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CHAPTER 6

Wages by Occupational and Individual Characteristics

Wages by Occupation

Chapter 2 brought out that between 1860 and 1890 money wages rose roughly 50 percent. These increases were broadly confirmed in three sets of occupational classifications.

The first set consisted of five skilled occupations, rather common to a great many manufacturing industries for which data were collected in the Weeks Report: blacksmiths, carpenters, engineers, machinists, and painters (Table 39). Wages for these five were

TABLE 39
Average Daily or Hourly Wages in Five Skilled Occupations, Occurring in Various Manufacturing Establishments, Weeks and Aldrich Reports, 1860-1890 (dollars)

	<i>Weeks Report,</i>			<i>Aldrich Report,</i>					
	<i>No. of Average Daily Wages</i>			<i>No. of Average Hourly Wages (July)</i>					
	<i>Estab.</i>	<i>1860</i>	<i>1870</i>	<i>1880</i>	<i>Estab.</i>	<i>1860</i>	<i>1870</i>	<i>1880</i>	<i>1890</i>
Blacksmiths	26	1.64	2.68	2.31	11	0.178	0.304	0.259	0.271
Carpenters	10	1.65	2.64	2.15	2	0.182	0.410	0.276	0.322
Engineers	25	1.61	2.47	2.17	6	0.148	0.227	0.208	0.244
Machinists	15	1.61	2.67	2.45	14	0.158	0.260	0.227	0.243
Painters	9	1.62	2.67	2.21	1	0.125	0.175	0.250	0.250
Weighted mean ^a		1.62	2.61	2.26		0.163	0.275	0.238	0.257
Simple mean	85	1.63	2.63	2.26	34	0.158	0.275	0.244	0.266
Average deviation ^b									
Dollars		0.016	0.060	0.098		0.018	0.065	0.021	0.024
Percent of mean		1	2	4		11	24	9	9
Highest		1.65	2.68	2.45		0.182	0.410	0.276	0.322
Lowest		1.61	2.47	2.15		0.125	0.175	0.208	0.243
Highest ÷ lowest		1.02	1.09	1.14		1.46	2.34	1.33	1.33

^a Weighted by number of establishments.

^b Computed from simple mean.

40 percent higher by 1880 (a rise about 6 percent greater than that for all 18 manufacturing industries of the Weeks Report).

The second set was the same five occupations, this time from the Aldrich Report (Table 39). Their wages rose 46 percent by 1880

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(compared with 40 percent for the same occupations in the Weeks Report), and 58 percent by 1890—about 10 percent more than the rise for the 13 industries of the Aldrich Report.

The third set consisted of miscellaneous occupations within four industries from the Aldrich Report (Table 40): five in books and newspapers, nineteen in metals, thirty-four in woolens, and thirty-seven male and thirty female occupations in cotton goods. The median of these rose 46 percent—close to the 48 percent indicated for the 13 industries.

In general, the spread between the highest and lowest wage seemed to be wider among occupations than among industries. Among the

TABLE 40

Median Daily Wages of Workers of all Reported Occupations, for Four Industries; Aldrich Report, 1860-1890

	Daily Wages (dollars)				Interquartile Range as Percent of Median			
	1860	1870	1880	1890	1860	1870	1880	1890
Books and newspapers ^a	1.64	2.98	2.02	2.49	71	77	82	55
Metals ^b	1.60	2.49	2.18	2.25	21	47	39	36
Cotton goods, males ^c	0.91	1.51	1.15	1.33	42	36	46	53
Cotton goods, females ^d	0.53	0.89	0.82	0.91	40	37	37	42
Woolen goods ^e	0.90	1.25	1.21	1.32	39	24	15	36
Median of the five medians 1860 = 100	0.91 100	1.51 166	1.21 133	1.33 146	40	37	39	42

^a Includes five occupations in four establishments, of which two were in New York, one in Connecticut, and one in Maryland.

Compositors
Folders
Press feeders

Press men
Printers

^b Includes nineteen occupations in nineteen establishments. Not all occupations were represented in all establishments. Those series were excluded for which more than five dates were missing between 1860 and 1891.

Blacksmiths
Boilermakers
Carpenters
Coal wheelers
Core makers
Cupolamen
Draughtsmen

Engineers
Furnacemen
Laborers
Machinists
Masons
Millwrights
Molders

Molders, iron
Pattern makers
Teamsters
Watchmen
Woodworkers

notes continue on following page

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Table 40, *concluded*

^c Includes thirty-seven male occupations from four establishments, of which three were in Massachusetts and one was in New York.

Balers	Laborers	Speeders
Beam carriers	Lap carriers	Spinners, frame
Beltmen	Lapper tenders	Spinners, mule
Bobbin carriers	Openers	Stampers
Bobbin men	Pickers	Stretchers
Card grinders	Picking room hands	Third hands
Card strippers	Roller covers	Waste hands
Cloth room hands	Room hands	Weavers, 6, 7, and 8 loom
Doubler tenders	Second hands	Wipers
Drawing hands	Section hands	Warpers
Dressers	Shearers	Yarn carriers
Entrymen	Slasher tenders	
Filling carriers	Slasher tenders' helpers	

^d Includes thirty female occupations from the same four establishments.

Back hands	Holdings	Spoolers
Card strippers	Room hands	Stretchers
Cloth hookers	Roving hands	Trimmers
Cloth inspectors	Servers	Warpers
Cloth room hands	Shearers	Waste pickers
Doffers	Slubber tenders	Weavers
Drawers-in	Smash piecers	Weavers, 3 and 4 loom
Drawing-frame tenders	Speeders	Weavers, 5 loom
Drawing hands	Speeder tenders	Weavers, 6, 7, and 8 loom
Dressers	Spinners, frame	Weavers, spare

^e Includes thirty-two occupations from three establishments. Not all occupations are represented in all three establishments; some occupations are represented in several.

Burlers	Finishers	Shearers
Carders	Fullers	Sorters
Card cleaners	Giggers	Spinners
Card feeders	Handers-in	Spoolers
Card tenders	Laborers, dyehouse	Twisters
Drawers-in	Loom-fixers	Warpers
Dressers	Pickers	Washers
Dyers	Pressmen	Waste sorters
Dyehouse hands	Scourers	Weavers
Filling carriers	Second hands	Yarn carriers
Filling sorters	Section hands	

fourteen occupations reported by Bulletin 18, the highest-wage occupation (usually bricklayers and masons or plumbers) paid two to two and a half to the lowest (invariably laborers). In fifteen establishments, one from each of fifteen Weeks-reported industries, the highest-wage occupation typically paid three or four times as much as the lowest in the same establishment, with wide variation in

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the ratio among different establishments (Table 41). In establishments (e.g., in rolling mills) employing apprentices and boys or girls, the highest wage was as much as sixteen times the lowest.

Occupational differentials showed some tendency to widen. The Bulletin 18 occupations had a higher relative average deviation in 1890 than in 1870, though the difference was too slight to be significant in itself (Table 42). Of fifteen Weeks-reported establishments selected from fifteen industries, nine had a higher relative average deviation by 1880, and only five had a smaller deviation. And of the four Aldrich-reported industries for which occupational

TABLE 41

Average Deviation of Daily Wages among Different Occupations in the Same Establishment: 15 Establishments from Each of 15 Industries, Weeks Report, 1860-1880

Industry	Establishment Location	Number of Occupations	Ratio: Highest to Lowest Occupational Wage in Same Establishment			Average Deviation as Percent of Simple Mean of Occupational Wages		
			1860	1870	1880	1860	1870	1880
Rolling mills	Troy, N.Y.	44	16.0	12.0	13.6	42	40	42
Cotton goods	Massachusetts	29	6.0	5.9	5.0	39	33	32
Iron foundries	Quincy, Ill.	16	6.0	3.5	3.5	25	22	24
Clothing	Syracuse, N.Y.	7	5.5	8.0	6.0	44	42	40
Boots and shoes	Lafayette, Ind.	25	4.0	2.8	3.1	20	15	16
Brickmaking	Philadelphia	15	4.0	10.0	7.0	28	38	30
Machinery	St. Louis	12	3.1	4.6	3.6	25	29	27
Carriages and wagons	Portland, Maine	14	2.9	4.0	3.6	18	31	29
Iron blast furnaces	Catasauqua, Pa.	11	2.8	2.7	2.5	60	60	63
Woolen goods	Indianapolis	17	2.6	4.6	4.3	20	31	29
Paper	Unionville, Conn.	21	2.6	3.8	2.8	28	32	30
Hardware, cutlery	Massachusetts	8	2.2	2.7	2.8	22	32	29
Saw and planing mill	Kentucky	10	1.8	2.0	1.8	14	10	10
Tin and sheet iron	Newark, N.J.	7	1.6	1.9	1.7	10	19	13
Furniture	New Haven	11	1.6	1.5	1.6	8	15	14
Median			2.9	3.8	3.5	25	31	29
Number of industries with:								
Decrease since 1860			-	6	5	-	6	5
Increase since 1860			-	9	8	-	8	9
No change			-	0	2	-	1	1

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TABLE 42

Average Daily Wages for 14 Occupations in Large Cities, from Bulletin 18, Weighted by Census-Reported Number Attached to the Occupation in the Respective State; 1870-1890

Occupation	Dollars per Day			Rank		
	1870	1880	1890	1870	1880	1890
Stonecutters	3.61	2.65	3.57	1	5	2
Bricklayers and masons	3.51	2.85	3.88	2	2	1
Plumbers	3.31	3.05	3.37	3	1	3
Compositors	3.10	2.84	2.88	4	3	5
Patternmakers, iron works	3.08	2.77	3.01	5	4	4
Iron molders	3.06	2.41	2.54	6	9	9
Carpenters and joiners	2.88	2.45	2.67	7	8	7
Blacksmiths	2.74	2.53	2.63	8	6	8
Machinists	2.70	2.37	2.52	9	11	10
Painters, house	2.69	2.50	2.83	10	7	6
Boilermakers	2.52	2.38	2.50	11	10	11
Cabinet makers	2.47	2.16	2.33	12	12	12
Teamsters	1.96	1.96	2.01	13	13	13
Laborers (non-street)	1.75	1.43	1.56	14	14	14
Median	2.81	2.48	2.65			
Weighted mean	2.29	1.90	2.19			
Simple mean	2.81	2.45	2.74			
Average deviation ^a						
Dollars	0.41	0.29	0.45			
Percent of mean	15	12	16			
Highest	3.61	3.05	3.88			
Lowest	1.75	1.43	1.56			
Highest ÷ lowest	2.1	2.1	2.5			

Source: Appendix Table A-4.

^a Computed from simple mean.

data were shown above, three had a higher percentage interquartile range toward the end of the period.

The same widening took place between wages of laborers and of skilled occupations, covering large numbers of establishments (Table 43). In both Weeks and Aldrich data wages of laborers fell as a percentage of the average for the five skilled occupations. On the whole, the data of these independent reports were in good agreement in regard not only to the wage levels but to the differentials and the changes in differentials.

Although inter-occupational wage differentials tended to be wide and to become wider, the rank of occupations in the relative wage scale tended to remain fairly stable over the period. Of the fourteen

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TABLE 43

Average Wage-Rates of Laborers and of Five Skilled Occupations; Weeks Report, 1860-1880, Aldrich Report 1860-1890, (dollars)

	<i>Weeks Report, Daily Wage Rates</i>			<i>Aldrich Report,^a Hourly Wage Rates</i>			
	1860	1870	1880	1860	1870	1880	1890
Laborers	1.03	1.52	1.32	0.098	0.156	0.135	0.151
5 skilled occupations: mean	1.62	2.61	2.26	0.164	0.274	0.238	0.257
Laborers' wages in percent of those of skilled occupations	63	58	58	60	57	57	59

Source and explanation: Appendix Tables A-5 and -6.

^a The National Bureau of Economic Research converted the Aldrich wage data into hourly wage rates before computing the average.

Bulletin 18 occupations, seven had the same rank in 1890 as in 1870; five changed one place, and only two changed as much as three places (Table 42). This stability held to some extent for occupations within the same establishment over time.¹

Two recent investigators have remarked: "It is commonly accepted that, in general, skill differentials have been narrowing for a long time."² But so far we have not dealt explicitly with the wage differentials between different levels of skill within the same general occupation. Fortunately, the Weeks and Aldrich Reports provide the materials for such analysis (Chart 4). Moreover it is possible to

¹ This is illustrated by the data of the following four establishments.

A woolen goods establishment in Indiana (C. E. Geisendorff), in the Weeks Report: Of 17 occupations, 8 held the same rank in 1880 as in 1860, 7 changed one place, and only 2 changed as much as two or three places.

A cotton goods establishment in Massachusetts, #39 in the Aldrich Report: Of 17 occupations, 2 held the same rank in 1890 as in 1860, 8 changed one or two places. However, 5 changed rank five places or more.

A cotton goods establishment in New York, #41 in the Aldrich Report: Of 28 occupations, 6 held the same rank in 1890 as thirty years earlier, 5 changed one place, 5 others changed two or three places. However, 4 occupations altered their rank in the wage scale by as much as ten places.

A cotton goods (ginghams) establishment in Massachusetts, #43 in the Aldrich Report: 6 held the same rank, 11 changed one place, and 2 others only two places. Only 1 changed as much as five places.

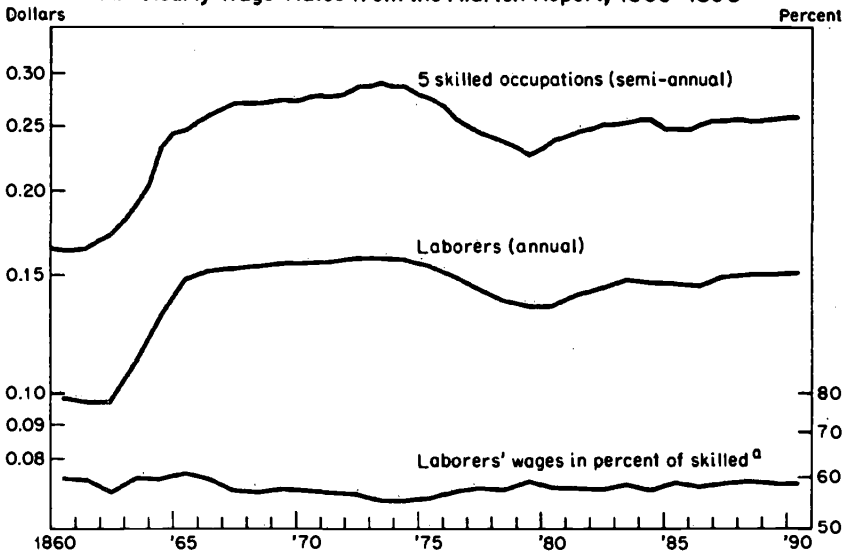
² K. G. J. C. Knowles and D. J. Robertson, "Differences between the Wages of Skilled and Unskilled Workers, 1880-1950," *Bulletin of the Institute of Statistics*, Oxford University, April 1951, p. 110. See also Harry Ober, who makes this finding for 1907 to 1947 and observes it in all regions. However, Ober found that the narrowing occurred mainly during World Wars I and II, and that widening occurred during the Great Depression. "Occupational Wage Differentials, 1907-1947," *Monthly Labor Review*, August 1948, p. 130.

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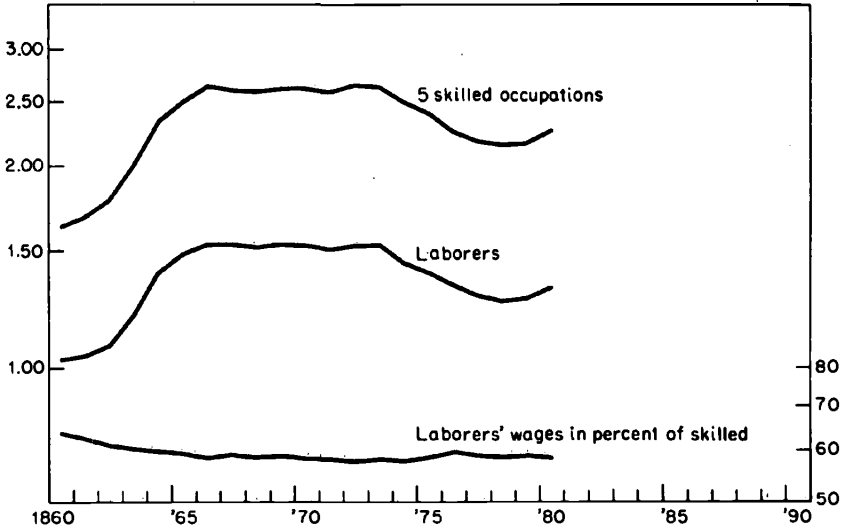
CHART 4

Wages of Laborers and of 5 Skilled Occupations

A. Hourly Wage-Rates from the Aldrich Report, 1860-1890



B. Daily Wage-Rates from the Weeks Report, Annually 1860-1880



^a Computed from annual averages of semi-annual data of 5 skilled occupations

Source: Appendix Tables A-5 and -6.

Ratio scales

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TABLE 44

Percentage Ratio of Daily Wages of Journeymen in Specific Occupations to Wages of Foremen or Overseers for Those Occupations, in the Same Establishment; Aldrich Report, 1860-1890

<i>Occupation</i>	<i>Establishment</i>	<i>1860</i>	<i>1870</i>	<i>1880</i>	<i>1890</i>
Pressmen	#5	83	100	100	89
Carpenters	#39	73	58	59	55
Masons	#12	64	71	61	77
	#76	80	80	75	64
Machinists	#39	80	48	58	46
	#54	46	78	-	77
	#56	37	49	58	50
	#58	62	65	45	62
	#65	67	58	59	66
	#68	55	47	38	51
Blacksmiths	#68	69	59	50	69
	#71	69	60	55	52
Boilermakers	#54	58	43	56	60
	#68	59	65	46	52
Molders	#54	60	59	55	63
	#56	62	39	43	57
Quarrymen	#79	84	75	58	68
	#80	64	75	58	68
Card strippers	#38	24	26	21	39
	#39	32	52	28	20
	#40	30	45	23	20
	#41	38	50	63	54
	#43	28	41	31	29
Spinners, Frame	#39	22	69	23	24
	#40	38	28	14	20
	#41	22	23	32	44
	#43	24	33	34	22
Weavers	#39	24	28	26	21
	#40	14	17	20	10
	#41	47	42	44	38
	#43	27	38	31	34
	#86	64	42	41	53
Card tenders	#86	31	18	19	20
	#87	26	23	23	18
Dyehouse hands	#87	41	37	44	40
Finishers	#88	53	40	49	27
Median percentage		50	48	44	50
Number of establishments with:					
Increase since 1860		-	18	11	13
Decrease since 1860		-	17	24	21
No change		-	1	0	2
Total number of establishments			36	35	36

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compare wages of journeymen and foremen in identical occupations and establishments; the ratios in Table 44 reveal large differences. In 1860 quarrymen in one establishment received 84 percent as much as foremen of quarrymen, machinists in another establishment 37 percent as much as foremen of machinists, weavers in still another establishment only 14 percent as much as overseers of weavers. The same occupations often manifested wide variations among different establishments of the same industry, e.g., weavers, and overseers of weavers, in five cotton goods establishments. For all

TABLE 45

Percentage Ratio of Daily Wage-Rates of Journeymen's Helpers to Those of Journeymen in Specific Occupations, in the Same Establishment; Aldrich Report, July, 1860-1890

<i>Occupation</i>	<i>Establishment</i>	1860	1870	1880	1890
Bricklayers	#12	66	55	62	48
	#22	63	55	58	56
	#26	56	57	75	60
	#47	67	50	55	56
Carpenters	#13	63	62	70	52
	#17	61	62	76	61
	#72	50	60	79	81
Masons	#12	66	61	72	47
Machine hands	#75	75	50	54	55
Steam and gas fitters	#14	71	47	39	63
Blacksmiths	#33	55	50	58	58
	#35	69	57	72	67
Machinists	#54	68	40	56	54
	#56	63	63	60	61
Molders	#54	67	60	66	62
	#55	70	65	65	63
	#68	61	57	63	66
Patternmakers	#74	84	55	62	53
Sidewalk layers	#77	50	76	67	67
Median percentage		66	57	63	60
Number of establishments with:					
Increase since 1860		—	4	9	5
Decrease since 1860		—	14	10	13
No change		—	1	0	1
Total number of establishments			19	19	19

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comparisons, the median ratio was the same in 1890 as in 1860. But of 36 comparisons, 21 showed a decrease in the wage ratio of journeymen to foremen in charge of those journeymen, and thus a widening of the skill differential. An even larger number showed a widening by 1880.

Another comparison is between wages of journeymen and helpers, e.g., bricklayers and bricklayers' helpers within the same occupation and establishment. This reveals a substantially smaller differential between wages of journeymen and their helpers, than between

TABLE 46

Percentage Ratio of Daily Wage Rates of Helpers to Those of Journeymen in the Same Occupation and Establishment, Weeks Report, 1860-1880

<i>Occupation</i>	<i>Industry</i>	<i>Establishment</i>	1860	1870	1880	
WEEKS REPORT HELPERS AND JOURNEYMEN						
Melters	Iron foundries	Quincy, Ill.	88	88	75	
Machinists	Machinery	St. Louis	63	60	54	
Blacksmiths	Machinery	St. Louis	63	62	60	
Molders	Machinery	St. Louis	63	60	55	
Keeper	Iron blast furnaces	Pennsylvania	87	92	92	
Blacksmith	Iron blast furnaces	Pennsylvania	80	58	81	
Rag engineer	Paper	Unionville, Conn.	61	64	68	
Machine tender	Paper	Unionville, Conn.	61	61	54	
Finisher	Paper	Unionville, Conn.	89	87	100	
Puddler	Rolling mill	Troy, N.Y.	52	50	50	
Scrapper	Rolling mill	Troy, N.Y.	31	45	40	
Bar heater	Rolling mill	Troy, N.Y.	44	50	50	
Blacksmith	Rolling mill	Troy, N.Y.	58	65	60	
Mason	Rolling mill	Troy, N.Y.	47	46	45	
Dyer	Woolen goods	Indianapolis	67	56	75	
Blacksmith	Carriages and wagons	Portland, Maine	71	50	50	
Keeper	Iron blast furnaces	Catasauqua, Pa.	84	87	93	
Blacksmith	Iron blast furnaces	Catasauqua, Pa.	59	84	100	
Median percentage			63	61	60	
ALDRICH REPORT APPRENTICES AND JOURNEYMEN						
			1860	1870	1880	1890
Compositors	Books and newspapers	#5	34	31	27	38
Boilermakers	Metals	#68	36	37	32	33
Machinists	Metals	#56	36	36	44	29
Machinists	Metals	#68	45	28	40	31
Molders	Metals	#56	39	36	39	39
Median percentage			36	36	39	33

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journeymen and their foremen; much smaller variations in the differential from one occupation to the next; and about the same tendency for the wages of the less skilled to lag behind those of the higher skilled within the occupation, so that the skill differential tended to widen (Table 45).

Similar results derive from a further comparison, also between journeymen and their helpers, this time from the Weeks Report (Table 46). The typical ratio was again about three-fifths, and again the median ratio declined a bit between 1860 and 1880.

A final comparison—between journeymen and their apprentices in the same occupation and establishment, e.g., compositors and compositors' apprentices (Table 46)—revealed the lowest wage ratio of the less to the more skilled: scarcely more than one-third. It disclosed the same tendency for the skill differential to widen over the thirty years, though like the others the tendency was slight.

Wages by Sex and Age

The only materials for investigating wage relationships between males and females and adults and children, for a relatively large list of workers, establishments, and industries, are from the First Annual Report of the Commissioner of Labor for 1885, covering 28,671 women and 18,690 children (Table 47), and from the Dewey Report for 1890 covering 11,919 females 16 and older and 2,643 boys under 16 (Table 48). These data broadly agree in showing that the wages of adult females were somewhat less than three-fifths, and the wages of children and youths somewhat more than a third, of those of adult males. The first ratio would not have been materially different if all males, including those in industries not reporting female wages, had been used in the compilation. The Aldrich and Dewey data do not agree, however, for individual industries. In one or two industries, such as paper mills, the female-male ratios were similar; but in most industries, they were different, and in some far apart.

No systematic tendency was revealed for female wages to be differently dispersed among industries than male wages. The relative average deviation was greater for females than for males in the 1885 data, and less in the 1890 data. Somewhat the same can be said for children and youths.

For sex and age differentials over time, there are only the Weeks and Aldrich materials. The former only occasionally identified an occupation by sex; the latter included only a few industries with occupations employing females. To arrive at an average wage for

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TABLE 47

Average Daily Wages of Adult Males, Adult Females, and Children and Youths; First Annual Report, 1885

	<i>Adult Males</i> (dollars)	<i>Adult Females</i>		<i>Children and Youths</i>	
		Dollars	<i>Percent of</i> <i>Adult-Male</i> <i>Wages</i>	Dollars	<i>Percent of</i> <i>Adult-Male</i> <i>Wages</i>
Boots and shoes	2.05	1.24	60	0.75	37
Boxes	2.26	0.65	29	0.64	28
Carpetings	1.51	1.19	79	0.62	41
Carriages and wagons	2.00	1.15	58	0.77	39
Clocks and watches	2.00	1.60	80	-	-
Clothing	1.72	0.91	53	0.58	34
Cotton goods	1.26	0.87	69	0.48	38
Glass	2.98	1.85	62	0.62	21
Jute goods	1.55	0.85	55	0.58	37
Leather	1.92	1.35	70	0.70	36
Musical instruments	2.10	1.50	72	0.69	33
Paper	1.64	0.96	59	0.73	45
Print works	1.66	0.91	55	0.66	40
Rubber	1.70	1.10	65	1.04	61
Silk	2.27	1.31	58	0.87	38
Tobacco	1.33	0.85	64	0.53	40
Woolen goods	1.49	1.00	67	0.62	42
Miscellaneous	1.96	0.81	41	1.04	53
Median	1.82	1.05	61	0.66	38
Weighted average	1.71	1.00	58	0.59	35
Simple mean	1.86	1.12	60	0.70	39
Average deviation ^a					
Dollars	0.31	0.25		0.12	
Percent of mean	17	22		17	

Source: Appendix Table A-7.

^a Computed from simple mean.

females was not possible for all manufacturing, only for the two industries employing substantial numbers of females: cotton goods and woolen goods (Table 49).

These differ in the ratio of female to male wages. Females earned 58 to 70 percent as much as males in cotton goods, 75 to 103 percent as much in woolen goods. In both industries, the differential narrowed; in both, the narrowing took place by 1880, with some widening afterward. However, the woolen goods industry showed a greater fluctuation in the ratio during the intervening years, with less net change by 1890.

WAGES BY OCCUPATION, SEX, AND AGE

TABLE 48

Median Hourly Wage-Rates of Males and Females 16 and Older and of Males under 16; Dewey Report, 1890

Industry	Males 16 and Older	Females 16 and Older	Males under 16		
	(dollars)	Dollars	Percent of Col. 1	Dollars	Percent of Col. 1
Carpet mills	0.15	0.09	60	0.06	40
Cotton mills	.11	.09	82		
Dyeing and finishing	.12	.10	83	.06	50
Knitting mills	.13	.08	62		
Woolen mills	.12	.10	83	.05	42
Foundries and metal working	.17	.07	41	.06	35
Iron and steel mills	.15	.08	53	.05	33
Cigars	.21	.11	52		
Clothing	.20	.07	35		
Glass	.17	.06	35	.06	35
Paper mills	.14	.08	57		
Printing	.29	.08	28	.05	17
Rubber	.15	.11	73		
Shoes	.19	.10	53		
Tanneries	.15	.06	40	.05	33
Weighted mean	.16	.09	56	.06	38
Simple mean	.16	.09	56	.06	36
Average deviation ^a					
Dollars	.033	.014		.005	
Percent of mean	21	16		8	

Source: Appendix Table A-8.

^a Computed from simple mean.

TABLE 49

Median Daily Wage-Rates of Males and Females in Cotton and Woolen Goods Manufacturing, 1860-1890

	1860	1870	1880	1890
Cotton goods				
Males	0.89	1.52	1.14	1.33
Females				
Dollars	0.52	0.88	0.80	0.91
Percent of male wages	58	58	70	68
Woolen goods				
Males	0.96	1.29	1.20	1.62
Females				
Dollars	0.72	1.20	1.23	1.30
Percent of male wages	75	93	103	80

Source: Aldrich Report (average of January and July data).

WAGES BY OCCUPATION, SEX, AND AGE

So far we have been comparing wages of males and females without regard to establishments and occupations. What are the relationships between the wages of females and males who were doing—at least nominally—the same kind of work within identical establishments?

Not many establishments employ both males and females to do the same kind of job, but we do have a number of such instances in cotton goods, woolen goods, and books and newspapers (Table 50). When females did the same nominal work in the same establishment they were paid about the same wages. Indeed some occupations

TABLE 50
Daily Wage Rates of Females as a Percentage of Wages of Males in Identical Occupations and Establishments, Aldrich Report, 1860-1890

Occupation	Industry	Establishment	Percent			
			1860	1870	1880	1890
Doffers	Cotton goods	#40	107	98	97	97
Cloth room hands	Cotton goods	#40	122	104	99	66
Drawing-in hands	Cotton goods	#40	73	54	101	110
Dressers	Cotton goods	#40	114	44	55	—
Room hands	Cotton goods	#40	—	111	138	105
Roving hands	Cotton goods	#40	—	111	123	91
Spinners, frame	Cotton goods	#40	—	82	93	99
Spoolers	Cotton goods	#40	91	90	—	105
Weavers	Woolen goods	#86	100	82	118	80
Weavers	Woolen goods	#88	78	93	95	96
Press room hands	Books and newspapers	#5	192	63	84	76
Median percentage:						
All occupations			104	90	98	97
Six occupations with data for all years			104	88	98	88

Based on July data.

in some establishments paid substantially higher wages to females: for instance, in 1860, cotton goods establishment # 40 in Massachusetts paid 7 to 22 percent more to female than to male doffers, cloth-room hands, and dressers; woolen goods establishment #86 paid as much to female as to male weavers; and books and newspaper establishment # 5, by some curious circumstance, paid female press-room hands nearly double. In no establishment, however, did females earn more than males in the same occupation over all four decennial years. There was some tendency, obscured by counter movements in

WAGES BY OCCUPATION, SEX, AND AGE

different occupations, for the female wage differential to be wider in 1890 than in 1860.

In no satisfactory instances could we compare the wages of children and adults doing the same work; but we could make a number of scattered comparisons in the Weeks data between wages of boys and laborers in the same establishment (Table 51): in cotton goods,

TABLE 51
Daily Wages of Boys as Percentages of Wages of Laborers in the Same
Establishment; Weeks Report, 1860-1880

<i>Occupation</i>	<i>Industry</i>	<i>Establishment</i>	1860	1870	1880
Back boy	Cotton goods	Harmony Hill, N.Y.	40	40	38
Back boy	Cotton goods	Unidentified (N.Y.)	32	38	39
Back boy	Cotton goods	Unidentified (Conn.)	25	33	37
Back boy	Cotton goods	Unidentified (Mass.)	29	31	40
Back boy	Cotton goods	J. S. Brown, N. H.	25	24	24
Carder, boy	Woolen goods	S. P. Brown, Maine	50	57	60
Boy	Furniture	Unidentified (Indiana)	44	46	33
Four occupations of boys ^a	Rolling mill	Albany and Rensselaer Co., Troy, N.Y.	25	25	29
Median percentage			31	36	38

^a Includes door boy, water boy, and two occupations identified merely as "boy." Since no occupation identifiable as laborer was given, the wages of boys were expressed as a percentage of the simple average of wages in all the forty-four occupations reported for this firm.

woolen goods, furniture, and rolling mill establishments. Percentages ranged from 25 to 60, with medians of 31 percent in 1860 and 38 percent in 1880—close to the 35 percent shown by the First Annual Report for 1885. Compared with 1860 the sex differential may have been a bit wider by 1890, and the age differential a bit narrower by 1880, but the evidence is inadequate and conflicting.