

Parsons Paper Company Payroll & Employment Analysis - Stat 210

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2023-03-27

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1 Introduction

The Parsons Paper Register contains nearly 400 pages of employee, payroll, and financial records from January 1861 to April 1869 from Parsons Paper Company in Holyoke, Massachusetts. Founded in 1853 by Joseph Parsons, Parsons Paper Company was the oldest and largest manufacturer of cotton-based high quality writing papers in Holyoke until its liquidation in 2005.

The original pages of the register, which is now property of the Holyoke Public Library, were scanned on January 10, 2023 as part of this class (STAT210: Mining the History of Holyoke) and screenshots are included in the analysis below. Pages contain information such as employee name and signature, role, days worked, daily pay, and total wages earned, and are organized

by separate pay periods. We are focused mainly on the payroll, which is comprised by pages 1-316 of the register.

The goal of the following report is to explore patterns in employment by groups of employees over time by analyzing the payroll records in the 1861-1869 time period, both before and after the end of the Civil War.

In Section 2.1 , we use a transcribed copy of page 253 (see Figure 2) of the register to compare the number of employees who were able to sign their own signatures to the number of employees who were not able to on a singular page, and examine whether there was a relationship between literacy and pay. Table 1 displays the transcript of page 253.

In Section 2.2 and Section 2.3, we aim first to quantify the length of a single pay period and then quantify the number of employees working at Parsons Paper Company during the era spanning the register. The 1860s were a time of great growth for the company, and by the beginning of the Civil War in 1861 Parsons Paper Company had already become the largest manufacturer of writing and envelope paper in the United States.

In Section 2.4, we identify the different roles within the company, ranging from women who worked in the “rag room” where the raw material for paper was cut and processed, to men who worked in the engine room and repairs. Most paper mills in the North purchased rags from companies in the South, and Parsons’ rag room was considered an “anomaly” (n.d.). We are also interested in examining the distribution of the different roles in the factory throughout the first six months of the register’s time period in Section 2.5.

Finally, in Section 2.6, we compare the weekly wages of Parsons Paper Company workers to state averages for paper workers across Massachusetts.

The central goal of this report is ultimately to make the information contained in the Parsons Paper Register and related materials more accessible and widely available to those interested in the rich history of Holyoke. A Shiny app is available to view individual scans of the register at r.amherst.edu/apps/nhorton/Parsons-Paper/. We hope that this report can provide some insight into the different day-to-day operations at Parsons Paper Company, as well as the individuals who worked there, many of whom stayed for several years.

2 Analysis of the Register

2.1 What's in the register?

The figures below are direct scans of the original Parsons Paper Company register that provided the basis of our following analysis. We are interested in determining whether there was a relationship between literacy and wage for Parsons employees in the 1860s.

*Received of the PARSONS PAPER COMPANY, by their Agent, the
being in full of all demands up to February*

NAMES.	No. POUNDS.	No. REAMS.	No. DAYS.	PRICE.	TOTAL AMOUNT.	RENT, OR BOARD.
William Johnson			242 16/6	67 87 4	17 53	
John V. O'Brien			21 3/4	34 95	4 67	
William Connor			25 1/6	68 75	7 25	
Martin Kennedy			23 9/10	37 38		
James Gasy			20 3/12	51 0 11		
<i>and so on</i>						

Figure 1: Close-up of page 253 of register - February 1st, 1867. Payroll of the Parsons Paper Company (Holyoke, MA). Columns from left to right: Name, Days Worked, Price (daily wage rate), Total Monthly Wages, Rent/Board.

Received of the PARSONS PAPER COMPANY, by their Agent, the sum prefixed to our Signatures, being in full of all demands up to February 1 st 1867.									
NAMES.	No. POUNDS.	No. REAMS.	No. DAYS.	PRICE.	TOTAL AMOUNT.	RENT, OR BOARD.	BALANCE DUE.	DATE.	SIGNATURES.
William Johnson	242 1/2	6	6287	1737					Wm Johnson
John Johnson	24 1/2	6	3498	1167	3028				John & Fred
William Connor	25	4	6875	725	6150				William Connor
Martin Kennedy	28	10	8788			3738			Martin Kennedy
James Casey	28	12	5100			51			James Casey
John Gallivan	25	9	8780			3750			John Gallivan
John Vaughan	25	7	5000			50			John Vaughan
John Doyle	37	9	1105			1050			John Doyle
Sam'l J. Knight	28 1/2	6	5500	72000	4775				J.T. Knight
Philip Silday	28	12	5700			57			Philip Silday
John Conchen	28	7	5600	625		4975			John Conchen
Frank Russell	28 1/2	6	4812	950		3912			Frank & Russell
Charles Johnson	28	7	3563			3563			John Johnson
William Conroy	27	21	9450			9450			Wm J. Conroy
John Flynn	89	12	6750			6750			John Flynn
E. V. Wellington	27	14	8775	625		8150			E.W. Wellington
Stephen Ward	27	9	14470			4070			Stephen Ward
John McKee	30 1/2	6	4831	953		3898			John McKee
Charles Shring	27	14	5850			5850			Charles Shring
J. A. Allen	27	9	4050	500		3550			J.A. Allen
John Doyle	31	14	5685			5685			John Doyle
John Doyle	31	14	4650			4650			John Doyle
John Doyle	29	11	5317			5317			John Doyle
Edward Ward	25	9	4063			4063			Edward Ward
Cat. O'Neal	28 1/2	6	4460	1167		3993			Cat. O'Neal
Joe Beaudoin	27	9	4888	570		3818			Joe Beaudoin
Joe Beaudoin Jr	28	9	975	500		475			Joe Beaudoin Jr
John Daugler	28	16	4550			4550			John Daugler
Eugene Healey	27	14	4725			4725			Eugene Healey
Curran W. Davis	26	9	3910			3910			Curran W. Davis
John Shea	26	9	3975			3975			John Shea
John Shea	18	9	2745			2745			John Shea
John Sullivan	2	9	75			75			John Sullivan
Mary Conroy	11	6	1237			1237			Mary Conroy
Kate Kilian	37	9	3037			3037			Kate Kilian
Kate Moran	30	+	27			27			Kate Moran
Kate Baldwin	23	+	2887			2887			Kate Baldwin
Philip Gilday			712			712			Philip Gilday
George Dungan			100			100			George Dungan
Repons B.C.					17200	16197	11000		
Austin Ely	25 1/2	6	7650			4550			Austin Ely
Walter Buckley	28 1/2	6	6150			3850			Walter Buckley
J. M. Alden	25	9	6250			6250			J. M. Alden
Martin Kewell	23	14	6178	1400		4778			Martin Kewell
Pat. Casey	52 1/2	6	5282			5282			Pat. Casey
Austin Ely	27	9	8100			8100			Austin Ely
Walter Buckley	27	9	8100			8100			Walter Buckley
J. M. Alden	27	9	6750			6750			J. M. Alden
Martin Kewell	27	9	6075	400		5675			Martin Kewell
Pat. Casey	33	9	6362			5362			Pat. Casey
			3037	400		3097			
					4550	4227			

Figure 2: Page 253 of register - February 1st, 1867. Payroll of the Parsons Paper Company (Holyoke, MA).

William Connor	27 3/4	9450	9450	Wm J. Remeroy
John Flynn	87 1/2	6780	6780	John Flynn
E. W. Wellington	27 7/8	8775	625	E. W. Wellington
Aspinwall	27 9/16	14470	4470	Aspinwall
Wm McLean	30 4/16	4831	933	Wm McLean

Figure 3: Close-up of page 253 of register from Figure 1. Signatures with an 'x' in the middle (like John Flynn above) indicate the worker was not able to sign their own name.

Table 1: Example Portion of Parsons Paper Company Register - Page 253.

Last Name	First Name	# of Days	Price 1	Price 2	Total	Rent/Board	Paid	Signed	Daily Pay
Johnson	William	24.50	16	6	67.37	NA	67.37	yes	2.750
O'Brien	John W.	21.50	9	9	34.95	4.67	30.28	yes	1.626
Connor	William	25.00	16	6	68.75	7.25	61.50	yes	2.750
Kennedy	Martin	23.00	9	9	37.38	0.00	37.38	no	1.625
Casey	James	25.50	12	0	51.00	0.00	51.00	no	2.000
Gallivan	Thos	25.00	9	0	37.50	0.00	37.50	no	1.500
Vaughn	John W.	25.00	12	0	50.00	0.00	50.00	no	2.000
Doyle	Pat K.	27.00	9	0	40.50	0.00	40.50	no	1.500
Knight	Samuel L.	27.50	12	0	55.00	7.25	47.75	no	2.000
Gilday	Phillip	28.50	12	0	57.00	0.00	57.00	yes	2.000
Couchon	John	28.00	12	0	56.00	6.25	49.75	yes	2.000
Russell	Frank	27.50	10	6	48.12	9.00	39.12	yes	1.750
Johnson	Chancy	28.50	7	6	35.63	0.00	35.63	no	1.250
Pomeroy	William	27.00	21	0	94.50	0.00	94.50	yes	3.500
Flynn	John	27.00	15	0	67.50	0.00	67.50	no	2.500
Willington	E.	27.00	19	6	87.75	6.25	81.50	yes	3.250
Moran	Martin	27.50	9	9	44.70	0.00	44.70	no	1.625
McKay	William	31.25	19	6	98.31	9.33	88.98	yes	3.146
Strong	Chester	27.00	13	0	58.50	0.00	58.50	yes	2.167
Allen	J.H.	27.00	9	0	40.50	5.00	35.50	no	1.500
Ryan	Mick	31.00	11	0	56.83	0.00	56.83	no	1.833
Bergin	Pat K.	31.00	9	0	46.50	0.00	46.50	no	1.500
Markham	Mick	29.00	11	0	53.17	0.00	53.17	no	1.833
Woolf	Edward	25.00	9	9	40.63	0.00	40.63	yes	1.625
Moriarty	Pat K.	25.50	10	6	44.62	4.67	39.95	no	1.750
O'Hare	Pat K.	27.00	9	9	43.88	5.00	38.88	yes	1.625
Beaudeax	Jos	6.00	9	9	9.75	5.00	4.75	no	1.625
Beaudeax	Jos Jr.	28.00	9	9	45.50	0.00	45.50	no	1.625
Naughton	John	27.00	10	6	47.25	0.00	47.25	no	1.750
Hurly	Eugene	26.00	9	0	39.00	0.00	39.00	no	1.500
Davis	Hiram	26.50	9	0	39.75	0.00	39.75	yes	1.500
Shea	John	18.50	9	0	27.75	0.00	27.75	no	1.500
Warren	John	0.50	9	0	0.75	0.00	0.75	yes	1.500
Donlan	Mary	11.00	6	9	12.37	0.00	12.37	no	1.125
William	Kate	27.00	6	9	30.37	0.00	30.37	no	1.125
Moran	Kate	24.00	6	9	27.00	0.00	27.00	no	1.125
Baldwin	Kate	23.00	6	9	25.87	0.00	25.87	no	1.125
Gilday	Phillip	NA	NA	NA	7.12	0.00	7.12	yes	NA
Flynn	John	NA	NA	NA	1.00	0.00	1.00	no	NA
Ely	Austin	27.00	18	0	81.00	0.00	81.00	yes	3.000
Buckley	Matteo	27.00	18	0	81.00	0.00	81.00	yes	3.000
Alden	J.M.	27.00	16	0	67.50	0.00	67.50	yes	2.500
Newell	Martin	27.00	13	6	60.75	4.00	56.75	yes	2.250
Casey	Pat K.	33.00	9	9	53.62	0.00	53.62	yes	1.625

55% (24/44) of the employees at Parsons Paper Company were illiterate, especially the women and immigrants, who largely lacked formal education. Additionally, employees who were literate received significantly higher wages compared to employees who were illiterate (see Figure 4).

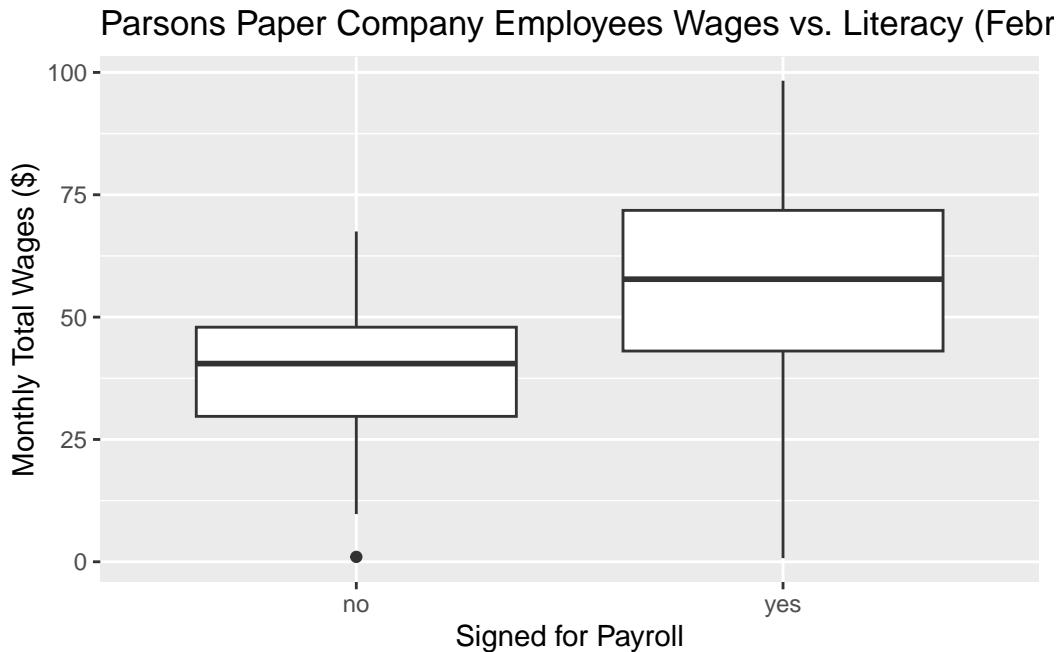


Figure 4: This plot shows the distribution of total wages for 44 employees at Parsons Paper Company in February 1867 from Table 1. Literacy is measured by an employee's ability to sign their own name in the payroll. Employees who were literate, on average, earned high wages.

2.2 How many days in a pay period?

As mentioned in the introduction, the Parsons Paper Company register stored in the Holyoke Public Library comprises monthly pay periods from January 1861-April 1869 (page 1-316 of the register). Pay periods appear to be a month long with employees typically getting paid on the 1st of the next month. Based off Table 1 from page 253, most employees work between 20-30 days each pay period, with the average being around 27, so most employees work at least 6 days/week.

In Chapter IV of Constance Green's *Holyoke, Massachusetts: A Case History of the Industrial Revolution in America* (Green 1939), it is reported that male Holyoke paper makers worked 58-72 hours a week. Working 11.25 hours five days a week in addition to 8.75 hours on Saturday was typical for Holyoke textile mills, while women tended to work slightly shorter hours.

Pages 223-225 (see Figure 5) appear to comprise an entire pay period for the month of April in 1867 (most pay periods span three pages in the register).

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*Received of the PARSONS PAPER COMPANY, by their Agent, the sum prefixed to our Signatures,
being in full of all demands up to April 1st 1867.*

NAMES.	NO. POUNDS.	NO. REAMS.	NO. DAYS.	PRICE.	TOTAL AMOUNT.	RENT, OR BOARD.	BALANCE DUE.	DATE.	SIGNATURES.
George Papillion	27 1/2	13	6	61 87	61 87	Sp 15			George Papillion
James P. Davis	24 3/4	9	3	37 12	37 12				James P. Davis
Walter T. Lord	28 1/2	12	6	56 00	6 25	49 75	"		Walter T. Lord
George F. Day	26 1/2	12	6	53 37	6 25	52 25	"		Geo. A. Day
Oscar Weller	25 1/2	12	6	44 19	12	32 19	"		Oscar Weller
J. P. Palmer Tyles	26 1/2	12	6	52 67	12 14	21 53	"		J. P. Palmer Tyles
Lawrence Russell	24 1/2	7	1	42 00	12 14	28 86	"		Lawrence Russell
Samuel Lawrence	16 2/3	7	1	19 25	12	7 25	"		Samuel Lawrence
Charles H. Morgan	15 1/2	4	1	10 00		10	"		Charles H. Morgan
Mary E. Dowd	26 1/2	4	1	26		26	"		Mary E. Dowd
Mary Hollingshead	26 1/2	4	1	26		26	"		Mary Hollingshead
Ellen Doolittle	24 1/2	4	1	20 57		20 57	"		Ellen Doolittle
Ella Mayzugag	26 1/2	4	1	26		26	"		Ella Mayzugag
Johnna Stock	26 1/2	4	1	26		26	"		Johnna Stock
M. Casey (Worrell)	25 1/2	4	1	23 57		23 57	"		M. Casey (Worrell)
Mary Peigree	25 1/2	4	1	23 75		23 75	"		Mary Peigree
Emma Marsh	25 1/2	4	1	23 25	12	13 25	"		Emma Marsh
Malvina Coffey	26 1/2	4	1	26		26	"		Malvina Coffey
Adeline Coffey	24 1/2	4	1	24 50	9 00	15 50	"		Adeline Coffey
Mrs Smith	18 2/3	4	1	18 50		18 50	"		Mrs Smith
Sophy Strong	25 1/2	4	1	25		25	"		Sophy Strong
E. Tomlinson	26 1/2	4	1	26	3	23	"		E. Tomlinson
Frances Pitt	23 1/2	4	1	23 50	12	13 50	"		Frances Pitt
R. A. Reale	25 1/2	4	1	25	6 85	18 15	"		R. A. Reale
E. Whittemore	25 1/2	4	1	25		25	"		E. Whittemore
Carrie Palmer	25 1/2	4	1	25 75		25 75	"		Carrie Palmer
Alice J. Perry	25 1/2	4	1	25		25	"		Alice J. Perry
Maria Power	24 1/2	4	1	24 50	12	12 50	"		Maria Power
E. A. Barnes	25 1/2	4	1	20 50		20 50	"		E. A. Barnes
Abby Allen	9 1/2	2	1	8 10		8 10	"		Abby Allen
Mary Seltz	18 1/2	2	1	18	9 86	8 14	"		Mary Seltz
Molly Brown	26 1/2	2	1	26		26	"		Molly Brown
Elizabeth Dowd	3 1/2	2	1	3		3	"		Elizabeth Dowd
Robert Hoban	17 1/2	2	1	11 50	6	5 50	"		Robert Hoban
H. Broord	String 1167 408 10			18 64	12	6 64	"		H. Broord
Josephine Dover	C. & 1216 1217 1218	2	1	30 45	6 25	24 20	"		Josephine Dover
Daisy Alloue	" 1377 1382 1383	2	1	33 74		33 74	"		Daisy Alloue
Julia Cormac	" 1174 1175 1176	2	1	26 97	9 00	17 97	"		Julia Cormac
Sarah Francis	" 118 123 125	2	1	7 54	2 58	4 96	"		Sarah Francis
E. A. Allen	Seton 1500	2	1	26		26	"		E. A. Allen
H. Brown	" 757	2	1	15 19		15 19	"		H. Brown
Margaret Dowd	" 764	2	1	14 48		14 48	"		Margaret Dowd
E. M. Scott	" 1118	2	1	22 56		22 56	"		E. M. Scott
Martha Wright	" 957	2	1	18 78	7 00	11 78	"		Martha Wright
Julie Cormac	" 421	2	1	8 42	5 9	7 92	"		Julie Cormac
O. R. Mueller				1007 82	12012	976 82			O. R. Mueller
L. Farrell									L. Farrell
G. P. Taylor									G. P. Taylor
Sam. Lawrence									Sam. Lawrence

U.S. POSTAGE
UNITED STATES POSTAGE
TWO CENTS
TWO CENTS
TWO CENTS

Figure 5: Page 223 of register (April 1st, 1867), also see pages 224-225 in Section 4.

Pages 223-225 and pages 261-263 (see Figure 6) are exactly one year apart in the register

(April 1st 1867 vs. April 1st 1868).

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*Received of the PARSONS PAPER COMPANY, by their Agent, the sum specified to our Signatures,
being in full of all demands up to April 1st 1868.*

NAMES.	No. POUNDS.	No. REAMS.	No. DAYS.	PRICE.	TOTAL AMOUNT.	RENT, OR BOARD.	BALANCE DUE.	DATE.	SIGNATURES.
Geo Papillion	24	18	4	6432	6432				George Papillion
James P. Davis	22	10	6	3981	3981				James P. Davis
J. S. Ford	25	15		6375	725	5650			J. S. Ford
Ezra Day	24	15		6063	725	5338			Ezra Day
O. S. Whaler	27	14		5017	1771	3246			O. S. Whaler
A. L. P. Cooke	26	10	6	4550	1771	2779			A. L. P. Cooke
L. Favell	21	15		5250		5250			Louisa Favell
Charl. Robinson	26	7	6	8250	1771	1479			W. M. Robinson
Charl. H. Morgan	26	5		2167		2167			Charles H. Morgan
Ellen Denham	25	6		2500		2500			Ellen Denham
Joh A. Hatch	26			3033		3033			Joh A. Hatch
H. Cassy	25	6		2550		2550			H. Cassy
Samuel Strong	29			2050		2050			Samuel Strong
Ezra Philbrick	26			2600	1329	1271			Ezra Philbrick
Sarah Stale	25			2350	1329	1121			Sarah Stale
Clara Woodworth	24			2400	1329	1071			Clara Woodworth
Maria Burly	26			3600		26			Maria Burly
Mary Burly	26			3600		26			Mary Burly
Felicity Norton	27			2150	1329	831			Felicity Norton
E. Buckland	18			1800	986	814			E. Buckland
E. Carlton	13			1300		13			E. Carlton
Lizzie Davison	26			2600	1329	1271			Lizzie Davison
S. Wadsworth	26			2600		2600			S. Wadsworth
Adelia Dart	26			3600	1329	1271			Adelia Dart
Maria Brown	15			1925		1326			Maria Brown
Maria Dart	25			2500	1329	1171			Maria Dart
Lucy Heath	25			2550		2550			Lucy Heath
Sarah Camp	24	5		2000		2000			Sarah Camp
Mary Smith	26	6		3600	1329	1271			Mary Smith
Geo. Dow	27	23	8	2764		2764			Geo. Dow
Lucy Allen	26	2	3	2077		2077			Lucy Allen
Mrs. Brown	24	40		2009	1329	680			Mrs. Brown
Mary Dow	27	49	5	2871		2871			Mary Dow
E. C. Allen	1171	2		2342		2342			E. C. Allen
Mary Conford	780	*		1560	1560	00			Mary Conford
E. S. Ford	906	*		1812		1812			E. S. Ford
Arthur Wright	756	*		1572	700	872			Arthur Wright
G. Coulterman	1069	*		2135	1329	806			G. Coulterman
S. Beanyard	915	*		1830		1830			S. Beanyard
Adelia Conner	279	4	6	700		7			Adelia Conner
E. S. Ford	2003	25	8	1464		1464			E. S. Ford
Mrs. Brown	2789	9	8	551		551			Mrs. Brown
M. S. Rockefell	2789	9	8	551		551			M. S. Rockefell
Julia Conner	214	2		428		428			Julia Conner
Mary Dunn	167	2		336		336			Mary Dunn
Wendyord	680	2		450		450			Wendyord
Mary Dow	240	2		600		600			Mary Dow
"	260	3		780		780			"
"	702	2		1404		1404			"
"	496	3		1488		1488			"
"	400	2		800	5783	211			"
					10960	24507	97462		
									25¢
									10¢
									5¢
									2¢
									1¢

Figure 6: Page 261 of register (April 1st, 1868), also see pages 262-263 in Section 4.

Table 2: Number of Parsons Paper Company Employees by Year Each April.

Year	Number of Employees	Subset Page Numbers
April 1861	92	8-10
April 1862	122	43-45
April 1863	141	79-81
April 1864	128	115-117
April 1865	159	151-153
April 1866	144	187-189
April 1867	131	223-225
April 1868	153	261-263
April 1869	153	314-316

2.3 How many employees during this era?

To quantify this, we counted the number of employees throughout each of the following pay periods by hand by going through the pages of the register one by one. We found that the average number of workers employed at Parsons Paper Company across the measured 9 years spanning the register is **136 employees between 1861-1869**. From Table 2, we can see that the number of employees generally increased over the years, with a noticeable boom in employment towards the end of the Civil War in 1865. In Chapter IV of *Holyoke, Massachusetts: A Case History of the Industrial Revolution in America*, Green mentions that these paper mills had abnormally high employee retention rates compared to other industries. We also know that at the end of 1867, Parsons employed 150 people and had “nineteen engines for grinding rags,” turning out “800 tons of paper yearly” (Burt 1867, page 79).

2.4 What types of jobs are there?

In *History of the Connecticut Valley in Massachusetts, with Illustrations and Biographical Sketches of Some of Its Prominent Men and Pioneers*, L.H Everts provides more information about the layout of the two Parsons Paper Company mills and the different departments of employment, which helped us determine job names that we could not originally decipher (i.e. “jobber”). Everts writes that,

“The buildings of this company are situated on the river-bank near the dam, and were built in 1853. They are two in number, the **main mill**, where the paper is made, and what is known as the **finishing-mill**, where it is finished. The former is a structure three stories and a basement high. The upper floor and attic are devoted to drying purposes, while the second story contains the storehouse and **rag-rooms**. About 175 persons are employed on the two floors. On the ground-floor is the **engine-room**, which contains sixteen 450-pound and fourteen 250-pound engines. The mill has three Fourdrinier machines, two of them are 62-inch and the other 72-inch. It has two bleach-boilers, of 3 1/2 and 2 1/2 tons respectively, and 4 sheet calendars and a web calendar and 2 hydraulic presses.

The finishing-mill is also situated on the bank of the river, a short distance from the other mill, and, like that, is a brick structure three stories high. The attic and third floor are used for **packing**, and on the second floor the paper is **reeled** and **jogged**. On the first floor are eight 6-roll calendars and three powerful hydraulic presses, and in the basement is a box-factory and plating-machines" (Everts 1879, page 919).

2.5 Tracking employment by job type for first 6 months of the register (Jan-Jun 1861)

Table 3 displays the different roles recorded for the first six months of the register, from January to June of 1861. The role labels on the register become very sporadic and difficult to track after 1861, however, ‘Repairs’ and ‘Repairs and Watchmen’ remain in their own section at the bottom of the register pages throughout all of the pay periods. There were 5 people under “Repairs” for April 1st, 1867 (see Figure 11 in Section 4) and 8 people under April 1st, 1868 (see Figure 12 in Section 4). Refer also to Section 4 for the link to the full spreadsheet.

The first pages of each pay period are typically comprised of unlabeled laborers (presumably the majority worked in the engine and machine rooms), in addition to Repairs and Watchmen, who are all males. The sorters, stampers, sealers, count and folders, and rag room/cutter roles all appear to remain throughout 1861-1869, although there are much fewer of them compared to the unlabeled male laborers. These roles are largely held by women, and their wages tend to be significantly lower than male workers, which can be seen in the next section.

Table 3: Parsons Paper Company Employment by Job Type (January-June 1861).

Month	Year	Page #	Job	Count	Monthly # Workers
January	1861	1	MFC	25	77
January	1861	1	repairs	4	77
January	1861	2	rag room	25	77
January	1861	2	finishers	23	77
February	1861	3	MFC	25	75
February	1861	3	repairs	4	75
February	1861	4	rag room	24	75
February	1861	4	finishers	22	75
March	1861	5	foreman	1	85
March	1861	5	machine room	3	85
March	1861	5	engine room	7	85
March	1861	5	loft hands	4	85
March	1861	5	fireman	2	85
March	1861	5	size hands	2	85
March	1861	5	joggers	3	85
March	1861	5	watchmen	4	85
March	1861	6	rag room	23	85
March	1861	6	repairs	4	85
March	1861	7	finishers	21	85
March	1861	7	sorters	5	85
March	1861	7	stamper & sealer	2	85
March	1861	7	count & folders	2	85
March	1861	7	sorters	2	85
April	1861	8	rag room	6	93
April	1861	8	cutters	17	93
April	1861	8	repairs	4	93
April	1861	9	MFC	1	93
April	1861	9	machine room	3	93
April	1861	9	engineers	7	93
April	1861	9	loft hands	3	93
April	1861	9	size hands	2	93
April	1861	9	joggers	5	93
April	1861	9	fireman	4	93
April	1861	10	finishers	25	93
April	1861	10	stamper & sealer	2	93
April	1861	10	count & folders	3	93
April	1861	10	sorters	11	93
May	1861	11	no label	25	105
May	1861	11	stamper	1	105
May	1861	11	sealer	1	105
May	1861	11	count & folders	2	105
May	1861	11	sorters	9	105
May	1861	11	extra	1	105
May	1861	12	no label	34	105
May	1861	12	repairs	3	105
May	1861	13	no label	25	105
May	1861	13	borders	4	NA
June	1861	14	no label	17	95
June	1861	14	repairs	3	95
June	1861	14	borders	6	95
June	1861	15	no label	24	95
June	1861	15	sorters	8	95
June	1861	15	count & folders	2	95
June	1861	15	stamper	1	95
June	1861	15	sealer	1	95
June	1861	16	no label	33	95

Parsons Paper Company Employment by Job Type in 1861



Figure 7: This plot shows the distribution of different roles within the paper company during the first six months of 1861. The unlabeled male laborers, MFC mill workers, finishers, and rag room workers appear to be the most common roles.

2.6 How do Parsons wages compare to the Massachusetts state averages?

Table 4 and Figure 8 are adapted from Judith McGaw's *Most Wonderful Machine: Mechanization and Social Change in Berkshire Paper Making, 1801-1885*, (McGaw 1987, page 314), which used data from the *Tenth Annual Report of the Bureau of Statistics of Labor* (Statistics of Labor 1879, page 74). Refer to Figure 14 in Section 4 for a picture of the report.

Table 4: Weekly Wages of Massachusetts Paper Workers, 1860-78 (all wages in US dollars).

Job	1860	1872	1878
Foreman	16.63	16.00	26.49
Millwright	9.86	16.00	15.21
Paper-machine tender	10.00	16.00	15.25
Mechanic	9.75	NA	13.20
Finisher	7.70	11.33	10.20
Rag-engine tender	7.90	14.67	10.41
Engineer/fireman	6.64	10.52	8.77
Finisher's helper	5.80	NA	7.27
Cutter	6.90	8.89	7.95
Bleacher	6.70	8.89	7.56
Men on stock	5.88	9.33	6.57
Laborers	5.50	9.33	6.55

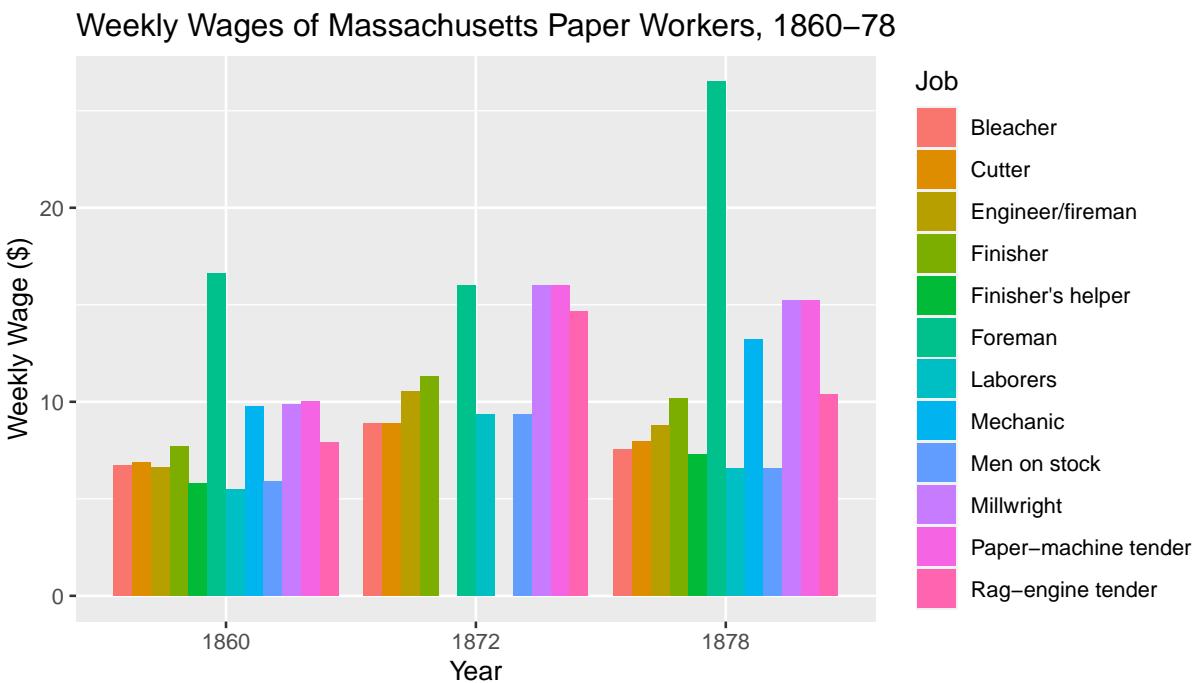


Figure 8: This plot, adapted from Table 4, displays average weekly wages for various roles in paper factories across Massachusetts between 1860-1878.

Table 5: Parsons Weekly Wages - 1861 (all wages in dollars).

Job	Weekly Wages
repairs	14.12
foreman	14.00
machine room	14.00
repairs	12.25
machine room	11.79
engineer	10.50
overseer	10.50
watchmen	10.50
fireman	8.75
watchmen	7.00
finishers	4.38
cutter	4.38
rag room	3.50
rag room	3.50

Table 5 displays weekly wages by job in 1861 for Parsons Paper Company. We calculated the wages by dividing the total wages from the payroll by the number of days worked for that pay period, and then multiplying that number by seven to obtain the weekly wage. The table indicates that Parsons Paper Company employees were, for the most part, paid at comparable rates to other Massachusetts paper factory workers across the state, although the pay for several common roles, especially those held by women (finisher, cutter), is noticeably lower compared to the state average, while other more “important” roles such as engineer and mechanic tended to be paid more at Parsons compared to other Massachusetts paper mills. It may be beneficial to compare the Parsons Paper Company wages to those of other paper mills in Holyoke, as opposed to the entire state, to get a better understanding of how the Parsons Paper Company paid relative to its direct competitors.

Weekly Wages of Parsons Paper Company Workers – 1861

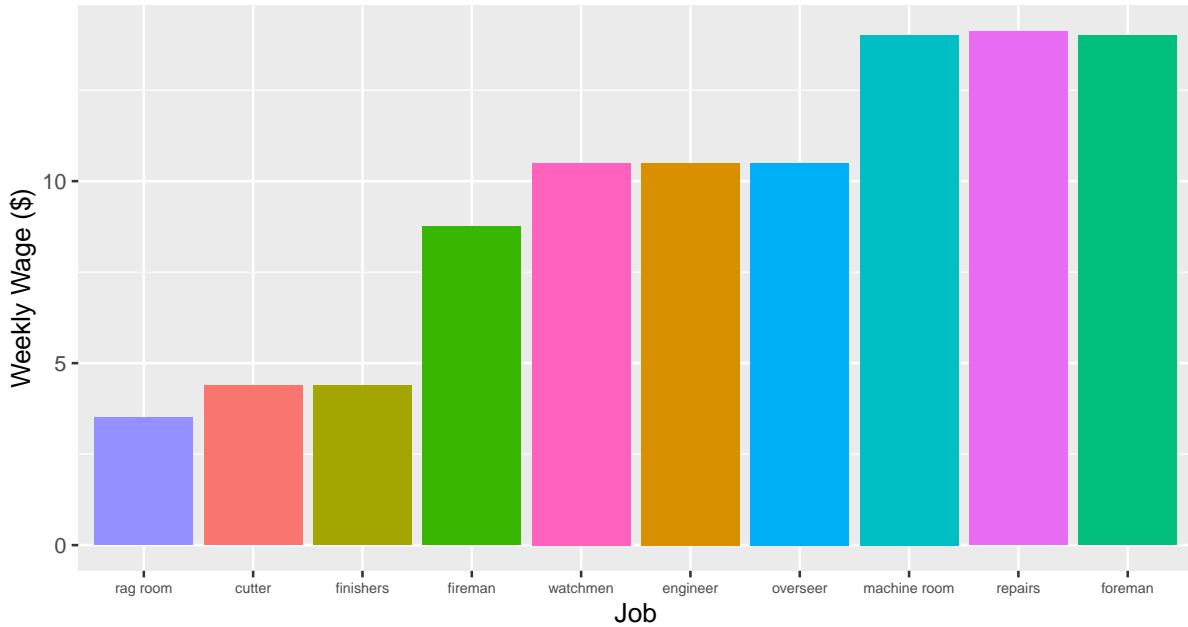


Figure 9: Weekly wage breakdown for various worker roles in Parsons Paper Company in 1861.

From Figure 9, we can see that the top paying roles at Parsons Paper Company in 1861 were the foreman, followed by repairs and machine room workers, who each made nearly 15 dollars a week. From John Hickey's 1954 University of Massachusetts thesis *The Holyoke Area Paper Industry*, we know that repairs were undertaken on Sundays, typically the only day off for many paper workers: "In replacing a wire on a Fourdrinier paper machine, workers in the Holyoke mills receive half a day's pay besides their regular pay during the hours they work on the replacement. This acts as an incentive to the workers to get the machine back in operation as soon as possible" (Hickey 1954, 94).

In contrast, female laborers who worked in the rag room and as cutters and finishers were paid much lower wages, with almost all women being paid less than 5 dollars a week.

From Hickey's thesis, we also found the following quote:

"In 1861, after a period of severe readjustment just prior to the Civil War, twenty-one of the thirty-six manufactures of fine papers met at Pittsfield...to organize a protective association. They desired to raise prices which had fallen drastically as the result of a decrease in demand. They agreed to reduce output by about one-third for about three months. This was the first trade association established in the paper industry of the United States....The Parsons Paper Company and the Carew Manufacturing Company were charter members of this organization" (Hickey 1954, 108).

This agreed upon reduce in output in 1861 is important because it may indicate that at the start of the register, employee wages were lower than they would have been under normal circumstance. Any subsequent change in payment patterns throughout the rest of the 19th century is important for future analysis, as it can indicate both local and domestic economic shocks and sector-specific economic factors.”

3 References

- n.d. Available at <https://ark.digitalcommonwealth.org/ark:/50959/pz50hj728> (Accessed 03/05/2023).
- Green, Constance McLaughlin. 1939. *Holyoke, Massachusetts: A Case History of the Industrial Revolution in America*. Yale University Press, New Haven, CT. https://archives.yale.edu/repositories/12/archival_objects/1572349.
- Hickey, John P. 1954. “The Holyoke Paper Industry: 1899-1951.” Master’s thesis, Amherst, MA: University of Massachusetts.

4 Appendix

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Received of the PARSONS PAPER COMPANY, by their Agent, the sum prefixed to our Signatures,
 being in full of all demands up to April 1st 1867.

NAMES.	NO. POUNDS.	NO. REAMS.	NO. DAYS.	TOTAL AMOUNT.	RENT, OR BOARD.	BALANCE DUE.	DATE.	SIGNATURES.
William Kelly								
John Smith								
Michael Ryan								
John Brady								
Ellen Cooney								
Patrick McCauley								
Mary Egan								
Julia Emerson	26 1/2	78		854	625	275		
Samuel L. Gaughan	26 1/2	52			500	375		
Michael Ryan	27 1/2	4225				3755		
Catharine Brady	25 1/2	2917				2917		
Ellen Cooney	25 1/2	2917				2917		
Bridget McCauley	4177	91		3709	200	2456		
Leah Emerson	2929	"		2656		3333		
Catherine O'Case	3703	"		5505		3849		
Mary Murphy	3165	"		2829		3203		
Kathleen Lewis	3537	"		3203		3253		
Ellen Stone	3610	"		3203		3152		
Mary Donahue	3836	"		3452		2921		
Bridget Flanagan	3246	"		2921		3452		
Margaret Fitzgerald	3835	"		3452		3829		
Julia Smeal	3677	"		3327		1937		
Mary Lynch	2608	"		1937		1938		
Ellie Burke	3332	"		2098	7	3520		
Bridget Maloney	3911	"		3520		3192		
Margaret Kelly	3595	"		3192		3190		
Margaret Hoffey	4322	"		3190		3091		
Camille Dowdall	3030	"		3191		2409		
Catharine Sheridan	3481	"		3109	700	2484		
Olivia Powers	2760	"		2484		3512		
Jeanne W. Carty	3758	"		3512		2793		
Mary Daugherty	3103	"		2793		1952		
Rosina Mahoney	2169	"		1952		2925		
Ellen Stock	3250	"		2925		3538		
Annie Kennedy	4364	"		3538		1677		
Mary Marhallan	1863	"		1677		3537		
Margaret Vaughan	3949	"		3537		3756		
Julia Sullivan	4173	"		3756		2799		
Hannah Rooney	3108	"		2799		2660		
Eliza Rogers	3866	"		2660		3088		
Mary Dealing	3432	"		3088		2661		
Mary Mahoney	2957	"		2661		1542		
Mary M. Deburgh	1714	"		1542		1542		
Johanna Dica	3169	"		1542		2852		
Johanna Deegan	4200	"		2852		3816		
Mary O'Case	2886	"		3816		1877		
	11221			1877		123115		
						3530		
						120326		

Figure 10: page 224 of register - April 1st, 1867 (2nd of 3 pages of the April 1867 payroll)

Received of the PARSONS PAPER COMPANY, by their Agent, the sum prefixed to said Signatures,
being in full of all demands up to April 1st 1867.

NAMES	NO. POUNDS.	NO. YEARS.	NO. DAYS.	PRICE	TOTAL AMOUNT.	RENT, OR BOARD	BALANCE DUE.	DATE.	SIGNATURES.
William J. Pomroy	26	325		84.50	84.50	Apr 15			Wm. J. Pomroy
E. H. Wellington	27	345		74.25	6.25	68	"		E. H. Wellington
John Duffy	26	259		66.25	6.25	60	"		John Duffy
John Flynn	22	265		49.50		49.50	"		John Flynn
P. O. Harr	26	79		52.25		52.25	"		P. O. Harr
Charles Strong	26	12		52.00		52	"		Charles Strong
Joh G. Allen	26	91		59.00	5	54	"		J. G. Allen
Michael Ryan	17	7%		29.75		29.75	"		Michael Ryan
John Carroll	39	2%		63.62		63.62	"		John Carroll
John Slaughter	22	99		55.75		55.75	"		John Slaughter
Richard Marshall	26	176		45.50		45.50	"		Richard Marshall
Kate Baldwin	26	97		21.67		21.67	"		Kate Baldwin
Martin Moran	26	97		59.00		59	"		Martin Moran
James Moran	23	9		54.50		54.50	"		James Moran
Jefferson Powell	26	29		39.75		39.75	"		Jefferson Powell
William Johnson	25	157		63.12	8.54	54.58	"		William Johnson
Pat Donahue	26	9		34.00	4.00	35	"		Pat Donahue
Wm. Corry	26	319		66.87	8.34	58.63	"		Wm. Corry
Patrick Kennedy	26	97		59.00		59	"		Patrick Kennedy
James Casey	27	22		55.00		55	"		James Casey
John Gangar	26	3		52.00		52	"		John Gangar
Patrick Higgins	39	9		51.00		51	"		Patrick Higgins
J. D. A. Ballou	26	136		58.50	8.34	50.16	"		J. D. A. Ballou
Philip O'Gorman	25	97		47.20		47.20	"		Philip O'Gorman
Frank Russell	25	29		55.25		55.25	"		Frank Russell
Nich. Valley	24	97		36		36	"		Nich. Valley
Joseph Bordeau	25	99	10	40.50	10	30.63	"		Joseph Bordeau
Ed. C. Chapman	23	9	10	30.30	10	30.30	"		Ed. C. Chapman
Frank Cummings	23	9	25	35.25		35.25	"		Frank Cummings
Edmund Cain	26	9	39	39		39	"		Edmund Cain
Patrick Ryan	27	99	11	43.88	11	32.88	"		Patrick Ryan
" in Apr	72	"	81			81	"		
Frank Cummings	44	9	60	6.00		6.00	"		Frank Cummings
Morris L. Harmon	12	9	18			18	"		Morris L. Harmon
" Mar	28	9	42.75			42.75	"		Morris L. Harmon
Thomas Jepson	25	9	25			25	"		Thomas Jepson
John Coulombe in Apr	94	9	16.93			16.93	"		John Coulombe in Apr
	150.78		77.52		1995.26				

Repairs &c

Austin Ely	26	157	65.00	65	"	Austin Ely
J. M. Allen	26	157	65.00	65	"	J. M. Allen
H. C. Walter	26	259	65.00	8.34	56.66	H. C. Walter
Patrick Casey	32	19	52.00		52	Patrick Casey
Martin Neilly	18	225	49.50		40.50	Martin Neilly
			287.50	1.54	279.16	



Figure 11: page 225 of register - April 1st, 1867 (3rd of 3 pages of the April 1867 payroll)

Figure 12: page 262 of register - April 1st, 1868 (2nd of 3 pages of the April 1868 payroll)

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*Received of the PARSONS PAPER COMPANY, by their Agent, the sum prefixed to our Signatures,
being in full of all demands up to April 1st 1868.*

NAMES.	NO. POUNDS.	NO. REAMS.	NO. DAYS.	PRICE.	TOTAL AMOUNT.	RENT, OR BOARD.	BALANCE DUE.	DATE.	SIGNATURES.
William Kelly	26181	7800	953	6867	6867				William Kelly
Michael Ryan	2839	4032	500	4132	4132				Michael Ryan
Ellen Cavanaugh	2671	3033			3033				Ellen Cavanaugh
Kate Sheridan	2641	8033	700	2333	2333				Kate Sheridan
Ann Cavanagh	2671	8033			3033				Ann Cavanagh
Mary Davenport	2369		2587		3587				Mary Davenport
John McCarley	2094		2280		2280				John McCarley
Catharine Payay	12476		80	1980	1980				Catharine Payay
Katherine Shulian	2193		746		746				Katherine Shulian
Mary Morgan	22704		2203		2203				Mary Morgan
Bridget Kilkenny	42215		1772		1772				Bridget Kilkenny
Anna Emerson	52003		1602	300	1402				Anna Emerson
Mary Erdmann	62771		2210		2216				Mary Erdmann
Kate O'Han	72777		2205		2205				Kate O'Han
Bridget Clinch	83527		2821		2821				Bridget Clinch
Bridget Cleary	92057		1640		1640				Bridget Cleary
Ann Flynn	10500		400		4				Ann Flynn
Alice Finnerty	112422		1937		1937				Alice Finnerty
Agnes Lynch	122250		1800	500	1300				Agnes Lynch
Bridget Flynn	131850		1480		1480				Bridget Flynn
Ellen Shinn	148050		2440		2440				Ellen Shinn
Mary Powers	152457		1965		1965				Mary Powers
Mary Donahue	162013		2822		2822				Mary Donahue
Mary Shahan	172587		2031		2031				Mary Shahan
John O'Sullivan	192670		2136		2156				John O'Sullivan
Mary Mahoney	202158		1726		1726				Mary Mahoney
Julia Shay	21826		660		660				Julia Shay
Ellen Shahan	222871		2296		2296				Ellen Shahan
Mary Shahan	23129		2503		2503				Mary Shahan
Kathleen Morris	242862		2289		2289				Kathleen Morris
Mary Shay	252571		2056		2056				Mary Shay
Bridget Mulroy	260380		2704		2704				Bridget Mulroy
Edgar Burke	273188		2550		2550				Edgar Burke
Bridget Linton	283244		2563		2563				Bridget Linton
Mary Sullivan	291754		1403		1403				Mary Sullivan
Bridget Kennedy	307703		3018		3018				Bridget Kennedy
John O'Brien	311924		1539		1539				John O'Brien
Eliza Powers	321798		1566		1566				Eliza Powers
Hosey Martin	322659		2120		2120				Hosey Martin
Ellen Stack	332532		2025		2025				Ellen Stack
Ann Kennedy	333624		2907		2907				Ann Kennedy
Bridget Kennedy	448448		2734		2734				Bridget Kennedy
John Sullivan	442880		2304		2304				John Sullivan
Julia Sullivan	458751		3160		3160				Julia Sullivan
Mary Duckford	463099		1679		1679				Mary Duckford
Ezra Hodges	462703		2210		2210				Ezra Hodges
Frank Brinkman	462106		1684		1684				Frank Brinkman
Julia Dailey	462839		2811		2811				Julia Dailey
Margy O'Gorman	462803		2242		2242				Margy O'Gorman
Mary Hausey	483149		2512		2512				Mary Hausey
John O'Shay	482832		2276		2276				John O'Shay
Hannah Culkin	513300		2664		2664				Hannah Culkin
Isabel Johnson	51421		336		336				Isabel Johnson
Margy James	531448		1158		1158				Margy James
Kate Brady	59892		713		713				Kate Brady
					121972	2033	110139		

Figure 13: page 263 of register - April 1st, 1868 (3rd of 3 pages of the April 1868 payroll)

Full Spreadsheet of Parsons Paper Company Employment by Job Type

OCCUPATIONS.	AVERAGE WEEKLY WAGE. STANDARD, GOLD.			Increase or Decrease for 1878 as com- pared with 1860.
	1860.	1872.	1878.	
MUSICAL INSTRUMENTS — <i>Con.</i>				
Flinshers	\$10 85	—	\$14 46	+\$3 61
Mill-men	12 38	—	14 19	+ 1 81
Action-makers	13 67	—	14 09	+ 42
Action-makers, women	6 72	—	7 11	+ 39
Tuners	16 40	—	15 00	- 1 40
Laborers	7 17	—	7 70	+ 53
PAINTS.				
Foremen	\$15 00	—	\$18 50	+\$3 50
Mixers and grinders	7 93	—	10 46	+ 2 53
Boys	3 91	—	5 41	+ 1 50
PAPER.				
Foremen	\$16 63	\$16 00	\$26 49	+\$9 86
Millwrights	9 86	16 00	15 21	+ 5 35
Rag-engine tenders	7 90	14 67	10 41	+ 2 51
Paper-machine tenders	10 00	16 00	15 25	+ 5 25
Thresher-women	5 70	8 89	7 40	+ 1 70
Rag-cutters	7 50	—	8 40	+ 90
Finishers	7 70	11 33	10 20	+ 2 50
Finishers, girls	3 92	6 93	5 27	+ 1 35
Finishers, boys	5 50	—	7 00	+ 1 50
Finishers' helpers	5 80	—	7 27	+ 1 47
Cutters	6 90	8 89	7 95	+ 1 05
Cutters, girls	3 40	5 33	5 00	+ 1 60
Bleachers	6 70	8 89	7 56	+ 86
Rag-sorters	3 27	4 00	4 53	+ 1 26
Men on stock	5 88	9 33	6 57	+ 69
Mechanics	9 75	—	13 20	+ 3 45
Engineers and firemen	6 64	10 52	8 77	+ 2 13
Laborers	5 50	8 33	6 55	+ 1 05

Figure 14: Portion of page 74 of the Massachusetts Tenth Annual Report of the Bureau of Statistics of Labor. Average statewide wages for various roles in 1860, 1872, and 1878 are listed for the paper industry under ‘paper.’