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## Feeder Series

### OCCUPATION (1880–1890): CENSUS

The number of persons engaged in each *Bulletin 18* occupation in (1879, 1889) is obtained from Census Office (1883, pp. 760–775; 1897, pp. 306–341), and in 1899 from United States Census Office (1902b, pp. 505–549). The Census occupational categories corresponding to *Bulletin 18* occupations (see chapter 5, *Interpolator and Extrapolator Series*) are shown in table A.1.

For each occupation, for (1879, 1889, 1899): the Northeast figure is the sum of the figures for Connecticut, Delaware, District of Columbia, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, and Vermont; the rest-of-U.S. figure is the U.S. figure *minus* the Northeast figure. Intercensal values for 1880–1888 are obtained via linear interpolation between 1879 and 1889; for 1890–1898, between 1889 and 1899. Then the following series of “number of persons engaged” are obtained for 1880–1890 by simple addition: skilled occupations in the Northeast, unskilled occupations in the Northeast, skilled occupations in rest-of-U.S., unskilled occupations in rest-of-U.S. The four series serve as divisors, so that, for each occupation in each region, the “persons engaged” series for 1880–1890 is expressed as a proportion of the total number engaged in the pertinent skill group and pertinent region. These series serve as weights to construct the wage-series WSNE, WUNE, WSR, WUR (chapter 5, *Interpolator and Extrapolator Series*). Adding “number of persons engaged” in skilled and unskilled occupations for the Northeast, and similarly for rest-of-United States, and expressing the results as a proportion of the grand total, one has respective weights for *Bulletin 18* Northeast and rest-of-U.S. wages (WNEB and WRB) in the construction of the U.S. wage (WUSB)—also in chapter 5, *Interpolator and Extrapolator Series*.

**Table A.1** Correspondence of *Bulletin 18* and Census occupations

Bulletin 18	Census
Skilled Occupations	
blacksmiths	blacksmiths (1899: excluding apprentices and helpers)
boiler makers	steam boiler markers (1899: excluding helpers)
cabinet makers	cabinet makers
compositors	1879: printers, lithographers, and stereotypers; 1889: printers, lithographers, and pressmen; compositors; electrotypers and stereotypers; 1899: printers, lithographers, and pressmen
iron and steel	1879: iron and steel works and shops operatives; 1889: iron and steel workers; 1899: iron and steel workers [including molders]
machinists	machinists (1899: excluding apprentices and helpers)
stonecutters	marble and stone cutters
Unskilled Occupations	
laborers, other	laborers (not specified)
teamsters	draymen, hackmen, teamsters, etc.

## EMPLOYMENT

### *Industry*

Census (1840–1890): Series of the number of wage-earners employed for eleven individual manufacturing industries over 1840–1890 are required in order to construct the Long-Aldrich and Falkner wage series (chapter 5, *Interpolator and Extrapolator Series*) and the revised Long-Aldrich average-daily-hours series [HOURS (1800–1890, later in the appendix)]. The technique is to obtain employment for Census benchmark years (1840, 1849, 1859, 1869, 1879, 1889, 1899) and then linearly interpolate for the intervening years. Data sources are U.S. Census Office (1902a), the primary source for 1879, 1889, 1899; Census Office (1895), a secondary source for 1879, 1889; Walker (1872), the primary source for 1849, 1859, 1869; and Department of State (1841), the main source for 1840. Details regarding benchmark figures for the individual industries follow. Implied figures are wage-earner employment.

*Agricultural implements*: 1840: unnecessary, 1859: sum of 11 sub-industries.

*Ale, beer, porter*: termed “liquors, malt.” 1840: “Distilled and fermented liquors” apportioned to malt liquors via 1849 ratio of “breweries” to “‘breweries’ plus ‘distilleries’ plus ‘distilleries-rectifying.’” 1849: “breweries.”

*Books and newspapers*: “bookbinding and blank book making” *plus* “printing and publishing.” 1840: “printing and binding.” 1869: “printing and publishing,” sum of four components.

*Carriages and wagons*: 1849: not a covered industry. 1859: “carriages” *plus* “wagons and carts.”

*Cotton manufactures*: 1859: sum of cotton “bating and wadding,” “braid, thread, lines, twine, and yarn,” “coverlets,” “flannel carding,” “goods,” “mosquito-netting,” and “table-cloths.” 1869: sum of three sub-industries.

*Illuminating gas*: includes heating. 1849: assumed half of 1859. 1879: not a covered industry.

*Leather*: 1840: unnecessary. 1849: “tanners and curriers.” 1859: sum of “leather,” “leather-morocco,” “leather—patent and enameled leather,” and “leather—skin dressing.” 1869: sum of five sub-industries.

*Metals and metallic goods*: represented by “iron and steel.” 1840: “iron” apportioned to “iron exclusive of mining operations” via 1849 ratio of “iron” to “iron’ *plus* ‘iron mining.’” 1849: sum of five iron industries, excluding “mining”; and two steel industries. 1859: sum of four iron industries, excluding “steamships”; and steel industry. 1869: sum of iron “pigs,” “castings (not specified),” “blooms,” and “forged and rolled”; and four steel industries.

*Paper*: 1840: unnecessary. 1869: sum of four sub-industries. 1899: “Paper and wood pulp” apportioned to “paper” via 1889 ratio of “paper” to “‘paper’ *plus* ‘pulpwood.’”

*White lead*: White lead is an ingredient in paints, but it was also used in pottery. 1840: estimated as the product of { (“white lead”)/ (“paints” *plus* “earthenware” *plus* “potteries”)}<sub>1849</sub> and (“earthenware, etc.” *plus* “paints”)<sub>1840</sub>, where, for 1840, the “paints” components of “drugs and medicines, paints and dyes” is estimated via the 1849 ratio of “paints” to (“‘paints’ *plus* ‘medicines, drugs, and dye-stuffs’”). 1869–1899: estimated as the product of (“white lead”/“paints”)<sub>1859</sub> to “paints,” where, for 1859, “paints” are “paints” *plus* “zinc paint,” and, for 1869, “paints” are (“(not specified)” *plus* “lead and zinc.”

*Woolen manufactures*: termed “woolen goods.” 1849: “woolens, carding, and pulling.” 1859: woolen “goods” *plus* “yarn.”

Each of the 11 industry series is linearly interpolated to obtain intercensal values. In general, figures for (1841–1848, 1850–1858, 1860–1868, 1870–1878, 1880–1888, 1890) are obtained via interpolation between (1840 and 1849, 1849 and 1859, 1859 and 1869, 1869 and 1879, 1879 and 1889, 1889 and 1899). For “carriages

and wagons,” 1841–1858 is obtained via interpolation between 1840 and 1859; for illuminating gas, 1870–1888 via interpolation between 1869 and 1889.

Weights are then industry shares of total industry-group employment. For the Long-Aldrich wage series (RLADW, 1860–1890—chapter 5, *Interpolator and Extrapolator Series*) and the 1859–1890 component of the revised Long-Aldrich average hours per day (RLADH) series [HOURS (1800–1890)], the weight for a given industry in a given year is the proportion of the total 11-industry employment accounted for by that industry. For the Falkner index (FADW, 1859–1861—chapter 5, *Interpolator and Extrapolator Series*), the weights are the individual-industry shares of seven-industry total employment (agricultural implements, books and newspapers, carriages and wagons, leather, metals and metallic goods, white lead, woolen manufactures). For the 1857–1859 component of RLADH, the same technique is used for ten industries (with paper excluded); for 1850–1857, similarly eight industries (agricultural implements and leather also excluded); for 1840–1850, seven industries (woolen goods also excluded).

Lebergott (1802–1830): Lebergott (1964, p. 510) generates the number of wage-earners in the cotton-textile and the iron-and-steel industry for 1800, 1810, 1820, and 1830. The figures are reprinted in Lebergott (1966, p. 188; 1984, p. 66) and Carter (2006, p. 2110). Linear interpolation is used to create a series for 1802–1830: 1802–1809 via interpolation between 1800 and 1810, 1811–1819 between 1810 and 1820, 1821–1829 between 1820 and 1830. Dividing each series by the sum of the two series yields the employment share for each industry in the two industries combined, over 1802–1830. The textiles and iron-and-steel shares are the weights for the Adams and Zabler series in the 1802–1830 segment of the Northeast male wage series (WAZMNE—chapter 5, *Interpolator and Extrapolator Series*).

### *Region: Census (1820–1859)*

To construct the Margo-based U.S. wage series (WUS, 1820–1859—chapter 5, *Interpolator and Extrapolator Series*), and the rest-of-U.S. average annual earnings (AAE<sub>R</sub>, 1849) and U.S./Northeast wage ratio (RWUN; 1820, 1831, 1849)—both in chapter 5, *Average Daily Earnings*, the weights for the Northeast (E<sub>NE</sub>) and rest-of-U.S. (E<sub>R</sub>) are proportions of total U.S. manufacturing employment. Benchmark figures for 1820, 1840, 1849, and 1859 are shown in table A.2. The Northeast figure for 1859 is derived in table A.3, using the same

**Table A.2** Wage-earners, manufacturing, by region, 1820–1859

<i>Year</i>	<i>Number of Wage-Earners</i>		
	<i>United States</i>	<i>Northeast<sup>a</sup></i>	<i>Rest of United States<sup>b</sup></i>
1820	349,247	218,116	131,131
1840	791,545	493,338	298,207
1849	848,668	641,184	207,484
1859	1,153,009	813,652	339,357

*Notes:*

<sup>a</sup> Sum of wage-earners in New England and Middle Atlantic states.

<sup>b</sup> Computed as residual.

*Source:* 1820 and 1840, United States and Northeast—DeBow (1854, p. 129). 1849 and 1859, United States—table 5.5. 1849, Northeast: table 5.9. 1859, Northeast—table A.3.

**Table A.3** Computation of adjusted wage-earners, manufacturing, Northeast, 1859

<i>Item</i>	<i>Number of Wage-Earners<sup>a</sup></i>			
	<i>New England<sup>b</sup></i>	<i>Extended Middle Atlantic<sup>c</sup></i>	<i>Delaware, Maryland, DC</i>	<i>Northeast<sup>d</sup></i>
All industries <sup>e</sup> : Census	391,836	546,243	38,272	899,807
<i>Deductions</i>				
<i>nonmanufacturing sectors</i>				
agriculture	40	70	4	106
fisheries	25,312	1,452	378	26,386
forestry	765	30	30	765
mining	396	33,961	833	33,524
quarrying	2,458	2,882	139	5,201
construction	2,682	6,767	356	9,093
services	81	262	4	339
<i>hand and custom trades</i>				
blacksmithing	1,596	6,148	650	7,094
carving	43	143	10	176
dyeing and bleaching	40	1,035	1	1,074
kindling wood	5	387	12	380
locksmithing and bellhanging	0	134	4	130
photographs	116	393	25	484
rigging	127	167	0	294

Continued

**Table A.3** Continued

<i>Item</i>	<i>Number of Wage-Earners<sup>a</sup></i>			
	<i>New England<sup>b</sup></i>	<i>Extended Middle Atlantic<sup>c</sup></i>	<i>Delaware, Maryland, DC</i>	<i>Northeast<sup>d</sup></i>
upholstery	400	741	72	1069
watch repairing	0	31 <sup>f</sup>	0	31
whitesmithing	9	0	0	9
All industries: adjusted	357,766	491,640	35,754	813,652

*Notes:*

<sup>a</sup> Sum of “male hands employed” and “female hands employed” in source.

<sup>b</sup> Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont.

<sup>c</sup> Middle Atlantic (New Jersey, New York, Pennsylvania) and Delaware, Maryland, District of Columbia [DC].

<sup>d</sup> New England and Middle Atlantic.

<sup>e</sup> Termed “total manufactures” in source.

<sup>f</sup> Computed as product of 1869 U.S. ratio (“watch and clock repairing”)/ (“watch and clock repairing” *plus* “watch materials” *plus* “watches”) and 1859 extended-Middle-Atlantic sum of “watch crystals,” “watch dials,” “watch dials and materials,” and “watches and watch repairing.”

*Source:* New England; Extended Middle Atlantic; Delaware, Maryland, DC—all data from Secretary of the Interior (1865, pp. 55–56, 228–230, 662, 676–701). Northeast: computed as New England figure *plus* Extended Middle Atlantic figure *minus* Delaware, Maryland, DC figure.

methodology as for the computation of the number of wage-earners in the United States in table 5.5. Note that, following Margo (2000b, Table 3A.1), the strict definition of Middle Atlantic (New Jersey, New York, Pennsylvania) is adopted.

From table A.2, Northeast and rest-of-U.S. employment are each expressed as the proportion of total U.S. employment for 1820, 1840, 1849, 1859. Proportions are linearly interpolated for the intervening years: 1821–1839 via interpolation between 1820 and 1840, 1841–1848 between 1840 and 1849, 1850–1858 between 1849 and 1859. The resulting series are the required weights.

*Gender (1800–1859)*

Table A.4 provides estimated figures for benchmark years for the distribution of age-sex groups of workers in manufacturing in the Northeast. Only necessary cells have entries. Divide all figures by 100, so group shares are expressed as proportions of all workers. Let ( $E_F$ ,  $E_B$ ,  $E_{AM}$ ,  $E_M$ ) denote (females, boys, adult males, males) as proportions of all workers. To construct series for 1808–1859, values of

$E_F$  and  $E_B$  are interpolated linearly between adjacent benchmark years. Then, for the interpolated years,  $E_{AM}$  is computed as  $1 - E_F - E_B$  and  $E_M$  calculated as  $1 - E_F$  or  $E_{AM} + E_B$ . The resulting  $E_F$ ,  $E_B$ ,  $E_{AM}$  figures for 1820, 1831, and 1849 are used to compute  $ADE(SV)_{NE}$  (average daily earnings, all workers, Northeast, Sokoloff-Villaflor data) in equation (3) (chapter 5, *Average Daily Earnings*). The  $E_F$  and  $E_M$  series are inputs to compute the all-worker/male wage ( $W/W_M$ ) for 1808–1859, in chapter 5, *Interpolator and Extrapolator Series*. For 1808–1859, the adult and boy proportions of males, denoted as  $E_{AM,M}$  and  $E_{B,M}$ , are calculated as  $E_{AM}/E_M$  and  $E_B/E_M$ . These series are the weights for construction of the male/adult-male relative wage ( $W_M/W_{AM}$ )—again in chapter 5, *Interpolator and Extrapolator Series*.

### Hours (1800–1890)

The series of average daily hours (ADH) needs to be constructed for 1800–1890. ADH has three uses: computation of AHE for the benchmark years 1820, 1849, 1859, 1869, 1879, 1889 (chapter 5, *Average Daily Hours*); conversion of the Long-Aldrich daily wage series to an hourly series (ALAHW—chapter 5, *Interpolator and Extrapolator Series*); construction of the Adams-Zabler hourly wage series (WAZHMNE—again chapter 5, *Interpolator and Extrapolator Series*).

The only pre-1890 daily hours data of any reasonable length and covering multiple manufacturing industries are in the Weeks Report and the Aldrich Report. Advantages and limitations of their data are discussed in chapter 2: *Special Reports* and *Congress and Treasury*, both under EARNINGS AND WAGES. On balance, the Aldrich data are preferred, because they involve (1) annual rather than quinquennial figures, (2) average hours rather than distribution by hours intervals, and (3) scope for individual-industry weighting.

Falkner, in Aldrich Report (1893, pp. 178–179), assembles ADH series for 1840–1891 for the same industries as for his daily-wage series (see chapter 3, AVERAGE DAILY WAGE RATE). For the present study, one takes only the series for the 11 industries underlying the revised Long-Aldrich wage series (RLADW—chapter 5, *Interpolator and Extrapolator Series*) and constructs a weighted-average ADH. This is the procedure followed by Long (1960, p. 37), except that three improvements are made here: (1) industries not clearly manufacturing are excluded, whence 11 industries instead of 13; (2) time span is 1840–1890 rather than 1860–1890;

**Table A.4** Estimated age-sex distribution of workers in manufacturing, Northeast<sup>a</sup>, 1800–1859

Year	Percent of All Workers							
	Females			Children			Males <sup>b</sup>	
	All	Adult	All	Boys	All	Adult		
1807 <sup>c</sup>	0	0	0	0	100.0	100.0		
1812 <sup>d</sup>	6.3	—	—	3.7	93.7	90.0		
1820	20.3 <sup>e</sup>	8.9	23.1	11.7 <sup>f</sup>	79.7	68.0		
1831 <sup>g</sup>	32.7	25.3 <sup>h</sup>	15.0 <sup>i</sup>	7.6	67.3	59.7		
1840 <sup>j</sup>	34.1 <sup>k</sup>	—	—	6.9 <sup>l</sup>	—	59.0		
1849 <sup>m</sup>	28.8	22.8 <sup>n</sup>	12.2 <sup>o</sup>	6.2 <sup>p</sup>	71.2	65.0		
1859 <sup>q</sup>	28.0	22.7 <sup>r</sup>	10.7 <sup>s</sup>	5.4 <sup>t</sup>	72.0	66.6		

*Notes:*

<sup>a</sup> New England and Middle Atlantic states.  
<sup>b</sup> Computed as residual or sum, by present author.  
<sup>c</sup> Applies also to 1800–1806. Zero figure for females and boys for 1807 based on the following statements of Goldin and Sokoloff: “the burst of industrial expansion [was] ushered in by the Embargo of 1807 and the War of 1812, and it was probably during this period that the proportion of manufacturing workers composed of females and children began to increase substantially” (Goldin and Sokoloff, 1982, p. 750); “from about 1810...the percentage of young women (between the ages of 10 and 29) engaged in factory work increased from near zero...” (Goldin and Sokoloff, 1984, p. 475). Note that the Embargo Act was passed on December 22, 1807.  
<sup>d</sup> Combined share of females and boys based on statement: “The proportion of the northeastern manufacturing labor force composed of females and young males seems likely to have grown from about 10 percent early in the nineteenth century...” (Goldin and Sokoloff, 1982, p. 743). Division between females and boys made in proportion to 1820 figures. See also note c.  
<sup>e</sup> Computed as sum by present author:  $8.9 + (23.1 - 11.7) = 20.3$ .  
<sup>f</sup> Estimated by present author as product of (i) 1831 ratio of boys to all children and (ii) all children in 1820:  $(7.6/15.0) \cdot 23.1 = 11.7$ .  
<sup>g</sup> Stated as 1852 in source.



<sup>b</sup> Girls constituted 20–25 percent of the total female workforce in manufacturing in 1831 (Goldin and Sokoloff, 1984, p. 480). Taking the midpoint of that range, 22.5 percent of 32.7 yields 7.4 percent of all workers, leaving adult females accounting for 25.3 percent of all workers.

<sup>i</sup> Sum of 7.6 (boys) and 7.4 (girls, computed in note h).

<sup>j</sup> Estimated peak year for combined female and boy share of manufacturing workforce: “women and children... their fraction of the manufacturing labor force in the Northeast... achieving an historical peak in the vicinity of 40 percent sometime between those years [1820 and 1850]... cresting near 40 percent.... The likelihood [is] that the peak occurred during the late 1830s or early 1840s...” Goldin and Sokoloff (1982, pp. 746–747). It follows that 1840 is the logical estimate of the peak year. With females and boys constituting 40.3 percent of manufacturing workers in an earlier year (1831), a peak value of 41.0 percent (in 1840) is reasonable.

<sup>k</sup> Computed as difference between 41.0 (see note j) and 6.9 (boy share).

<sup>l</sup> Computed via linear interpolation between 1831 and 1849.

<sup>m</sup> Stated as 1850 in source. Figures include “clothers and tailors,” consistent with present-study benchmark figures for 1849.

<sup>n</sup> Computed as residual:  $28.8 - (12.2 - 6.2) = 22.8$ .

<sup>o</sup> Estimated by present author as product of (i) 1831 ratio of all children to boys and (ii) boys in 1849:  $(15.0/7.6) \cdot 6.2 = 12.2$ .

<sup>p</sup> Goldin and Sokoloff (1984, p. 476, n. 16) state a figure of 4.6 (misprinted as 3.6) percent for 1870, and, for 1850, they take the midpoint of 4.6 and 7.6, the 1831 (for them, 1832) figure. Strict linear interpolation yields a figure of 6.2 for 1849 relative to 1831 and 1869 (the applicable Census calendar year).

<sup>q</sup> Stated as 1860 in source.

<sup>r</sup> Computed as residual:  $28.0 - (10.7 - 5.4) = 22.7$ .

<sup>s</sup> Estimated by present author as product of (i) 1831 ratio of all children to boys and (ii) boys in 1859:  $(15.0/7.6) \cdot 5.4 = 10.7$ .

<sup>t</sup> Figure obtained via linear interpolation according to the procedure in note p.

*Source:* Goldin and Sokoloff (1982, pp. 743, 748–749), except where otherwise noted.

(3) weighting pattern is transparent, with judgments explicit (see *Industry*).

For “ale, beer, and porter,” the missing years (1840–1842, 1845–1853) are given the figure of 12.0, which is the value for all other years. For “books and newspapers,” the missing years (1840–1841) are given the figure of 10.0, which applies to all other years. For “white lead,” the missing year (1841) is given the figure 9.3, which is the value for 1840 and 1842–1862. Then there are continuous data for all 11 industries for 1859–1890, for ten industries (paper excluded) for 1857–1859, for eight industries (agricultural implements and leather also excluded) for 1850–1857, and for seven industries (woolen goods also excluded) for 1840–1850. An employment-weighted average series is constructed for each of the four time periods using the weights derived in *Industry*.

A revised Long-Aldrich average daily hours (RLADH) series is derived for 1831–1890 as follows. For 1859–1890, RLADH is the 11-industry series. For 1857–1858, RLADH is the 10-industry series multiplied by the 1859 ratio of RLADH to the 10-industry series; for 1850–1856, the eight-industry series multiplied by the 1857 ratio of RLADH to the eight-industry series; for 1840–1849, the seven-industry series multiplied by the 1850 ratio of RLADH to the seven-industry series. RLADH is extended to 1831 via Weeks data. Using the Sundstrom (2006b) technique of averaging the hour-intervals lower-bounds weighted by the number of statements, a constant figure is obtained for 1830, 1835 and 1840 (see final column of table A.5). This result justifies extrapolating the 1840 value of RLADH to 1831–1839.

Benchmark values of the final ADH series exist for 1831, 1879–1880, and 1890 (see chapter 5, *Average Daily Hours*). ADH is estimated for 1832–1878 and 1881–1889 using the adopted interpolating method (see chapter 5, 1920–2006) with ADH the desired series and RLADH the interpolator series. Beginning and ending years of the interpolation are 1831 and 1879 for 1832–1878, 1880 and 1890 for 1881–1889. Thus ADH has been constructed for 1831–1890.

The ADH figure for 1831 is extrapolated back to 1800. The conventional wisdom is different and is stated succinctly by Wright (1885, p. 10): “The hours of labor in nearly all industries were measured by the sun, from sunrise to sunset constituting the working day. Not...until 1840 were shorter hours adopted to any extent.” “Sunrise to sunset” connotes an average twelve-hour day over the year. Consistent with this view, Lebergott (1964, p. 48) refers to the

**Table A.5** Average hours per day, production workers<sup>a</sup> in manufacturing: Comparison of new series with existing series, 1830–1890

Year	New Series	Existing Series				
		Long		Whaples <sup>b,d,e</sup>	Margo <sup>c,f</sup>	Sundstrom <sup>g</sup>
		Weeks <sup>b</sup>	Aldrich <sup>c</sup>			
1830	11.33	—	—	11.5	11.5	10.9
1831	11.33 <sup>h</sup>	—	—	—	—	—
1832	11.34	—	—	—	—	—
1833	11.36	—	—	—	—	—
1834	11.37	—	—	—	—	—
1835	11.38	—	—	—	—	10.9
1836	11.40	—	—	—	—	—
1837	11.41	—	—	—	—	—
1838	11.42	—	—	—	—	—
1839	11.44	—	—	—	—	—
1840	11.45	—	—	11.2	11.3	10.9
1841	11.45	—	—	—	—	—
1842	11.45	—	—	—	—	—
1843	11.26	—	—	—	—	—
1844	11.33	—	—	—	—	—
1845	11.41	—	—	—	—	10.7
1846	11.37	—	—	—	—	—
1847	11.35	—	—	—	—	—
1848	11.34	—	—	—	—	—
1849	11.32	—	—	—	—	—
1850	11.32	—	—	10.9	11.2	10.6
1851	11.16	—	—	—	—	—
1852	10.85	—	—	—	—	—
1853	10.81	—	—	—	—	—
1854	10.78	—	—	—	—	—
1855	10.75	—	—	—	—	10.4
1856	10.68	—	—	—	—	—
1857	10.67	—	—	—	—	—
1858	10.67	—	—	—	—	—
1859	10.64	—	—	—	—	—
1860	10.59	10.9	10.8	10.3	10.7	10.4
1861	10.39	—	10.7	—	—	—
1862	10.33	—	10.7	—	—	—
1863	10.31	—	10.7	—	—	—
1864	10.31	—	10.7	—	—	—
1865	10.23	10.9	10.6	—	—	10.4
1866	10.29	—	10.7	—	—	—
1867	10.31	—	10.7	—	—	—
1868	10.14	—	10.6	—	—	—
1869	10.15	—	10.6	—	—	—
1870	10.13	10.8	10.5	10.2	10.4	10.3

Continued

**Table A.5** Continued

Year	New Series	Existing Series				
		Long		Whaples <sup>b,d,e</sup>	Margo <sup>e,f</sup>	Sundstrom <sup>g</sup>
		Weeks <sup>b</sup>	Aldrich <sup>e</sup>			
1871	10.14	—	10.5	—	—	—
1872	10.16	—	10.5	—	—	—
1873	10.17	—	10.5	—	—	—
1874	10.18	—	10.5	—	—	—
1875	10.01	10.8	10.4	—	—	10.3
1876	10.01	—	10.4	—	—	—
1877	10.05	—	10.4	—	—	—
1878	10.04	—	10.4	—	—	—
1879	10.05	—	10.4	—	—	—
1880	10.05	10.8	10.4	10.1	10.2	10.3
1881	10.07	—	10.4	—	—	—
1882	10.08	—	10.4	—	—	—
1883	10.10	—	10.3	—	—	—
1884	10.11	—	10.3	—	—	—
1885	10.13	—	10.3	—	—	—
1886	10.05	—	10.2	—	—	—
1887	9.95	—	10.0	—	—	—
1888	9.97	—	10.0	—	—	—
1889	10.00	—	10.0	—	—	—
1890	10.02	—	10.0	—	10.0	—

*Notes:*

<sup>a</sup> Also termed “wage-earners” or “manual workers.”

<sup>b</sup> Based on Weeks Report.

<sup>c</sup> Based on Aldrich Report.

<sup>d</sup> Method of computation from Weeks table unstated. Also provides Aldrich Report figures at 10-year intervals.

<sup>e</sup> Weekly hours in source; daily hours obtained by division by 6.

<sup>f</sup> Based on various series in Whaples (1990, p. 33).

<sup>g</sup> Based on Weeks Report. Sundstrom provides figures only for 1830 and 1880; other years computed by present author using Sundstrom’s technique of weighting lower bounds of work-hour intervals by number of statements.

<sup>h</sup> Figure extended back to 1800.

*Source:* Long (1960, pp. 35, 37), Whaples (1990, p. 33), Margo (2000a, p. 230), Sundstrom (2006b). For “New Series,” see text.

Weeks Report for evidence of an average workday of 13 hours “in the dominant textile industries” and 11–12 hours “in the others.” Whaples (2001a, p. 8) notes “the common working day of twelve hours” in textiles. The problem with the conventional wisdom is that it contradicts the McLane Report. On the basis of data for many manufacturing industries, the McLane Report indicates a shorter

average workday, 11.33 hours, in 1831 (see chapter 5, *Average Daily Hours*). Even if at one time 12 hours were the norm, it is unclear how to integrate that information with the firmly based 1831 figure. Extrapolation appears to be the appropriate course. Table A.5 lists the ADH series (“New Series”) along with the hours series of other private scholars.

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