

Parsons Paper Company Payroll & Employment Analysis - Stat 210

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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 the first section we aimed to quantify the length of a single pay period as well as 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. Secondly, we examined the distribution of 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.). Finally, we are also interested in clarifying the meaning of the “Price” column of the payroll, which appears to denote the daily wage rate of the different employees in cents, although the exact meaning and calculation of the fractions remains unclear.

One of the central goals of this class is 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.

In the illustrative analysis below, we used a transcribed copy of page 253 (see Figure 1) 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.

Received of the PARSONS PAPER COMPANY, by their Agent, the sum prefixed to our Signatures,
being in full of all demands up to February 1st 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 1/2	6	6875	725	6150				William Connor
Martin Kennedy	28 1/2	6	8788			3738			Martin Kennedy
James Casey	28 1/2	6	5100			51			James Casey
John Gallivan	25 1/2	6	8780			3750			John Gallivan
John Vaughan	25 1/2	6	5000			50			John Vaughan
John Doyle	37 1/2	6	11050			1050			John Doyle
Sam'l F. Knight	25 1/2	6	5500	72000	4775				G.T. Knight
Philip Silday	25 1/2	6	5700			57			Philip Silday
John Conchen	25 1/2	6	5600	625		4975			John Conchen
Frank Russell	25 1/2	6	4812	900		3912			Frank Russell
Charles Johnson	25 1/2	6	3563			3563			Wm Johnson
William Conroy	27 1/2	6	9450			9450			Wm J. Conroy
John Flynn	28 1/2	6	6750			6750			John Flynn
E. V. Wellington	27 1/2	6	5775	625		5150			E.W. Wellington
Stephen Ward	27 1/2	6	14470			10070			Stephen Ward
John McKee	30 1/2	6	4831	933		3898			John McKee
Charles Shring	27 1/2	6	5850			5850			Charles Shring
J. A. Allen	27 1/2	6	4050	500		3550			J.A. Allen
John Doyle	31 1/2	6	5685			5685			John Doyle
John Steiger	31 1/2	6	4650			4650			John Steiger
Mark McGinnis	29 1/2	6	5317			5317			Mark McGinnis
Edward Ford	25 1/2	6	4063			4063			Edward Ford
Cat. Loyalty	25 1/2	6	4462	1167		3995			Cat. Loyalty
Cat. O'Neal	27 1/2	6	4888	574		3814			Cat. O'Neal
Joe Beaudoin	25 1/2	6	975	500		475			Joe Beaudoin
Joe Beaudoin Jr	25 1/2	6	4550			4550			Joe Beaudoin Jr
John Daugler	27 1/2	6	1725			1725			John Daugler
Eugene Healey	26 1/2	6	3910			3910			Eugene Healey
Curran W. Davis	26 1/2	6	3975			3975			Curran W. Davis
John Shea	18 1/2	6	2745			2745			John Shea
John Curran	2 1/2	6	75			75			John Curran
Mary Conley	11 1/2	6	1237			1237			Mary Conley
Kate Kilian	27 1/2	6	3037			3037			Kate Kilian
Kate Moran	30 1/2	6	27			27			Kate Moran
Kate Baldwin	23 1/2	6	2887			2887			Kate Baldwin
Philip Giddings	25 1/2	6	712			712			Philip Giddings
George Dungan	25 1/2	6	100			100			George Dungan
Repons B.C.					17200	16197	11000		
Austin Ely	25 1/2	6	7650			4550			Austin Ely
Walter Buckley	20 1/2	6	6150			3650			Walter Buckley
J. M. Alden	25 1/2	6	6250			6250			J. M. Alden
Martin Kewell	23 1/2	6	6178	1400		4778			Martin Kewell
Pat. Casey	52 1/2	6	5282			5282			Pat. Casey
Austin Ely	27 1/2	6	8100			8100			Austin Ely
Walter Buckley	27 1/2	6	8100			8100			Walter Buckley
J. M. Alden	27 1/2	6	6750			6750			J. M. Alden
Martin Kewell	27 1/2	6	6075	400		5675			Martin Kewell
Pat. Casey	33 1/2	6	6362			5362			Pat. Casey
					3037	400	3097		
						4550	227		

Figure 1: 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 9/10	14470	4470	Aspinwall
Wm McLean	30 4/7	4831	933	Wm McLean

Figure 2: 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% (22/44) 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 3).

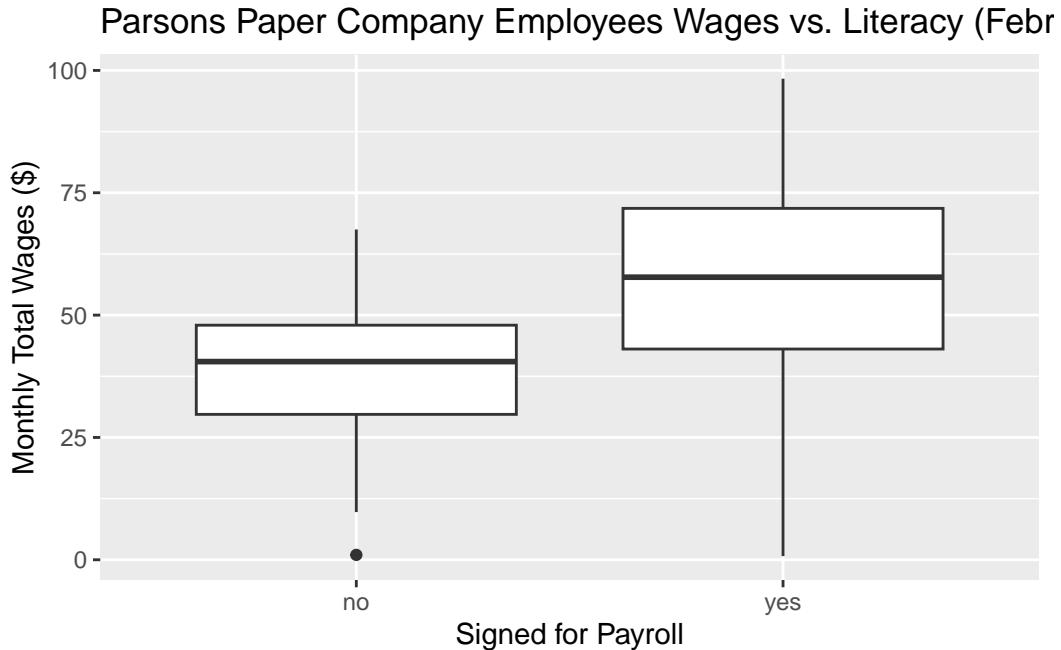


Figure 3: This plot shows the distribution of total wages for 44 employees at Parsons Paper Company in February 1867 from Table 1. Literacy is measured by an employee's ability to sign their own name in the payroll.

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.

Pgs. 223-225 (see Figure 4) appear to comprise an entire pay period for the month of April in 1867 (most pay periods span 3 pages in the register)

*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. DATE.	PRICE.	TOTAL AMOUNT.	RENT, OR BOARD.	BALANCE DUE.	DATE.	SIGNATURES.
George Papillion	2 ² / ₃	13		6187	61.87	Apr 15			George Papillion
James P. Dowd	24 ³ / ₄	9		3742	37.42				James P. Dowd
Walter F. Lord	28 ² / ₃	3		5600	6.25	4675	"		Walter F. Lord
George P. Day	26 ¹³ / ₁₆	5		5850	6.25	5225	"		Geo. A. Day
Olive Whalley	23 ¹ / ₂	19		4419	12	5219	"		Olive Whalley
P. Wilson Sykes	26 ¹ / ₂	6		3467	13 1/4	2153	"		P. Wilson Sykes
Lawrence Fairall	24 ¹ / ₂	6		4200	13 1/4	2886	"		Lawrence Fairall
Samuel Lawrence	16 ² / ₃	3		1925	12	725	"		Samuel Lawrence
Charles Morgan	15 ⁴ / ₅	3		1000		10	"		Charles Morgan
Mary J. Dowd	26 ¹ / ₂	9		26		26	"		Mary J. Dowd
Mary Holland	26 ¹ / ₂	6				26	May Holland		
Ellen Dowd	24 ² / ₃	4		2450		2450	"		Ellen Dowd
Olive Morgan	26 ¹ / ₂	9		26		26	"		Olive Morgan
Isabella Stock	26 ¹ / ₂	4		26		26	"		Isabella Stock
M. Casey (Worrell)	23 ⁵ / ₆	4		2350		2350	"		M. Casey (Worrell)
Mary Peigle	25 ³ / ₄	4		2575		2575	"		Mary Peigle
Emilia Marsh	25 ¹ / ₂	4		2525	12	1525	"		Emilia Marsh
Malina Colby	26 ¹ / ₂	6		26		26	"		Malina Colby
Audina Colby	24 ² / ₃	4		2450	9 1/2	1550	"		Audina Colby
Mes Smith	18 ² / ₃	4		1850		1850	"		Mes Smith
Emily Strong	25 ¹ / ₂	4		25		25	"		Emily Strong
E. Tomlinson	26 ¹ / ₂	9		28	3	23	"		E. Tomlinson
Jennie Gill	25 ¹ / ₂	4		2550	12	1350	"		Jennie Gill
J. A. Reale	25 ¹ / ₂	4		25	6 85	1815	"		J. A. Reale
G. Whittemore	25 ¹ / ₂	4		25		25	"		G. Whittemore
Carrice Galonec	25 ¹ / ₂	4		2575		2575	"		Carrice Galonec
Alice J. Perry	25 ¹ / ₂	4		25		25	"		Alice J. Perry
Maria Bush	25 ¹ / ₂	4		2475	12	1275	"		Maria Bush
E. A. Barnes	25 ¹ / ₂	4		2050		2050	"		E. A. Barnes
Abby Allen	9 ³ / ₄	2		810		810	"		Abby Allen
Mary E. Kelt	18 ¹ / ₂	4		18	986	814	"		Mary E. Kelt
Mary Comin	26 ¹ / ₂	4		26		26	"		Mary Comin
Elizabeth Dowd	3 ¹ / ₂	3		3		3	"		Elizabeth Dowd
Margaret Kalan	17 ¹ / ₂	4		1150	6	550	"		Margaret Kalan
H. Brown	String 1567 46349			1864	12	664	"		H. Brown
Jessie Dowd	C. & G. 1227 52 53			3045	6.25	2420	"		Jessie Dowd
Suey Allen	12351					3374	"		Suey Allen
J. Cormac	1174 582 53			3374					J. Cormac
Sarah Francis	829 46 53			2687	9 1/2	1797	"		Sarah Francis
E. A. Allen	118 123 53			789	258	376	"		E. A. Allen
Julia Brown	Seton 1520	2		26		26	"		Julia Brown
H. Brown	" 757	2		1514		1514	"		H. Brown
Margaret Dowd	" 724	2		1448		1448	"		Margaret Dowd
E. M. Seitz	" 1118	2		2236		2236	"		E. M. Seitz
Martha Wright	" 939	2		1878	700	1178	"		Martha Wright
Julia Cormac	" 421	2		842	59	792	"		Julia Cormac
O. R. Miller					10702	17052	9720		
L. Parrott									
R. P. Sykes									
Kun L. Lawrence									

C. & G. 1227 52 53
Seton 1520
1174 582 53
829 46 53
118 123 53
1520 1567 46349

1864
1865
1866
1867
1868

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

Pgs. 223-225 and Pgs. 261-263 (see Figure 5) are exactly one year apart in the register (April 1st 1867 vs. April 1st 1868).

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.
Geo Papillion	24	18	4	64.32	64.32				George Papillion
Jenny P. Davis	22	10	1	3.98	3.98				Jenny P. Davis
J. T. Lord	23	18		63.75	7.25	56.50			Haller Lord
Elo A. Day	24	15		60.63	7.25	53.38			Elo A. Day
O. S. Whaler	27	14		5.01	17.71	32.66			O. S. Whaler
A. L. P. Sykes	26	18		45.50	17.71	27.79			A. L. P. Sykes
L. Daniels	21	15		5.25		5.25			L. Daniels
Chas. Robertson	26	16		82.50	17.71	14.79			Chas. Robertson
Cho. A. Hagan	26	5		2.16		2.16			Cho. A. Hagan
Ellen Donohue	25	6		2.50		2.50			Ellen Donohue
Jos. A. Shattuck	26			3.03		3.03			Jos. A. Shattuck
R. Casey	25	6		2.50		2.50			R. Casey
Anna Brown	20			2.05		2.05			Anna Brown
Elo A. Whittemore	26			26.00	13.29	12.71			Elo A. Whittemore
Sarah Storer	25			23.50	13.29	10.21			Sarah Storer
Cara Wadsworth	24			24.00	13.29	10.71			Cara Wadsworth
Eliza Burley	26			26.00		26			Eliza Burley
Mary Burley	26			26.00		26			Mary Burley
Felicity Norton	29			21.50	13.29	8.21			Felicity Norton
J. Buckland	18			18.00	9.86	8.14			J. Buckland
E. Carlton	13			1.00		1.00			E. Carlton
Lizzie Dawson	26			26.00	13.29	12.71			Lizzie Dawson
S. Mandeville	26			26.00		26.00			S. Mandeville
Julia Dart	26			26.00	13.29	12.71			Julia Dart
Maria Brown	13			1.32		1.32			Maria Brown
Meredith Dart	25			25.00	13.29	11.71			Meredith Dart
Louisa Heath	25			2.50		2.50			Louisa Heath
Sarah Camp	24	6		2.00		2.00			Sarah Camp
Yvonne Smith	26	6		26.00	13.29	12.71			Yvonne Smith
L. A. Davis	21	12	3	27.64		27.64			L. A. Davis
Lucy Allen	25	18	3	29.77		29.77			Lucy Allen
M. Brown	27	24	40	20.09	13.29	6.80			M. Brown
M. Davis	21	27	40	28.71		28.71			M. Davis
E. A. Allen	11	1	2	23.42		23.42			E. A. Allen
Mary Conford	78	0		15.60	15.60	0			Mary Conford
G. A. Lord	90	0		18.12		18.12			G. A. Lord
Rebecca Wright	75	0		15.12	7.00	8.12			Rebecca Wright
E. Conford	106	0		21.35	13.29	8.09			E. Conford
S. Conford	91	0		18.30		18.30			S. Conford
S. Conford	7	6		7.00		7			S. Conford
Adie Conford	27	25	58	14.64		14.64			Adie Conford
M. Brown	20	12	58	5.51		5.51			M. Brown
S. Hackeloff	23	18	58	5.51		5.51			S. Hackeloff
Julia Conford	21	14	2	4.25		4.25			Julia Conford
M. Brown	16	8	2	3.36		3.36			M. Brown
S. Conford	12	6		4.50		4.50			S. Conford
Mary Davis	68	2		13.60	6.25	7.35			Mary Davis
"	240	2		6.00		6			"
260	3			7.50		7.50			260
Mary Holland	70	2		14.04		14.04			Mary Holland
"	496	3		14.85		14.85			"
Mary Conford	40	2		8.00	5.83	2.17			Mary Conford
				101.960	14.807	97.462			

Figure 5: Page 261 of register (April 1st, 1868), also see pages 262-263 in 'Appendix.'

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

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).

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).

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 10 in ‘Appendix’) and 8 people under April 1st, 1868 (see Figure 11 in ‘Appendix’). Refer to the Appendix 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

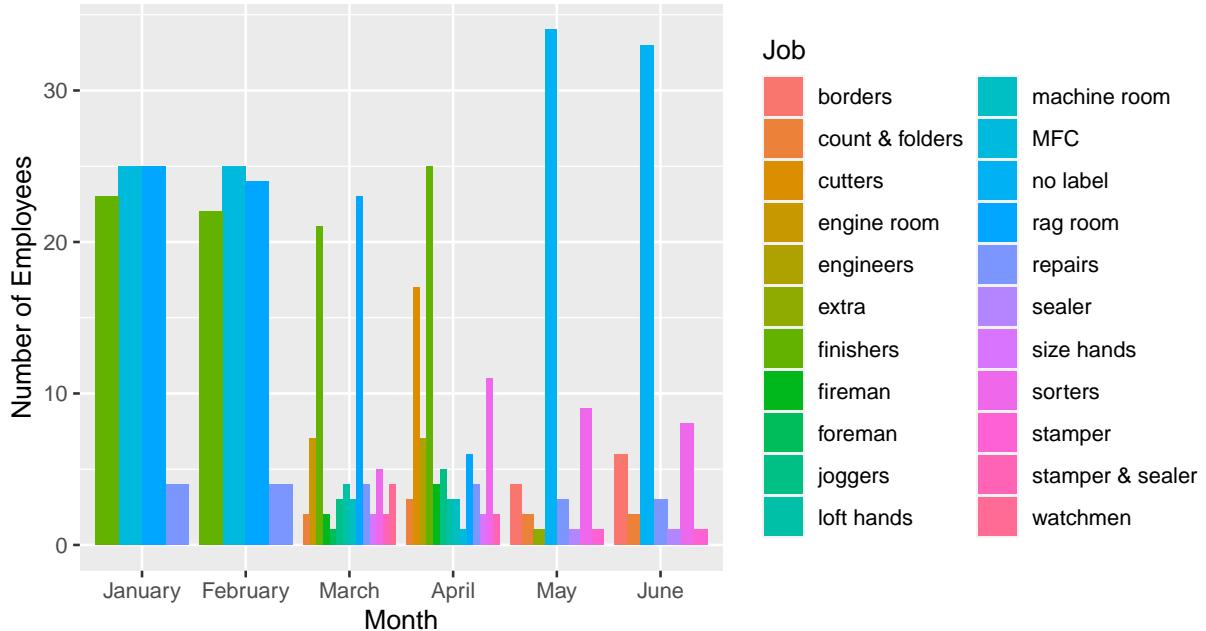


Figure 6: This plot shows the distribution of different roles within the paper company during the first six months of 1861. The unlabeled male laborers, MFC mill workers, finishers, and rag room workers appear to be the most common roles.

How do Parsons wages compare to the Massachusetts state averages?

Table 4 and Figure 7 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).

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

Weekly Wages of Massachusetts Paper Workers, 1860–78

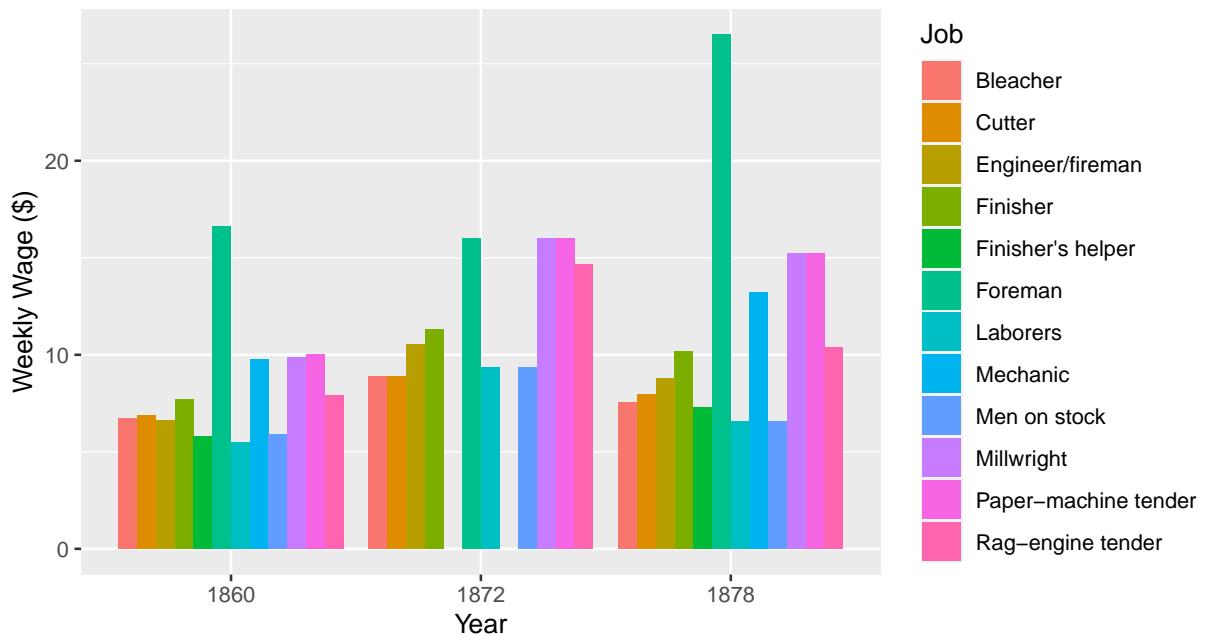


Figure 7: This plot, adapted from Table 4, displays average weekly wages for various roles in paper factories across Massachusetts between 1860-1878.

Table 5: Parsons Weekly Wages - 1861

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

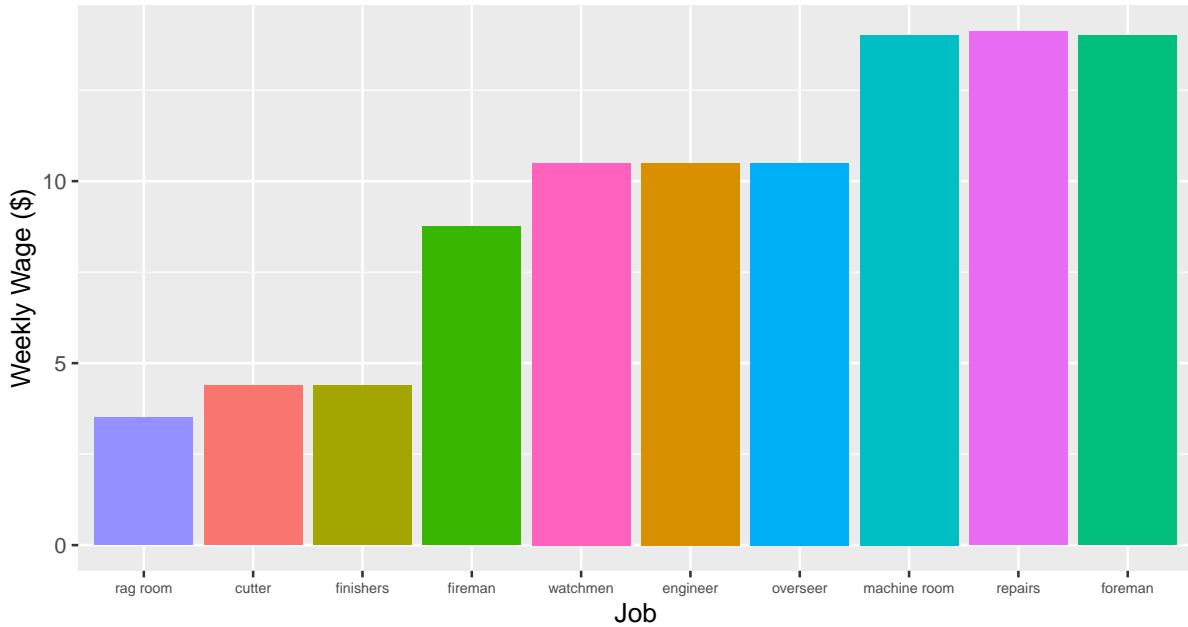


Figure 8: Weekly wage breakdown for various worker roles in Parsons Paper Company in 1861

From Figure 8, 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.”

References

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- 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.

Appendix

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*Received of the PARSONS PAPER COMPANY, by their Agent, the sum perfoiced 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.
William Kelly	26	18	75	8 54	69 66	Sp 05	9 55	Sp 05	William Kelly
Samuel S. Knight	26	12	52	6 25	45 75	"	"	"	J. T. Knight
Michael Ryan	26	9	42 25	5 00	37 25	"	"	"	Michael Ryan
Catharine Brady	25	7	29 17	"	29 17	"	"	"	Kate X Brady
Ellen Conroy	25	7	29 17	"	29 17	"	"	"	Ellen X Conroy
Bridget McNamee	4177	90	37 59	2 00	24 36	"	"	"	Bridget X McNamee
Louisa Exner	2929	"	20 56	"	35 33	"	"	"	Louisa Exner
Catherine O'Hare	5703	"	53 55	"	38 49	"	"	"	Kate X O'Hare
Mary Murphy	3765	"	58 49	"	32 03	"	"	"	Mary X Murphy
Rebecca Gould	3659	"	52 03	"	32 53	"	"	"	Rebecca Gould
Ellen Stone	3614	"	52 53	"	34 52	"	"	"	Ellen X Stone
Mary Daugherty	3836	"	39 52	"	29 21	"	"	"	Mary X Daugherty
O'Leary - O'Sullivan	3216	"	39 52	"	34 52	"	"	"	O'Leary - O'Sullivan
Margaret Fitzgerald	3135	"	39 52	"	33 27	"	"	"	Margaret Fitzgerald
Julia Head	3647	"	50 27	"	19 87	"	"	"	Julia X Head
Mary Quinlan	2085	"	19 87	"	13 48	"	"	"	Mary X Quinlan
Ella O'Neil	2352	"	26 98	7	35 20	"	"	"	Ella X O'Neil
Patrick Maloney	3911	"	35 20	"	31 92	"	"	"	Patrick X Maloney
Margaret Kelly	3675	"	31 92	"	31 90	"	"	"	Margaret X Kelly
Margaret Haffey	1822	"	31 90	"	30 91	"	"	"	Margaret X Haffey
annah Scallan	3434	"	50 91	"	24 09	"	"	"	annah X Scallan
Catharine Stevelson	3434	"	51 09	700	24 87	"	"	"	Catharine X Stevelson
Ella Davis	2760	"	29 14	"	33 82	"	"	"	Ella X Davis
Elizanna McCarley	3738	"	33 82	"	27 93	"	"	"	Elizanna X McCarley
Mary Gaughan	3103	"	29 03	"	19 52	"	"	"	Mary X Gaughan
Rosa McNamee	2169	"	19 52	"	19 52	"	"	"	Rosa X McNamee
Ellie Stock	3230	"	29 55	"	29 26	"	"	"	Ellie X Stock
Sue Kennedy	4224	"	58 38	"	38 38	"	"	"	Sue X Kennedy
Mary MacLellan	1863	"	16 77	"	16 77	"	"	"	Mary X MacLellan
Margaret Vaughan	3949	"	55 54	"	55 54	"	"	"	Margaret Vaughan
Julia Sullivan	4753	"	57 56	"	57 56	"	"	"	Julia X Sullivan
Anna Torrey	3108	"	27 97	"	27 97	"	"	"	Anna X Torrey
Ella Rogers	3666	"	27 60	"	27 60	"	"	"	Ella X Rogers
Mary Delaney	3432	"	30 88	"	30 88	"	"	"	Mary X Delaney
Mary Mahoney	2957	"	26 61	"	26 61	"	"	"	Mary X Mahoney
Mary McGeough	1714	"	15 42	"	15 42	"	"	"	Mary X McGeough
Johnna Shee	3169	"	28 52	"	28 52	"	"	"	Johnna X Shee
Johnna O'Kearan	4244	"	58 16	"	38 16	"	"	"	Johnna X O'Kearan
Mary O'Hare	2086	"	18 77	"	18 77	"	"	"	Mary X O'Hare
	11202		125 10	55 59	120 826				




Figure 9: 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	27 375	74 25	6 25	68	"				E. H. Wellington
John Duffy	26 250	66 25	6 25	60	"				John Duffy
John Flynn	22 265	49 50			49 50 "				John Flynn
P. O. Harr	26 70	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 70	29 75			29 75 "				Michael Ryan
John Carroll	37 2%	63 62			63 62 "				John Carroll
John Slaughter	22 9%	55 75			55 75 "				John Slaughter
Richard Marshall	26 1%	45 50			45 50 "				Richard Marshall
Kate Baldwin	26 9	21 67			21 67 "				Kate Baldwin
Martin Moran	26 9	59 00			59 "				Martin Moran
James Moran	23 9	51 50			51 50 "				James Moran
Jefferson Powell	26 2%	39 75			39 75 "				Jefferson Powell
William Johnson	25 15%	63 12	8 54		54 54 "				William Johnson
Pat Donahue	26 9	34 00	4 00		35 "				Pat Donahue
Wm. Corry	26 3%	66 87	8 34		58 63 "				Wm. Corry
Patrick Kennedy	26 9	39 00			39 "				Patrick Kennedy
James Casey	29 2%	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 13%	58 50	8 34		50 16 "				J. D. A. Ballou
Wm. C. Tully	25 8%	47 20			47 20 "				Wm. C. Tully
Frank Russell	25 2%	55 25			55 25 "				Frank Russell
Nich. Valley	24 9%	36			36 "				Nich. Valley
Joseph Bordeau	25 9%	44 13	10		30 63 "				Joseph Bordeau
Ed. C. Chapman	23 7%	40 30	10		30 30 "				Ed. C. Chapman
Frank Cummings	23 9%	35 25			35 25 "				Frank Cummings
Edmund Cain	36 9%	39			39 "				Edmund Cain
Patrick Ryan	27 9%	43 88	11		32 88 "				Patrick Ryan
" in April	7%	81			81 "				
Frank Cummings	44%	6 00			6 00 "				Frank Cummings
Morris L. Sammons	12 9	18			18 "				Morris L. Sammons
" Mar	28 9%	42 75			42 75 "				Morris L. Sammons
Thomas Jepson	25 9	25			25 "				Thomas Jepson
John Coulombe in Apr	9 4%	16 93			16 93 "				John Coulombe in Apr
	150 0 78	77 52	1495 26						

Repairs &c

Austin Ely	26 15%	65 00	65	"	Austin Ely
J. M. Allen	26 15%	65 00	65	"	J. M. Allen
H. C. Walter	26 250	65 00	8 34	56 66	H. C. Walter
Patrick Casey	32 1%	52 00	52	"	Patrick Casey
Martin Neilly	18 25%	44 50	40 50	"	Martin Neilly



Figure 10: page 225 of register - April 1st, 1867 (3rd of 3 pages of the April 1867 payroll)

Figure 11: 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					William Kelly
Michael Ryan	2839	4032	500	4132					Michael Ryan
Ellen Cavanaugh	2671	3033			3033				Ellen Cavanaugh
Kate Sheridan	2641	8033	700	2333					Kate Sheridan
Ann Cavanagh	2671	8033			3033				Ann Cavanagh
Mary Davenport	2369		2587						Mary Davenport
John L. McCarthy	2094		2280						John L. McCarthy
Catharine Dayley	12476		80	1980					Cath Dayley
Katherine Shulman	2193		746						Katherine Shulman
Mary Morgan	22784		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	72747		2205			2205			Kate O'Han
Bridget Kilkenny	83527		2821			2821			Bridget Kilkenny
Bridget Cleary	92057		1640			1640			Bridget Cleary
Ann Flynn	10500		400			4			Ann Flynn
Alice Finnegan	112422		1937			1937			Alice Finnegan
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 Donohue	162013		2822			2822			Mary Donohue
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	238129		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	303703		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
Margt. M. Donohue	462803		2242			2242			Margt. M. Donohue
Mary Hausey	483149		2512			2512			Mary Hausey
John O'Shay	482832		2276			2276			John O'Shay
Hannah Culkin	513880		2664			2664			Hannah Culkin
Isabel Johnson	51421		336			336			Isabel Johnson
Margt. Burns	531448		1158			1158			Margt. Burns
Kate Brady	59892		713			713			Kate Brady
					121972	2033	110139		

Figure 12: 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