

According to the Eighth Census returns, the total value of church property in the United States amounted to \$171,398,432, and the number of churches was 54,009, of which 53,745, in the States, owned property to the amount of \$169,031,907, and in the Territories, including the District of Columbia, 264 churches, a value of \$2,366,525.

The value of the churches in the States alone exceeded their value in 1850 by \$82,615,268, or 95.60 per cent., and their number was increased 49.24 per cent.

The aggregate of accommodations of the churches in 1860 was 18,974,576, which was an increase of 37 per centum upon the accommodations in 1850, a provision for 691 in every thousand of the population, and an average capacity of 353 persons for each church returned.

The aggregate value of church property appears to have augmented in a ratio upwards of two and a half times as great as that in which the population increased during the same time.

The value of church property returned by the four States of New York, Pennsylvania, Massachusetts, and Ohio, was considerably more than one-half of the whole amount returned, and was nearly equal to the total value in 1850.

The average value of each church was \$3,145, or \$745 more than the average of 1850.

The States having the largest number of churches in 1850 were New York, Ohio, Pennsylvania, and Virginia, and the churches of greatest average value in the same year were those of Massachusetts, Louisiana, Rhode Island, and New York, in all of which the value exceeded \$5,000 each. In 1860 Pennsylvania led in the number of its churches and was followed by New York, Ohio, and Virginia, while in average value the churches of Rhode Island, Massachusetts, Connecticut, New York, and California, were relatively the largest. The value of church property was increased in every State in the Union, the largest ratio of increase being in California, where it amounted to 67.15 per cent., the average value of each church in that State being \$6,325.

The following were the ratios of increase in the aggregate values of church property returned from several other States and the average value of each church therein, in the order of their values respectively, viz: In Rhode Island the increase per centum was 66.40, the average value of each church \$10,672; in Massachusetts, increase 50.88, value \$9,115; Connecticut, 78.74, value \$7,922; New York, 66.21, value \$6,643; Louisiana, 76.13, value \$5,525; Pennsylvania, 95.48, value \$4,231; Michigan, 222.8, value \$2,892; Illinois, 366.5, value \$2,846; Ohio, 125.59, value \$2,491; Wisconsin, 462.86, value \$1,844; Alabama, 70.50, value \$1,029; Arkansas, 107.46, value \$464.

During the same time these States augmented their populations, respectively, at the following rates, viz: California, 310.37 per cent.; Rhode Island, 18.35; Massachusetts, 23.79; Connecticut, 42.10; New York, 25.29; Louisiana, 36.74; Pennsylvania, 25.71; Michigan, 88.38; Illinois, 101.06; Ohio, 18.14; Wisconsin, 2,760.87; Alabama, 24.96; Arkansas, 107.46 per cent.

In 1850 there was one church to every 640 persons in the States, and the average value of church property for each person, including all classes, was \$3 74. The number of churches in 1860 was in the proportion of one to every 584 persons, and the value of church property to each individual was \$5 37.

## EDUCATION.

In 1860 there were 27,730 libraries, containing 13,316,379 volumes, returned by the marshals' assistants, which includes 8,072 private libraries, containing 4,648,135 volumes; also 77 private libraries, containing 118,100 volumes, in the District of Columbia. The number of libraries, other than private, was 19,581, containing 8,550,144 volumes.

The school libraries numbered 10,558, and contained 1,771,976 volumes, which was a decrease of 1,509 in the number, and an increase of 124,572 volumes, or six per cent. in their contents. Of school libraries, 6,321, containing 914,892 volumes, belonged to the State of New York; Ohio being next in the number and size of its school libraries.

The Sunday school libraries were augmented from 1,988 to 6,205, and the number of volumes from 542,321 to 2,072,489, an increase of 280 per cent. in the number of volumes, and 216 per cent. in the number of libraries. The greatest number of Sunday school libraries was returned from New York, but those of Massachusetts were relatively the largest and contained 386,717 volumes, an average of 511 volumes to each.

In the college libraries the increase was very moderate. The whole number was 213, in which were contained 971,373 volumes. Of these, also, the Massachusetts colleges reported the largest number of volumes—five libraries in that State having 197,600 volumes, an average of 39,520 each.

The number of church libraries returned in 1850 was 130, and the number of volumes in them was 58,350. In 1860 the number of such libraries was 537, and they contained 412,708 volumes, the increase in the books being at the rate of 600 per centum. The largest number of church libraries was returned from the State of New York, but those of Ohio, South Carolina, Virginia, Pennsylvania, and some other States, were relatively larger than those of New York, or either of the New England States. The church libraries in Ohio averaged upward of 3,000 volumes each. The average size of all libraries in the United States in 1850 was 296 volumes, and in 1860 it was increased to 480 volumes each.

## SCHOOLS.

The total number of educational institutions in the United States, according to the census of 1850, was 87,302; the number of teachers was 105,904; the number of pupils, 3,644,928; and the aggregate income, from all sources for their support, amounted to \$16,138,184.

On the first day of June, 1860, the whole number of colleges, public schools, academies, &c., exclusive of those in Maryland and the District of Columbia, was 113,006, an increase of 26 per cent. They employed 148,742 teachers, and numbered 5,417,880 pupils, and derived from permanent endowments, taxes, public funds, and other sources an annual revenue of \$33,990,482. The increase in the number of teachers was 42,838, or in the ratio of 40.45 per cent., and in the number of pupils 1,772,952, or 48.61 per cent., while the aggregate income from all sources was augmented \$17,852,298, or 110.62 per cent. These returns show a fair increase in the number of schools, which, nevertheless, were not multiplied in the ratio of the population; while in the number of teachers employed, in the number of persons receiving instruction in the different educational institutions of the country during some part of the year, and in the means of support, the increase was most gratifying, having more than kept pace with the advance in population.

The average number of pupils attending school during the year amounted to nearly one in six of the entire population, and to almost one in five of the free white inhabitants of the Union. The average annual income for each pupil was \$6 27, and the total cost of education was in the proportion of \$1 26 to each free white person in the Union.

Of the total revenue for educational purposes, upwards of  $6\frac{1}{4}$  per cent., or \$2,128,198, was derived from permanent endowments, from which the increase of revenue was in the ratio of 126.8 per cent. About 36.5 per cent. of the total income, or \$12,447,275, accrued from taxes, in which the increment was 163.8 per cent. The amount appropriated from the public funds for school purposes was \$7,223,977, or  $21\frac{1}{4}$  per cent. of the whole, and was augmented at the rate of 153.3 per cent. From tuition fees and all other sources an increase of \$12,153,701 was obtained, which was  $33\frac{3}{4}$  per cent. of the total, and an increase of 58.7 per cent. upon the amount so obtained in 1850.

The revenue for colleges from all sources amounted to \$3,009,298, having increased 53.1 per cent. For public schools the total income was \$22,297,865, an increase of 133.9 per cent., and the sum raised for academies, private schools, &c., was \$8,683,319, the increase being 86.9 per cent.

In 455 institutions, returned as colleges, the number of pupils was 54,969, which was nearly double the number so returned in 1850, and the average income for each was \$54 74. In the public schools, which numbered 106,915, the average annual attendance was 4,917,352, and the annual income for each was \$4 53. The number of pupils receiving instructions in 6,636 academies and other schools was 455,559, and the average revenue for each was \$19 06.

The amount received for the support of public schools from endowments was less than one-half that received by colleges or academies, and was an average of only  $8\frac{1}{2}$  cents per annum for each pupil in attendance. From taxation, the revenue for public schools averaged \$2 46 for each pupil; from public funds, the appropriations averaged \$1 34 each, and from tuition fees and other miscellaneous sources, the contingent for each scholar was  $63\frac{1}{2}$  cents.

Towards the education of each youth instructed in colleges, there was derived from endowments an average income of \$15 98 from taxation, (which was a source of revenue to colleges in only six States—the average was 47 cents;) from public funds it was \$2 22, and from tuition and other sources it was \$36 07 each. The revenues of academies, private schools, &c., from endowments averaged for each pupil \$1 83 per annum; from taxation,  $67\frac{3}{4}$  cents; from public funds, \$1 07; and from tuition and other charges, (which was the principal source of income, yielding in the aggregate more than double the amount received in the same way by other institutions, and nearly as much as was appropriated from public funds for all educational purposes,) the average amounted to \$15 46 for each pupil.

Of the whole number of collegiate institutions, the New England States contained 21, in which there were 222 professors and teachers, and 3,506 students. They reported an aggregate income of \$368,469, of which \$198,601 was derived from endowments. Of the latter sum, 13 colleges in Massachusetts and Connecticut received \$164,281. Maine was the only New England State which reported any income for colleges from taxation. The average income from tuition and miscellaneous sources in that section amounted to \$46 73 to each person instructed, from endowments it averaged \$56 64, and from all sources \$105 09 for each.

Four of the Middle States reported 47 colleges, employing 349 teachers, and numbering 7,121 students. The annual income from all sources was \$537,873, of which amount \$220,998 was derived from endowments. The average income for each student from all sources was \$75 53 from endowments; \$31 03, and from tuition, &c., \$44 55. Twenty-four colleges in Pennsylvania, with 156 teachers, and 3,286 pupils, enjoyed from all sources an income of \$243,196, whereof \$180,136 was from permanent endowments. New York alone received a small amount from taxation in support of its colleges.

From the Western States returns were made by 167 colleges, with 969 teachers, and 22,820 pupils. The aggregate resources amounted to \$956,367, of which \$250,909 accrued from endowments, and \$617,710 from tuition, &c. In Michigan, \$17,250 was raised by taxation, and \$53,149 by appropriation from public funds in support of colleges. The proportion of income for each pupil from all sources was \$41 92, from endowments nearly \$11, and from fees, &c., \$27 06.

The Southern States numbered 194 colleges, in which were 1,045 teachers, and 18,999 pupils. The total income was \$1,103,403, of which sum \$201,528 was derived from permanent funds, and \$895,161 from miscellaneous sources, only one State receiving anything from taxation. Next to Michigan, South Carolina and Virginia received the largest appropriations

for college purposes from the public funds, the latter State having also returned the largest aggregate revenue for colleges, and the greatest amount received for fees, &c., of any in the Union. The average annual income for each student in the South from all sources was \$58 07; from permanent endowments the average was \$10 60, and from tuition, &c., \$47 11 each. In Virginia the total average income was \$87 44, that from endowments being \$17 28, and from fees and other sources \$64 85 per annum.

In California and Oregon 15 colleges with 70 teachers and 971 pupils, reported a total income from all sources of \$78,986, an average of \$81 34 for each pupil. One collegiate institution in New Mexico, with 5 teachers and 170 pupils, reported a revenue of \$3,700 from tuition fees, &c., an average of \$21 76 for each pupil.

The number of public schools in New England was 15,738, and the number of persons instructed in them was 647,284. The aggregate income of these schools was \$2,972,828, of which \$2,282,129 was raised by taxation, an average income of \$4 59 for each child, and an average tax of \$3 52 for each. The public school fund of Massachusetts averaged \$7 46 for each pupil, and the amount raised by taxation averaged \$6 52 each.

The Middle States numbered 23,999 public schools, with 1,364,642 pupils, for whose education the aggregate income from all sources was \$6,440,522, an average of \$4 71 each, and from taxes alone the income was \$4,215,107, being in the proportion of \$3 09 each. The total amount raised by taxation was greater in Pennsylvania than in any State of the Union, but was less per capita for the number of children taught than in Massachusetts, amounting to an average of \$3 85 per annum, the total from all sources being \$4 41 per capita.

In the Western States 48,102 public schools, containing an average annual attendance of 2,250,165 children, reported an aggregate revenue of \$8,702,424, of which \$4,606,285 was derived from taxation, the proportion of the total fund for each scholar being \$3 86, and of taxes \$2 04 per annum. In Ohio the total public school fund, next to that of New York, was the largest in the Union, amounting to \$2,551,844, an average of \$4 32, and the school tax to \$1,515,720, which was equivalent to \$2 56 for each pupil. In Illinois, where the total income of schools also exceeded two millions, and the school tax one and a quarter million, the average amount of each scholar was \$5 05, and the average tax \$2 93.

Eighteen thousand and twenty public schools in the Southern States, attended annually by 586,499 children, enjoyed a total revenue of \$3,460,900, an average of \$5 90 for each youth under instruction, the proportion derived from taxes being \$607,031, or an average of \$1 03 each. The largest school income was reported from Virginia, and the next from Louisiana, which raised by taxation much the largest sum of any State in that section, namely, \$223,593, which was nearly one-half its total school fund, and an average of over seven dollars for each child under instruction.

In the Pacific States 735 schools, accommodating 33,135 pupils, enjoyed an annual income of \$402,398, an average of \$12 14 for each child. The proportion raised by taxation was \$174,571, an average of \$5 26 for each pupil.

In the Territories 321 public schools were attended by 9,677 pupils, and the aggregate sum raised for their support was \$57,632, whereof \$22,727 was from taxes, and \$25,301 from fees and miscellaneous sources. The average for each scholar from all sources was \$5 95, from taxation \$2 34, and from tuition, &c., \$2 61 per annum.

Of academies and other schools, not included in the foregoing classes, returns were made of 878 in the New England States, having under instruction 45,172 pupils. The total annual revenue amounted to \$1,016,742, whereof the larger part, \$823,221, was derived from tuition and other charges, being an average from that source of \$18 22, and from all sources, of \$22 50 for each youth receiving instruction. In Massachusetts, where the number of such schools was 319, and of pupils 14,001, the average income for each pupil was \$35, and from tuition and charges alone \$29 64 per annum.

In four middle States 1,688 academies, &c., containing 135,052 pupils, reported an aggregate income of \$2,527,029, an average of \$18 71 for each pupil, whereof \$2,179,353, or an average of \$16 13 for each, was derived from fees, &c. In New York the total income was \$1,576,706, or \$18 21 per pupil. In Delaware the average income for each youth instructed was \$24 52, and in New Jersey it was \$20 33 per annum.

From the Western States returns were made of 1,395 schools of this class, having 155,278 pupils, and an aggregate income of \$1,560,886, of which \$1,174,930 was received for tuition, &c. The total income was in the proportion of \$10 05 for each youth under tuition, and the proportion received from fees, &c., was \$7 56. The largest income for this class of schools in the West was reported from Kentucky, whence 223 academies, &c., returned an income of \$442,912, which was an average of \$25 17 for each pupil, \$21 23 being the average income derived from fees.

Returns were made from the Southern States of 2,445 academies and 106,361 pupils, and the revenue received by them from all sources was \$3,227,728, of which \$2,656,302 was from tuition. The contingent for each pupil of the total income was \$30 34, and of fees and charges \$24 97 per annum, being larger than in any but the two Pacific States. The largest income, as well as the largest number of pupils, was reported from Tennessee, where it amounted to \$581,561, an average of \$36 82 for each person taught, and was chiefly derived from tuition. The largest school income in proportion to the number of pupils was in Virginia, where it averaged \$41 21 each, whereof \$35 47 was from fees. In Louisiana the total income averaged \$41 02 for each scholar.

In the Pacific States 107 academies and private schools, having 4,807 pupils, had an income of \$151,521, an average of \$31 52 for each pupil, whereof \$30 76 was from tuition, &c.

The Territories contained 13 schools of this class, with 616 pupils, whose tuition cost annually \$20,750, an average of \$33 68 for each youth instructed, the whole amount being derived from tuition and miscellaneous sources.

## LIBRARIES, COLLEGES, PUBLIC SCHOOLS, ACADEMIES AND OTHER SCHOOLS, 1860.

STATES AND TERRITORIES.	LIBRARIES.												COLLEGES.							
	PUBLIC.		SCHOOLS.		SUNDAY SCHOOL.		COLLEGE.		CHURCH.		TOTAL.		No. of.	Teach-ers.	Pupils.	ANNUAL INCOME.				
	No. of.	Volumes.	No. of.	Volumes.	No. of.	Volumes.	No. of.	Volumes.	No. of.	Volumes.	No. of.	Volumes.				Endow-ment.	Taxa-tion.	Public funds.	Other sources.	Total.
Alabama.....	361	123,315	1	1,500	22	13,050	3	14,000	8	3,410	395	155,275	17	116	2,120	\$22,020	.....	\$900	\$101,974	\$124,894
Arkansas.....	102	22,210	.....	.....	13	1,011	.....	.....	.....	.....	115	23,221	4	9	225	.....	.....	300	5,285	5,585
California.....	50	131,714	.....	.....	20	17,350	.....	.....	.....	.....	70	149,064	10	55	524	1,000	.....	.....	65,000	66,000
Connecticut.....	194	231,332	99	38,912	183	80,062	4	47,900	10	6,000	490	404,206	5	66	903	74,691	.....	.....	25,548	100,239
Delaware.....	64	61,100	1	100	48	20,270	1	7,000	.....	.....	114	88,470	1	8	90	.....	.....	.....	9,500	9,500
Florida.....	54	37,125	8	5,000	3	3,750	.....	.....	1	500	66	46,375	.....	.....	.....	.....	.....	.....	.....	.....
Georgia.....	288	228,666	.....	.....	52	14,669	11	17,800	13	11,800	364	272,935	32	181	3,302	18,250	\$241	4,770	144,670	167,931
Illinois.....	246	131,753	243	18,373	339	74,422	7	12,816	19	7,030	854	244,394	18	126	2,901	37,424	.....	.....	59,988	97,412
Indiana.....	341	198,490	523	174,171	247	65,456	11	28,745	1	200	1,123	467,062	17	99	2,460	20,750	.....	.....	61,700	82,450
Iowa.....	412	72,161	.....	.....	113	32,043	3	1,500	2	1,400	530	107,104	13	62	1,233	10,500	.....	11,000	26,974	48,474
Kansas.....	39	8,025	.....	.....	1	500	.....	.....	6	1,210	46	9,735	2	4	95	.....	.....	.....	10,000	10,000
Kentucky.....	95	106,175	4	1,963	91	19,774	4	9,400	2	10,700	196	148,012	20	110	2,485	28,350	326	200	109,368	138,244
Louisiana.....	53	106,624	1	1,200	9	2,280	1	3,000	4	3,500	68	116,604	15	86	1,530	17,400	.....	1,620	69,000	88,020
Maine.....	283	215,437	12	6,190	473	138,924	5	34,000	41	11,350	814	405,901	2	17	337	10,500	6,000	.....	4,500	21,000
Maryland.....	1,017	172,800	4	11,600	25	7,285	6	18,800	22	24,570	1,074	235,055	9	82	628	14,100	.....	3,000	56,309	73,409
Massachusetts.....	853	1,296,836	186	68,398	756	386,717	5	197,600	52	47,600	1,852	1,997,151	8	96	1,733	89,540	.....	.....	105,570	195,110
Michigan.....	141	87,090	726	83,993	244	66,333	4	12,400	5	870	1,120	250,686	10	79	1,631	140	17,250	53,149	24,560	95,099
Minnesota.....	26	18,975	8	1,600	52	10,556	1	1,000	2	1,518	89	33,649	4	21	366	4,500	.....	.....	10,830	15,320
Mississippi.....	146	163,420	.....	.....	13	6,525	1	5,000	6	3,800	166	178,745	13	50	856	.....	.....	1,980	32,440	34,420
Missouri.....	215	105,361	2	2,100	69	24,785	11	45,500	13	7,138	310	184,884	36	211	4,291	38,145	.....	4,898	164,310	207,353
New Hampshire.....	118	129,270	8	4,950	132	44,825	6	36,417	42	21,850	306	237,312	2	29	390	9,370	.....	.....	17,000	26,370
New Jersey.....	402	250,485	9	17,550	277	107,605	5	37,000	32	20,681	725	433,321	5	59	775	11,000	.....	.....	48,500	59,500
New York.....	744	1,103,688	6,321	914,892	1,140	267,867	31	88,331	124	61,798	8,360	2,436,576	17	126	2,970	29,862	1,150	100	169,065	140,177
North Carolina.....	263	152,809	5	9,600	21	6,282	7	15,100	5	6,300	301	190,091	16	94	1,540	7,200	.....	.....	94,560	101,760
Ohio.....	496	339,821	1,996	226,676	560	133,862	21	62,257	9	28,050	3,022	790,666	45	299	7,077	82,600	.....	.....	123,285	205,885
Oregon.....	5	1,650	1	250	4	1,900	1	1,500	.....	.....	11	5,300	5	15	447	5,600	.....	150	7,236	12,986
Pennsylvania.....	529	761,299	50	94,095	764	339,414	17	78,707	56	71,409	1,416	1,344,924	24	156	3,286	180,136	.....	.....	63,060	243,196
Rhode Island.....	109	356,444	16	10,459	100	51,617	1	36,000	16	10,899	302	465,419	1	10	212	14,500	.....	.....	8,000	22,500
South Carolina.....	193	366,517	3	22,300	48	17,425	4	43,700	9	21,600	257	471,542	14	90	1,384	73,100	.....	23,000	96,575	192,675
Tennessee.....	335	186,033	7	15,940	21	6,180	16	34,600	8	2,475	387	245,228	35	149	2,932	6,758	.....	1,281	84,067	92,106
Texas.....	132	74,563	1	1,000	8	3,675	6	7,300	.....	.....	147	86,538	25	107	2,416	8,000	915	2,707	83,450	95,072
Vermont.....	211	100,105	8	16,532	98	30,842	1	9,900	18	10,050	336	167,429	3	17	173	.....	.....	.....	3,250	3,250
Virginia.....	1,350	432,110	10	2,620	71	32,630	18	67,150	4	8,500	1,453	543,010	23	163	2,824	48,800	.....	15,000	183,140	246,940
Wisconsin.....	120	75,935	301	18,074	167	36,800	7	15,750	4	4,000	509	150,559	12	59	1,291	28,500	.....	925	26,705	56,130
Total in States.....	10,047	7,849,238	10,554	1,770,038	6,184	2,066,686	219	990,173	534	410,208	27,538	13,086,443	463	2,850	55,427	892,736	25,882	124,980	2,035,409	3,079,007
*Columbia, District of.....	2	34,000	1	1,000	9	2,823	3	35,800	.....	.....	92	191,723	3	40	523	2,000	.....	8,960	83,050	94,010
Dakota.....	.....	.....	.....	.....	8	1,880	.....	.....	.....	.....	61	10,742	.....	.....	.....	.....	.....	.....	.....	.....
Nebraska.....	53	8,862	.....	.....	.....	.....	.....	.....	2	2,000	17	10,670	1	5	170	.....	.....	.....	3,700	3,700
New Mexico.....	15	8,670	.....	.....	.....	.....	.....	.....	.....	.....	12	5,476	.....	.....	.....	.....	.....	.....	.....	.....
Utah.....	10	4,738	2	738	.....	.....	.....	.....	1	500	10	11,325	.....	.....	.....	.....	.....	.....	.....	.....
Washington.....	4	9,525	1	200	4	1,100	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total in Territories.....	84	65,795	4	1,938	21	5,803	3	35,800	3	2,500	192	229,936	4	45	693	2,000	.....	8,960	86,750	97,710
Total in States and Terri's	10,131	7,915,133	10,558	1,771,976	6,205	2,072,489	222	1,025,973	537	412,708	27,730	13,316,379	467	2,895	56,120	894,736	25,882	133,940	2,123,159	3,176,717

NOTE.—For private libraries included, see page 502.

\*Libraries of the general government not included.

## LIBRARIES, COLLEGES, PUBLIC SCHOOLS, &amp;c.—Continued.

STATES AND TERRITORIES.	PUBLIC SCHOOLS.								ACADEMIES AND OTHER SCHOOLS.							
	No. of.	Teachers.	Pupils.	ANNUAL INCOME.					No. of.	Teachers.	Pupils.	ANNUAL INCOME.				
				Endow- ment.	Taxation.	Public funds.	Other sources.	Total.				Endow- ment.	Taxation.	Public funds.	Other sources.	Total.
Alabama.....	1,903	2,038	61,751		\$63,845	\$199,318	\$226,311	\$489,474	206	400	10,778	\$37,800		\$23,547	\$160,287	\$221,634
Arkansas.....	727	757	19,242	\$200	1,100	13,356	105,957	120,613	109	168	4,415	6,300	\$700	8,645	52,501	68,146
California.....	496	593	24,977	15,065	152,510	118,308	67,213	353,096	92	168	3,153	1,000		828	138,925	140,753
Connecticut.....	1,805	2,049	82,530	15,604	154,499	153,931	50,920	374,954	197	367	8,749	13,480	1,438	1,677	256,686	273,281
Delaware.....	256	296	11,736	500	32,359	29,020	5,968	67,847	40	101	1,957	400		422	46,240	47,462
Florida.....	97	98	2,032	75	776	2,340	16,908	20,099	138	185	4,486	2,045		3,964	69,403	75,412
Georgia.....	1,752	1,884	56,087	16,035	53,276	117,243	263,412	449,966	242	375	11,075	16,626	3,043	25,289	192,415	237,373
Illinois.....	8,429	11,099	433,018	53,888	1,271,851	779,065	82,068	2,186,872	211	441	13,205	107,761	184	2,114	123,203	233,262
Indiana.....	6,563	6,982	293,089	4,070	322,854	314,006	39,168	686,188	261	493	22,971	4,296	2,845	7,234	99,675	114,050
Iowa.....	3,836	4,565	165,588	2,276	360,734	224,214	27,751	614,975	67	183	4,949	2,710	1,917	2,309	30,731	37,667
Kansas.....	123	133	4,758	210	15,008	650	6,939	22,807	29	52	1,059	1,000			16,985	17,985
Kentucky.....	4,507	4,646	156,158	3,956	167,218	205,960	122,510	499,644	223	639	17,597	34,265	2,172	32,854	373,621	442,912
Louisiana.....	713	856	31,813	6,645	223,593	181,162	57,810	469,210	152	446	11,274	195,400	2,947	19,900	244,249	462,496
Maine.....	4,376	5,679	186,717	14,813	359,446	62,161	18,169	454,589	110	216	8,273	13,140	17,540	4,460	43,881	79,021
Maryland.....	935	943	36,216	2,786	125,160	64,892	50,251	243,079	140	290	4,745	52,547	4,320	7,957	129,454	194,278
Massachusetts.....	4,124	5,308	206,974	47,615	1,350,951	112,825	34,063	1,545,454	319	633	14,001	40,183	15,274	19,600	414,990	490,047
Michigan.....	4,007	5,825	201,391	4,400	380,220	196,235	71,622	652,477	84	184	9,683	9,600	11,835	15,094	32,561	69,090
Minnesota.....	879	914	31,083	3,784	56,608	22,712	2,680	85,784	29	48	1,605	1,100			12,998	15,598
Mississippi.....	1,116	1,215	30,970	21,225	29,689	107,947	226,818	385,679	169	430	7,974	37,875	680	44,211	230,756	313,522
Missouri.....	4,120	4,769	175,855	41,525	116,318	447,146	197,867	802,856	240	625	20,143	7,300	200	5,700	235,730	248,930
New Hampshire.....	2,301	2,985	70,539	2,447	180,372	22,385	13,040	218,244	208	351	11,444	23,991	39,581	11,002	50,757	125,331
New Jersey.....	1,496	1,890	110,320	5,406	334,413	108,983	87,729	536,531	251	559	12,892	7,000	4,312	14,086	236,700	262,098
New York.....	10,650	15,733	697,283	14,179	1,893,023	1,221,176	212,710	3,341,088	910	3,019	86,565	75,144	89,297	79,542	1,332,723	1,576,706
North Carolina.....	2,994	2,928	105,025	21,462	85,800	153,979	7,478	268,719	434	661	13,169	16,940	575	10,620	359,830	387,965
Ohio.....	11,783	15,852	590,549	69,550	1,515,720	870,709	95,865	2,551,844	131	1,030	54,035	15,617	63,658	25,726	169,040	274,041
Oregon.....	239	245	8,158		22,061	6,948	20,293	49,302	15	32	1,654	400		340	1,078	10,768
Pennsylvania.....	11,597	13,194	565,303	16,297	2,180,742	249,789	48,228	2,495,056	487	1,296	33,638	42,421	8,127	26,525	563,690	640,763
Rhode Island.....	426	643	25,570	781	93,479	47,890	16,803	158,953	58	129	3,127	6,500	2,725	910	44,239	54,374
South Carolina.....	757	811	20,716	12,455	39,470	29,779	122,889	204,593	226	367	8,277	48,200	1,400	42,164	201,480	293,244
Tennessee.....	2,965	3,064	138,809	5,343	22,297	196,351	178,913	402,904	274	618	15,793	24,239		13,959	543,363	581,561
Texas.....	1,218	1,274	34,611	6,743	15,847	58,394	333,184	414,168	97	236	5,916		1,947	6,559	133,628	142,134
Vermont.....	2,696	3,314	80,904	999	143,382	72,246	4,007	220,634	96	272	7,851	4,361	5,027	8,774	56,549	73,711
Virginia.....	3,778	3,896	85,443	4,446	72,338	104,801	317,053	498,638	398	730	13,204	33,600	15,324	26,927	468,390	544,241
Wisconsin.....	3,795	4,206	198,676	1,826	393,754	179,453	21,942	596,975	120	290	10,031	5,048	15,852	5,705	80,386	106,991
Total in States.....	107,529	130,684	4,943,891	416,606	12,236,713	6,675,454	3,154,539	22,483,312	6,763	16,024	459,688	888,289	314,160	499,382	7,155,016	8,856,847
Columbia, District of.....	30	40	2,326			7,575		7,575	101	194	4,719		600	2,500	111,179	114,279
Dakota.....																
Nebraska.....	85	93	3,078		6,620	2,006	2,992	11,619	2	3	55				600	600
New Mexico.....	17	16	235				1,999	1,999	3	12	192				7,450	7,450
Utah.....	173	220	5,485		10,150	6,980	10,708	27,838	2	5	210				4,900	4,900
Washington.....	46	46	879		5,957	618	9,601	16,176	6	9	159				7,800	7,800
Total in Territories.....	351	415	12,003		22,727	17,179	25,301	65,207	114	223	5,335		600	2,500	131,929	135,029
Total in States and Territories.....	107,880	131,099	4,955,894	416,606	12,259,440	6,692,633	3,179,840	22,548,519	6,877	16,247	465,023	888,289	314,760	501,882	7,286,945	8,991,876

## ATTENDING SCHOOL DURING THE YEAR ENDING JUNE 1, 1860.

STATES.	WHITE.			FREE COLORED.			Native.	Foreign.	Total.
	Males.	Females.	Total.	Males.	Females.	Total.			
Alabama .....	52,102	45,988	98,090	48	66	114	97,854	350	98,204
Arkansas .....	23,354	19,367	42,721	3	2	5	42,684	42	42,726
California .....	13,404	12,359	25,763	69	84	153	23,539	2,377	25,916
Connecticut .....	45,570	42,988	88,558	737	641	1,378	86,130	3,816	89,936
Delaware .....	9,961	8,461	18,422	122	128	250	18,394	278	18,672
Florida .....	4,507 <sup>a</sup>	3,987	8,494	3	6	9	8,472	31	8,503
Georgia .....	50,552	44,128	94,680	3	4	7	94,319	368	94,687
Illinois .....	212,838	191,672	404,510	264	347	611	374,892	30,228	405,121
Indiana .....	179,149	157,820	336,969	570	552	1,122	329,961	8,130	338,091
Iowa .....	89,016	78,454	167,470	77	61	138	157,410	10,198	167,608
Kansas .....	6,996	6,322	13,318	8	6	14	12,925	407	13,332
Kentucky .....	96,763	85,687	182,450	102	107	209	180,116	2,543	182,659
Louisiana .....	25,058	22,690	47,748	153	122	275	45,967	2,056	48,023
Maine .....	99,196	89,722	188,918	148	144	292	185,877	3,333	189,210
Maryland .....	41,337	36,983	78,320	687	668	1,355	77,666	2,009	79,675
Massachusetts .....	125,294	122,384	247,678	800	815	1,615	234,280	15,013	249,293
Michigan .....	97,387	90,112	187,499	555	550	1,105	174,402	14,202	188,604
Minnesota .....	12,682	11,450	24,132	8	10	18	20,046	4,104	24,150
Mississippi .....	35,308	31,214	66,522	.....	2	2	66,147	377	66,524
Missouri .....	108,049	95,284	203,333	76	79	155	196,185	7,303	203,488
New Hampshire .....	43,453	39,401	82,854	49	31	80	81,731	1,203	82,934
New Jersey .....	60,620	55,855	116,475	1,413	1,328	2,741	114,096	5,120	119,216
New York .....	411,913	387,943	799,856	2,955	2,739	5,694	754,261	51,289	805,550
North Carolina .....	62,286	54,148	116,434	75	58	133	116,484	83	116,567
Ohio .....	310,644	289,341	599,985	2,857	2,814	5,671	583,276	22,380	605,656
Oregon .....	5,818	4,996	10,814	.....	2	2	10,758	58	10,816
Pennsylvania .....	343,096	319,292	662,388	3,882	3,691	7,573	648,651	21,310	669,961
Rhode Island .....	15,818	15,218	31,036	276	256	532	30,176	1,392	31,568
South Carolina .....	24,893	21,332	46,225	158	207	365	46,341	249	46,590
Tennessee .....	87,176	75,794	162,970	28	24	52	162,471	551	163,022
Texas .....	33,989	29,625	63,614	4	7	11	61,896	1,729	63,625
Vermont .....	41,298	38,152	79,450	65 <sup>a</sup>	50	115	76,797	2,768	79,565
Virginia .....	83,393	71,529	154,922	21	20	41	153,793	1,171	154,963
Wisconsin .....	96,628	87,969	184,597	62	50	112	149,087	35,622	184,709
Total States .....	2,949,548	2,687,667	5,637,215	16,278	15,671	31,949	5,417,073	252,091	5,669,164
TERRITORIES.									
Colorado, (no returns) .....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Dakota .....	140	130	270	.....	.....	.....	242	28	270
District of Columbia .....	4,566	4,482	9,048	315	363	678	9,338	388	9,726
Nebraska .....	1,727	1,567	3,294	1	1	2	3,012	284	3,296
Nevada, (no returns) .....	.....	.....	.....	.....	.....	.....	.....	.....	.....
New Mexico .....	880	586	1,466	.....	.....	.....	1,460	6	1,466
Utah .....	4,238	3,706	7,944	.....	.....	.....	6,602	1,342	7,944
Washington .....	599	489	1,088	.....	.....	.....	1,057	31	1,088
Total Territories .....	12,150	10,900	23,110	316	364	680	21,711	2,079	23,790
Total States and Territories .....	2,961,698	2,698,627	5,660,325	16,594	16,035	32,629	5,438,784	254,170	5,692,954

## PERSONS OVER TWENTY YEARS OF AGE WHO CANNOT READ AND WRITE.

STATES.	WHITE.			FREE COLORED.			Natives.	Foreign.	Total.
	Males.	Females.	Total.	Males.	Females.	Total.			
Alabama .....	14,517	23,068	37,605	192	263	455	37,302	758	38,060
Arkansas .....	9,379	14,263	23,642	10	13	23	23,587	78	23,665
California .....	11,835	7,154	18,989	497	207	704	11,509	8,184	19,693
Connecticut .....	3,405	5,083	8,488	181	164	345	925	7,908	8,833
Delaware .....	2,838	3,823	6,661	3,056	3,452	6,508	11,503	1,666	13,169
Florida .....	2,378	2,963	5,341	48	72	120	5,150	311	5,461
Georgia .....	16,900	26,784	43,684	255	318	573	43,550	707	44,257
Illinois .....	24,786	33,251	58,037	632	695	1,327	39,748	19,616	59,364
Indiana .....	24,297	36,646	60,943	869	904	1,773	55,903	6,813	62,716
Iowa .....	7,806	11,976	19,782	92	77	169	12,903	7,048	19,951
Kansas .....	1,228	1,776	3,004	25	38	63	2,695	372	3,067
Kentucky .....	28,742	38,835	67,577	1,113	1,350	2,463	65,749	4,291	70,040
Louisiana .....	8,051	9,757	17,808	485	717	1,202	15,679	3,331	19,010
Maine .....	4,282	4,270	8,552	25	21	46	2,386	6,212	8,598
Maryland .....	7,290	8,529	15,819	9,904	11,795	21,699	33,780	3,738	37,518
Massachusetts .....	16,969	29,293	46,262	291	368	659	2,004	44,917	46,921
Michigan .....	8,596	8,845	17,441	558	486	1,044	8,170	10,315	18,485
Minnesota .....	2,382	2,369	4,751	6	6	12	1,055	3,708	4,763
Mississippi .....	6,256	9,270	15,526	50	60	110	15,136	500	15,636
Missouri .....	24,255	35,405	59,660	371	514	885	51,173	9,372	60,545
New Hampshire .....	2,023	2,660	4,683	15	19	34	1,093	3,624	4,717
New Jersey .....	8,436	10,840	19,276	1,720	2,085	3,805	12,937	19,144	23,081
New York .....	47,703	68,262	115,965	2,653	3,260	5,913	26,163	95,715	121,878
North Carolina .....	26,024	42,104	68,128	3,067	3,782	6,849	74,877	100	74,977
Ohio .....	23,297	35,345	58,642	2,995	3,191	6,186	48,015	16,813	64,828
Oregon .....	762	737	1,499	7	5	12	1,200	311	1,511
Pennsylvania .....	27,560	44,596	72,156	3,893	5,466	9,359	44,930	36,585	81,515
Rhode Island .....	2,057	3,795	5,852	119	141	260	1,202	4,910	6,112
South Carolina .....	5,811	8,981	14,792	633	783	1,416	15,792	416	16,208
Tennessee .....	27,358	43,001	70,359	743	952	1,695	69,262	2,792	72,054
Texas .....	8,514	9,900	18,414	25	37	62	11,832	6,644	18,476
Vermont .....	4,467	4,402	8,869	27	20	47	933	7,983	8,916
Virginia .....	31,178	42,877	74,055	5,489	6,908	12,397	83,300	3,152	86,452
Wisconsin .....	7,465	8,983	16,448	53	45	98	2,663	13,883	16,546
Total States .....	448,847	639,863	1,088,710	40,099	48,214	88,313	834,106	342,917	1,177,023
TERRITORIES.									
Colorado, (no returns) .....									
Dakota .....	62	15	77				60	17	77
District of Columbia .....	1,258	2,248	3,506	1,151	2,224	3,375	4,860	2,021	6,881
Nebraska .....	317	304	621	6	7	13	357	277	634
Nevada .....	138	5	143	6	1	7	40	110	150
New Mexico .....	16,008	16,750	32,758	12	15	27	31,626	1,159	32,785
Utah .....	98	225	323				162	161	323
Washington .....	295	142	437	1		1	207	231	438
Total Territories .....	18,176	19,689	37,865	1,176	2,247	3,423	37,312	3,976	41,288
Total States and Territories .....	467,023	659,552	1,126,575	41,275	50,461	91,736	871,418	346,893	1,218,311



TABLE A.—*Schools and educational statistics according to census of 1860.*

## EXPLANATION.

By a college is understood a corporate body for educational purposes, authorized to confer the usual academic degree of bachelor and master of arts, science, &c. The professional schools of law, theology, medicine, science, &c., are in some instances independent organizations, and in others departments of a literary college. The scientific schools do not include the institutions specially devoted to agriculture. The military and naval schools include not only State institutions, but the national military school at West Point, N. Y., and the national naval academy at Annapolis, Md. The normal schools include city as well as State institutions of this class when fully organized.

COLLEGES.—Aggregate number returned .....	467	PUBLIC SCHOOLS.—Number .....	107,880
Professors and instructors .....	2,895	Teachers .....	131,099
Pupils .....	56,120	Pupils .....	4,955,894
Annual income—from endowment .....	\$894,736	Annual income—from endowment .....	\$416,606
taxation .....	25,882	taxation .....	12,259,440
public funds .....	133,940	public funds .....	6,692,633
other sources .....	2,122,159	other sources .....	3,179,840
Total .....	\$3,176,717	Total .....	\$22,548,519
ACADEMIES AND OTHER SEMINARIES.—Number .....	6,877	Total—Institutions of every grade .....	115,224
Teachers .....	16,247	Professors and teachers .....	150,241
Pupils .....	465,023	Pupils .....	5,477,037
Annual income—endowment .....	\$888,289	Income from all sources .....	\$34,717,112
taxation .....	314,760	Number of persons over 20 unable to read and write—	
public funds .....	501,882	Foreign born .....	346,893
other sources .....	7,286,945	Native born .....	871,418
Total .....	\$8,991,876	Total .....	1,218,311
		Number of persons attending school during the year according to fami-	
		lies .....	5,692,954

## General summary.

Total.	Institutions.	Teachers.	Pupils.	Income.
Colleges .....	467	2,895	56,120	\$3,176,717
Academies .....	6,877	16,247	465,023	8,991,876
Public schools .....	107,880	131,099	4,955,894	22,548,519
Total .....	115,224	150,241	5,477,037	26,717,112

Under the head of Colleges, are returned all special schools of theology, medicine, law, science, and its application to engineering, mining, agriculture, and, in some cases, normal and military schools, as well as female seminaries.

Under the head of Academies and other Schools, are returned special schools for the deaf-mutes, blind, juvenile criminals orphans, as well as all private schools.

Under the head of Public Schools, are returned public high schools, which belong properly to the academies.

In the following table the results are classified somewhat differently:

COLLEGES.—Literary institutions conferring degrees of A.B., A.M., &c. ....	204	Public elementary schools, of all grades below high schools, under sep-	
Theological .....	93	arate teachers .....	100,000
Medical .....	46	Private elementary schools .....	50,000
Legal .....	20	Special schools for deaf-mutes .....	22
Scientific—civil engineering, analytic chemistry, mining ..	17	blind .....	23
Agricultural* .....	17	idiotic .....	6
Normal schools—State, city, and corporate .....	25	reformatories, State and city .....	20
Military—national, State, and collegiate .....	12	orphan homes .....	100
ACADEMIES AND HIGHER SEMINARIES.—Males, or males and females ..	6,000		
Females exclusively .....	500		
Public High schools, which pre-			
pare pupils for college .....	400		

\* The agricultural schools include institutions which have been organized since 1861 under the appropriations of public lands made by Congress in aid of this class of schools.



TABLE B.—Colleges distributed according to their special character.

NAME.	Literary.	Theological school or department.	Medical school or department.	Legal school or department.	Scientific school or department.	Agricultural school or department.	Normal.	Military.
Alabama.....	4	1						1
Arkansas.....								
California.....	4	1				1	1	
Connecticut.....	3	3	1	1	1	1	1	
Delaware.....	1							
District of Columbia.....	3	1	3	1	1			
Florida.....								
Georgia.....	6	1	2					
Illinois.....	12	9	2	1			1	
Indiana.....	12	2		2		1		
Iowa.....	7	2	1			1	1	
Kansas.....	3					1	1	
Kentucky.....	5	3	2	1				1
Louisiana.....	8	2	1	1	1			1
Maine.....	2	1	1			1	1	
Maryland.....	9	4	2			1	1	1
Massachusetts.....	6	4	3	1	2	1	5	
Michigan.....	4	1	1	1	1	1	1	1
Minnesota.....	3					1	1	
Mississippi.....	4							1
Missouri.....	11	4	1	1	1		1	
New Hampshire.....	1	2	1		1			
New Jersey.....	3	2					1	
New Mexico.....	1	1						
New York.....	10	13	8	5	5	1	2	1
North Carolina.....	4			1				
Ohio.....	20	10	3	1		1	3	
Oregon.....	3							
Pennsylvania.....	19	13	5	1	1	1	4	
Rhode Island.....	1				1	1	1	
South Carolina.....	4	5	1				1	2
Tennessee.....	7	3	2	1				1
Texas.....	4							
Vermont.....	2	1	3		1	1		1
Virginia.....	10	2	3	1	1			2
Wisconsin.....	8	2				1	1	
Total.....	204	93	46	20	17	17	28	13

TABLE C.—Exhibiting the condition of public schools, drawn from recent annual\* reports of the State superintendents or boards of education in the States specified.

STATES.	Schools.	Teachers.	Pupils.	Cost.
California.....	947	1,500	41,000	\$246,000
Connecticut.....	2,000	2,500	100,000	400,000
Illinois.....	10,000	14,000	516,000	2,000,000
Indiana.....	7,907	9,000	449,804	1,000,000
Iowa.....	5,712	8,820	217,000	800,000
Kentucky.....	4,696	5,000	166,000	300,000
Maine.....	4,000	6,000	150,000	1,263,000
Massachusetts.....	4,675	7,352	226,000	3,000,000
Michigan.....	3,414	6,000	215,786	690,000
New Hampshire.....	2,300	3,100	85,000	255,000
New Jersey.....	1,552	1,600	150,000	637,079
New York.....	12,000	15,703	984,695	4,381,000
Ohio.....	12,000	20,658	800,000	3,000,000
Pennsylvania.....	12,000	16,000	704,000	3,600,000
Rhode Island.....	512	665	23,000	200,000
Vermont.....	2,120	4,620	64,000	192,000
Wisconsin.....	5,000	7,403	215,000	860,000
Total.....	90,835	129,921	5,107,285	22,824,079

\* 1862 to 1864.

NOTE.—Tables A, B, and C (educational) were prepared subsequently to any other reference or exhibit relative to education in this volume.

# TAXES IN THE UNITED STATES IN 1860.

511

## ANNUAL TAXES, UNITED STATES, 1860.

STATES.	ANNUAL TAXES.										
	State.	County.	City.	Town.	School.	Poor.	Road.	Miscellaneous.	How paid.		Total.
									Cash.	Labor.	
Alabama.....	\$530,107	\$309,474	\$600		\$6,256	\$2,023	\$1,881	\$830	\$851,171		\$851,171
Arkansas.....	241,633	285,773	2,570	\$11,300			83,117	11,000	560,476	\$74,917	635,393
California.....	757,101	956,650	834,433		164,387	50,311	55,583	162,657	2,972,589	8,533	2,981,122
Connecticut.....	120,124	1,829	117,965	502,745	96,103	15,381	125,367	35,523	956,655	58,382	1,015,037
Delaware*.....		56,005	34,325		29,658	21,407	33,004	6,033	173,422	7,010	205,891
Florida.....	80,938	74,425	3,422		336				159,121		159,121
Georgia.....	381,687	283,365	15,538	5,081	59,245	17,590	5,922	29,457	797,885		797,885
Illinois.....	2,260,092	1,362,307	632,922	208,625	1,368,235	6,357	217,100	66,128	6,057,821	63,945	6,121,766
Indiana.....	1,019,376	1,163,684	246	18,504	924,394	13,525	344,194	217,429	3,548,299	153,053	3,701,352
Iowa.....	383,375	918,315	142,448	8,243	591,370	12,445	255,603	66,601	2,250,842	127,558	2,378,400
Kansas.....	27,589	127,767	11,385		4,244		6,051	19,821	190,617	5,240	195,857
Kentucky.....	1,060,027	427,690	406,832	6,532	122,189	30,991	72,908	21,072	2,145,968	2,273	2,148,241
Louisiana.....	2,486,932	440,138	1,680,134		308,148		967	44,461	4,960,780		4,960,780
Maine.....	214,136	233,795	269,825	258,943	322,367	163,381	644,258	150,508	1,688,026	569,187	2,257,213
Maryland.....	873,237	1,164,065		464	78,934	10,633	29,647	2,015	2,144,725	14,170	2,158,895
Massachusetts.....	309,196	641,655	3,798,786	1,002,789	741,071	173,059	374,615	395,407	7,262,222	174,356	7,436,578
Michigan.....	198,212	455,368	205,687	44,897	392,908	45,698	295,278	128,646	1,664,021	102,673	1,766,694
Minnesota.....	193,295	261,388	24,777	14,153	100,707	2,244	30,838	38,605	647,562	18,445	666,007
Mississippi.....	398,821	384,908	32,722	3,000	32,648	28,072	49,015	25,620	951,206	3,600	954,806
Missouri.....	1,691,934	1,295,108	970,450		83,070	3,443	58,254	7,394	4,083,069	26,584	4,109,653
New Hampshire.....	98,126	191,775	131,316	268,532	228,171	48,945	284,179	10,822	1,033,767	228,099	1,261,866
New Jersey.....	1,964	407,832	418,089	87,562	260,071	59,579	161,019	61,390	1,391,822	65,684	1,457,506
New York.....	2,280,154	1,763,839	6,341,414	490,820	1,841,294	1,006,263	220,978	1,418,660	15,268,617	94,805	15,363,422
North Carolina.....	543,643	255,417		2,100	94,731	89,374	3,629	55,838	1,044,732		1,044,732
Ohio.....	2,839,575	1,970,870	1,523,430	175,777	1,620,883	232,084	653,109	595,293	9,370,701	240,320	9,611,021
Oregon.....	43,397	115,571			18,779	1,200	10,658	9,451	192,421	6,635	199,056
Pennsylvania.....	1,396,527	1,720,655	1,215,677	139,171	1,905,032	367,601	1,350,671	634,402	7,988,532	741,204	8,729,736
Rhode Island.....	17,129		44,663	69,510	21,787	8,231	24,490	4,917	665,972	20,161	686,133
South Carolina.....	518,799	55,506	528,208	10,675	46,758	65,390	35,770	19,280	1,280,386		1,280,386
Tennessee.....	455,192	330,034	233,061		67,762	11,949	2,039	2,756	1,102,793		1,102,793
Texas.....	298,859	208,053	23,206	1,203	1,379			565	533,265		533,265
Vermont.....	187,291	15,066	9,186	336,003	106,126	33,417	220,991		697,653	210,427	908,080
Virginia.....	2,228,875	488,091	685,290	25,627	71,093	115,116	42,773	15,824	3,660,015	12,674	3,672,689
Wisconsin.....	313,712	753,033	434,043	187,490	298,212	39,337	241,191	62,993	2,153,801	176,210	2,330,011
Total in States.....	24,451,055	19,119,451	20,772,650	3,879,746	12,007,348	2,675,046	5,935,099	4,321,398	90,450,954	3,206,145	93,657,099
TERRITORIES.											
Columbia, District of.....		5,384	209,574		37,365			8,003	260,218		260,218
Dakota†.....											
Nebraska.....	18,082	37,448	6,770		13,034		16,529		82,459	9,404	91,863
New Mexico.....	9,255	12,485		3,550				4,500	25,115	4,675	29,790
Utah.....	18,090	25,357	10,988				10,571		61,682	3,324	65,006
Washington.....	4,409	12,099	2,705		7,115		28,453	2,530	32,145	25,166	57,311
Total in Territories.....	49,836	92,773	230,637	3,550	57,514		53,553	15,033	461,619	42,569	504,188
Total in States and Terr's.....	24,500,891	19,212,224	21,002,687	3,883,296	12,064,862	2,675,046	5,990,652	4,336,431	90,912,573	3,248,714	94,161,287

\* Returns for taxation incomplete.

† No returns for taxation.

## PAUPERISM, CRIME, AND WAGES, 1860.

STATES.	PAUPERISM.					CRIME.				WAGES.						
	Whole number of paupers supported within the year.		Whole number on 1st June.		Annual cost of support.	Whole number of criminals convicted within the year.		In prison on 1st June.		Av. monthly wages to a farm hand with board.	Av. to a day laborer with board.	Av. to a day laborer without board.	Av. day wgs. to a car-penter without brd.	Weekly wgs. female domestic, with brd.	Price of brd. to labor-ing men per week.	
	Native.	Foreign.	Native.	Foreign.		Native.	Foreign.	Native.	Foreign.							
Alabama .....	555	27	431	18	\$38,890	136	43	183	43	\$12 41	\$0 70	\$0 96	\$2 15	\$2 08	\$2 08	$2 08
Arkansas .....	254	35	175	3	16,702	191	9	61	17	14 25	78	1 04	2 24	1 91	2 48	2 48
California .....	613	1,570	105	188	99,171	345	570	336	546	33 28	1 90	2 62	4 43	7 45	6 25	6 25
Connecticut .....	2,531	1,513	1,548	690	126,355	655	818	449	197	15 11	88	1 15	1 68	1 50	2 61	2 61
Delaware .....	551	191	331	116	22,830	63	.....	19	8	10 66	61	87	1 49	92	2 05	2 05
Florida .....	152	16	105	2	4,654	24	9	13	2	14 29	76	1 16	2 41	2 32	3 58	3 58
Georgia .....	1,408	43	1,106	90	45,161	217	34	77	34	11 95	63	89	2 00	1 67	2 22	2 22
Illinois .....	1,658	2,970	707	1,149	196,184	423	389	313	172	13 72	78	1 05	1 76	1 46	2 17	2 17
Indiana .....	2,421	1,144	1,120	469	151,851	643	541	129	155	13 71	73	98	1 65	1 28	2 09	
Iowa .....	746	1,419	322	361	83,737	183	95	61	34	13 18	73	99	1 74	1 27	2 08	2 08
Kansas .....	7	14	7	14	423	17	7	22	9	16 12	82	1 22	2 67	1 82	2 90	2 90
Kentucky .....	975	290	749	150	71,603	289	311	147	85	13 57	71	97	1 90	1 47	1 94	1 94
Louisiana .....	157	37	146	16	11,395	696	2,501	359	490	17 00	97	1 39	2 81	3 36	3 52	3 52
Maine .....	7,133	1,813	4,147	471	226,945	516	699	197	58	14 34	85	1 05	1 52	1 32	2 06	2 06
Maryland .....	2,460	1,815	621	99	75,113	250	33	99	17	9 71	58	84	1 50	1 17	2 38	2 38
Massachusetts .....	18,010	33,870	5,206	1,297	579,397	4,440	8,292	1,495	1,184	15 34	90	1 18	1 70	1 58	2 51	2 51
Michigan .....	4,235	4,869	679	744	113,227	530	341	505	252	15 27	76	1 04	1 60	1 40	2 31	2 31
Minnesota .....	110	240	39	117	26,871	14	19	16	16	14 10	86	1 20	1 81	1 58	2 50	2 50
Mississippi .....	346	28	270	31	26,675	193	26	35	18	16 66	85	1 26	2 47	2 25	2 92	2 92
Missouri .....	648	310	513	271	70,445	483	33	166	120	13 63	71	98	1 92	1 47	2 01	2 01
New Hampshire .....	3,614	780	2,072	239	153,958	335	460	138	55	14 34	79	1 03	1 52	1 63	2 07	2 07
New Jersey .....	2,871	5,329	1,308	553	132,646	797	848	124	91	11 91	78	1 07	1 58	1 23	2 84	2 84
New York .....	79,141	85,641	7,666	11,549	1,440,904	15,230	42,837	2,861	4,021	13 19	74	1 02	1 62	1 25	2 24	2 24
North Carolina .....	1,911	11	1,422	9	83,486	447	3	62	9	10 37	54	77	1 56	1 08	1 84	1 84
Ohio .....	3,811	2,142	5,700	8,392	311,109	1,932	4,898	265	358	13 11	71	98	1 56	1 22	2 12	2 12
Oregon .....	24	26	15	10	13,155	20	9	6	7	33 61	1 67	2 28	4 23	5 40	4 97	4 97
Pennsylvania .....	7,638	8,805	4,495	3,281	665,396	2,516	414	756	405	12 24	68	97	1 44	1 22	2 20	2 20
Rhode Island .....	637	471	445	168	42,785	258	460	100	81	16 04	91	1 05	1 66	1 50	2 47	2 47
South Carolina .....	1,605	35	1,404	35	65,242	119	22	57	31	11 37	59	82	1 78	1 82	2 08	2 08
Tennessee .....	1,561	1,477	776	159	64,774	194	6	433	78	11 94	59	84	1 85	1 28	1 86	1 86
Texas .....	127	12	108	14	12,849	183	31	65	40	16 02	90	1 25	2 49	2 50	2 92	2 92
Vermont .....	2,502	885	1,510	340	120,473	23	20	80	39	14 14	79	1 04	1 61	1 31	2 00	2 00
Virginia .....	5,808	219	4,320	214	268,649	192	416	163	26	11 43	61	81	1 52	1 14	1 98	1 98
Wisconsin .....	2,516	2,740	815	1,149	126,500	212	542	172	181	13 96	78	1 05	1 73	1 30	2 25	2 25
Total in States .....	158,756	160,787	50,383	32,408	5,429,555	32,766	65,736	9,964	8,879	14 73	81	1 11	1 97	1 85	2 56	2 56
TERRITORIES.																
Columbia, District of .....	1,441	640	95	47	12,650	120	144	163	47	16 00	80	1 00	2 15	1 55	2 65	2 65
Dakota .....	8	22	3	3	724	8	.....	.....	.....	17 45	84	1 37	2 51	1 72	2 80	2 80
Nebraska .....	.....	.....	.....	.....	.....	21	2	8	2	14 54	70	1 02	2 37	2 18	4 27	4 27
New Mexico .....	3	1	1	.....	344	14	10	5	3	23 33	1 38	1 94	2 77	2 33	3 66	3 66
Utah .....	5	2	1	1	1,870	4	11	3	12	43 00	2 26	2 92	4 67	6 62	6 29	6 29
Washington .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total in Territories .....	1,457	665	100	51	15,588	167	167	179	64	22 86	1 19	1 65	2 89	2 88	3 94	3 94
Total in States and Territor's.	160,213	161,452	50,483	32,459	5,445,143	32,933	65,903	10,143	8,943	18 80	1 00	1 38	2 43	2 36	3 25	3 25

WHITES OVER 100.

513

UNITED STATES—PERSONS LIVING OVER 100 YEARS. BLACK.

[illegible]

## UNITED STATES—PERSONS LIVING OVER 100 YEARS. MULATTO.

STATES.	101.		102.		103.		104.		105.		106.		107.		108.		109.		110.		113.		115.		116.		117.		Total.		Aggregate.
	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	
Alabama.....			1																										1		1
Arkansas.....																															
California.....																															
Connecticut.....																															
Delaware.....																															
Florida.....																															
Georgia.....									1										1										1	1	2
Illinois.....																															
Indiana.....																															
Iowa.....																															
Kansas.....																															
Kentucky.....										1																			1	1	1
Louisiana.....		1	2					1																					2	2	4
Maine.....																															
Maryland.....				1		1		1	1	1		2		1							1								1	8	9
Massachusetts.....		1																											1	1	1
Michigan.....																															
Minnesota.....																															
Mississippi.....				1														1												2	2	2
Missouri.....						1																							1		1
New Hampshire.....																															
New Jersey.....																															
New York.....																		1													1	1
North Carolina.....	1																			1										1	1	2
Ohio.....		1		1		1																					1		1	3	4
Oregon.....																															
Pennsylvania.....						1	1													1										2	1	3
Rhode Island.....																															
South Carolina.....		1								1										1											3	3
Tennessee.....																											1		1	1	1
Texas.....																															
Vermont.....																															
Virginia.....		1		1				2	2								1				3					1				3	8	11
Wisconsin.....																															
Total States.....	1	5	3	4	2	3		4	4	3		2		1		1		2	1	6		1			1		1	1	13	33	46
District of Columbia.....																															
New Mexico.....																															
Total Territories.....																															
Total States and Territories.....	1	5	3	4	2	3		4	4	3		2		1		1		2	1	6		1			1		1	1	13	33	46

MULATTOES OVER 100.

## UNITED STATES—PERSONS LIVING OVER 100 YEARS. INDIANS.

STATES.	101.		102.		103.		104.		105.		106.		107.		108.		109.		110.		113.		115.		116.		120.		125.		140.		Total.		Aggregate.
	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.			
Alabama .....																																			
Arkansas .....																			4	1			1				1				1	10	9	19	
California .....	2	2	1			1			1	2				1									1												
Connecticut .....																																			
Delaware .....																																			
Florida .....																																			
Georgia .....																																			
Illinois .....																																			
Indiana .....																																			
Iowa .....																																			
Kansas .....																																			
Kentucky .....																																			
Louisiana .....																																			
Maine .....																																			
Maryland .....														1																		1	1		
Massachusetts .....																																			
Michigan .....			1																														1	1	
Minnesota .....						1																										1		1	
Mississippi .....																																			
Missouri .....																																			
New Hampshire .....																																			
New Jersey .....																																			
New York .....																																			
North Carolina .....									1																							1		1	
Ohio .....																																			
Oregon .....																																			
Pennsylvania .....																																			
Rhode Island .....																																			
South Carolina .....																																			
Tennessee .....																																			
Texas .....																																			
Vermont .....																																			
Virginia .....																																			
Wisconsin .....																																			
Total States .....	2	2	2		1	1			2	2				2					4	1			1			1			1		1	13	10	23	
District of Columbia .....																			2													2	1	3	
New Mexico .....																																			
Total Territories .....																			2													2	1	3	
Total States and Territories .....	2	2	2		1	1			2	2				2					6	1			1			1		1		1	15	11	26		

Summary of persons living in the United States over 100 years of age.—White, 440; black, 688; mulatto, 46; Indians, 26; aggregate, 1,200.



## ON THE COMBINATION OF STATISTICS FOR DETERMINING THE AVERAGE RATE OF MORTALITY IN THE UNITED STATES.

ALL the statistics of mortality at the present time may be classed in four divisions.

To the first division belongs the enumeration of deaths made in connexion with the national decennial census. The Seventh Census, in 1850, was the first which introduced the schedules of mortality, on which were returned an aggregate of 323,272 deaths occurring in all parts of the United States, during the twelve months prior to June first of that year. With the names of the deceased were inserted the age at death, the sex, color and condition, the nativity, the occupation, and disease or cause of death. At the Eighth Census, in 1860, under instructions identical with the former, a total of 394,123 deaths were recorded by the enumerators; besides which, a minor portion, through forgetfulness or other causes, escaped registry. For example, the census marshals gathered the statistics of but 12,250 deaths in New York city, while at the city inspector's office 23,788 deaths were recorded during the same period, illustrating the difference between a transient canvass and a permanent organization.

The second division comprises the reports of annual deaths, together with births and marriages, recorded under the laws of particular States. Thus Massachusetts, Connecticut, Rhode Island, New Jersey, Pennsylvania, Vermont, South Carolina, and Kentucky, has each its own system of registration. In some instances the annual returns are filled up, more or less, completely by inquiry from house to house at the end of the year; in other cases, the deaths are recorded at the time of their occurrence. The latter plan is adapted to give the best results, but requires the co-operation of numerous individuals, which it has been impossible thus far fully to secure. As an English statist has observed of the Massachusetts registry: "Their annual reports are drawn up with great ability, and are only imperfect because the returns are incomplete." The Connecticut and Rhode Island reports convey the same intimation: "Every town sends in fair returns, though many country towns are still deficient in point of numbers of recorded facts." But improvements are gradually taking effect; it is a work of progress.

The third division comprises the statistics of mortality in cities. Contrary to what would naturally be supposed, the registers of deaths in the great centres of trade have been among the first to attain to accuracy. Thus, the city of New York, taking advantage of its island position, enacted that ferry-masters, steamboat agents, railroad conductors, and all other agents in charge, who should allow a body to pass out of the city without a permit, should be punishable with a fine of \$200. By this well-appointed law, every death is reported either before or at the transit for interment; burials within the city limits having nearly ceased. The registrar observes that, "full records of deaths in the city extend back only to 1851. Anterior to that time the records are deficient to a considerable degree." And while correctness of numbers is attained, the returns are yet to be interpreted in view of the modifying effect of hundreds of thousands of foreign immigrants and transient visitors who remain in the Emporium for limited periods. In Philadelphia, the new registration law was put in operation on the 1st of June, 1860; since which time, the reports show a marked improvement. The annual reports of the city of Providence also have a high reputation, and will ultimately form a valuable series. In the leading cities of the west a successful registry is yet to be organized.

The fourth division embraces the bills of mortality for special classes of population. Such are the statistics of pensioners, the medical statistics of the United States army, the records of life insurance companies, and of particular societies. In the regular army of the United States, the annual deaths in time of peace have averaged  $2\frac{1}{2}$  per cent. of the living. During the first year of the rebellion, the mortality from diseases and injuries rose to  $6\frac{3}{4}$  per cent. of the mean strength. But the rates of mortality have varied widely in different military districts, and, moreover, refer to a limited portion of the whole period of life.

In respect to life insurance, the Massachusetts insurance report for 1864 contains the mortuary experience of twenty-five American companies for six years, embracing 4,123 deaths, with the ages and corresponding numbers living. Among this number, the annual deaths have been 0.962, or a trifle less than one per cent. of the living. But the commissioners, judging from the mortality of the past year, are led to anticipate a higher rate in future, and observe that, "through the great competition between the companies, or the admission of more hazardous risks, we may expect the mortality hereafter to approximate the rate of English companies, instead of remaining, as it now is, remarkably below it." In other words, a fair average is to be obtained only from a more extended collection.

It is scarcely necessary to remark in passing, that bills of mortality, prefiguring the frailty of life, and the ties which involve the "insurable interest," have also their moral, dramatic or picturesque associations. A happy illustration of the latter is the allegorical series, painted by the artist Cole, in four pictures, termed the Voyage of Life, and symbolizing the successive phases of childhood, youth, manhood, and old age.

Besides the four divisions of the statistics of mortality in the United States already mentioned, a few attempts have been made at different times to construct life tables from approximate data, as shown in the following summary:

TABLE I.—Comparative expectations of life.

Age.	New England.	United States.	Massachusetts.	Baltimore.	Insured lives.	Massachusetts, males.	Massachusetts, females.	Age.	New England.	United States.	Massachusetts.	Baltimore.	Insured lives.	Massachusetts, males.	Massachusetts, females.
Years.	Years.	Years.	Years.	Years.	Years.	Years.	Years.	Years.	Years.	Years.	Years.	Years.	Years.	Years.	Years.
0	-----	-----	39.8	36.9	-----	38.3	40.5	40	26.0	28.21	27.9	23.9	28.94	27.9	29.8
5	40.9	-----	50.2	-----	-----	-----	-----	50	21.2	21.77	21.3	19.3	21.56	21.6	23.5
10	39.2	-----	47.1	46.4	49.24	48.0	47.2	60	15.5	15.79	15.0	14.6	14.55	15.6	17.0
15	36.2	-----	43.0	-----	46.03	-----	-----	70	10.1	9.52	9.4	10.1	8.64	10.2	11.3
20	34.2	36.32	39.9	35.4	42.75	40.1	40.2	80	5.9	4.96	5.0	7.1	-----	5.9	6.4
30	30.3	32.20	34.0	29.0	36.00	34.0	35.4	90	3.7	2.34	2.9	5.0	-----	2.8	3.0

From the present limited extent of research and literature of this kind in the United States, we derive the following explanation of the several columns:

The column headed New England expresses in years and decimal parts the future duration of life after attaining the ages stated in the first column respectively; the figures are copied from the life table of Dr. Wigglesworth, in the second volume of the *Memoirs of the American Academy*. Following the plan of Dr. Halley, this early table was based solely upon the records of 4,893 deaths, collected prior to 1789, in Massachusetts and New Hampshire. Without applying a correction for the rapid increase of population, the author very properly observes: "By the bills it appears that the births are twice the deaths; consequently the expectations of life are less than just, especially at the younger periods of life."

The third column gives the expectation of life calculated from the United States Census of 1830, by J. Ingersoll Bowditch, esq. In the original memoir, published by the *American Academy* in 1833, he observes: "From the enumerations made within forty years, it has been found that there has been an annual increase of about three per cent. If we apply to the interpolated numbers of the white inhabitants in 1830 a correction for this increase, the expectations of life will be nearly as stated. Below 20 years the numbers are irregular, which renders it impossible to form a satisfactory table for those years."

The fourth column contains the expectations of life in Massachusetts, as computed by E. B. Elliott, of Boston, from the State Census of population and deaths in 166 of the 331 towns of the commonwealth, for the year 1855. A limiting ratio of one annual death to sixty-three living was assumed, and all towns having a less rate of mortality were omitted from the calculation, of which a full account is published in the proceedings of the American Association for the Advancement of Science for 1857.

The fifth column exhibits the expectations of life in Baltimore, computed by Professor McKay, from the records of mortality and population in that city during 22 years, ending with 1848, published in the *Merchants' Magazine* for 1850.

The sixth column, referring to insured lives, is copied from the tables prepared by Sheppard Homans, actuary of the Mutual Life Insurance Company of New York, from the experience of that company during fifteen years; the whole number of deaths being 750. In the memoir published by the company, the probable opinion is expressed that the mortality of assured lives as a class will be found to differ from that of the general population.

The seventh column for males, and the eighth for females, in Massachusetts, were computed by the writer of this from the National Census of population and deaths in that State, and published in a report of the Superintendent of the Census for the year 1852. As the returns of mortality were generally deficient in point of numbers, the prevalence of cholera in the census year was assumed to afford a species of compensation. Several tables on the same plan were also prepared for other sections of the country.

Since the publication of these last results nearly fourteen years have passed, and various other plans of computation have been tried for determining the law of mortality *with a higher degree of precision*. In this respect the preferred mode of analysis about to be described, and applying the modern "rule of least squares," it is believed will prove an acceptable contribution to the science of life statistics. Over an extensive country like the United States, the accurate registry of deaths, as before shown, must be a work of progress. Hence to know the true law of mortality, we must either await such progressive registration, or else resort to new methods of analysis and combination of the existing statistics, as here proposed.

For exhibiting the relations of mortality to the population, the Life Table is unsurpassed, and its fundamental form admits of easy explanation. Imagine a large number of infants, as 100,000, to be born alive on the same day, and that the numbers surviving at the end of each successive year have been accurately registered throughout the lifetime of that generation. Thus, in a first column let there be entered the years of age, 0, 1, 2, 3,—105. Opposite the age 0, let there be entered in a second column 100,000, and let the number of those that survive to the next birth-day be entered opposite the age 1, and so on to the oldest age. The limiting age will be about 105 years, more or less; for the few that ever exceed this age are very rare exceptions to the general series.

From such a table, or its fundamental column, the normal number dying or surviving, through any given portion of age, is readily obtained; also the expectation of life in years, the value of life annuities, and the premiums of life insurance; there are, besides, other useful and important applications.

Although the nature of the Life Table is correctly illustrated on the basis of 100,000 simultaneous births, yet in practice,

# AVERAGE RATE OF MORTALITY.

519

such tables are usually constructed from the ratio of annual deaths to the living at the different ages of life. These ratios are unmistakable elements, and furnish a sure foundation, when derived from so many years of full registration as will express the average mortality.

In a community where the births and deaths had continued equal in every year for a century, the proportions of population living at each year of age would coincide with those of its life table, presenting the example of "a stationary population." But if the annual births are unequal, with large changes by migration, the distribution of the aggregate population may become widely different from that of the Life Table, which latter still expresses the normal scale of mortality applied to individuals. The distribution, by ages, of the population of the United States, and its changes according to the Census, shown in Tables II, III, and IV, are therefore compatible with one law of mortality.

TABLE II.—*Proportions of population at different ages and periods.*

AGES.	WHITE.				FREE COLORED.		SLAVE.	
	1830.	1840.	1850.	1860.	1850.	1860.	1850.	1860.
Under 5 years.....	17.98	17.43	14.81	15.28	14.00	13.53	16.87	16.63
5 to 10 years.....	14.55	14.17	13.83	13.08	13.36	12.68	14.95	14.67
10 to 15 years.....	12.42	12.09	12.28	11.55	12.04	12.34	13.61	13.77
15 to 20 years.....	11.10	10.91	10.89	10.59	10.08	10.81	11.15	11.43
20 to 30 years.....	17.79	18.14	18.55	18.30	17.85	17.54	17.86	17.78
30 to 40 years.....	10.90	11.59	12.36	13.04	12.71	12.65	11.04	11.18
40 to 50 years.....	6.87	7.32	8.13	8.48	8.73	9.17	6.86	7.12
50 to 60 years.....	4.30	4.36	4.90	5.20	5.60	5.74	3.96	3.96
60 to 70 years.....	2.53	2.45	2.67	2.90	3.23	3.31	2.33	2.30
70 to 80 years.....	1.10	1.13	1.15	1.15	1.45	1.44	.84	.79
80 to 90 years.....	.31	.32	.34	.30	.60	.53	.28	.25
90 to 100 years.....	.04	.04	.04	.04	.20	.18	.08	.08
Above 100 years.....				.00	.08	.08	.05	.04
Unknown.....	.11	.05	.05	.09	.07	.....	.12	.....
Total.....	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

TABLE III.—*Ratio of males to females at different ages and periods.*

AGES.	WHITE.				FREE COLORED.		SLAVE.	
	1830.	1840.	1850.	1860.	1850.	1860.	1850.	1860.
	As 100 males to—	As 100 males to—	As 100 males to—	As 100 males to—	As 100 males to—	As 100 males to—	As 100 males to—	As 100 males to—
Under 5 years.....	94.75	94.7	96.76	96.87	100.6	100.71	102.35	102.75
5 to 10 years.....	95.99	96.38	97.03	97.24	101.53	101.49	100.32	100.47
10 to 15 years.....	95.39	95.12	96.00	95.77	100.71	98.70	96.94	95.45
15 to 20 years.....	104.02	104.78	104.46	103.64	114.73	113.22	102.8	103.68
20 to 30 years.....	96.02	94.78	94.08	96.72	116.73	118.45	97.59	96.62
30 to 40 years.....	93.75	89.92	87.55	87.45	111.16	112.64	101.74	101.00
40 to 50 years.....	96.79	93.58	89.09	86.36	108.47	103.72	101.49	98.73
50 to 60 years.....	97.48	96.92	92.15	89.00	106.89	109.99	94.65	95.17
60 to 70 years.....	97.2	99.48	96.88	94.77	110.36	109.78	95.98	95.47
70 to 80 years.....	100.98	100.62	101.1	101.89	119.46	120.01	103.96	101.89
80 to 90 years.....	110.29	110.54	110.11	112.51	136.71	156.22	108.27	115.28
90 to 100 years.....	123.62	128.87	123.16	136.16	160.28	161.16	121.63	129.13
Above 100 years.....	79.07	66.38	120.45	138.78	200.87	188.28	135.15	133.98
Unknown.....			44.09	78.76	90.67	111.76	97.33	119.18
Total.....	96.4	95.6	95.0	94.85	108.17	108.52	99.95	99.48

TABLE IV.—Decennial increase per cent. at different ages and periods.

AGES.	WHITE.			FREE COLORED.	SLAVE.
	1830 to 1840.	1840 to 1850.	1850 to 1860.	1850 to 1860.	1850 to 1860.
Under 5 years.....	30.57	17.07	42.21	8.38	20.73
5 to 10 years.....	31.20	34.47	30.52	6.56	20.10
10 to 15 years.....	31.14	39.98	29.69	15.28	23.97
15 to 20 years.....	32.39	37.50	34.17	20.45	25.51
20 to 30 years.....	37.39	40.83	36.05	10.33	21.87
30 to 40 years.....	43.33	46.88	45.48	11.78	23.97
40 to 50 years.....	<b>43.49</b>	52.96	43.95	17.89	27.10
50 to 60 years.....	36.72	<b>54.72</b>	46.23	14.94	22.47
60 to 70 years.....	30.46	49.98	<b>49.95</b>	14.96	20.87
70 to 80 years.....	38.33	39.51	38.53	11.40	15.88
80 to 90 years.....	37.31	43.83	23.07	1.67	9.12
90 to 100 years.....	25.72	42.07	19.89	0.59	12.62
Over 100 years.....	46.75	0.51	17.84	7.58	10.07
Total.....	34.72	37.74	37.87	12.33	23.39

Table II very clearly shows that the proportion of children and youth under twenty years has been gradually diminishing, while that of adults from twenty to eighty has been increasing; which is due chiefly to the vast immigration since 1840. Another feature is the notable deficiency at about the age of sixty-five, in the column of 1840. These persons were born in the years adjacent to 1775; and a deficiency of births by the war of the Revolution is thus indicated.

Table IV more explicitly confirms this last inference by less rates of increase in the series referring to that generation, as 30.46, 39.51, 23.07. On the other hand, the maximum rates of the three columns, 43.49, 54.72, 49.95, rising above the changes of immigration, unitedly refer to the generation born about twenty years after, or about 1795, as attended with the greatest increase of births. The figures also imply, with a trace of geological inference, an antecedent increase of marriages and of general prosperity. On turning to Seybert's Statistical Annals, p. 59, we find the following corroborative sketch of that period, here condensed:

"The most memorable of revolutions was commenced in France in 1789. The wars consequent upon that event created a demand for our exports, and invited our shipping for the carrying trade of a very considerable portion of Europe. We not only carried the colonial productions to the several parent states, but we also became the purchasers of them in the French, Spanish, and Dutch colonies. A new era was established in our commercial history; the individuals who partook of these advantages were numerous. We seemed to have arrived at the maximum of human prosperity."

Without dwelling upon other features less clearly traced in the statistical tables of the Census, we may yet observe on Table III, that between the ages of 15 and 20, too many females, and perhaps too few males, are included from the adjacent ages. The series of numbers uniformly indicate the greater longevity of females above that of males, in old age.

In the next place let us glance at the statistics of foreign immigration, observing especially the distribution of ages.

TABLE V.—Statement of the number of alien passengers arriving in the United States by sea from foreign countries from September 30, 1819, to December 31, 1860.

Year.	Males.	Females.	Sex not stated.	Total.	Year.	Males.	Females.	Sex not stated.	Total.
Year ending Septem. 30, 1820..	4,871	2,393	1,121	8,385	Year ending Decem. 31, 1842..	62,277	41,907	381	104,565.
1821..	4,651	1,636	2,840	9,127	First three quarters of 1843..	30,069	22,424	3	52,496
1822..	3,816	1,013	2,082	6,911	Year ending Septem. 30, 1844..	44,431	34,184	-----	78,615
1823..	3,598	848	1,908	6,354	1845..	65,015	48,115	1,241	114,371
1824..	4,706	1,393	1,813	7,912	1846..	87,777	65,742	897	154,416
1825..	6,917	2,959	323	10,199	1847..	136,086	97,917	965	234,968
1826..	7,702	3,078	57	10,837	1848..	133,906	92,149	472	226,527
1827..	11,803	5,939	1,133	18,875	1849..	177,232	119,280	512	297,024
1828..	17,261	10,060	61	27,382	Year ending Septem. 30, 1850..	196,331	112,635	1,038	310,004
1829..	11,303	5,112	6,105	22,520	Quarter ending Dec. 31, 1850..	32,990	26,805	181	59,976
1830..	6,439	3,135	13,748	23,322	Year ending Decem. 31, 1851..	217,181	162,219	66	379,466
1831..	14,909	7,724	-----	22,633	1852..	212,469	157,696	1,438	371,603
1832..	34,596	18,583	-----	53,179	1853..	207,958	160,615	72	368,645
Quarter ending Dec. 31, 1832..	4,691	2,512	100	7,303	1854..	256,177	171,656	-----	427,833
Year ending Decem. 31, 1833..	41,546	17,094	-----	58,640	1855..	115,307	85,567	3	200,877
1834..	38,796	22,540	4,029	65,365	1856..	115,846	84,590	-----	200,436
1835..	28,196	17,027	151	45,374	1857..	146,215	105,091	-----	251,306
1836..	47,865	27,553	824	76,242	1858..	72,824	50,002	300	123,126
1837..	48,837	27,653	2,850	79,340	1859..	69,161	51,640	481	121,282
1838..	23,474	13,685	1,755	38,914	1860..	88,477	65,077	86	153,640
1839..	42,932	25,125	12	68,069					
1840..	52,883	31,132	51	84,066					
1841..	48,082	32,031	176	80,289	Total.....	2,977,603	2,035,536	49,275	5,062,414

# AVERAGE RATE OF MORTALITY.

521

TABLE VI.—*Distribution of ages on arrival.*

AGES.	NUMBER OF AGES STATED FROM 1820 TO 1860.			PROPORTIONS.		
	Males.	Females.	Total.	Males.	Females.	Total.
Under 5 .....	218, 417	200, 676	419, 093	4.143	3.806	7.949
5 and under 10 .....	199, 704	180, 606	380, 310	3.788	3.425	7.213
10 and under 15 .....	194, 580	166, 833	361, 413	3.691	3.164	6.855
15 and under 20 .....	404, 338	349, 755	754, 093	7.669	6.633	14.302
20 and under 25 .....	669, 853	428, 974	1, 098, 827	12.706	8.136	20.842
25 and under 30 .....	576, 822	260, 554	846, 376	10.940	5.112	16.052
30 and under 35 .....	352, 619	163, 778	516, 397	6.688	3.106	9.794
35 and under 40 .....	239, 468	114, 165	353, 633	4.542	2.165	6.707
40 and upwards .....	342, 022	200, 322	542, 344	6.487	3.799	10.286
Total .....	3, 197, 823	2, 074, 663	5, 272, 486	60.654	39.346	100.000

From the foregoing table it will be seen that the distribution is materially different from that of a settled population; the females are less than the males in the ratio of two to three; almost precisely one-half of the total passengers are between fifteen and thirty years of age. It will further be noted that the sexes approach nearest to equality in children and the youthful ages, as would naturally be expected in the migration of families; while from twenty-five years of age to forty the male passengers are double the number of females. The total distribution of ages has never varied very materially from the average, as appears from the following table:

TABLE VII.—*Total proportions for different periods.*

AGES.	1820 to 1830.	1830 to 1840.	1840 to 1850.	1850 to 1860.	1820 to 1860.
Under 5 .....	6.904	8.541	8.284	7.674	7.949
5 and under 10 .....	5.763	7.552	7.434	7.077	7.213
10 and under 15 .....	4.568	7.817	7.564	6.328	6.855
15 and under 20 .....	11.052	11.830	13.059	15.762	14.302
20 and under 25 .....	22.070	19.705	21.518	20.617	20.842
25 and under 30 .....	19.574	16.661	15.722	15.944	16.052
30 and under 35 .....	10.194	10.215	9.914	9.609	9.794
35 and under 40 .....	8.171	7.875	6.563	6.466	6.707
40 and upwards .....	11.704	9.834	9.942	10.523	10.286
Total .....	100.000	100.000	100.000	100.000	100.000

In table V, if we separate the numbers arriving between the years 1830 and 1860 into three decades to be added together year by year; that is, the numbers arriving in 1831, 1841, and 1851 in one sum, those in 1832, 1842, and 1852 in another sum, and so on; the ten sums will be to one another as the following percentages to a total of 100:

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
9.9	10.9	10.2	11.8	7.4	8.9	11.6	8.0	10.0	11.3

The sum of the first five is to the sum of the last five as 50.2 is to 49.8, which is nearly a ratio of equality. An inspection of the numbers leads to the important inference that in the mean of the three decades the foreign arrivals may be regarded as nearly equal and uniform in each year; the falling off in numbers since 1854 compensating for the previous increase.

With regard to Table VII, we depend on the similarity of the columns to prove, first, that the last column represents the general distribution of ages at arrival, to the year 1860. This continued similarity and the immensity of the number leads us, secondly, to retain the proportions of the last column without change for the comparatively small number of our own people who have travelled abroad, or, for the return of foreigners to their own land, (who doubtless preserve nearly the same distribution of ages,) or for any other supposable corrections. To this approximate supposition the "rule of least squares" will be hereafter applied in such manner as to leave but a very slight trace of possible error.

After immigration, let us next recur to the more precise statistics of population and the distribution of mortality by ages.

## MISCELLANEOUS STATISTICS.

TABLE VIII.—*Mortality of American cities.*

ANNUAL DEATHS PER CENT. TO 100 LIVING AT EACH PERIOD OF AGE.

AGES.	New York, 3 years, 1859—1861.		Philadelphia, 1859—1861.	Baltimore, 11 years, 1850—1860.	Boston, 11 years, 1850—1860.	Providence, 6 years, 1856—1860.	Average of the five cities.
	Males.	Females.	Persons.	Persons.	Persons.	Persons.	Persons.
Under 1.....	28.10	23.40	18.88	20.79	9.31	7.10	8.65
1—5.....	6.94	5.95	4.84	5.77	1.06	.95	1.10
5—10.....	1.03	1.00	1.30	1.26	.48	.40	.45
10—15.....	.40	.38	.39	0.58	.87	.67	.69
15—20.....	.63	.60	.59	0.72	1.26	.86	1.06
20—30.....	1.22	1.02	.92	1.13	1.54	1.27	1.40
30—40.....	1.63	1.47	1.14	1.50	2.01	1.57	1.81
40—50.....	2.40	1.76	1.46	1.95	2.70	2.30	2.51
50—60.....	3.41	2.43	2.19	2.45	4.66	3.91	4.41
60—70.....	5.91	4.19	3.69	4.73	9.43	8.74	9.08
70—80.....	10.40	9.12	8.24	9.25	16.86	16.42	16.18
80—90.....	17.50	15.20	15.47	15.81	35.98	26.67	27.16
90—100.....	19.50	25.00	27.89	23.00	00.00		
100.....	26.70	25.50	34.77				
All ages.....	2.96	2.50	2.18	2.58	2.54	2.04	2.41
Total deaths.....	35,261	31,211	12,342	53,848	44,240	5,958	182,260

In Philadelphia, the returns of the first eighteen months, before the new law, were corrected by assuming that the deaths of the first 26 weeks should have the same ratio to those of the last 26 weeks of the year 1860 as in those of 1861, &c.; giving an annual average of 12,342 deaths, without the still-born. The percentages for Baltimore were found by regarding the population in 1850 and in 1860 as the first and the eleventh terms of a geometrical progression; the sum of the eleven terms being the proper divisor of the deaths in each period of age. For Boston, the population was averaged from three enumerations, in 1850, 1855, 1860; for Providence, from two, in 1855 and 1860. And in obtaining the general average of the last column, or greater precision, the mean of males and females in New York was added to the sum of the rest at the same age.

TABLE IX.—*Deaths per cent. by United States Census.*

AGES.	Aggregate population, 1860.	Factor of semi- annual increase.	Aggregate deaths, 1860.	Deaths per cent., aggregate.	Deaths per cent.— whites.	Deaths per cent. in 1850—whites.
0—5.....	4,842,303	1.0164	169,025	3.5478	3.2823	3.43
5—10.....	4,171,039	1.0127	27,523	0.6682	0.6630	0.66
10—15.....	3,720,674	1.0127	13,173	0.3586	0.3210	0.44
15—20.....	3,361,349	1.0143	17,456	0.5208	0.4770	0.58
20—25.....	5,726,270	1.0147	21,020	0.6985	0.6403	0.88
25—30.....			19,091	0.7247	0.7235	
30—35.....	4,021,123	1.0178	31,733	0.7402	0.7669	1.04
35—40.....				0.8795	0.8002	
40—50.....	2,614,261	1.0175	24,079	0.9373	0.9056	1.24
50—60.....	1,585,846	1.0180	20,450	1.3128	1.2700	1.60
60—70.....	888,770	1.0190	20,168	2.3123	2.2340	2.71
70—80.....	348,862	1.0153	16,934	4.9287	4.9240	5.34
80—90.....	93,535	1.0095	9,622	10.3850	10.6250	11.10
90—.....	16,716	1.0080	2,864	17.2710	18.2170	18.97
Unknown.....	52,573		985			
Total.....	31,443,321	1.0153	394,123	1.2727	1.2000	1.37

By dividing the population in 1860 by that of 1850, and taking the twentieth root of the quotient, by the aid of logarithms, the semi-annual factor in the third column was obtained. The population in the second column divided by this factor will give the population as it was six months previous to the date of the census, or at the middle of the census year. By this result, dividing the deaths in the next column, we obtain the deaths per cent. of the whole population in the fifth column. In the same way were found the percentages for the white population separately in 1860 and in 1850, given in the last two columns. From the age of twenty to forty, the population and deaths in 1860 were interpolated to five-year periods. It will also be noted that owing to the prevalence of cholera in the year 1849, the corresponding percentages of mortality are larger than those of 1860, especially in middle life.

But in what manner may the deficient percentages of the census best be corrected? May not a constant factor serve the purpose? In the hundreds of thousands enumerated over the vast territory of the United States, may not mutual compensations

occur, so that the numbers omitted shall be proportional to the numbers returned? In pursuance of this hypothesis, let the column of percentages be multiplied by an arbitrary factor, found by dividing 3,435 by the sum of the three decennial percentages from the age of twenty to fifty, and let comparisons be then instituted with similar results of the permanent registration in particular States. The close similarity of the independent columns shown in Table X, above five years of age, strikingly confirms the important hypothesis above proposed.

TABLE X.—Proportionality of deaths per cent.

AGES.	Average of five cities.	Massachusetts, 1851—1860.	Rhode Island, 1852—1862.	Connecticut, 11 years, 1849—1860.	England and Wales, 1838—1844.	Carlisle table, 1779—1787.	UNITED STATES.	
							Whites, 1860.	Total, 1860.
0-5.....	8.65	6.19	5.93	5.65	6.54	8.23	4.75	4.97
5-10.....	1.10	.77	.91	.88	.91	1.02	.96	.94
10-15.....	.45	.41	.38	.58	.53	.50	.47	.50
15-20.....	.69	.75	.72		.75	.68	.69	.74
20-30.....	1.06	1.03	.93	1.03	.94	.75	.99	1.00
30-40.....	1.40	1.13	1.13	1.11	1.11	1.06	1.13	1.13
40-50.....	1.81	1.27	1.37	1.30	1.39	1.43	1.31	1.31
50-60.....	2.51	1.77	1.88	1.91	2.12	1.83	1.83	1.84
60-70.....	4.41	3.10	3.15	3.32	4.04	4.12	3.23	3.24
70-80.....	9.08	6.90	7.07	7.40	8.82	8.30	7.13	6.91
80-90.....	16.18	15.41	15.77	16.41	19.22	17.57	15.50	14.55
90-100.....	27.16	31.05	25.55	31.34	*35.55	29.63	*26.92	*24.20
Factor.....	.1.00	1.043	1.46	1.345	1.00	1.00	1.4775	1.4014
Deaths.....	182,860	183,695	22,929	65,984	2,438,175	1,840	319,434	394,123

\* Over 90.

Here the column for five cities is simply copied from the preceding table. For Massachusetts, the mean of the deaths in nine years was divided by the mean population enumerated in 1850, 1855, and 1860, the middle being the State census; these quotients were next multiplied by 1.043, the factor stated near the foot of the column. The columns for Rhode Island and Connecticut were found in a similar way; those for the white and for the total population of the United States were obtained from Table IX, by multiplication with the two factors stated. And the column representing the Carlisle table was derived from Milne's Treatise on Annuities, vol. ii, pp. 404, 405. The total deaths noted at the foot of the columns will afford an idea of the extent of the respective observations.

Although the registry of deaths in several of the large cities is claimed to be very nearly exact, yet it is evident from inspection that the general course of mortality from youth to old age, in metropolitan life, is peculiar, and unlike that of the country at large. With this general remark we pass over to the columns for the three States, observing that their mean remarkably agrees with that of the last two columns for the United States, which establishes the doctrine of proportional correction, except under five years of age.

After careful comparison, the last two columns will be admitted to furnish a reliable basis for determining the true percentages of mortality in the whole United States. In deference to the superior precision of the columns for Carlisle, England, and Massachusetts, indicated by their factors, we adopt the last column, and recurring to its original in Table IX, fifth column, we have only to amend the extremes by adding, for indicated omissions in the registry of mortality of infants, about one-third part of the percentage "under five." Also the percentage from "70 to 80" is increased by one-thirtieth part, and that from "80 to 90" by one-fourteenth part, in order to change to the rate of the white population as being more correctly known in old age. In this manner an adjusted scale is marked out for the white population, which, multiplied by a factor to be presently determined, will give the true scale of mortality which has prevailed in the United States.

In this place we may determine in advance the mean percentage of mortality above the age of forty, with reference to the aggregate of population, to be employed hereafter.



## MISCELLANEOUS STATISTICS.

TABLE XI.—*Above the age of forty.*

Ages.	Census of whites, 1830, 1840, 1850, 1860.	Deaths per cent.	Products ÷ 100.
40—50.....	8,263,170	0.9372	77,443
50—60.....	5,008,075	1.3128	65,745
60—70.....	2,785,081	2.3123	64,401
70—80.....	1,195,805	5.0930	60,901
80—90.....	336,592	11.1270	37,452
Over 90.....	46,758	18.1750	8,499
Over 40.....	17,635,481	1.7830	314,441

In each decade of ages the population is multiplied by its percentage; the sum of the products being divided by the sum of population gives 1.7830, the mean percentage above forty years.

Having thus far examined the statistics, we now proceed to the theory of their combination. But the further course of the investigation has required the application of the principles of the higher mathematics, extending to a considerable length. By successive approximations, gaining one point after another, a satisfactory degree of precision has been attained in the following table.

Comparing the result with other life tables, we find that it lies between those of continental Europe and one for English healthy life in selected counties; but it ranges decidedly above the general table for England and Wales, which is attributed chiefly to the larger proportion of the British nation that reside in manufacturing towns and cities. And so far as correct statistics can be obtained in very large numbers, the average duration of life in the United States is found to be above that of any other nation.

TABLE XII.—*Life table for the white population of the United States.*

Precise age.	Persons living.	Annual deaths.	Expectation of life.	Precise age.	Persons living.	Annual deaths.	Expectation of life.	Precise age.	Persons living.	Annual deaths.	Expectation of life.	Precise age.	Persons living.	Annual deaths.	Expectation of life.
Years.			Years.	Years.			Years.	Years.			Years.	Years.			Years.
0	100,000	14,808	43.06	27	62,247	636	36.92	54	44,328	793	19.27	80	12,135	1,455	5.54
1	85,192	5,244	48.29	28	61,611	637	36.30	55	43,535	812	18.61	81	10,680	1,402	5.26
2	79,948	2,703	50.42	29	60,974	637	35.68	56	42,723	838	17.95	82	9,278	1,308	4.93
3	77,245	1,729	51.28	30	60,337	637	35.06	57	41,885	875	17.30	83	7,970	1,196	4.66
4	75,516	1,216	51.33	31	59,700	637	34.41	58	41,010	910	16.66	84	6,774	1,086	4.40
5	74,300	1,007	51.16	32	59,063	638	33.77	59	40,100	943	16.03	85	5,688	976	4.14
6	73,293	793	50.85	33	58,425	638	33.12	60	39,157	970	15.40	86	4,712	865	3.90
7	72,500	671	50.41	34	57,787	638	32.48	61	38,187	1,010	14.78	87	3,847	754	3.66
8	71,829	559	49.87	35	57,149	639	31.83	62	37,177	1,045	14.16	88	3,093	650	3.43
9	71,270	474	49.26	36	56,510	640	31.19	63	36,132	1,075	13.56	89	2,443	562	3.21
10	70,796	387	48.58	37	55,870	642	30.55	64	35,057	1,120	12.96	90	1,881	473	3.02
11	70,409	334	47.85	38	55,228	643	29.90	65	33,937	1,165	12.37	91	1,408	373	2.86
12	70,075	309	47.07	39	54,585	644	29.26	66	32,772	1,215	11.79	92	1,035	287	2.71
13	69,766	324	46.28	40	53,941	645	28.62	67	31,557	1,276	11.23	93	748	217	2.56
14	69,442	354	45.50	41	53,296	646	27.87	68	30,281	1,345	10.68	94	531	161	2.39
15	69,088	430	44.73	42	52,650	649	27.26	69	28,936	1,420	10.16	95	370	124	2.23
16	68,658	459	44.00	43	52,001	652	26.59	70	27,516	1,480	9.66	96	246	87	2.10
17	68,199	494	43.29	44	51,349	660	25.92	71	26,036	1,515	9.18	97	159	59	1.98
18	67,705	533	42.61	45	50,689	666	25.25	72	24,521	1,535	8.71	98	100	40	1.85
19	67,172	576	41.94	46	50,023	672	24.58	73	22,986	1,556	8.25	99	60	26	1.75
20	66,596	590	41.30	47	49,351	680	23.92	74	21,430	1,565	7.82	100	34	14	1.71
21	66,006	605	40.67	48	48,671	690	23.25	75	19,865	1,585	7.40	101	20	9	1.51
22	65,401	620	40.04	49	47,981	700	22.60	76	18,280	1,570	6.99	102	11	5	1.41
23	64,781	630	39.41	50	47,281	711	21.94	77	16,710	1,555	6.61	103	6	3	1.17
24	64,151	633	38.79	51	46,570	728	21.27	78	15,155	1,525	6.24	104	3	2	0.83
25	63,518	635	38.17	52	45,842	748	20.60	79	13,630	1,495	5.88	105	1	.....	0.50
26	62,883	636	37.54	53	45,094	766	19.93								