

Late Teacher Hiring in Washington State:

The Role of Collectively-Bargained Contract Provisions on Late Hiring.

Dylan Dentremont

A capstone project presented in partial fulfillment of the

requirements for the degree of

Master of Arts in Policy Studies

Interdisciplinary Arts and Sciences.

Executive Summary

The practice of late hiring has detrimental and disruptive effects on school district and state finances, teacher morale, and student outcomes. While there are many direct and indirect causes of late hiring, a majority of principals surveyed state that collectively-bargained provisions regulating teacher transfers and vacancies play a significant role in preventing them from making sure all teachers are hired on-time. While this may be an important perception from hiring principals, there is a dearth of empirical evidence to support this claim. This study examines the empirical relationship between district late hiring rates and CBA-mandated hiring timelines in 148 Washington State school districts for the 2009 school year. This study concludes that there is no empirical evidence to support the notion that specific collectively-bargained contract provisions specifying how long administrators have to wait to hire teachers from outside the district have any effect on late hiring. It appears that the strongest relationship exists between late hiring and the size of the school district, with larger school districts having a greater likelihood to hire teachers after school begins. This is contrary to some previous research, which suggests that CBA provisions “tie the hands” of administrators and prevent them from hiring all teachers on time.

Special thanks to Dr. Keith Nitta, Capstone Advisor for this project, to Dr. Goldhaber, Second Reader, and Roddy Theobald for his outstanding and timely advice and encouragement. Thank you also to the school teachers and administrators who work every day to improve public education in our state.

Background: Costs and Causes of Late Hiring

Costs of Late Hiring.

In this age of declining budgets, economic hardship, and financial uncertainty, public education has often been one of the first state programs on the chopping block in order to keep state governments afloat (Baker, 2011). As a result, we have seen continued cuts to all aspects of education including teacher pay (Baker, 2011), building maintenance, professional development, school lunches, the arts, and other special programs. As we continue to look for ways to control costs, every aspect of a school's operations can come under a microscope, from the provisions of bargained agreements like layoffs by seniority (Goldhaber & Theobald, 2011) to training, administrative compensation levels, and other costs.

One cost that is difficult to make out on any financial statement is the cost of teacher turnover. Expenditures related to training, hiring, and the reduced output associated with a teacher's instructional ability with less than 3-5 years on the job is very difficult to quantify (Goldhaber & Theobald, 2011). Some of those costs can never be truly accounted for, but expenses associated with hiring procedures, training, and professional development can be calculated and may cost a school district (and consequently the state and taxpayers) \$10,000-\$18,000 per teacher (Barnes, Crowe, & Schaefer, 2011).

There are many factors that affect teacher turnover, one of which is late hiring. Teachers hired late (after the first day of school) are twice as likely to leave schools or the teaching profession within two years as teachers who were hired during the "regular" hiring season, often described as before August (Jones, Maier, & Grogan, 2011). For the purposes of this study, late hiring means that the date the teacher was hired was past the start date of the school year. Having a teacher join the staff partway into the year, even by a few days or a week, may cause problems related to the teacher acclimating, preparing, synergizing with colleagues, professional development, and settling in in general (Liu & Johnson, 2003). Furthermore, teachers hired late in the year are perceived as less capable than their peers who were hired on-time. As a result of these factors, teachers who were hired late are much more likely to leave the school or the teaching profession than other teachers hired earlier in the year (Jones, Maier, & Grogan, 2011).

Contributors to Late Hiring

Many factors drive late hiring. These include poor forecasting of student attendance, budget uncertainty, and teachers quitting or retiring (Levin and Quinn 2003). One of the most-often cited causes of late hiring by principals are collectively-bargained contract provisions, which give incumbent teachers a certain amount of time to consider transferring within the district (Levin & Quinn, 2003), right of first refusal to previously laid-off teachers who are on recall lists, priority to teachers already employed in the district, and restrictions on when a position can be advertised outside the district or to the general public. Teachers may request

transfer or may be involuntarily transferred by their supervisors for a variety of reasons. During this transfer period, administrators are usually barred from making new hires from outside the district. They must wait until all existing teachers within their own district have had an opportunity to select, from a list of open positions within the district, which position they would like to occupy for the coming school year.

In a New Teacher Project human resources management report produced in 2009, a survey of principals in the San Francisco School District found that 72% of principals agreed that the collectively bargained provisions regulating consolidation (involuntary) transfer protocols contributed to delays in hiring. Further, 47% of principals stated that the voluntary transfer timeline, also a negotiated item, contributed to delays as well (TNTP, 2009). This was not the only cause of late hiring according to these administrators. The state budget process also contributed to hiring delays, as stated by 37% of those same survey respondents. With all the references to collectively bargained provisions driving late hiring, however, no empirical evidence has linked late hiring to the bargained protections given to incumbent teachers. All the evidence supporting the theory that these provisions drive late hiring is in the form of survey results.

It appears that there is a well-represented and documented perception by hiring managers and principals that these provisions have an impact on late hiring, but not much empirical evidence to support this perception. This study aims to provide some empirical data to one side of the debate or the other, to parse out, if possible, whether or not principals cite the timeline because of their perceptions of union bargaining power or if, in fact, these legally binding provisions really do not give hiring managers proper time to make hiring decisions.

Why should we care about late hiring?

Data suggests that teachers hired early in the hiring season (the summer) are no better qualified than those hired later in the season (Engel, 2009). Hence, our concern cannot be about the quality of hired teachers. Of much deeper concern, data suggests that teachers that are hired late are not only perceived by principals and other teachers to be poorer performers, but will inevitably have a rushed and rough introduction to their new work environment. As a result of this, teachers hired after the beginning of the school year are twice as likely to leave the system (Jones, Maier, & Grogan, 2011), creating costly and preventable teacher turnover.

It is this additional and preventable turnover that should concern us about late hiring. Not only is late hiring a red flag regarding principals and human resource managers potentially underperforming, or worse, deliberately gaming the system (Levin & Quinn, 2003), but it is also linked to costly and disruptive turnover that public education systems can ill afford to bear.

Research Question: Foundation of the Study

Of the three factors commonly cited as leading contributors to late hiring of teachers, how significant a role do collectively-bargained teacher transfer requirements and internal posting timelines play in delaying hiring past the start of the school year in a sample of Washington State school districts?

This study began with the hypothesis that the relationship between mandated teacher union transfer dates and the percentage of teachers hired after the start of school is overstated in the survey data. It seems unlikely that these transfer mechanisms, ostensibly proposed by teachers and agreed to by the district, would be the *primary* force necessitating late hiring. However, given how the survey data is driving the debate about the causes of late hiring, it would seem that more study is needed to ensure we are not letting these perceptions, instead of empirical data, drive the late-hiring discussion.

Discovering how or if transfer/vacancy provisions and late hiring are linked could be immensely useful in triangulating an effective policy solution to help mitigate the disruptive and costly effects of late hiring and associated teacher turnover. The other commonly cited factors are related to vacancy notification requirements or budgeting and forecasting uncertainty and are much more difficult to control at the district level than human resource policies and collectively bargained provisions governing internal posting requirements, vacancy requests, and transfer deadlines.

Methodology: Variables, Sampling, and Analytic Method

Overview of Methodology

This study reviews data relating to the mandated internal posting timelines in union contracts in a sample of Washington State school districts and explores any empirical relationship between the percentage of teachers actually hired after the beginning of the school year and mandatory internal posting requirements or the restrictiveness of the district's collectively bargained agreement. Specific steps included:

1. Determine which of the 295 school districts in Washington State should be included in the sample for the study.
2. Find the union-mandated posting and recall timeline requirements, consisting of the number of days an administrator must internally post a vacancy within a building or district, or number of days a teacher on a recall list has to respond to a notice of an open position for each district.
3. Retrieve a standardized measure of overall collectively-bargained contract restrictiveness for each district.
4. Retrieve a standardized measure of the restrictiveness of the "Transfer and Vacancies" provisions in each CBA for each district.
5. Find the number (later converted to a percentage) of teachers hired after the first day of classes for each district in the sample for the 2009 school year.
6. Perform a bivariate correlation analysis on this data to see if the union-mandated posting requirement is correlated with the percentage of teachers hired after the school year begins in each district.

Part 1: Sampling

Of 295 school districts in Washington State, only 270 have CBAs. Of those 270, many have not updated their contracts in several years (some as many as 10 years) or were unable to provide a current contract. Some have a contract from 2009, but only sent a contract for the 2010-11 school year. For all years (from 2004 to 2013) of CBAs collected, the 2009-10 school year is the best represented, with 219 contracts collected. This sample represents 80% of all districts which use a CBA and nearly 90% of the student body for that year.¹

¹ The CBAs analyzed in this study were gathered over the course of a year by a team of dedicated researchers at the Center for Education Data and Research, headed by Dr. Dan Goldhaber.

Table comparing all WA Districts, Study Sample, and actual Survey Respondents

Variable	All Districts in WA N=295	Study Sample N=219	Survey Respondents N=148
Avg. FTE	3512*	4088	3245
% White	64%	71%	72%
Grad Rate	77%	84%	84%
PPE**	\$9544	\$6114	\$6063

Fig 1: Comparison table for sample and entire population of WA districts of district factors.

**of the 270 districts with CBAs, the average FTE is 3643*

***Average Per-Pupil Expenditures*

As evident from Figure 1, the responding population was slightly smaller in size than the mean size of districts in the entire state, with an average FTE of 3245 compared to the state average of 3643. This discrepancy was largely due to the fact that of the 10 largest school districts in the state (all of which have over 20,000 FTE), only four responded to the author's request for information and were included in this sample.

Part 2: Dependent Variable

Late-fill rate in 2009-10: This was collected by sending each school district in the sample a short survey about late hiring in their district. The survey asked for a) the first day of school, b) the number of teachers hired after the first day of school and c) a field for comments related to late hiring. These surveys were sent to each district's human resource manager (sometimes also the superintendent or principal in smaller districts) to find out how many teachers they hired after the school year began at the onset of the 2009-10 school year. This number was then divided by the total number of teachers in the district, as reported by the OSPI, to give a late-fill rate.

For easier comparison across groups in some of the analysis, we binned the late hire rate into five groups. The distribution of the data prevented a meaningful division of the sample into quintiles, so the late hire rate, when binned, is divided into the following groups:

Late Hire Rate Bin Assignments

Late Hire Rate	Bin Number
NONE	1
0.1-2.0%	2
2.1-4.0%	3
4.1-6.0%	4
6.1% or more	5

Fig 2: Late hire rate bin assignments.

Note that bins are in 2% intervals for districts which hired late.

Why should we measure this? Our main concern is mitigating financial losses associated with excessive teacher turnover. Data from the 2011 Jones, et al study suggests that teachers who are hired late are twice as likely to leave the school or profession as teachers that were hired before the beginning of the school year. The data in that study does not make a distinction as to how many days late the teacher was hired, only whether they were hired before or after the beginning of the school year. Because previous research regarding how late these positions were filled is not available, and further, would be much more difficult to find data for, this study only examines the overall late fill rate.

Part 3: Independent Variables

Collectively-bargained internal posting requirements (IP1, IP2, IP3, & FR): Data about internal posting requirements was collected by manually reviewing actual collective bargaining agreements from all 148 districts who responded to the survey. Some districts did not have internal posting requirements, but all districts had contract stipulations which mandated that incumbent teachers are given some sort of priority over outside applicants for vacancies. Many districts had more than one type of internal posting requirement and these are described below.

IP1: This is the first of sometimes as many as three internal posting requirements for the district. This number is the number of days a vacant position (or a position known to be vacant sometime in the future) must be posted for review by incumbent teachers within the district. Usually IP1 applies to vacancies revealed during the normal school year, when teachers are working their normal school schedule. During this internal posting time period, the position may not be advertised as a vacancy to anyone outside the district. This is true of all of the internal posting requirements.

IP2: This is the internal posting requirement often used during time periods when teachers are on vacation. This is the number that would be most used for vacancies discovered during the summertime, which is the normal hiring season.

IP3: This is the late-season or emergency internal posting requirement. The definition of this varies across districts but usually applies to vacancies discovered late in the hiring season (after August 1st) or vacancies discovered after school begins (such as when a teacher quits or retires unexpectedly).

FR: FR is short for “from recall” and represents the number of days a teacher has to reply to a vacancy if they are contacted from a recall list. A teacher is added to a recall list if they were laid off in a previous school year. These teachers often have “right of first refusal” for vacancies for which they are qualified.

Why measure these requirements? 72% of principals in surveys from San Francisco stated that these types of provisions were a “significant factor” in causing late hiring in their districts (TNTP, 2009). As CBAs in Washington State do not specify a “staffing timeline” in the same way as some other states, this is the closest measure we have of such a timeline. These collectively bargained provisions may limit the power of administrators to hire outside the district by forcing them to delay posting vacancies to the public or to schools of education.

Measures of Collective Bargaining Agreement Restrictiveness (CBA1, CBA2): This was collected by the Center for Education Data and Research at the University of Washington (CEDR). Both measures (CBA1 and CBA2) were developed by Dr. Dan Goldhaber and his research team at CEDR based on an exhaustive study of all 270 school districts in Washington State which have CBAs (Goldhaber 2012). Each CBA was subject to a series of over 600 yes/no questions. Based on the answers to those questions, each CBA was assigned a measure of restrictiveness based on standard deviations in relation to the population of CBAs in Washington State. For example, a CBA with an overall score of 0.0 would be a CBA of “average” restrictiveness for Washington State. A CBA with a score of -1.0 would be 1.0 standard deviations less restrictive than average for the state. A CBA with a score of 1.0 would be 1.0 standard deviations more restrictive.

CBA1: This is a measure of the restrictiveness of the entire CBA. This takes into account all the provisions in the entire CBA (633 provisions measured) and consolidates them into one measure of restrictiveness.

CBA2: This is a measure of the restrictiveness of ONLY the “Transfer and Vacancies” section of the districts’ CBAs (57 provisions measured). Each CBA has many sections, with many agreements having as many as 16, each pertaining to a particular set of bargaining provisions. This is a measure of how restrictive, relative to other CBAs in the state, a district’s CBA is with regard to teacher transfers and vacancies.

Why measure this? Because so many principals cited collectively-bargained provisions as key to the late-hiring issue, this study includes these measures of contract restrictiveness. It is important to note that these measures of restrictiveness are not yet published but are available in white paper form through CEDR (Goldhaber, Lavery, Theobald, & Fang, 2012). However, a similar study was performed on CBAs in the state of California by Strunk and Reardon in 2010 that provided the basis of the CEDR study (Strunk & Reardon, 2010).

Full-Time Enrollment (FTE): FTE is a measure of the student population of a school district. This was gathered through the Office of the Superintendent of Public Instruction (OSPI) for Washington State (OSPI). This data is publicly available and can be downloaded from OSPI’s website.

Why measure this? A large part of the 2009 TNTP study was focused on determining what issues most hamper *urban* school districts from hiring teachers on-time. In Washington State, school district population (or FTE) is highly related to the urbanicity of the surrounding area (OSPI, 2012).

Percent White (%White): This is a measure of the diversity of the student population in a given school district and is also highly related to the urbanicity of a given district. The higher a district’s percentage of students that are white, the less diverse a school district is and the less likely it is to be an urban school district. This was also collected through the OSPI and is publicly available (OSPI, 2012).

Why measure this? Diverse public schools with low populations of white students are more likely to be urban school districts and more likely to experience late hiring (TNTP, 2009).

On-time graduation rate (OTGR): OTGR is a general measure of a school district's overall health. In Washington State, it is often measured using the four-year cohort method, though it is of note that the state will be transitioning to a 5-year calculation for the 2012-13 school year (OSPI, 2012).

Why measure this? A school district in poor health overall is not likely to produce a very high graduation rate. If a school were staffed by an above-average level of teachers that were hired late and therefore subject to the stressors of being a late hire, we might expect there to be a future effect on graduation rates. Also, this is the only district data in this study that is based on student outcomes.

Geographic measure of urbanicity (GEO): This is a measure of urbanicity based on proximity to population centers, population density, and the size of those nearby population centers. This is largely generated through analysis of census data and published by the National Center for Education Statistics (NCES, 2012).

Why measure this? This variable was a way to classify school districts based on measures of urbanicity which were based on the area a school district was located in as opposed to district variables. It was used as an alternate way to capture how urban the environment of a school district was as opposed to inference based on school district size or demography.

Part 4: Analytic Process

Once all data was collected into an Excel spreadsheet, it was uploaded into SPSS for more rigorous analysis. Once in SPSS, data was subject to correlation analysis to determine if there were any statistically significant relationships between the dependent and independent variables.

Primary Findings

The State of Late Hiring in Washington State

An initial analysis of descriptive data collected in the study showed that hiring teachers late was not the standard practice in the sample. With late hiring overall at 11% for the entire nation (Engel, 2009) it was surprising to note that less than one third of districts in the sample hired late at all, and of those none hired more than 10% of the teacher population after the start of the school year.

Because so few districts hired late, the overall late hire-rate for the state is less than 1% (N=148) and appears to be well below the national average, at least in this sample. Figure 3 below shows that over two-thirds of districts did not hire late at all.

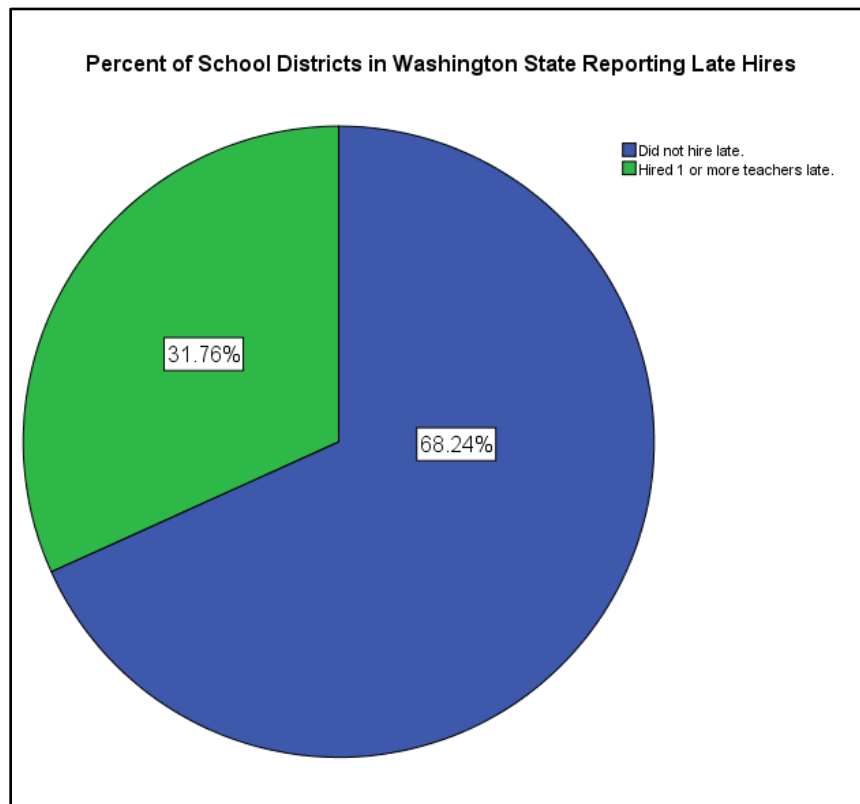


Fig 3: Pie chart showing percent of school districts among those surveyed reporting late hires.

Late Hiring and Collectively-Bargained Internal Posting Requirements

This was the primary relationship we were concerned with as it applies most specifically to the research question. Do these collectively-bargained provisions have a statistically significant effect on late hiring and if so, to what degree? The three posting requirements (IP1, IP2, and IP3) and the “from recall” requirement (FR) fall into this category. These were important variables to analyze because they represent a direct restriction on the hiring administrators’ ability to advertise and recruit out-of district teachers to fill vacancies in their school district.

**Maximum, Minimum, Mean and Standard Deviation
of Internal Posting Requirements**

	N	Minimum	Maximum	Mean	Std. Deviation
IP1	76	0	14	5.57	3.671
IP2	22	0	14	5.00	4.821
IP3	30	0	14	1.70	3.186
FR	110	2	15	8.27	3.020

*Fig 4: Descriptive statistics of internal posting requirements.
Note the low mean for IP3, showing CBAs are sensitive to late-season or emergency vacancies.*

As you can see from Figure 4 above, not all districts had provisions specifically addressing the internal posting of vacancies. All districts had some sort of provision stipulating that incumbent teachers should have priority over new vacancies in the district, but only about half the districts in the sample (N=76) had provisions that specifically made administrators wait to recruit outside the district under normal circumstances.

More districts had collectively-bargained rules regarding how long teachers have to reply to vacancies if they were in the layoff pool (N=110). Of those, over 40% of districts gave laid off teachers 10 days to reply to such a vacancy notification.

Internal job posting requirements like this are the closest thing Washington State has to collectively-bargained hiring timelines. These posting requirements give incumbent teachers varying degrees of protection to review vacancies that may be a better career fit for them. Even with about 50% of districts having some sort of posting requirement and even more districts having additional protections for teachers on a recall list, this study could find no statistically significant relationships between these provisions and late hiring. Bivariate correlation analysis between the late hire rate and internal posting requirements are posted below.

Correlations Between Late Hiring Rate and Internal Posting/From Recall Requirements

		IP1	IP2	IP3	FR
LHRATE	Pearson Correlation	.104	.138	.264	-.008
	Sig. (2-tailed)	.372	.542	.159	.931
	N	76	22	30	110

Fig 5: Correlation table for late hiring rate and internal posting requirements. Note that none of these measures have statistical significance.

Late Hiring and the Restrictiveness of CBAs

Related to the primary research question is the overall notion that CBA restrictiveness may in some way lead to additional late hiring through some other mechanism. Survey data in the literature confirms that administrators feel that collective bargaining instruments limit their ability to hire teachers on time. The idea here is to compare the restrictiveness of CBAs overall (CBA1) or of the “transfers and vacancies” section of a districts CBA (CBA2) to see if more restrictive CBAs or sections of a CBA tend to delay hiring in any statistically significant way.

Descriptive Statistics of CBA Restrictiveness for Overall Restrictiveness (CBA1) and Restrictiveness of the “Transfers and Vacancies” Section (CBA2)

	N	Minimum	Maximum	Mean	Std. Deviation
CBA1	148	-4.030	2.254	-.099	1.048
CBA2	138	-3.770	1.780	-.085	1.074
Valid N (listwise)	138				

Fig 6: Descriptive statistics for CBA restrictiveness.

From Figure 6 above, we can see that the overall restrictiveness of the sample tends to be slightly less restrictive than CBAs overall in Washington State. As the measures of CBA restrictiveness are standardized, the average restrictiveness “score” for the state is 0.000, as measured in standard deviations. The mean restrictiveness for the sample is slightly lower than the 0.000 average for the state as evident by the negative means for both CBA1 and CBA2. Note that not all districts in the sample had provisions specifically governing transfers and vacancies, hence the smaller N for CBA2. It is not uncommon for some district CBAs (especially smaller districts) to have fewer CBA provisions, with the study population having lower-than-average enrollment, it is no shock that the CBAs of the sample are slightly less restrictive overall.

Late Hire Rate Against Overall CBA Restrictiveness Quintiles								
		LHRATE (Binned)					Total	W/Any Late
		1	2	3	4	5		
CBA1 (Quint)	1	28	0	0	2	0	30	2
	2	25	3	1	1	0	30	5
	3	20	2	5	1	1	29	9
	4	16	10	2	1	1	30	14
	5	12	12	3	2	0	29	17
Total		101	27	11	7	2	148	47

Fig 7: Overall CBA restrictiveness (quintiles) and late hiring (binned in 2% increments).

As you can see in Figure 7 above, there may be a relationship between CBA restrictiveness and late hiring. When the CBA1 data is divided into quintiles, districts with CBAs in the top two quintiles account for 66% of the districts which hired late in the sample, and districts in the bottom two quintiles only account for 15%. Comparing the binned late hire data and CBA2 restrictiveness by quintiles yields similar results.

Bivariate correlation analysis of CBA1 and CBA2 demonstrate some statistical significance as well, with CBA2 (restrictiveness of the transfers and vacancies section) demonstrating .013 significance with N=138.

Correlations Between Late Hire Rate and Overall CBA Restrictiveness (CBA1) and Restrictiveness of the “Transfers and Vacancies” Section (CBA2)

		LHRATE	CBA1	CBA2
LHRATE	Pearson Correlation	1	.153	.210
	Sig. (2-tailed)		.063	.013*
	N	148	148	138

*. Correlation is significant at the 0.05 level (2-tailed).

Fig 8: Bivariate correlation analysis of CBA restrictiveness and late hiring.

Based on this data, we might conclude that there is a positive relationship (note the Pearson Correlations) between CBA restrictiveness and late hiring. However, these measures of restrictiveness co-vary strongly with an additional district variable, FTE.

Late Hiring and District Size

FTE, the size of the district in terms of students, has a strong relationship with overall (CBA1) and specific (CBA2) restrictiveness. It would be instructive to see if there is any relationship with FTE and late hiring as well. A quick crosstab reveals that the data for CBA1 and for FTE (also divided by quintiles) look remarkably similar:

Late Hire Rate Against Full-Time Enrollment Quintiles								
		LHRATE (Binned)					Total	W/Any Late
		1	2	3	4	5		
FTE (Quint)	1	29	0	0	1	0	30	1
	2	26	0	1	2	1	30	4
	3	21	2	5	0	1	29	8
	4	18	8	3	1	0	30	12
	5	7	17	2	3	0	29	22
Total		101	27	11	7	2	148	47

Fig 9: Crosstab of FTE (quintiles) and late hiring (in increments of 2%).

Again, the late hiring is skewed towards the upper end of the FTE distribution, with districts in the top two quintiles, the largest 40% of districts, accounting for 72% of the districts which hired late. A bivariate correlation analysis reveals that FTE shows extremely high significance and a high correlation coefficient as well.

Correlation Table for Late Hire Rate and FTE			
		LHRATE	FTE
LHRATE	Pearson Correlation	1	.255
	Sig. (2-tailed)		.002**
	N	148	148

** . Correlation is significant at the 0.01 level (2-tailed).

Fig 10: Bivariate correlation analysis of late hire rate and FTE.

Other Variables

As mentioned in the methodology, this study also analyzed the additional independent variables of percentage of white students (%White), on-time graduation rate (OTGR), and a measure of urbanicity from the National Center for Education Statistics (GEO). None of these variables appeared to have a statistically significant relationship with late hiring.

Implications and Recommendations

Answering the Research Question

For this capstone project, the research question was as follows: **Of the three factors commonly cited as leading contributors to late hiring of teachers, how significant a role do collectively-bargained teacher transfer requirements and internal posting timelines play in delaying hiring past the start of the school year in a sample of Washington State school districts?**

It would seem that enough data has been gathered to conclude that in a sample of Washington State school districts with collective bargaining agreements, there does not appear to be a relationship between specific internal posting/recall requirements (IP1, IP2, IP3, and FR) and late hiring for the 2009 school year. Further analysis of CBA restrictiveness (CBA1 and CBA2) demonstrated that in bivariate analysis, a measure of general CBA restrictiveness (CBA1) had near-statistical significance (.063) and the restrictiveness of the “Transfers and Vacancies” section (CBA2) was significant (.013).

Implications About Late Hiring in Washington State

Based on this sample of districts, it would appear that late hiring is not a significant problem. With overall late hiring levels below 1% of the total population of teachers, it is clear that the districts in the sample did not (at least in 2009) hire many teachers late as a matter of course. Based on comments from various school administrators, many late hires in the sample were the result of unexpected vacancies, such as individuals quitting or retiring early in the school year, or forecasting problems in kindergarten classrooms or special education classes. Compared with a nationwide late hiring rate of 11%, Washington State appears to be on the very low end of the distribution as far as problems with late hiring are concerned.

Additionally, while some measures of CBA restrictiveness did seem to have some statistical significance in this study, it is important to note a few things. First, CBA restrictiveness is closely linked with district size. Because these two measures have high degrees of covariance it is possible that the statistical significance of the CBA measures of restrictiveness is confounded by district size. In this study, FTE appeared to have a closer statistical relationship with late hiring than any other district metric, including measures of CBA restrictiveness.

Recommendations Based on This Study

As very little evidence of late hiring was unearthed as a result of this study, recommendations based on this study are few. While late hiring may not be a major issue in our state, there is no data tracking such administrative practices through OSPI. When personally contacted by the author, OSPI's data administrators confirmed that they do not collect any data on late hiring. It is possible to download the ethnic and gender profile of the body of teachers employed in Washington State for every year all the way back to 1997, but yet no data is collected about late hiring. Given the potential costs of late hiring and the potential for its use as a barometer of district-level administrative alacrity, it is the author's recommendation that OSPI add to its already considerable data-gathering and collect late hiring data to forestall potential issues related to late hiring.

Limitations of the Study

Data analyzed in this study was all from the 2009-10 school year. This was to ensure that the school districts under analysis were all facing the same budget environment as well as the fact that this is the year where CBA data was the most complete. 2009, however, may be an outlier in terms of the teacher hiring environment and may present skewed results as a result. Because we are not doing a longitudinal analysis of late-hiring trends, there is no "baseline" data to compare our results to. Because of this, the study may have found a correlation between variables that is reflective of a job market or late hiring trend outside the scope of this study.

Furthermore, the measures of CBA restrictiveness have not been widely published or subject to thorough peer review. While the researchers responsible for generating the data on CBA restrictiveness have an outstanding reputation in the academic community, it needs to be noted that the methodology for evaluating CBA restrictiveness has not been thoroughly studied and may produce flawed results. Even though CBA restrictiveness in California has been more thoroughly studied and published, obviously that data cannot be used to evaluate Washington State school districts' late hiring in the manner presented here. It is of note that the methods used to evaluate CBAs in Washington State are very similar to those used in California by Strunk and Reardon, and that the measures of CBA restrictiveness used here are under consideration for publication at this time.

This study also may be subject to response bias. As the request for information about late hiring submitted to districts was an informal survey, and not an official public records request (PRR), it is possible that districts avoided answering the request if they had hired teachers late. The human resource managers may have some degree of embarrassment about their hiring policies and may not be willing to admit they hired any teachers late. Also, this data is not collected at the state level. As a result, there is likely no standardized format for tracking such data and many district administrators may not have had this information readily available.

As such they may have been avoiding the work of compiling the data, which might also be an indicator of the overall health and organization of the district.

Finally, there may be a sampling error given that this research is only analyzing data from districts which have a CBA in 2009. There is a significant size difference between districts that have a CBA for 2009 and those which have a CBA, but not for 2009. The districts in the sample were, on average, 90% of the size of the district FTE state average. The author believes this to be a valid sample because the sample group does account for over 50% of districts in the entire state and a similar proportion of the students and teachers as well.

Future Research: Where do we go from here?

Enhancing or completing the data set for Washington State is one of the most obvious next steps for future research. This can be done by collecting more data for 2009, such as acquiring the CBAs for districts that were not included in this sample, or following up with non-responding districts. Further, additional study could be done by expanding data collection across years for a longitudinal study, for additional data points and/or trend analysis of late hiring in our state. Furthermore, additional data may give researchers more tools to parse out the effects of FTE and CBA restrictiveness. As the two share high degrees of covariance, more data might allow us to separate the two effects on late hiring.

Another direction for future research would be to ask the same research question, but in other states. CBA restrictiveness data in other states (with the exception of California) is limited until additional CBA studies are done. However, CBAs are public knowledge and specific provisions which may have an effect on late hiring may be researched and compared to late hiring rates in other states. The research question fundamentally addressed by this study was not predicated on a sophisticated CBA restrictiveness analysis (even though that was useful to our analysis and may be important in other studies). It was based on actual provisions in publicly-available CBAs, which should be accessible to any researcher.

The goal of this study was to specifically look at the ramifications of CBA provisions on late hiring. However, a study that more completely examines the actual root causes of late hiring in Washington State may help lawmakers make policy decisions based on the other likely culprits of late hiring. To reduce late hiring in other states where it is a larger problem, it makes sense to take policy action that will address the largest causes of late hiring, whatever they may be.

Conclusion: The Late Hiring Debate

Education policy is a turbulent battleground of ideas and research, study and ideology. This study intended to bring more empirical evidence to the notion that collective bargaining has an effect on late hiring. Previous studies about late hiring have focused on the perceptions principals and other hiring administrators have about the hiring process and what types of hurdles or restrictions collective bargaining units have placed on the process in order to protect their membership. This study picked apart CBAs to find the very provisions that might limit the amount of time an administrator would have to select an able candidate and compared that information with late hiring data from a sample which included over 50% of the school districts in Washington State that utilized CBAs in 2009. This study found no relationship between the number of days an administrator has to wait to post a vacancy outside of the district and the late hiring rate of the district. The most statistically significant relationship revealed in the study is large districts do more late hiring. This should not surprise us, as a large school district may have hundreds of teachers to manage, leading to an increased likelihood that something may happen to one of those teachers which may result in a late hire.

While there is evidence that some measures of CBA restrictiveness may be linked to late hiring, the data presented here suggests that late hiring is more closely linked to the size of a district's student population and associated workforce.

Bibliography

- Baker, M. (2011, June 16). *A Somber Gregoire Signs Budget with Education Cuts*. Retrieved from <http://www.statebudgetsolutions.org/publications/detail/a-somber-gregoire-signs-budget-with-education-cuts>
- Baker, M. (2011, May 24). *Wash. Budget Deal Includes Teacher Salary Cuts*. Retrieved from http://seattletimes.nwsourc.com/html/localnews/2015134865_apwaxgrbudget2ndldwritethru.html
- Barnes, G., Crowe, E., & Schaefer, B. (2011). *The Cost of Teacher Turnover in Five Districts: A Pilot Study*. Retrieved from http://www.nctaf.org/resources/demonstration_projects/turnover/documents/CTTFullReportfinal.pdf
- Engel, M. (2009). *Time-Out on Timing: The Relationship Between the Timing of Teacher Hires and Teacher Quality*. Retrieved from http://www.performanceincentives.org/data/files/news/PapersNews/200904_Engel_TeacherHires1.pdf
- Goldhaber, D., & Theobald, R. (2011). *Managing the Teacher Workforce in Austere Times: The Implications of Teacher Layoffs*. Retrieved from [http://www.cedr.us/papers/working/CEDR%20WP%202011-1.2%20Teacher%20Layoffs%20\(6-15-2011\).pdf](http://www.cedr.us/papers/working/CEDR%20WP%202011-1.2%20Teacher%20Layoffs%20(6-15-2011).pdf)
- Goldhaber, D., Lavery, L., Theobald, R., & Fang, D. a. (2012). *Teacher Collective Bargaining in Washington State: Assessing the Internal Validity of Partial Independence Item Response Measures of Contract Restrictiveness*. Retrieved from <http://www.cedr.us/papers/working/CEDR%20WP%202012-3.pdf>
- Jones, N., Maier, A., & Grogan, E. (2011). *The Extent of Teacher Hiring and its Relationship with Teacher Turnover*. Retrieved from http://www.nctq.org/docs/late_hiring_abstract_citation_15573.pdf
- Levin, J., & Quinn, M. (2003). *Missed Opportunities: How We Keep High-Quality Teachers out of Urban Classrooms*. Retrieved from <http://tntp.org/files/MissedOpportunities.pdf>
- Liu, E., & Johnson, S. (2003). *New Teachers' Experiences of Hiring: Late, Rushed, and Information-Poor*. Retrieved from http://www.gse.harvard.edu/~ngt/Liu_Johnson_NGT_Working_Paper.pdf

NCES. (2012, May). *National Center for Education Statistics Data & Tools*. Retrieved May 2012, from National Center for Education Statistics: <http://nces.ed.gov/>

OSPI. (2012, May 21). *Washington State Report Card and Other Reports/Data*. Retrieved May 2012, from Office of the Superintendent of Washington : <http://reportcard.ospi.k12.wa.us/summary.aspx?year=2010-11>

Strunk, K., & Reardon, S. (2010). *Measuring the Strength of Teachers' Unions: An Empirical Application of the Partial Independence Item Response Approach*. Retrieved from <http://cepa.stanford.edu/content/measuring-strength-teachers-unions-empirical-application-partial-independence-item-response>

TNTP. (2009). *Teacher Transfer, Hiring & Evaluation in San Francisco Unified School District*. Retrieved from http://tntp.org/files/TNTP_SFUSD_Full_Report_020509F.pdf