Hanrahan, Secretary Board of Health.
NORTH CAROLINA (b, m)				
Asheville	18,903	19,393	State law	R. H. Lewis, Secretary State Board of Health, Raleigh.
†Charlotte (m)	(1)	(1)	Both	A. G. Halyburton, City Clerk.
†Greensboro (a)	14,738	15,409	City ordinance	F. O. Hawley, M. D., Superintendent of Health.
†Newbern	9,964	10,088	City ordinance	E. Harrison, M. D., Superintendent of Health.
*Raleigh (a, m)	14,320	14,416	City ordinance	F. M. Hahn, City Clerk.
*Wilmington	21,620	21,712	City ordinance	T. P. Sale, Clerk Board of Health.
†Winston (m)	11,401	11,600	Both	C. T. Harper, M. D., City Superintendent of Health.
NORTH DAKOTA (b)				
Fargo	487,890	511,996	State law	J. Grassick, M. D., State Superintendent of Health, Grand Forks.
OHIO (a)², (b)³				
Akron (m)	52,073	53,408	State law	Hon. C. A. Thompson, Secretary of State, Columbus.
Alliance	9,932	10,008	State law	C. O. Probst, M. D., Secretary State Board of Health, Columbus.
*Ashtabula	15,826	16,237	State law	A. A. Kohler, M. D., Health Officer.
*Bellair (a)	10,912	10,912	State law	J. C. Temple, M. D., Health Officer.
†Cambridge (a) ⁴	10,957	11,345	State law	A. J. Richardson, Clerk Board of Health.
*Canton (a)	38,972	39,504	City ordinance	D. W. Boone, M. D., Health Officer.
*Chillicothe	14,158	14,326	State law	W. T. Ramsey, M. D., Health Officer.
*Cincinnati (a, w)	347,123	349,316	City ordinance	A. V. Smith, M. D., Health Officer.
*Cleveland (a, m)	475,864	491,401	City ordinance	E. F. Waddle, Health Officer.
*Columbus (m)	148,722	152,031	State law	E. W. Evans, Registrar of Vital Statistics.
†Dayton (a)	103,248	106,198	State law	F. Combes, Secretary Public Health Department.
†East Liverpool	20,598	21,119	State law	E. G. Horton, M. D., Health Officer.
†Elyria	11,017	11,335	State law	C. E. Adams, Clerk Department of Health.
*Findlay	17,613	17,613	State law	C. B. Ogden, M. D., Health Officer.
†Fremont (a, m)	9,348	9,477	State law	None.
*Hamilton	28,296	28,922	State law	A. Beardsley, M. D., Health Officer.
†Lancaster	12,237	12,289	State law	A. W. Overmyer, Secretary Board of Health.
*Lima	28,356	29,010	State law	M. Millikin, M. D., Health Officer.
†Lorain (a)	23,845	24,961	State law	E. E. Wells, M. D., Health Officer.
†Mansfield	20,558	20,974	City ordinance	G. W. O'Grady, M. D., Health Officer.
*Marietta	16,902	17,409	State law	A. L. Jones, M. D., Health Officer.
†Marion	14,353	14,706	State law	E. V. Hug, M. D., Health Officer.
*Massillon (a)	13,239	13,424	City ordinance	J. M. Burns, M. D., City Health Officer.
*Middletown (a)	10,287	10,441	State law	F. S. McGee, M. D., Health Officer.
*Newark (m)	20,879	22,067	State law	None.
†Piqua	13,796	14,028	State law	T. C. Miller, M. D., Health Officer.
*Portsmouth (a)	21,188	21,662	State law	G. D. Lummis, M. D., Health Officer.
†Sandusky	20,497	20,617	State law	C. B. Hatch, M. D., Health Officer.
†Springfield	42,704	43,339	Both	F. E. Kitzmiller, M. D., Health Officer.
†Staubenville	15,019	15,114	State law	J. W. Bendt, Clerk Board of Health.
*Tiffin (a)	11,096	11,114	State law	H. C. Shoepfle, M. D., Health Officer.
*Toledo (a, m)	164,673	169,366	State law	H. Baldwin, M. D., Health Officer.
†Warren	10,620	10,888	State law	J. Welch, Health Officer.
†Wellston	10,613	10,979	State law	H. B. Gibbon, M. D., Health Officer.
†Xenia	9,465	9,575	State law	J. C. Reinhart, M. D., Health Officer.
*Youngstown (a)	54,402	56,413	City ordinance	J. H. Jameson, Clerk Board of Health.
†Zanesville (a)	25,361	25,361	State law	J. R. Ward, Health Officer.
OKLAHOMA				
Guthrie	11,652	11,887	City ordinance	L. H. Brundage, M. D., Health Officer.
Oklahoma City	32,452	35,511	None	G. C. Steventon, Registrar and City Chemist.
OREGON (b, m)				
Astoria	9,920	10,139	State law	G. Warburton, M. D., Health Officer.
*Portland (m)	112,757	116,630	City ordinance	

¹ No estimate.

² In Statistics of Ohio by Secretary of State.

³ In Report of State Board of Health.

⁴ Report to State Board of Health.

STATE AND CITY—continued. (Reports and bulletins—see explanatory note, page 453.)	ESTIMATED POPULATION.		State law or city ordinance.	Name and official title of registrar.
	1907	1908		
*PENNSYLVANIA (a)	7,032,915	7,137,315	State law	W. R. Batt, M. D., State Registrar of Vital Statistics, Harrisburg.
†Allegheny (a, m)	147,632	(1)	State law	H. K. Beatty, M. D., Superintendent Bureau of Health.
†Allentown (a)	42,618	43,086	State law	J. A. McCafferty, Registrar.
†Altoona (a, m)	48,873	49,846	State law	S. B. Trees, Registrar.
†Beaver Falls borough (m)	10,277	10,309	State law	T. G. McPherson, Registrar.
†Bradford borough	16,834	20,406	State law	L. L. Todd, Registrar.
†Bradford (a)	10,812	17,091	State law	J. C. Walker, M. D., Registrar.
†Butler borough (a)	16,834	12,548	State law	T. M. Maxwell, M. D., Registrar.
†Cambria (a, m)	12,336	15,457	State law	F. W. Lewis, Registrar.
†Carlisle borough	15,216	11,232	State law	A. Wiener, Registrar.
†Chambersburg borough	11,632	9,800	State law	H. M. Miley, M. D., Registrar.
†Chester (a)	38,670	39,338	State law	H. Hinkson, Registrar.
†Columbia borough (a)	13,594	13,705	State law	H. B. Clepper, Registrar.
†Danville borough	8,071	8,076	State law	C. Schultz, M. D., Registrar.
†Dubois borough (a)	11,635	11,957	State law	W. J. Smathers, M. D., Registrar.
†Dunmore borough	15,571	15,997	State law	P. J. Cooney, Registrar.
†Duquesne borough	12,037	12,500	State law	A. B. Pitts, Registrar.
†Easton	28,826	29,335	State law	J. H. McGrath, Registrar.
†Erie (a)	61,202	62,442	State law	J. W. Wright, M. D., Health Officer.
†Harrisburg	56,683	57,591	State law	D. H. Ellinger, Registrar.
†Hazelton (a)	10,008	10,245	State law	S. J. Hughes, Registrar.
†Homestead borough	10,587	10,535	State law	C. C. Huff, M. D., Registrar.
†Johnstown (a, m)	44,340	45,430	State law	F. H. Singer, Registrar.
†Lancaster (a)	48,073	49,017	State law	M. W. Raub, Registrar.
†Lebanon (m)	10,701	10,998	State law	E. L. Kreider, Registrar.
†McKeesport (a)	44,851	46,268	State law	A. J. Richards, Registrar.
†Mahanoy City borough (a)	15,057	15,278	State law	J. H. Kirohner, Registrar.
†Meadville (a)	11,854	11,630	State law	J. M. Cooper, M. D., Registrar.
†Mt. Carmel borough	10,628	17,120	State law	O. W. Hoffman, Registrar.
†Nanticoke borough (a)	13,565	13,772	State law	A. Werth, Health Officer.
†Newcastle (a, m)	38,464	39,301	State law	C. C. Horner, Registrar.
†Norrictown borough (a, m)	23,995	24,243	State law	C. E. White, Registrar.
†Oil City (a)	14,895	15,128	State law	J. T. Fahey, Registrar.
†Philadelphia (a, w)	1,466,408	1,491,082	State law	G. W. Atherholt, Chief Division of Vital Statistics, Bureau of Health.
†Phoenixville borough	9,672	9,740	State law	I. E. Miller, Registrar.
†Pittsburg (m, w)	353,895	*547,523	State law	J. F. Edwards, M. D., Superintendent Bureau of Health.
†Pittston	14,132	14,353	State law	W. J. McAndrews, Registrar.
†Plymouth borough (a, m)	10,064	17,094	State law	R. J. Williams, M. D., Registrar.
†Pottstown borough	13,983	14,024	State law	J. B. Evans, Registrar.
†Pottsville borough	16,823	16,983	State law	W. H. Robinson, M. D., Registrar.
†Reading (a)	93,171	95,201	State law	F. P. Heine, Registrar.
†Scranton (m)	121,343	123,959	State law	R. M. Heaney, Registrar.
†Shamokin borough (a)	20,861	21,241	State law	T. C. Roberts, Registrar.
†Sharon borough	12,093	12,277	State law	W. Whitehead, Registrar.
†Shenandoah borough	23,386	23,823	State law	E. F. Furman, Registrar.
†South Bethlehem borough (1)	15,208	15,502	State law	S. B. Keener, Registrar.
†Steelton borough	14,197	14,483	State law	J. M. Peters, M. D., Registrar.
†Sumbury borough	11,192	11,356	State law	B. F. Heckert, Registrar.
†Titusville (a)	8,303	8,980	State law	W. Varian, M. D., Health Officer.
†Warren borough (a)	11,044	11,494	State law	C. W. Schmehl, M. D., Registrar.
†West Chester borough (a)	10,573	10,722	State law	C. E. Woodward, M. D., Registrar.
†Wilkesbarre (m)	61,521	62,622	State law	F. H. Gates, Registrar.
†Wilkesburg borough	17,849	18,664	State law	W. Elder, Registrar.
†Williamsport (a)	29,896	30,058	State law	R. B. Staver, Registrar.
†York (a, m)	40,077	40,986	State law	J. H. Bennett, M. D., Registrar.
*RHODE ISLAND (a)	500,692	510,997	State law	G. T. Swarts, M. D., Secretary State Board of Health, Providence.
†Central Falls	19,957	20,213	State law	C. F. Crawford, City Clerk.
†Cranston town	19,200	20,105	State law	D. D. Waterman, Town Clerk.
†Cumberland town	9,559	9,649	State law	J. F. Clark, Town Clerk.
†East Providence town	14,394	14,716	State law	W. B. Smyth, Town Clerk.
†Lincoln town	9,330	9,393	State law	D. D. Johnston, Town Clerk.
†Newport (w)	26,073	26,597	State law	D. Stevens, City Clerk.
†Pawtucket	45,041	45,871	State law	J. W. Rowe, City Clerk.
†Providence (a)	207,850	212,457	Both	C. V. Chapin, M. D., Superintendent of Health.
†Warwick town	26,155	26,846	State law	J. T. Lockwood, Town Clerk.
†Woonsocket (a, m)	33,702	34,590	State law	W. C. Mason, City Clerk.
SOUTH CAROLINA	1,472,734	1,491,650		
*Charleston (a)	56,402	56,487	City ordinance	J. M. Green, M. D., Health Officer.
†Columbia	25,138	25,713	Both	E. C. McGregor, Secretary Board of Health.
†Greenville	14,135	14,461		
†Spartanburg	15,490	16,075	Both	H. E. Heinitch, jr., Secretary.
*SOUTH DAKOTA (a)	476,631	487,354	State law	Hon. Doane Robinson, Superintendent of Vital Statistics, Pierre.
†Sioux Falls	13,084	13,487	Both	A. H. Tufts, M. D., Health Officer.
TENNESSEE	2,197,785	2,223,094		
†Chattanooga (m)	34,416	34,535	City ordinance	J. J. O'Brien, Clerk Board of Health.
†Clarksville	10,487	10,637	City ordinance	R. B. Macon, M. D., Health Officer.
†Jackson	17,640	18,087	None	None.
†Knoxville (a) ³	36,020	37,189	City ordinance	W. R. Cochrane, M. D., Secretary Board of Health.
*Memphis (m)	128,799	132,581	City ordinance	J. B. Rogers, M. D., President Board of Health.
*Nashville (a, m)	105,278	105,877	City ordinance	L. B. Smith, M. D., City Health Officer.

¹ See Pittsburg; annexation effective December 9, 1907.

² Includes population of Allegheny city, consolidated December 9, 1907.

³ Monthly bulletins issued until 1907.

MORTALITY STATISTICS.

STATE AND CITY—continued. (Reports and bulletins—see explanatory note, page 453.)	ESTIMATED POPULATION.		State law or city ordinance.	Name and official title of registrar.
	1907	1908		
TEXAS (b).....	3,617,936	3,699,255	State law.....	W. M. Brumby, M. D., State Health Officer, Austin.
Austin.....	25,861	26,433	State law.....	J. Corwin, County Clerk.
Beaumont.....	(1)	(1)	State law.....	B. F. Quicksall, County Clerk.
Corsicana.....	12,625	12,975	State law.....	J. P. Howard, County Clerk.
Dallas.....	54,338	54,895	State law.....	J. M. Gaston, County Clerk.
Denison ²	12,401	12,480	State law.....	J. D. Yocorn, City Secretary.
El Paso.....	21,604	22,257	State law.....	P. W. Pitman, County Clerk.
Fort Worth (a).....	(1)	(1)	City ordinance.....	W. J. Estes, City Secretary.
*Galveston (q).....	35,224	36,094	City ordinance.....	C. W. Trueheart, M. D., City Health Physician.
Houston.....	59,963	61,794	State law.....	G. Jones, County Clerk.
Laredo.....	14,906	15,117	State law.....	G. R. Page, County Clerk.
Palestine.....	10,018	10,264	State law.....	J. F. Austin, County Clerk.
Paris.....	10,129	10,240	Both.....	M. A. Walker, M. D., Health Officer.
*San Antonio (m).....	64,275	65,830	City ordinance.....	S. Burg, M. D., City Physician.
Sherman.....	12,279	12,569	State law.....	W. E. Baird, County Clerk.
Tyler.....	8,881	8,997	State law.....	D. H. Connally, M. D., Health Officer.
Waco.....	25,054	25,678	State law.....	T. A. Canfield, County Clerk.
UTAH (m).....	322,928	329,525	State law.....	T. B. Beatty, M. D., Secretary State Board of Health, Salt Lake City.
Ogden.....	17,308	17,451	State law.....	
*Salt Lake City (m, w).....	62,216	63,283	Both.....	M. R. Stewart, M. D., Health Commissioner.
*VERMONT (b).....	351,495	352,617	State law.....	H. D. Holton, M. D., Secretary State Board of Health, Brattleboro.
†Barre (a).....	11,458	11,888	State law.....	J. Mackay, City Clerk.
†Bennington town.....	9,181	9,345	State law.....	E. A. Booth, Town Clerk.
†Burlington (a).....	21,475	21,880	State law.....	M. C. Grandy, City Clerk.
†Rutland.....	12,038	12,116	State law.....	H. B. Whittier, City Clerk.
VIRGINIA.....	1,992,925	2,012,746		
*Alexandria (a).....	14,660	14,679	City ordinance.....	E. F. Price, Auditor.
Danville (a, m).....	18,213	19,464	City ordinance.....	J. W. Robinson, M. D., Health Officer.
*Lynchburg.....	23,350	23,850	City ordinance.....	P. H. Casey, M. D., President Board of Health.
Manchester (a).....	10,043	10,000	City ordinance.....	M. P. Rucker, M. D., President Board of Health.
Newport News.....	30,267	31,785	City ordinance.....	J. R. Bagley, M. D., Health Officer.
*Norfolk (b, m).....	68,530	70,130	City ordinance.....	A. P. Pannill, Assistant Health Commissioner.
*Petersburg (a, m).....	21,810	21,810	City ordinance.....	V. L. Weddell, Secretary Board of Health.
Portsmouth (m).....	18,826	19,025	City ordinance.....	F. S. Hope, M. D., Health Officer.
*Richmond (a, m).....	106,227	107,844	City ordinance.....	J. M. Donahoe, Registrar of Vital Statistics.
Roanoke.....	25,232	25,765	City ordinance.....	T. D. Armstrod, M. D., Health Officer.
WASHINGTON (b).....	630,712	646,709	State law.....	E. E. Heg, M. D., Secretary State Board of Health, Seattle.
*Seattle (m).....	(1)	(1)	State law.....	C. Calhoun, M. D., Health Officer.
*Spokane (a, m).....	(1)	(1)	Both.....	M. B. Grieve, M. D., Health Officer.
*Tacoma (m).....	(1)	(1)	State law.....	A. de Y. Green, M. D., Commissioner of Health.
Wallawalla (m).....	14,287	14,878	Both.....	A. E. Braden, M. D., Health Officer.
WEST VIRGINIA (b).....	1,096,006	1,115,606	State law.....	H. A. Barbee, M. D., Secretary State Board of Health, Point Pleasant.
Charleston (m).....	17,650	18,311	City ordinance.....	J. S. Ross, City Recorder.
Huntington.....	13,195	13,376	City ordinance.....	R. E. Vickers, M. D., Health Officer.
Parkersburg.....	16,330	17,330	City ordinance.....	C. W. Hudson, M. D., Health Officer.
*Wheeling (a, q).....	41,929	42,364	City ordinance.....	W. H. McLain, M. D., Health Officer.
WISCONSIN (b, q).....	2,292,911	2,324,892	State law ³	C. A. Harper, M. D., Secretary State Board of Health, Madison.
Appleton.....	17,766	18,149	State law.....	J. V. Canavan, M. D., Health Officer.
Ashland.....	15,097	15,336	State law.....	W. T. Rinehart, M. D., Health Officer.
*Beloit (q).....	13,822	14,306	State law.....	H. O. Delaney, M. D., Health Officer.
Chippewa Falls.....	9,375	9,558	State law.....	C. F. Myre, M. D., Health Officer.
*Eau Claire.....	19,225	19,469	State law.....	J. F. Furr, M. D., Health Physician.
Fond du Lac.....	18,153	18,588	State law.....	J. W. Helz, M. D., Health Officer.
*Green Bay.....	24,522	25,356	State law.....	H. P. Rhode, M. D., Commissioner of Health.
Janesville.....	14,004	14,121	State law.....	W. D. Merritt, M. D., Health Commissioner.
Kenosha.....	17,061	18,787	State law.....	J. B. Spaulding, M. D., Health Officer.
La Crosse.....	20,151	20,187	State law.....	A. M. Murphy, M. D., Health Officer.
*Madison.....	25,955	26,782	State law.....	O. S. Norsman, City Clerk.
Manitowoc.....	13,111	13,300	State law.....	J. B. Meany, M. D., Health Officer.
*Marinette.....	15,018	14,500	State law.....	S. P. Jones, M. D., Health Commissioner.
Merrill.....	9,461	9,593	State law.....	D. B. Rinehart, M. D., Health Officer.
*Milwaukee (a, m).....	322,513	327,123	State law.....	F. E. Darling, M. D., Registrar of Vital Statistics.
Oshkosh.....	31,401	31,040	Both.....	A. H. Brocho, M. D., Health Commissioner.
Racine.....	33,565	34,202	State law.....	C. Harms, Acting Health Officer.
Sheboygan (q).....	24,451	24,664	State law.....	H. C. Reich, M. D., Commissioner of Health.
Stevens Point.....	8,822	8,722	State law.....	C. Von Neu Port, M. D., Health Officer.
*Superior (a, m).....	38,735	39,827	Both.....	H. J. Orchard, M. D., Health Commissioner.
Watertown.....	8,696	8,733	State law.....	C. R. Feld, M. D., Health Officer.
Wausau.....	15,299	15,720	State law.....	L. Spencer, M. D., Health Officer.
WYOMING.....	105,530	107,387		
Cheyenne.....	13,484	13,398	City ordinance.....	W. A. Burgess, M. D., Health Officer.
Laramie.....	7,359	7,238	State law.....	None.

¹ No estimate.

² Record kept only of interments in city limits.

³ New law in effect, 1907.

APPENDIX II.

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LEGAL IMPORTANCE OF REGISTRATION OF BIRTHS AND DEATHS.

REPORT OF SPECIAL COMMITTEE ON VITAL STATISTICS TO THE CONFERENCE OF COMMISSIONERS ON UNIFORM STATE LAWS.

INTRODUCTION.

Vital statistics are the statistics of births, stillbirths, deaths, marriages, divorces, and sickness. Of these, the statistics of births and deaths must be regarded as of the most fundamental importance. Stillbirths, although entirely distinct from births and deaths for statistical purposes, should be registered under the laws providing for the registration of births and deaths, and hence need not be separately considered. Effective registration of marriages and divorces is a quite different process from effective registration of births and deaths. Regular annual returns of marriages and divorces to the Bureau of the Census are not provided for by Congress as in the case of births and deaths, although two special collections of such data, each covering a period of twenty years, namely, 1867 to 1886 and 1887 to 1906, have been undertaken by the Government, the latter now being in course of compilation. Statistics of sickness have scarcely made a beginning throughout the world; the publication of a weekly morbidity table was begun during the past year by the United States Public Health and Marine Hospital Service in its public health reports.

Correct vital statistics depend upon the accurate registration of *all* births and deaths that occur in the country, state, or city to which the reports relate, with all of the necessary details that should be required by law. Statistics based upon incomplete or imperfect registration may be worse than useless. All modern civilized governments consider the collection and publication of such data of great importance. In the international tables given each year in the report of the Registrar-General of Births, Deaths, and Marriages in England and Wales, vital statistics are given for many successive years for the following countries:

England and Wales,	Finland,
Scotland,	Germany,
Ireland,	Austria,
New South Wales,	Hungary,
Victoria,	Roumania,
Queensland,	Bulgaria,
South Australia,	Servia,
Western Australia,	Netherlands,
Tasmania,	Belgium,
New Zealand,	France,
Ceylon,	Switzerland,
Jamaica,	Spain,
Denmark,	Italy,
Norway,	Japan,
Sweden,	Chile.
Russia,	

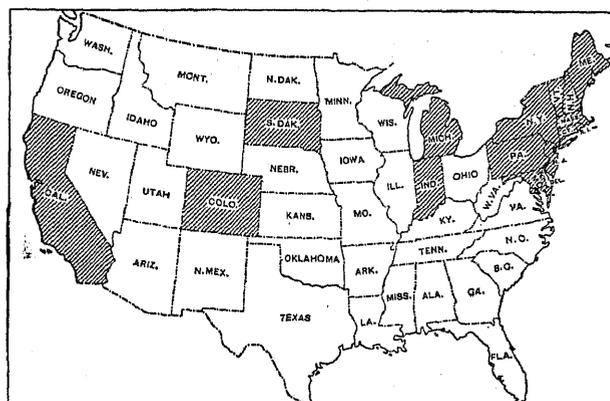
To this list may probably be added Mexico, which has recently issued demographic reports covering the entire country, and perhaps the Argentine Republic and other countries of South America. *The United States as a whole is not represented in international vital statistics.* From a limited part of the area of continental United States—the “registration area”—returns of deaths have been received since 1900 and published in the annual mortality reports of the Bureau of the Census. The purpose of the movement for the

extension of the registration area is to increase the number of registration states until the entire United States shall be represented by returns of births and deaths, and American vital statistics shall be entitled to rank with those of other civilized nations of the world.

PRESENT STATUS OF REGISTRATION IN THE UNITED STATES.

The list of states accepted as having fairly complete registration of *deaths* in 1907 may be seen in Appendix B. The table shows the states composing the registration area in 1900 and the number added in 1906 as a result of enactment and enforcement of state laws. Some idea may thus be gained of the progress of the movement, and also of the large number of states yet remaining for the introduction of adequate laws. The geographic distribution of the registration states is shown in the following map:

Registration states: 1906.



NOTE.—This map relates solely to the registration of *deaths*; no state or city in the United States has yet been accepted as having fairly complete registration of births. Increasing attention is being given to this matter by registration officials, and it may be possible to constitute a registration area for births at an early date, even though it be one of extremely limited extent at first.

The difficulties in securing satisfactory vital statistics for the United States are inherent in our form of government, and their solution will depend upon a thorough understanding of the situation and a high degree of cooperation by all concerned. Births and deaths are registered under state laws, or in many instances under city ordinances where state laws are wanting or ineffective, and the returns to the Bureau of the Census consist of transcripts of the original records voluntarily furnished by state or city registration officials at a certain specified compensation. The Census has nothing to do with the direct collection of the data, whose value is wholly dependent upon the adequacy and thorough enforcement of state or city legislation. But it is evidently highly important that proper laws should be enacted, and Congress has expressly approved the efforts of the Bureau of the Census for this purpose.¹

¹ See joint resolution, page 2.

MOST IMPORTANT USES OF REGISTRATION OF BIRTHS AND DEATHS.

Reasons demanding the registration of births and deaths, stated in increasing order of importance, may be given as follows: (1) Knowledge of the movement of population (demographic uses); (2) protection of the lives and health of the people (sanitary uses); and (3) protection of the rights of the individual and of the community (legal uses).¹ The propriety of this order may be questioned because, in this country especially, the sanitary uses of vital statistics have quite overshadowed their importance as *legal records*. Modern public health administration is intimately dependent upon reliable mortality statistics, and registration offices are usually under the direction of state or city boards of health. Modern sanitation itself is a child of vital statistics, and the beginning of national registration of births and deaths in England in 1836 marked the commencement of the "sanitary era" in which we live and which is yearly witnessing greater triumphs in the conquest of disease. Nevertheless, the registration of vital statistics was not primarily instituted for purposes of public health, but to secure proper records of the vital events of human life for legal purposes; and in the long run this is perhaps the most important service performed by a system of governmental registration. Some of the particular instances in which public records may be of importance in this connection are stated in the extracts quoted in the report of the Special Committee (page 470). It may be noted that the one-sided development of vital statistics in the United States is partly due to the fact that, for sanitary purposes, the registration of deaths has been considered more important than the registration of births, and hence the latter has been seriously neglected. It is also much more difficult to secure the complete registration of births.

The great importance of registration of births in protecting the interests of the widows and children of deceased soldiers is well set forth in an official letter from Hon. Vespasian Warner, Commissioner of Pensions:

DEPARTMENT OF THE INTERIOR,
BUREAU OF PENSIONS,
Washington, D. C., September 18, 1907.

Hon. S. N. D. NORTH,
Director of the Census,
Washington, D. C.

Sir: In response to your letter of the 16th, received the 17th instant, with reference to the importance of registration of births and deaths, in which you state that it occurs to you that in the administration of the pension laws this Bureau may have found numerous instances in which loss or injustice may have resulted to individuals from the absence of proper legal records of births, and in that connection you would appreciate information with reference to specific instances wherein the absence of proper records embarrassed this Bureau in the adjudication of pension claims, I have the honor to state that—

Under section 4703, Revised Statutes of the United States, widows' pensions were increased from and after July 25, 1866, at the rate of \$2 per month for each child under the age of 16 years of the husband on account of whose death the claim for pension was made, under the conditions therein provided, and that under the provisions of section 4706, Revised Statutes of the United States, the legitimate minor children of a soldier or sailor whose death resulted from a disability incurred while in the military or naval service of the United States, and in the line of duty, since March 4, 1861, is entitled to a pension in his or her own right in cases where the soldier left no widow surviving, or where the widow died, remarried, or was otherwise deprived of a pensionable status before the child attained the age of 16.

¹ A practically identical statement of the uses of registration of deaths is that given by William Ogilvie, M. D., M. R. C. P., in charge of the vital statistics of the General Register Office of England and Wales, in his testimony before the Select Committee of the House of Commons on Death Certification (1893):

"3904. You have been kind enough to come here for the purpose of giving us evidence with reference to the registration of deaths, which subserve certain purposes?—Yes. To my mind there are three purposes to which the registration of deaths was intended to be subservient.

"3905. Will you kindly tell us what are those three purposes?—First of all, there are the legal uses, where the proof of death is required, such as the succession of property, payment of insurance moneys after death, and so forth. Secondly, there is the prevention of or interference, at any rate, with murder or foul play generally; and, thirdly, the provision of trustworthy data for the elaboration of statistics concerning health, disease, and mortality."

Doctor Ogilvie merely subdivides the legal uses into (a) protection of individual rights and (b) prevention of crimes, while he considers the sanitary and other statistical uses of mortality statistics under one head.

The third paragraph of the act of June 27, 1890, provides for the continuation of pension or increase of pension granted in behalf of a child under 16 years of age who, when that age was attained, was insane, idiotic, or otherwise permanently helpless, to continue during the life of said child or the period of its disability.

By reason of these laws it has been of the utmost importance to this Bureau to obtain, in connection with such cases, the best available evidence or testimony with reference to the date of the birth of a given child in whose behalf increase of pension or pension is claimed.

Many of the legitimate children of colored persons who served during the Civil War were born in slavery. There were a number of military organizations employed during said war which were composed almost exclusively of Indians, and in such cases this Bureau has had great difficulty in determining date of birth by reason of the fact that no records were kept. In some instances it has been necessary for the Bureau, in adjudicating the claims, to approximate the date of the birth of a given child upon some well-known transaction, as, for instance, the sale of a plantation to a new owner, or from the recorded date of the birth of some other child who was born during the same year as the child for whom claim was made. In at least one well-known instance the only reliable testimony from which the date of the birth of a child could be approximated was the date upon which a celebrated race horse was foaled; and in some instances it has become necessary to cause the child to be examined by examining surgeons of this Bureau for such corroborative evidence with reference to the date of the birth of the child as could be had from his or her physical development.

In the case of the minors of James Height, Assistant Secretary Reynolds held that in a claim by the minor children of a deceased Indian soldier the fact that their ages can not be exactly determined is not a sufficient reason why their claim should be rejected, the evidence in the case enabling their ages to be approximately ascertained, so that a date may be fixed by which an overpayment of pension may be avoided; that pension should be allowed, and as the years of their respective births are thus satisfactorily shown, the first day of the year may be taken. The spirit of this decision has been uniformly followed, and in endeavoring to do justice to applicants before the Bureau it has frequently been necessary to have exhaustive and thorough investigations for the sole purpose of approximating, as nearly as the circumstances may permit, the date of the birth of a child.

There is now pending before this Bureau the case of ————, original No. 829803, which aptly illustrates this phase of the matter. The applicant for widow's pension was married to the soldier in July, 1878, and had eleven children by him, there being no record whatever with reference to the birth of a single one of these children. During the lifetime of the soldier he filed, in connection with his claim, a statement with reference to the date of birth of each of his children, relying wholly upon memory with reference thereto, and from this statement it would appear that his youngest child had attained the age of 20 years at the time of the soldier's death, and that for that reason his widow would not be entitled to increase of any pension which might be allowed to her. In preparing the papers in the pension claim of the widow it was stated that her son John was born on July 13, 1900, this statement apparently having been based on a misunderstanding of her statement to the writer to the effect that her youngest child was 17 years of age, the writer understanding her to say that the child was 7 years of age, while in her statement to the special examiner of this Bureau who investigated her case she said that the child in question had attained the age of 20 years, and that while she was certain that none of the children were under 16 years of age when the soldier died, she was utterly unable to produce any evidence except her own memory with reference to the date of the birth of any of her children.

The act of February 6, 1907, provides, under certain conditions, for granting pensions to survivors of the Mexican and Civil wars who have attained the age of 62 years, 70 years, and 75 years, respectively. Since the approval of this act over three hundred thousand claims have been filed under its provisions, and the applicants in these cases are scattered throughout the entire United States, its possessions, and in many foreign countries. Most of the applicants are persons of Caucasian descent, and in attempting to prove the dates of their births they have been confronted with the fact that in most cases no record exists. In some instances this Bureau has been compelled to rely upon the statement as to age made by the applicant at the time of his enlistment in the Army or Navy, and in some instances even this corroborative evidence has been lacking and the claims have necessarily been adjudicated upon parol evidence.

The laws with reference to the payment of accrued pension and the allowance of military bounty land also make it a matter of the greatest importance that the date of the birth of persons claiming as children of soldiers and sailors be definitely ascertained, and there can be no question but that any general legislation which may be enacted requiring the accurate keeping of vital statistics

would be of vast service to the General Government in the adjudication of claims against the Government. Not only would such legislation tend to simplify the work in the adjudication of such claims, but it would tend to insure the rightful claimant receiving the bounty to which he is entitled under the law and to prevent the impostor from obtaining that to which he has no title.

In some instances, during the period which elapsed from the close of the Civil War to about 1875, applicants for widow's pension found it impossible to establish dates of birth of alleged minors for whom increase was claimed, and it was the practice at that time to adjudicate their title to pension *per se* and to hold in abeyance their title to increase, and in some of these cases the pensioners died without having established their title to the increase.

Very respectfully,

V. WARNER,
Commissioner.

WHY THIS MOVEMENT SHOULD BE PROMOTED.

The interest of the legal profession in this movement, like that of the medical profession on the ground of sanitary improvement, is not based alone on the professional interests of individual practitioners. It is true that an orderly and authentic system of records of births and deaths would greatly facilitate legal and judicial procedures in which certain evidence may be necessary, but the chief benefit will result to the people themselves, and not to any limited profession. The special interest of lawyers may be expected because they are in a position to appreciate more clearly than most other classes of the community, the disadvantages and financial losses that not infrequently result to individuals from the absence of proper legal records, records which the state or city in which they live has undertaken, but failed, to maintain.

It is not so much the absence of laws as the presence of worthless or defective laws, incapable of satisfactory operation, that is responsible for the failure of registration throughout a great part of the United States. There has been enough of this sort of legislation to cover the entire country several times over, but the residuum of efficient laws is very small. Some states not yet belonging to the registration area have had five or six general state laws for collecting vital statistics, any one of which could be known to be a certain failure from the time it was drafted. The condition is not peculiar to vital statistics. As Professor Reinsch remarks:¹

As a result of these conditions, the amount of legislation produced in the United States in the alternate years, when the larger number of legislatures meet, is astounding in itself, and, when compared with the legislation of other civilized states, it indicates a crudeness of the legislative function, a lack of careful consideration, which are alarming. The number of legislative enactments passed in the states in a single year has exceeded fourteen thousand, covering in printed form some twenty to twenty-five thousand pages. During the five years from 1899 to 1904 the total number of acts passed by American legislatures was 45,552. The political and social service which in our own system required this flood of enactment was in the principal European states performed by a few hundred statutes. Of these 45,552 enactments, 16,320 were public or general laws, while the remainder were special or local. * * *

Aside from a defective or redundant manner of statement and aside from the failure to analyze the relation of new amendments to the existing law, the chief source of the inefficiency of American statute law is found in the fact that acts are constantly passed which do not have a strong public sentiment behind them, or the enforcement of which is not properly provided for. The true nature of law is not sufficiently considered by American legislators. Especially do they overlook the fact that a law should have back of it a public sentiment strong enough to make its enforcement regular and permanent. Laws are frequently enacted to quiet the insistence of a limited class in the community, without reference to their uniform enforceability, or they are the expression merely of a general sentiment of what ought to be, rather than a determined expression of the actual will of the community. It is a frequent practice to enact criminal statutes the infringement of which can not generally be discovered and satisfactory provisions for discovery of which are not made. Often machinery for the enforcement of a statute is not provided at all, or is intentionally left so weak as to be practically inoperative. * * * Only gradually are the legislatures discovering the inadequacy of good intentions in this matter, as well as the necessity of conservative methods resting upon expert knowledge.

¹ American Legislatures and Legislative Methods.

Attention is called to certain statements in this extract having special application to the history and prospects of registration legislation by italics (not in the original). For the vast mass of worthless legislation upon this and other subjects the legal profession must be, to some extent, responsible, because it usually constitutes, if not the majority, at least the most numerous represented of any profession or occupation in state legislatures, and, as Professor Reinsch elsewhere states, "the leaders of the houses, the speaker and the chairmen of most prominent committees, are usually lawyers." In some instances the services of the profession have been of great value in advancing the cause of registration. The present Michigan law for the registration of deaths was enacted in 1897, after a similar measure had failed of passage in the legislature of 1895, chiefly through the determined effort made by Hon. William H. Wetherbee, a member of the Detroit bar, at that time a representative in the house. After being practically defeated, it was rescued by him, and became the first successful state registration law west of New York, bringing Michigan into the registration area, followed by Indiana in a few years, and serving as the inspiration for effort in many other states.

THE SANCTITY OF LAW.

In another feature all lawyers and lawmakers are, or should be, deeply interested, and that is the maintenance of the sanctity of the law as law. A law that is not uniformly and effectively executed is a menace to all respect for legal enactments, and is far worse than no law at all. It is, therefore, most imperative that registration laws shall be enacted only when the general sentiment of the community will enable them to be enforced. This sentiment can be educated by bringing to the attention of the people the losses and difficulties that result from failure to register births and deaths, but it is most unwise to attempt advanced legislation unless reasonable penalties for violation or neglect can be enforced. Proper machinery must exist for such enforcement, in the way of certain specified officials in each locality charged with the duty, under penalty for neglect, of securing complete registration, and the uniformity and completeness of administration for the entire state must be secured by giving the state registrar power and authority, and making it his specific duty to see that the law is thoroughly enforced in every part of the state. County prosecuting attorneys, and the attorney-general of the state, should be required to aid him when necessary.

A voluntary or semivoluntary system, whereby physicians or other persons are expected to make returns of births or deaths, with or without a fee, and with no check upon their compliance or non-compliance with the law, or with no official whose duty it is to see that its penalties are enforced in case of neglect, has always been and must necessarily be a failure. As an example, reference may be made to the history of legislation for vital statistics in Pennsylvania (which has been paralleled in many other states), as given in Census pamphlet No. 106, Extension of the Registration Area, and in which may be found a comparison of the essential provisions of the laws of 1851, 1885, and 1893, with the reasons for their lack of success.

ESSENTIAL REQUIREMENTS FOR THE REGISTRATION OF BIRTHS AND DEATHS.

It was for the purpose of preventing the waste of effort in enacting futile laws, as well as to supply a guide for efficient legislation, that the Bureau of the Census cooperated with a committee of the American Public Health Association in defining the essential requirements which govern the registration of deaths,² and subsequently drafted bills³ in accordance with these principles which have been enacted into successful laws in many states. The most perfect example of such legislation is that of Pennsylvania.

² Census circular No. 71, Registration of Deaths.

³ Census pamphlet No. 100, Legislative Requirements for Registration of Vital Statistics (draft of bill for deaths only), and Census pamphlet No. 104, Registration of Births and Deaths—Drafts of Laws and Forms of Certificates (containing bills for both classes of returns).

The necessary provisions which govern the registration of deaths and births may be compared in the following tabular statement:

NECESSARY PROVISIONS FOR THE REGISTRATION OF—

DEATHS.	BIRTHS.
1. Deaths must be registered immediately after their occurrence.	1. Births must be registered immediately after their occurrence.
2. Certificates of death should be required.	2. Certificates of birth should be required.
3. BURIAL or removal PERMITS are essential to the enforcement of the law.	3. SOME CHECK is necessary to secure enforcement of the law.
4. Efficient local registrars are necessary.	4. Efficient local registrars are necessary.
5. The responsibility for reporting deaths to the local registrars should be fixed.	5. The responsibility for reporting births to the local registrars should be fixed.
6. The central registration office should have full control of the local machinery, and its rules should have the effect of law.	6. The central registration office should have full control of the local machinery, and its rules should have the effect of law.
7. The transmission and preservation of returns should be provided for. Penalties should be provided and enforced.	7. The transmission and preservation of returns should be provided for.
	8. Penalties should be provided and enforced.

These necessary provisions are identical for births and deaths with the exception of the third item. The same machinery that is employed for the registration of deaths may be employed for the registration of births. But there is no readily applied means for insuring the complete registration of births that will act as effectively as does the burial permit for insuring complete death registration. The compulsory requirement of the burial or removal permit, based upon a certificate of death, which must be filed with the local registrar before any disposition is made of the body of a decedent, is the key to the whole situation as regards the registration of deaths. Any state or city in which this provision is enforced will have accurate registration of deaths, and without it registration will be defective. This is not a matter of conjecture; the rules for death registration are founded upon actual methods employed in the registration states, and have been further tested by the successful operation of laws based upon them.

With respect to births the situation is different, because, as there has been no thoroughly effective birth registration in this country, there is no foundation of successful experience upon which to build. The provisions for births have not been regularly indorsed by registration officials,¹ but have simply been formulated for the purposes of this pamphlet by the Bureau of the Census in accordance with what would seem to be the requirements of the case. The crucial point is the check to be employed in order to secure enforcement of the law. Several methods are in use:

1. As an example, in Somerville, Mass., Mr. Frederic W. Cook, city clerk and registrar of vital statistics, states that: "We make an annual house to house canvass for births, verifying returns previously made and making diligent inquiry for any that have not been reported." In reply to a question as to the completeness of registration of births, he says: "In my opinion we secure fully that percentage [90 per cent], but obviously this can not be determined, for, though we attempt to secure a complete registration, we are unable to know how many escape our search." The same method is employed in other cities to some extent, among them Providence, R. I. (semiannual canvass), in which, although registration has been conducted by competent registrars for over fifty years, it is stated that "The record of births is not so satisfactory. From 1855 to 1890 conditions became progressively worse, but owing to improved laws and the efforts of this office there has been a steady improvement of late years. It is difficult to estimate the present deficiency, but probably not over 10 per cent, and perhaps not over 5 per cent, of the births are unrecorded."²

2. Another method is described by Dr. William C. Woodward, health officer of the District of Columbia (city of Washington), as follows: "The occasional systematic examination of birth registers

to determine whether the births of deceased native infants under 1 year of age were registered. I know of no other way of learning the completeness of birth registration. By the systematic acknowledging to parents of all births reported, the health office has endeavored to educate the community so that parents will look for such acknowledgment after each birth, and if it does not arrive take steps to see that a proper report is made." As a result Doctor Woodward states: "I believe that in this District probably 90 per cent of all births that occur are registered, although possibly I have no very substantial basis for my belief." Dr. A. C. Abbott, president of the health department, Philadelphia, states that: "We check up all deaths under 1 year of age to see if births have been reported," and believes the completeness of registration to be "about 90 per cent of all births" in that city.

3. The only law in the United States that contains within itself provisions for an effective check upon the accuracy of the registration of births and which also provides the necessary official and legal machinery, and makes it the duty of the state registrar to investigate cases of irregularity or violation of law and to prosecute wilful or repeated violations thereof, is that of Michigan, known as Public Act No. 330 of 1905. Following are the sections containing these provisions:

SEC. 8. On or before the tenth day of April in each year, every local registrar shall make out a complete list, on a blank provided by the secretary of state for that purpose, of the births that have occurred in his district during the preceding calendar year, as registered with him, showing names of parents and dates of birth, and shall on or before the tenth day of April, deliver the same to the supervisor of the township or ward where the births occurred or to the assessor or assessors of the city where the births occurred: *Provided*, That no such list shall be required for cities having a population of more than fifty thousand. The supervisors or assessors, being the officers heretofore charged with the enumeration of births under section four thousand six hundred five, Compiled Laws of eighteen hundred ninety-seven, shall receive such lists of births, and between the tenth day of April and the first day of June shall make diligent inquiry to ascertain whether any other births have occurred in their townships, wards or cities besides those duly registered and reported to them by the local registrars. And if any such births, not heretofore registered, shall come to their notice, then they shall immediately fill out a certificate of birth, as required by this act, signing the certificate as supervisor or assessor as the case may be, and shall file the same with the local registrar, together with a statement of the name and address of the physician, midwife, or person responsible for failure to file the certificate of birth immediately after birth, as required by this act, and for each added certificate of birth, duly and properly filled out and filed with the local registrar, the supervisor or assessor shall be entitled to twenty-five cents, to be paid by the county treasurer upon warrant from the secretary of state in the same manner as to other informants. And it shall be the duty of the secretary of state to investigate such cases and to prosecute wilful or repeated violations of this act.

SEC. 12. Local registrars are hereby charged with the strict and thorough enforcement of the provisions of this act in their districts, under the supervision and direction of the secretary of state. And they shall make an immediate report to the secretary of state of any violations of this law coming to their notice by observation or upon complaint of any person or otherwise. The secretary of state is hereby charged with the thorough and efficient execution of the provisions of this act in every part of the state, and with supervisory power over local registrars, to the end that all of its requirements shall be uniformly complied with. He shall have authority to investigate cases of irregularity or violation of law, personally, or by accredited representatives, and all registrars shall aid him, upon request, in such investigation. When he shall deem it necessary, he shall report cases of violation of any of the provisions of this act to the prosecuting attorney of the county, with a statement of the facts and circumstances, and when any such case is reported to them by the secretary of state, all prosecuting attorneys or officials acting in such capacity shall forthwith initiate and promptly follow up the necessary court proceedings against the parties responsible for the alleged violation of the law. And upon request of the secretary of state, the attorney-general shall likewise assist in the enforcement of the provisions of this act.

The Michigan law went into effect on January 1, 1906, and the general results of its operation have apparently proved satisfactory. According to a statement in the Michigan Monthly Bulletin of Vital Statistics for February, 1907, the new law caused 3,969 births

¹ These provisions are now under consideration by the American Public Health Association: Section on Vital Statistics, an organization including registration officials of the United States.

² Fifty-first Annual Report upon the Births, Marriages, and Deaths in the City of Providence for the year 1905. By Charles V. Chapin, M. D., city registrar.

to be recorded in the city of Detroit for the first six months of its operation, while for the preceding six months only 1,311 births were registered under the city ordinance then in force. "This difference is so marked that it is very evident that many births escaped registration even in cities that were supposed to have immediate registration. The increase in the number of births reported is not only confined to the city of Detroit, but a preliminary examination of the births reported from the entire state shows that nearly 15,000 more births were reported for the year 1906 under the new law than were reported for the years immediately preceding under the old law." The results of the check provided by the special enumeration of unreported births have not been announced,¹ but it would seem that the state registrar has absolute control of the situation, and that thorough enforcement of this law *must* result in complete registration. Unless prosecution follows repeated cases of neglect and the penalty of the law is enforced, it is useless to expect material benefit from any of the foregoing methods of obtaining additional births. Physicians who refuse or neglect to register births are sometimes very influential in the community, and registrars may be afraid to prosecute them. In Pennsylvania numerous cases have been prosecuted under the new registration law, and the effect has been very satisfactory.

EXPEDIENCY OF ATTEMPTING THE REGISTRATION OF BOTH BIRTHS AND DEATHS.

To one who is not practically acquainted with the subject nothing seems easier or more desirable than "to pass a law" providing for the registration of both births and deaths in each of the nonregistration states. It may be easy to pass such a law—in some cases easier than to pass a law for the registration of deaths only—but the probability of obtaining any valuable results under it is generally infinitesimal. In not more than two or three states of the Union not now possessing accurate registration of deaths is it possible, at the present time, and with the agencies heretofore employed, to enact and *enforce* a law that will give complete registration of births. As yet not a single state or city in the United States has achieved successful birth registration. Even Congress, with direct control of the District of Columbia (city of Washington), a comparatively easy problem as compared to a state area, has not succeeded, despite continuous efforts since 1872; a new law "To provide for the better registration of births in the District of Columbia, and for other purposes," approved March 1, 1907, is just beginning a fresh attack upon the situation. If any states or cities shall be accepted as having accurate registration of births within the next few years there will then be a basis upon which to draft legislation. What is certain is that in the great majority of states which have not even yet made a success, or perhaps even a beginning, of the registration of deaths, the complete registration of births is quite out of the question; it must wait for the further education and development of public opinion.

In undertaking to draft a bill for the thorough registration of deaths, which purpose can be accomplished by proper means, it would seem unwise to include provisions for the thorough registration of births when it is known that that purpose can not be accomplished. A part of the law (registration of births) will be a dead letter from the very date of its passage, and its effect can not be good upon the other part of the law (registration of deaths). If one part of a law can be habitually violated, why should not another part of it be disregarded? The only justification for such action is the fact that the few and imperfect legal records of births that may be secured are better than none for the uses of the individuals concerned; they are worse than useless for the important statistical ends which should be subserved by accurate registration.

¹ In reply to request for information in regard to this special provision of the law, Hon. George A. Prescott, secretary of state and state registrar, under date of September 18, 1907, wrote as follows: "I am in receipt of your letter of September 14, and in reply would say that 224 births, not reported by physicians or others, were filed in this department by the assessors and supervisors, in accordance with the provisions of section 8 of the birth registration law. In cases where certificates were not filed, the matter was taken up with the persons at fault, and in a majority of cases the failure to comply with the law was due to the fact that they were unaware that such a law was in operation in this state, and no prosecutions were made. In my opinion 95 per cent or more of the births actually occurring in this state are properly registered under the new law."

The most natural method of procedure for a state having no effective registration of either kind is to enact and enforce a law for the registration of deaths, and after that is in successful operation, and not before, employ the same registration machinery for the collection of births. This course has been followed in Michigan, where the registration law for deaths passed in 1897 was supplemented by the registration law for births passed in 1905. A bill for both purposes failed in 1895, and if it had passed, the weight of the provisions for births and the impossibility of enforcing them at that time would probably have made the effort to register deaths a failure, or at least much less of a success than it was. If it is found, on the other hand, that Pennsylvania has obtained good results from both classes of registration from the outset, that fact should not be taken as a guide unless an equally well-equipped system, with ample means and power to enforce the law, can be provided.

These considerations explain why the Bureau of the Census, as much as it earnestly desires and labors to promote the registration of both births and deaths, has not felt authorized to unqualifiedly recommend methods of birth registration until practical success has pointed out the way in which it could be obtained. The first draft of a law² prepared by it dealt entirely with the registration of deaths, but, in response to the general demand, subsequent drafts³ were prepared for birth registration laws and for combined birth and death registration laws. The decision as to the expediency of attempting one or both subjects at the initial effort must rest with the state authorities, and after their decision has been made the fullest cooperation possible, with the information available, will be extended. It is probable, however, that the effort to accomplish too much has resulted in failure to reach readily attainable success in some instances.

INCREASING INTEREST IN ENACTMENT OF REGISTRATION LAWS.

The present unfortunate condition of the United States as practically a nonregistration country, causing it to be classed with the interior of Africa and other uncivilized regions of the globe from which no vital statistics are obtainable, can not indefinitely continue. Although the Federal Government has endeavored to secure vital statistics in connection with the decennial censuses of population since 1850, the method of attempting to *enumerate* births and deaths is necessarily a failure, and will be entirely discontinued in the future. Beginning in 1880 the *registration records* of certain states having fairly accurate systems of immediate registration of deaths, with the provision of compulsory burial permits, were substituted for the enumerators' returns, and with the growth of efficient state laws and municipal ordinances the registration area for deaths has increased until the present time. The establishment of the Bureau of the Census upon a permanent basis has enabled it to be a much more influential factor than formerly in the promotion of adequate legislation, and since its active efforts began in 1902 the amount of satisfactory state legislation has rapidly increased. Doctor Chapin, in the review of legislation on public health and safety in 1905,⁴ says:

Vital statistics.—There was more important legislation relating to this subject in 1905 than in any previous year. The most complete of any of the laws was that relating to the registration of births and deaths in Pennsylvania (1905, ch. 221), which hitherto has had the poorest registration of any of the Eastern or Middle states. The commissioner of health is to have the general supervision of registration, but a state registrar is appointed to have immediate charge of the work. His term of office is four years, and his salary \$2,500. A local registrar and deputy and subregistrars are appointed by the central authority for each political unit. Physicians, midwives, and undertakers are to register with the local registrar. To secure the registration of deaths it is provided that no dead body shall be disposed of until a permit has been obtained from the local registrar, and that the permit shall not be issued until a certificate of death has been filed. The form and contents of the certificate are prescribed and by whom it shall be filed. It is substantially [exactly,

² Census pamphlet No. 100, Legislative Requirements for Registration of Vital Statistics.

³ Census pamphlet No. 104, Registration of Births and Deaths—Drafts of Laws and Forms of Certificates.

⁴ Yearbook of Legislation, 1905. New York State Library.

with addition of district, subdistrict, and file numbers] the form prescribed by the Federal Government. Very specific directions are given in the act to the physician as to how the cause of death shall be stated. The mode of obtaining certificates in case of death without a medical attendant is also provided for. An excellent provision is that all institutions are to obtain from every person admitted all the data necessary to fill out the certificate. As a check upon the undertakers, sextons are forbidden to enter a body without obtaining the permit from the undertaker and these permits are returned to the local registrars. Physicians and midwives, or if none are present the parents, are to report births within ten days. The form of return, an excellent one, is prescribed, and provision is made for securing the names of children unnamed at the time of making the return. Stillbirths are to be returned as both births and deaths. Returns of deaths and births are to be made with unfading ink, and are to be copied by the local registrar on similar forms and preserved, and the originals sent monthly to the state registrar. They are to be bound by the latter and kept in fireproof vaults and a card index provided. The registrars are to be paid 25 cents for each return, but physicians and undertakers receive no fees.

The Bureau of the Census rests its case entirely upon the results achieved by the Pennsylvania law. From having, as Doctor Chapin states, the "poorest registration of any of the Eastern or Middle states" in 1905, the year that the law was enacted, and fifty-four years after the passage of the first Pennsylvania law for this purpose, it had in 1906, *the first year of the operation of the new law*, an effective registration of births and deaths, practically as complete as that of any registration state in the country, and far superior to those of the majority of registration states. And as good results can be obtained, by the same methods, in Ohio and Illinois. Less populous states may not be able to obtain quite as excellent results during the first year of administration, but should reach it after a very short interval. The keynote of the Pennsylvania administration is compulsory obedience to the reasonable requirements of the law, and infliction of the penalty of the law in cases of its violation.

Other states in which legislation for vital statistics was enacted in 1905 are California, Connecticut, Michigan (births), Nebraska, Utah, and South Dakota. In Connecticut minor amendatory provisions were adopted for securing better legal records with respect to legibility, use of permanent ink, and also for their secure preservation. The volume of legislation was vastly greater in 1907 than even in 1905. Laws or amendments relating to the registration of births and deaths were enacted in the following states: California, Colorado, Connecticut, District of Columbia (births), Indiana, Maine, Michigan (giving physicians and midwives 50 cents for each birth promptly filed within ten days), Minnesota, Montana, North Dakota, Oregon, Pennsylvania (minor amendments), South Dakota, Washington, and Wisconsin. Some of these were valuable amendments, as, for example, in Maine, an excellent provision requiring monthly returns to the central office. Others, as those of California and Colorado, were practically reenactments, with minor changes, of existing law. Some, however, as those of Minnesota, Montana, North Dakota, and Wisconsin, were comprehensive organic laws whose enforcement should speedily bring those states into the registration area. A good bill failed in Kansas; a poor one fortunately failed in Missouri—fortunately, because each worthless measure enacted retards the cause of accurate registration many years. The prospect for important legislation at approaching sessions of state legislatures is very good. Efforts will be made in 1908 to place the registration of vital statistics in Ohio, which suffers at present from two distinct and nearly equally worthless systems of state registration, besides numerous local city ordinances, upon a satisfactory basis; a bill will be urged by the state authorities in Kentucky and Virginia, the latter a bill for deaths alone, as recommended by the Bureau of the Census,

and probably efforts may be made in other states. In 1909, when the majority of states hold their legislative sessions, there should be a general movement along the whole line in order to secure as many additional registration states as possible for the census year 1910, when direct comparisons of vital statistics with enumerated populations in detail can be made. The state authorities and medical profession will cooperate in Illinois, Kansas, and other states, and every state that is capable of supporting an adequate registration law should secure one at this time.

HOW THE LEGAL PROFESSION CAN ASSIST.

It is desirable that information as to the nature and importance of the movement toward better vital statistics should be disseminated among the members of the legal profession in the United States, and especially among those who may have occasion to deal with the matter in a legislative capacity. Bills for the registration of births and deaths should be carefully scrutinized, and it should be known, before they are enacted into law, whether they are likely to accomplish their object or not. In addition to individual action and interest, it is very fortunate that the organized legal profession of the United States has undertaken to deal with the question. On a following page may be found the report of the Special Committee on Vital and Penal Statistics¹ made to the Conference of Commissioners on Uniform State Laws at Portland, Me., August 22, 1907. It was approved by the conference and the committee was continued with instructions to report at the next annual conference drafts of proposed registration laws. At the subsequent meeting of the American Bar Association, which immediately followed the adjournment of the commissioners, a resolution expressing the association's approval of the movement to obtain a complete and uniform system of registration of births and deaths was introduced by Hon. Frederick L. Siddons, chairman of the Special Committee of the Conference of Commissioners on Uniform State Laws, and will come up for action in the usual course at the next session.

The Bureau of the Census heartily welcomes this cooperation, and will be pleased to be of service to the committee, to the conference, and to the American Bar Association, and also to individual lawyers and members of legislatures in states undertaking the enactment of registration laws. The following publications may be of interest and will be sent upon request:

No. 104. Registration of Births and Deaths—Drafts of Laws and Forms of Certificates.

No. 106. Extension of the Registration Area for Births and Deaths—A Practical Example of Cooperative Census Methods as Applied to the State of Pennsylvania.

Drafts of laws especially adapted to individual states will be prepared by the Bureau of the Census, at the request of and in cooperation with the state authorities, and projected bills will be critically examined, upon request, and opinions given as to their practicability. While the final action of the conference and bar association can not be had until next year, it is not necessary or advisable to delay action in such states as Ohio, Virginia, or Kentucky, whose legislatures meet in 1908, on this account; the practical requirements of registration of deaths have been so thoroughly demonstrated that efficient laws for this purpose can be enacted without question, provided the essential requirements are adhered to. The aid of the committee will also be extended, so that there will be no possible conflict in regard to any of the recommendations made.

¹That portion of the report relating to penal statistics is omitted.

REPORT OF SPECIAL COMMITTEE ON VITAL AND PENAL STATISTICS.¹

To the Conference of Commissioners on Uniform State Laws:

At the sixteenth annual conference, held at St. Paul, Minn., in August of 1906, the following resolution was adopted:

Resolved, That the communication of Dr. Cressy L. Wilbur, chief statistician of the section [division] of vital statistics of the Census Bureau, addressed to the president of the conference, and the reference in the president's annual address to the subject of uniform registration laws concerning births and deaths as an important part of vital statistics, as well as his reference to penal statistics, be referred to a special committee of three members of the conference to be appointed by the president, to consider the same and to report to the next annual meeting of the conference.

Under the authority of the foregoing resolution, President Eaton appointed Messrs. F. L. Siddons, R. Ross Perry, and Aldis B. Browne, the then Commissioners on Uniform State Laws for the District of Columbia, the special committee provided by the resolution. Mr. Perry having resigned as such commissioner, there was appointed in his place Mr. Walter C. Clephane, and the committee thus formed begs leave to submit its report on the subjects committed to it by the resolution and appointment mentioned.

In his letter designating the committee, President Eaton wrote that—

You will notice that the resolution is peculiar. You are to report at the next conference whether there should be legislation to bring about uniform registration laws concerning births and deaths as well as concerning penal statistics. What is called for is a report either for or against such legislation.

In the light of President Eaton's interpretation of the resolution, the committee has considered the matter and proceeds now to state the conclusions that it has reached on the subject.

The resolution of the conference may conveniently be divided into two parts, one dealing with uniformity in registration laws concerning births and deaths, and the other with a uniform law governing the collection of penal statistics.¹

Taking up the first-mentioned part of the resolution—that referring to registration laws concerning births and deaths—it should be remarked that it was not until about 1901 that a movement to bring about uniformity in these laws began to take definite shape. Almost coincidentally the American Public Health Association, through its Committee on Demography and Statistics in their Sanitary Relations, and the United States Census Office, resolved to prepare an outline plan for a complete system of registration, including suggestions for necessary legislation and methods of treating the records so as to secure the maximum benefit from them, and since that time the Census Office, through its chief statistician for vital statistics, has been acting in concert with the committee of the American Public Health Association referred to above, and, through the very intelligent efforts thus put forth, progress has been made toward the end so much desired by those who know the importance of an accurate collection and collation of the statistics under consideration.

At its annual meeting at New Orleans, December 8-12, 1902, the American Public Health Association adopted the following resolution:

Resolved, That the efforts of the Committee on Demography and Statistics of this association, in conjunction with the United States Census Office, to secure the extension of the registration area by the enactment of suitable laws and the use of the standard form of certificate of death, as shown in Census circular No. 71, be heartily com-

mended, and that the committee be further authorized and directed to cooperate with the Census Office, the United States Public Health and Marine Hospital Service, and other departments of the Federal Government interested in vital statistics, and with similar committees from other associations, in the work of promoting the adoption of suitable registration laws and the extension of the registration area, the proper compilation and presentation of vital statistics by states and cities in weekly or monthly bulletins and annual reports, and also in further work relating to the extension and practical use of the International Classification of Causes of Death, the disposition of jointly returned causes, and all preliminary work relating to the next decennial revision.

It will be observed that this resolution seemed to contemplate only registration laws regarding deaths, but it soon became apparent that these laws should include as well the registration of births, and since then the movement has pressed consideration of proper registration laws covering both subjects.

The subject was brought to the attention of the Federal Congress, and, as a result, a joint resolution was adopted, which was approved on February 11, 1903. It is in the following words:

Whereas the registration of births and deaths at the time of their occurrence furnishes official record information of much value to individuals; and

Whereas the registration of deaths, with information upon certain points, is essential to the progress of medical and sanitary science in preventing and restricting disease and in devising and applying remedial agencies; and

Whereas all of the principal countries of the civilized world recognize the necessity for such registration and enforce the same by general laws; and

Whereas registration in the United States is now confined to a few states, as a whole, and the larger cities, under local laws and ordinances which differ widely in their requirements; and

Whereas it is most important that registration should be conducted under laws that will insure a practical uniformity in the character and amount of information available from the records; and

Whereas the American Public Health Association and the United States Census Office are now cooperating in an effort to extend the benefits of registration and to promote its efficiency by indicating the essential requirements of legislative enactments designed to secure the proper registration of all deaths and births and the collection of accurate vital statistics, to be presented to the attention of the legislative authorities in nonregistration states, with the suggestion that such legislation be adopted: Now, therefore,

Resolved by the Senate and House of Representatives of the United States of America in Congress assembled, That the Senate and House of Representatives of the United States hereby expresses approval of this movement and requests the favorable consideration and action of the state authorities, to the end that the United States may attain a complete and uniform system of registration.

In the report of the House committee on this resolution, and in which its passage was recommended, it was stated that in fully one-half of the states there are no laws whatever requiring the registration of deaths, and in a number of other states the laws were very imperfect or imperfectly administered. While the resolution as originally introduced did not contemplate dealing with registration laws concerning births, it was amended, while under discussion on the floor, so as to include both births and deaths.

It would seem that a subject that had received the approval of so useful and influential a body as the American Public Health Association; also of the United States Census Office, and the Federal Congress, would require no further sanction to persuade the Commissioners on Uniform State Laws of the importance of aiding in the work thus begun, but the committee believes that it should state the reasons beyond those already noted why it should

¹ That portion of the report relating to penal statistics is omitted.

report, as it does, in favor of uniform registration laws concerning births and deaths.

Dealing with the registration laws of death, Mr. W. A. King, former chief statistician of the United States Census Office, stated:

The greatest utility of registration, as affecting the general public, consists in the availability of the data for tabulation and analysis for study of the agencies affecting health and disease; and, as stated by Dr. Elisha Harris, "The practical relations of well-kept and complete records of mortality to the correct estimation of sanitary experience and prevention of diseases and premature death are so important that sanitary authorities and the wise and effectual application of public health measures demand that the mortality registration shall be both complete and accurate." The statistical treatment of the data also demands that they should be uniform, so that the tabulated results may have their highest value for comparative and analytical purposes. They are not so now.

In a pamphlet issued by the Census Office¹ the importance of efficient registration laws for births is thus presented:

Statisticians and students of sociological problems have long since recognized the importance of complete, accurate, and uniform records of birth; but people generally do not so fully appreciate the immediate practical value of such records in the ordinary relations of life.

The record of the birth of a child must be made by some other person. The child is incapable of protecting its future interests at the proper time, and some of its most valuable rights and privileges may be placed in jeopardy or entirely lost if the registration of its birth is neglected by those upon whom it is dependent.

Dr. Arthur R. Reynolds, in a public address, alluded to the matter in the following words:

"There is hardly a relation of life, from the cradle to the grave, in which the evidence furnished by an accurate registration of births may not prove to be of the greatest value, as, for example, in the matter of descent; in the relations of guardians and wards; in the disabilities of minors; in the administration of estates, the settlement of insurance and pensions, the requirements of foreign countries concerning residence, marriage, and legacies; in marriage in our own country, in voting, and in jury and militia service; in the right to admission and practice in the professions and to many public offices; in the enforcement of laws relating to education and to child labor, as well as to various matters in the criminal code—the irresponsibility of children under 10 years of age for crime and misdemeanor, the determination of the age of consent, etc. As the country becomes more densely settled and the struggle for existence sharper, many of these matters which have hitherto been of minor significance will take on a deeper meaning and acquire greater importance. Hence the urgent necessity for remedy of the defects which prevent a proper registration of births."

Dr. John S. Fulton, in a paper read at the meeting of the American Public Health Association, also speaks of the direct interest of the individual citizen as follows:

"The private interest of the citizen in registration of births is indeed superior to his interest in registration of deaths, for a greater proportion of his privileges and immunities, rights and duties, turning upon the question of his age and his parentage, are definitely conserved by the registration of his birth."

Some idea of the frequency with which questions arise requiring reference to the records of births may be gained from the fact that the calls for copies of records or for information contained in them in New York city during the year 1902 exceeded 3,000.²

We can not conclude these quotations of reasons, which seem all-persuasive to the committee, without placing before the conference a statement on the subject made by Dr. Cressy L. Wilbur, the present able chief statistician of the United States Census Office. The statements that he made, and which follow, were so made by him in an address before the State Board of Health and Vital Statistics of Pennsylvania in May, 1904:

Pensions or life insurance may depend upon proper evidence of the fact and cause of death. The widows and orphans of deceased soldiers must obtain such proofs. Titles and the rights to inheritances may be jeopardized by the failure of records. The individual citizen of the state, no matter how humble his position in life or how insignificant his influence in the affairs of the community, is entitled to have an accurate record made of the important—the vital—events of his life. If the state has undertaken to do this, then the citizen has a right to expect that the state will perform its duty with precision and thoroughness; it is a disgrace to confess default in this important matter, and to admit the failure, year after year, of legislation devised for this purpose. * * *

¹ Census pamphlet No. 104, Registration of Births and Deaths—Drafts of Laws and Forms of Certificates.

² The use of these records has very greatly increased during the past few years, as shown by a statement from Dr. William H. Guilfooy, registrar of records for Greater New York: "During the year 1906 there were 2,802 certified copies of records of birth issued; in addition to this there were 48,580 statements as to the date of birth issued for school and employment purposes."—Note by Chief Statistician.

Over half a century ago the commonwealth of Pennsylvania undertook the registration of all births, marriages, and deaths in the state, and gave reasons for so doing in the preamble of the act passed by the legislature of 1851 that have never been better or more succinctly stated, and which are to-day, without an amendment or a single word of alteration, a sufficient reason for the passage of an effective act. They should be written up in every public health office in the state and borne in the memory of every sanitary official and public servant until Pennsylvania shall at last achieve, after more than a half century of failure, the laudable end that she undertook to accomplish by the act of 1851:

"Whereas, From the death of witnesses and from other causes, it has often been found difficult to prove the marriage, birth, or death of persons, whereby the rights of many have been sacrificed and great wrongs have been done, and

"Whereas, Important truths, deeply affecting the physical welfare of mankind, are to be drawn from the number of marriages, births, or deaths that during a term of years may be contracted or may occur within the limits of this extensive commonwealth; therefore—"

The law was enacted which, at that time, it was supposed would secure accurate registration of vital statistics in Pennsylvania. I shall refer to the reasons for its failure later on, and also discuss the imperfections of the laws of 1855 and 1893, which are chiefly valuable as showing the continued interest of the people in the subject and the attempts, futile though they have been, to accomplish the object proposed by the original law.

The immediate registration of births and deaths acts as a deterrent of crime. When a human being can pass, or be sent, from this world to the next, without a single legal formality or inquiry into the cause of death at a time when definite information in regard to that cause can be ascertained, and the body be buried like that of a brute of low degree—Doctor Lee makes the point that the financial interest in high-grade animals has caused a better record to be kept for their vital statistics than that of the human race—then is it not reasonable to suppose that those who trifle with human life will take full advantage of the laxity of the laws? In the message of Governor Hastings to the legislature of 1897 attention was called forcibly to this point:

The need of a suitable system of registration of vital statistics is also being constantly brought to the attention of the health authorities. In an enlightened community there live but few people of mature age whose birth, marriage, or death does not at sometime become a matter for the cognizance and consideration of legal authorities. The attainment of majority with its rights and duties, the fact and date of wedlock, the inheritance or conveyance of property, parentage and nationality, place, date, and cause of death, and interment, and many other questions of a sociological, economic, sanitary, or even historical character often assume such importance with reference to many of our citizens. In the absence of a state system of registration many of the citizens are deprived of their legal rights or are enabled to deprive their fellows of their legal rights. The history of the registration departments of the health offices of Philadelphia and Pittsburg shows that the inquiries for important information supposed to be contained in their records are almost continual, and afford sufficient evidence of the public value of such a system of registration."

We indorse all that appears in the foregoing quotations and extracts and believe that the reasons there set forth are all-sufficient to convince the conference that, in the language of President Eaton in his letter to the committee quoted above, "there should be legislation to bring about uniform registration laws concerning births and deaths." We append as a part of our report on this subject a memorandum prepared at our request by Dr. Cressy L. Wilbur, entitled "Memorandum on the Relation of the American Bar Association and the Commissioners on Uniform State Laws to the Movement for the Extension of the Registration Area for Births and Deaths."³ This memorandum, read in connection with Appendix C to the Report of the Director of the United States Census covering its operations for the year 1905-6, a copy of which we also attach to this report,⁴ will give the conference a pretty accurate idea of the present effective registration area in the United States, at least so far as the subject of the proper registration of deaths is concerned.⁵

Respectfully submitted.

FREDERICK L. SIDONS, *Chairman.*
ALDIS B. BROWNE.
WALTER C. CLEPHANE.

PORTLAND, ME.,
August 22, 1907.

³ Appendix A.

⁴ Appendix B.

⁵ As for births, no state or city in the United States has yet been accepted (1907) as possessing a fairly complete (90 per cent) registration of births.—Note by chief statistician.

APPENDIX A.

MEMORANDUM ON THE RELATION OF THE AMERICAN BAR ASSOCIATION AND THE COMMISSIONERS ON UNIFORM STATE LAWS TO THE MOVEMENT FOR THE EXTENSION OF THE REGISTRATION AREA FOR BIRTHS AND DEATHS.¹

1. *Object or purpose of this movement.*—The direct interest of the Bureau of the Census in the extension of the registration area for births and deaths arises from the fact that the vital statistics required by law to be published by the Bureau are transcripts of records of births or deaths collected under state laws, or under city ordinances in states where there are no general state laws.

Only a comparatively small portion of the country is as yet covered by adequate state legislation. In 1900 there were only ten registration states, namely, Connecticut, Indiana, Maine, Massachusetts, Michigan, New Hampshire, New Jersey, New York, Rhode Island, and Vermont, which, together with the District of Columbia (city of Washington) and various individual cities, constituted the registration area. From 1890 to 1900 only three states, Indiana, Maine, and Michigan, had been added to this list, all as a result of efforts made by state officials without special aid of the National Government. There was, at that time, no permanent organization of the Census, but since 1900 it has been the object of this Bureau to promote, as far as possible, the adoption of effective laws so that the area furnishing adequate returns might be increased.

As shown in the pamphlet on the "Extension of the Registration Area for Births and Deaths," five states were added last year, namely, California, Colorado, Maryland, Pennsylvania, and South Dakota. The volume of legislation affecting the collection of births and deaths was larger in 1905 than in any previous year in the history of the United States. It is probable, however, that more laws on this subject were enacted in 1907, including among them excellently constructed acts for the states of Minnesota, North Dakota, and Wisconsin.

Practically all of the legislation on this subject for the past few years has been in accordance with the principles and drafts of laws for this purpose recommended by the Bureau of the Census. The movement is proceeding, and efforts will be made to secure legislation next winter in the important states of Ohio, Kentucky, and Virginia. A special draft of a bill for the state of Virginia has recently been made by the Bureau at the request of the State Board of Health and State Medical Society. Such legislation, however, must be especially adapted to the requirements of various parts of this country.

The most complete, comprehensive, and, as proved by actual experience, probably the most immediately effective registration law that has ever been enacted in the United States, is that of Pennsylvania, which may be taken as an example of the Bureau's recommendations where complete facilities can be obtained. Such a law, however, might require to be greatly simplified in its application to a far Western state of sparsely settled population, or to a Southern state with a large illiterate colored population.

It may be expedient, and, in fact, in the Virginia draft it was found necessary, to divide the subject and first attempt the enactment of an effective law for the registration of deaths, leaving the registration of births to be taken up in a subsequent measure. In all of these laws, so far as they have been recommended by this Bureau, the essential requirements² have been strictly followed and have proved their importance as guides in framing state legislation.

2. *The interest of the legal profession in this movement.*—The legal profession, as represented in its national organization, should be especially interested in the success of this movement, because it provides authentic records of the highest importance for many judicial purposes. It is frequently necessary to prove the fact of a birth, parentage, age as shown by date of birth, the fact of death, cause of death, etc. These facts, affecting the personal and legal interests of individuals, can be obtained in no other way as satisfactorily as by an effective system of compulsory immediate registration. That is to say, every birth should be registered in the district where it occurs within a short specified time after birth, and every death should be registered in the district where it occurs before the evidence of death is removed; that is, before interment or other disposition of the body. Incidentally, such registration has an important influence in preventing or revealing certain crimes.

Such records of births and deaths, according to the recommendations of the Bureau of the Census as adopted in Pennsylvania, Michigan, Indiana, and other states, are sent to the central registration office of the state at the state capital, where they are preserved in fireproof vaults, and are available for searches required for legal purposes, and for other important uses. The local records are preserved in the offices of the local registrars, or, in some states, duplicate copies at the county seats.

¹ By the chief statistician of the Bureau of the Census.

² See Census circular No. 71, Registration of Deaths; also Census pamphlet No. 106, Extension of the Registration Area for Births and Deaths, page 29.

³ Law, the Foundation of State Medicine; oration on state medicine before the American Medical Association, June, 1907, Journal, xviii, page 1926.

It is only necessary to compare the condition that existed, for example, in Pennsylvania in 1904 before the enactment of such a law—where, as Dr. Samuel G. Dixon, state commissioner of health, recently said: "Outside of the cities and large boroughs no record was made of the birth or death of a human being, although associations interested in live stock make it their duty to preserve careful histories of the births and deaths of blooded animals. No death certificates being required for burial, the doors stood wide open for graveyard insurance and the concealment of deaths by violence or poison"—with the condition existing at present where an immediate record is made of every birth and death, and transmitted promptly to the state capital at Harrisburg, to show both the desirability and the perfect practicability of this movement.

I have not touched upon the importance of such records for sanitary purposes, because this point is fully covered in the literature in your possession. It is, in fact, from its interest in sanitation and in vital statistics as a necessary basis for modern sanitary methods, that the medical profession has heretofore been the driving power behind all success that has been obtained in this work. The registration laws in nearly all of the states that possess them have been enacted through medical influence, although they have been of no direct personal benefit to the physicians, who are sometimes required to make valuable returns without special compensation.

It is time, however, that the medical profession should not be left as the sole organized interest urging this improvement, but that the legal profession, which is even more directly interested in its practical success, should take its proper place in perfecting and promoting the adoption of uniform and adequate laws. Its service will be particularly valuable in formulating the important details relating to the legal authenticity of the facts recorded and providing for the correction of imperfect or erroneous data as originally registered.

The organized assistance of these two bodies will, furthermore, be of the greatest practical value because of the fact that representatives of the legal profession usually compose a large part, and perhaps the most influential part, of the membership of state legislatures. The interest and service of the legal members of the legislature in this movement, which would be secured by the indorsement of the bar association, would be invaluable in securing prompt results.

3. *Objections to the movement.*—There are no real objections, but merely some questions of expediency arising usually from considerations of possible cost. Theoretically, every state board of health in the United States is in favor of the adoption of an effective registration law. Practically, when it comes to the actual adoption of legislation, they are not usually sufficiently well equipped to administer such a law properly. In many cases a fixed appropriation is given to the state board of health, which must be used for all purposes—the enforcement of sanitary laws, the expenses of board meetings, the purchase of books for libraries, bacteriological work, etc.—and legislatures are jealous about increasing the general appropriations for state boards of health.

It would therefore be very much better if the matter were put on an entirely different basis, namely, the necessity of adequate legal records, and provision were made for a state registrar of vital statistics, who might be under the direction of or administer a bureau of the state board of health whose support should not be drawn from the generally inadequate resources of that board. However, even with this the case, the cost of handling registration returns in a central office, including the provision of blanks for the entire state, is a comparatively trifling matter. The greatest cost is that of the payment of the local registrar, which is an essential feature of the law. For each birth and death filed with him the amount of such payment is usually 25 cents, and it should come from the county treasury on warrant from the state registrar certifying that the records were properly made and promptly returned.

Practice differs in regard to compensation for filing births. In Pennsylvania and Michigan no provision was made for the payment of physicians for filing certificates of births, according to the laws of 1905. An amendment has been made in Michigan during the present year, giving physicians and midwives 50 cents, which is an unusually large amount.

No compensation is given physicians for making out the certificate of cause of death, and there should be no fee connected with this service or with any part of the work of registration of deaths except the payment of the local registrar by the county.

It can hardly be seriously objected that such a law meddles too intimately with personal affairs. The practical necessity of personal records usually appeals to the average member of a legislature, so that I do not think, in fact, that there is any objection likely to be encountered by such legislation except the usual one of ways and means, and sometimes the administrative difficulty of finding suitable local registrars.

MORTALITY STATISTICS.

APPENDIX B.

Status of effective registration of deaths, 1906.¹

REGISTRATION STATES, 1900.		ADDED AS REGISTRATION STATES, 1906.		NOT YET ACCEPTED AS REGISTRATION STATES.	
State.	Population, 1900.	State.	Population, 1900.	State.	Population, 1900.
		California	1,485,053	Alabama	1,828,697
		Colorado	539,700	Arizona	122,931
Connecticut	908,420			Arkansas	1,311,564
District of Columbia	278,718			Delaware	184,735
				Florida	528,542
				Georgia	2,216,331
Indiana	2,516,462			Idaho	161,772
				Illinois	4,821,550
				Indian Territory	392,000
Maine	694,466			Iowa	2,231,853
Massachusetts	2,805,346	Maryland	1,188,044	Kansas	1,470,495
Michigan	2,420,982			Kentucky	2,147,174
				Louisiana	1,381,625
				Minnesota	1,751,394
New Hampshire	411,588			Mississippi	1,551,270
New Jersey	1,883,669			Missouri	3,106,665
New York	7,268,894			Montana	243,329
				Nebraska	1,066,300
				Nevada	42,335
				New Mexico	195,310
				North Carolina	1,893,810
Rhode Island	428,556	Pennsylvania	6,302,115	North Dakota	319,146
		South Dakota	401,570	Ohio	4,157,545
				Oklahoma	398,331
				Oregon	413,536
Vermont	343,641			South Carolina	1,340,316
				Tennessee	2,020,616
				Texas	3,048,710
				Utah	276,749
				Virginia	1,854,184
				Washington	518,103
				West Virginia	958,800
				Wisconsin	2,069,042
				Wyoming	92,531
Total	19,960,742	Total	9,916,482	Total	46,117,351

Population, registration states, 1900	19,960,742
Per cent of total population	26.3
Population, registration cities in states added, 1906	3,835,119
Per cent of total population	5.0
Population of registration cities in nonregistration states	6,969,757
Per cent of total population	9.2
Population in registration area, 1900	30,765,618
Per cent of total population	40.5
Net population added to registration area in 1906	6,081,363
Per cent of total population	8.0
Population in registration area in 1906	36,846,981
Per cent of total population	48.5

¹ This table formed Appendix C of the Report of the Director of the Census to the Secretary of Commerce and Labor, 1906.