Teacher Turnover in Wisconsin

Michael Chirico March 17, 2017

Abstract

Turnover in Wisconsin

Introduction

Data

Results

		Percent of Tea	chers Who		
Teacher	Remain in	Change Schools	Switch	Exit Wisconsin	Number of
Experience	Same School	Within District	Districts	Public Schools	Teachers
1-3 years	85.2	9.4	5.4	7.3	37,044
4-6 years	88.9	8.0	3.1	4.6	33,972
7-11 years	91.1	7.2	1.7	2.8	48,047
12-30 years	94.2	5.3	0.5	3.0	113,334
>30 years	96.7	3.0	0.4	15.1	21,538
All	91.8	6.4	1.8	4.8	253,935

Table 1: Year-to-year Transitions of Teachers by Experience, 2000-08

Conclusion

References

	Percen	Percent of Teachers Who Move to	/ho Move to		Number Teachers	Percent	Change in Share of
Origin Community	Large Urban	Large Urban Small Urban Suburban Rural	Suburban	Rural	Changing Districts	or Origin Teachers	Teachers $2000-06$
I. All teachers							
Large Urban	5.8	14.6	58.9	20.6	459	1.8	-0.3%
Small Urban	3.3	13.1	45.2	38.4	200	1.1	-0.2%
Suburban	3.7	15.2	45.0	36.1	1,210	1.7	4.1%
Rural	0.8	11.4	24.3	63.5	2,377	2.1	-3.5%
II. Probationary tea	seachers (1-3 years	experienc					
Large Urban	7.8	15.9	56.3	20.0	260	3.5	
Small Urban	4.4	12.4	46.9	36.3	230	3.5	
Suburban	4.5	16.1	41.6	37.7	495	5.2	
Rural	0.5	11.4	25.4	62.6	1,024	9.7	

Table 2: Destination Community Type for Teachers Changing Districts, by Origin Community Type and Teacher Experience Level

	Men b	Men by Experience	e Class	Women	by Experience	nce Class	71 O O 1 TI II A
	1-3 years	4-6 years	7-11 years	1-3 years	4-6 years	7-11 years	All leachers 0-9 rears
Base year salary (log)	0.004	0.022	-0.021	0.010		-0.016	0.004
	(0.010)	(0.015)	(0.022)	(0.005)	(0.000)	(0.012)	(0.004)
Adjusted salary (log)	-0.012	0.007	0.031	0.001	0.018	0.023	0.007
	(0.007)	(0.011)	(0.016)	(0.004)	(0.007)	(0.000)	(0.003)
Percent proficient	2.9%	1.9%	1.6%	4.8%	3.9%	4.1%	3.9%
	(0.7%)	(0.8%)	(1.1%)	(0.4%)	(0.5%)	(9.0)	(0.2%)
Percent Hispanic	-1.4%	0.0%	%9.0-	-1.5%	-1.6%	-0.7%	-1.2%
	(0.4%)	(0.5%)	(0.5%)	(0.2%)	(0.3%)	(0.4%)	(0.1%)
Percent black	-3.2%	-0.7%	-3.2%	-4.8%	-3.2%	-4.4%	-3.9%
	(1.0%)	(1.1%)	(1.1%)	(9.0)	(0.7%)	(0.8%)	(0.3%)
Percent subsidized lunch	-6.7%	-3.5%	-3.9%	-8.5%	-6.0%	-5.6%	-6.8%
	(1.1%)	(1.5%)	(1.6%)	(0.7%)	(0.9%)	(1.0%)	(0.4%)

Table 3: Average Change in Salary and District Student Characteristics (and Standard Deviations) for Teachers Changing Districts, by Gender and Experience

	District Average	Characteristics	Campus Average	e Characteristics
	Large Urban to	Suburban to Sub-	Large Urban to	Suburban to Sub-
	Suburban	urban	Suburban	urban
Base year salary (log)	-0.015	0.012	_	_
	(0.013)	(0.008)		
Adjusted salary (log)	-0.039	0.012	_	_
	(0.011)	(0.006)		
Percent proficient	37.1%	0.8%	33.4%	0.3%
	(0.5%)	(0.4%)	(1.3%)	(0.6%)
Percent Hispanic	-13.3%	0.3%	-8.3%	0.2%
	(0.2%)	(0.4%)	(1.3%)	(0.5%)
Percent black	-52.9%	0.5%	-56.5%	0.4%
	(0.5%)	(0.5%)	(1.9%)	(0.6%)
Percent subsidized lunch	-60.8%	-0.7%	-61.8%	-1.0%
	(0.7%)	(0.6%)	(1.2%)	(0.7%)

Table 4: Average Change in Salary and in District and Campus Student Characteristics (and Standard Deviations) for Teachers with 1-10 Years of Experience Who Change Districts, by Community Type of Origin and Destination District

	Between Di	istrict Moves	Within District Moves		
	Black Teachers	Hispanic Teach-	Black Teachers	Hispanic Teach-	
		ers		ers	
Percent proficient	16.5%	5.1%	3.2%	1.7%	
	(4.9%)	(8.7%)	(0.9%)	(1.4%)	
Percent Hispanic	-1.1%	-6.0%	2.4%	-5.6%	
	(1.7%)	(9.1%)	(1.1%)	(2.4%)	
Percent black	-22.9%	10.5%	-1.2%	2.0%	
	(7.8%)	(8.0%)	(1.4%)	(2.2%)	
Percent subsidized lunch	-59.0%	-5.8%	-2.4%	-2.7%	
	(6.5%)	(9.7%)	(0.6%)	(1.4%)	
Number of teachers	42	22	549	197	

Table 5: Average Change in District and Campus Student Characteristics (and Standard Deviations) for Black and Hispanic Teachers with 1-10 Years of Experience who Change Campuses

Quartile of Distribution	Probability Teachers	Probability Teachers	Probability Teachers
	Move to New School	Move to New District	Exit Public Schools
	within District		
Residual salary			
Highest	_	1.4%	4.8%
3rd	_	1.4%	5.0%
2nd	_	1.6%	5.0%
Lowest	_	1.9%	5.4%
Percent proficient			
Highest	5.6%	1.7%	4.7%
3rd	6.8%	1.9%	4.4%
2nd	6.2%	1.9%	5.4%
Lowest	6.9%	1.7%	4.8%
Percent eligible for reduced-price lunch			
Highest	7.7%	1.7%	5.6%
3rd	6.9%	1.6%	4.3%
2nd	6.2%	1.9%	4.5%
Lowest	4.9%	2.0%	4.8%
Percent Black			
Highest	6.7%	1.6%	6.2%
3rd	5.7%	1.5%	4.7%
2nd	6.6%	1.8%	4.5%
Lowest	6.7%	2.2%	3.9%
Percent Hispanic			
Highest	6.9%	1.5%	6.0%
3rd	5.6%	1.9%	4.8%
2nd	6.0%	1.8%	4.5%
Lowest	7.1%	1.9%	4.1%

Table 6: School Average Transition Rates by Distribution of Residual Teacher Salary and Student Demographic Characteristics (data weighted by number of teachers in school)

		Teacher	Experience		
	1-3 years	4-6 years	7-11 years	12-30 years	>30 years
First year base salary (log)	-0.02	-0.01	-0.03	0.01	-0.01
	(0.03)	(0.02)	(0.02)	(0.01)	(0.01)
First year base salary (log) * female	-0.04	-0.02	0.01	-0.01	-0.00
	(0.03)	(0.02)	(0.02)	(0.01)	(0.01)
Campus average student characteristics					
Percent proficient	-0.03^{*}	0.00	-0.01	-0.00	0.01
	(0.01)	(0.01)	(0.01)	(0.00)	(0.00)
Percent eligible for subsidized lunch	-0.01	-0.01	-0.02**	-0.01**	0.00
	(0.01)	(0.01)	(0.01)	(0.00)	(0.00)
Percent Black	0.01	0.04***	0.01*	0.00	0.02**
	(0.01)	(0.01)	(0.01)	(0.00)	(0.01)
Percent Hispanic	0.01	0.01	0.02*	0.00	0.01
	(0.01)	(0.01)	(0.01)	(0.00)	(0.01)
Interactions					
Black * percent Black	-0.05	-0.01	-0.01	-0.00	-0.01
	(0.03)	(0.02)	(0.01)	(0.01)	(0.01)
Hispanic * percent Black	-0.06	-0.06	-0.05	-0.02	-0.00
	(0.04)	(0.04)	(0.03)	(0.02)	(0.05)
Black * percent Hispanic	-0.05	0.03	-0.02	-0.00	-0.01
	(0.06)	(0.04)	(0.03)	(0.01)	(0.03)
Hispanic * percent Hispanic	-0.05	-0.03	-0.06**	-0.01	-0.00
	(0.03)	(0.03)	(0.02)	(0.01)	(0.06)
Observations	28,287	25,609	35,946	81,801	14,773

^{***}p < 0.001, **p < 0.01, *p < 0.05

Table 7: Estimated Effects of Starting Teacher Salary and Student Demographic Characteristics on the Probability that Teachers Leave School Districts, by Experience (linear probability models; standard errors in parentheses)

		Teacher E	xperience	
	1-3 years	12-30 years	4-6 years	7-11 years
First year base salary (log)	-0.02	-0.01	-0.00	-0.03
	(0.03)	(0.01)	(0.02)	(0.02)
First year base salary (log) * female	-0.04	-0.00	-0.03	$0.01^{'}$
	(0.03)	(0.01)	(0.02)	(0.02)
Campus average student characteristics				
Percent proficient	-0.02^*	-0.01**	0.00	-0.01^*
	(0.01)	(0.00)	(0.01)	(0.01)
Percent eligible for subsidized lunch	-0.02	-0.00	0.00	-0.01
	(0.01)	(0.00)	(0.01)	(0.01)
Percent Black	0.02	-0.00	0.02	0.00
	(0.01)	(0.00)	(0.01)	(0.01)
Percent Hispanic	0.01	-0.00	-0.01	0.01
	(0.02)	(0.00)	(0.01)	(0.01)
Interactions				
Black * percent Black	-0.08**	0.00	-0.01	-0.01
	(0.03)	(0.01)	(0.02)	(0.01)
Hispanic * percent Black	-0.06	0.00	-0.10**	-0.07**
	(0.04)	(0.01)	(0.03)	(0.03)
Black * percent Hispanic	-0.09	0.01	0.02	-0.02
	(0.05)	(0.01)	(0.04)	(0.02)
Hispanic * percent Hispanic	-0.06	-0.00	-0.06*	-0.07***
	(0.03)	(0.01)	(0.03)	(0.02)
Observations	34,194	98,102	31,110	44,824

^{***}p < 0.001, **p < 0.01, *p < 0.05

Table 8: Estimated Effects of Starting Teacher Salary and Student Demographic Characteristics on the Probability that Teachers Leave School Districts with District Fixed Effects, by Experience (linear probability models; standard errors in parentheses)