

The impact of hospital unions on nurse wages in the United States

**Joanne Spetz, Ph.D.
University of California, San Francisco**

**Michael Ash, Ph.D.
University of Massachusetts at Amherst**

March 2009

Union influence in health care is growing

- Nearly 21% of RNs were in unions in 2006
 - Unionization rate is 5 percentage points than for other US workers
- Increasing rate of unionization among health care workers
- Aggressive bargaining for contracts
- Efforts to change state and national policies
- Conflicts and competition between unions

What do unions do?

- Seek to divert employers' net revenues (profits) to workers
 - Wages
 - Benefits
 - Working conditions
- Control employer behavior
 - Hiring
 - Firing
 - Layoffs

What do unions do?

- Maintain their position
 - Create solidarity among workers
 - Wages, benefits, working conditions
 - Public relations, public service, legal actions, advocacy
 - Reduced wage dispersion, increased sense of “fairness”

Cross-industry research finds...

- Unions are associated with higher wages and benefits
- Public sector unions have smaller wage premium
 - Is health care in the US public or private sector?
- Wage premium for unionization has declined over past 2 decades
 - Decline is smaller in health industry

A brief US history lesson

- Nationwide, industry-wide decline in private sector membership since 1950s
 - Increase in public sector membership (40% were unionized by 1986)
- Healthcare unions grew rapidly in 1970s
 - NLRB rules were extended to nonprofit sector
 - States passed laws that favored unions in public sector in 1970s and 1980s

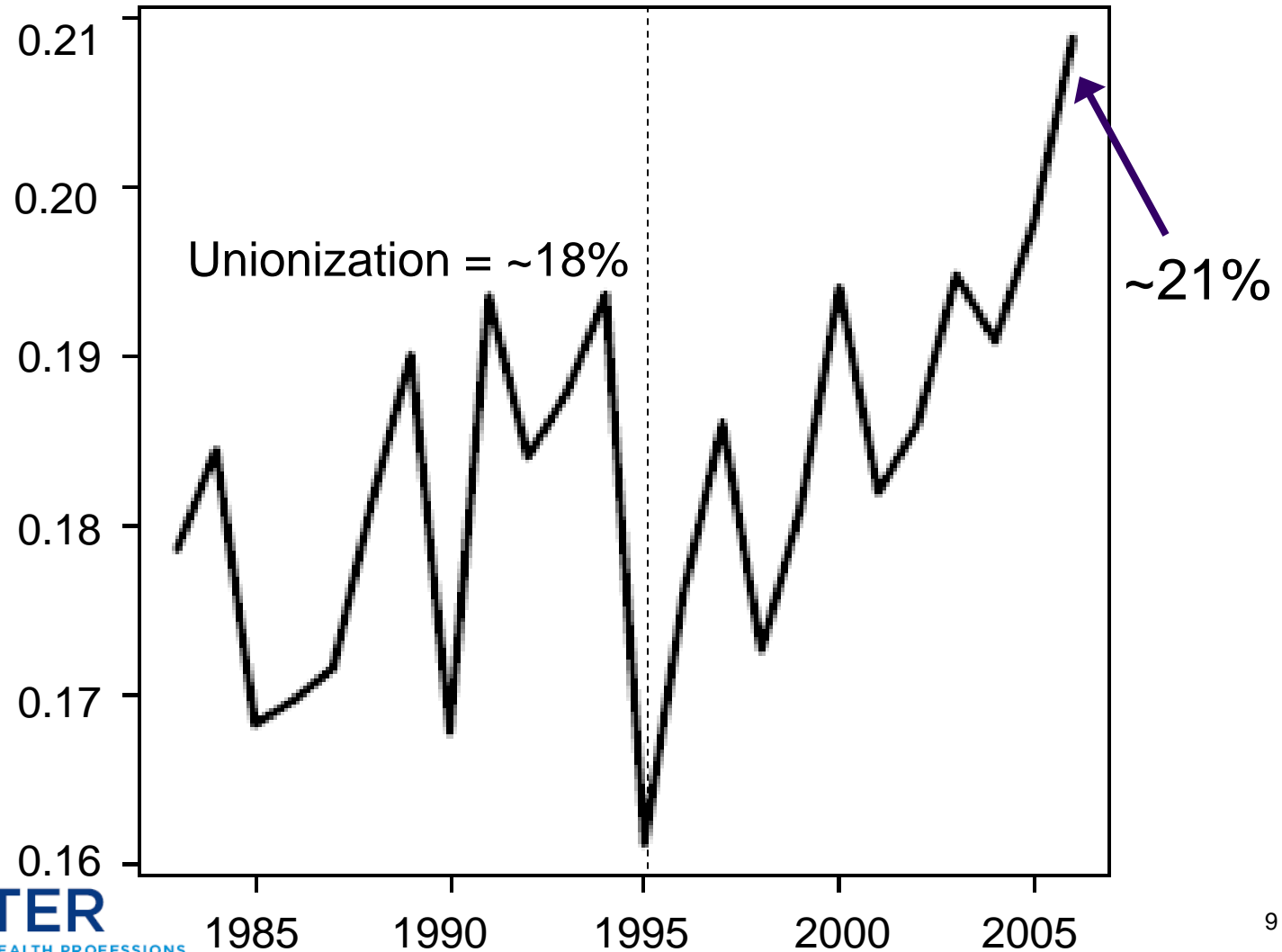
Union growth in health care

- Healthcare union growth slowed in 1980s
 - NLRB began to determine bargaining units on a case-by-case basis
 - All hospital professionals were usually put in a single bargaining unit
- Resurgence of growth in early 1990s
 - New NLRB rules in 1989 that allow 8 separate groups of hospital employees to have units
 - Managed care growth & declines in working conditions spurred union growth

Putting this in context with RN shortages

- Cycles of shortage and surplus in nursing
 - Economic meaning of this is still unclear
- “Shortage” = late 1980s through ~1992
- “Surplus” = ~1993 - ~1997
- “Shortage” = ~1998 – present
- Wage growth comes about 2-3 years after “shortages” are identified

Hospital RN unions grew more after 1995



How do unions affect hospital RN wages?

- Research from 1970s and 1980s find union wage premia for RNs
- Some evidence that non-union RN wages are affected by union wages
- This study: Do unions affect the structure of wages?

Data and methods

- US Current Population Survey data, 2000-2006
- RNs identified by their self-reported occupation
- Hospital nurses identified by employment setting
- Number of observations: average=326/yr unionized, 1472/yr non-union RNs
 - No fewer than 233 union or 1133 non-union RNs

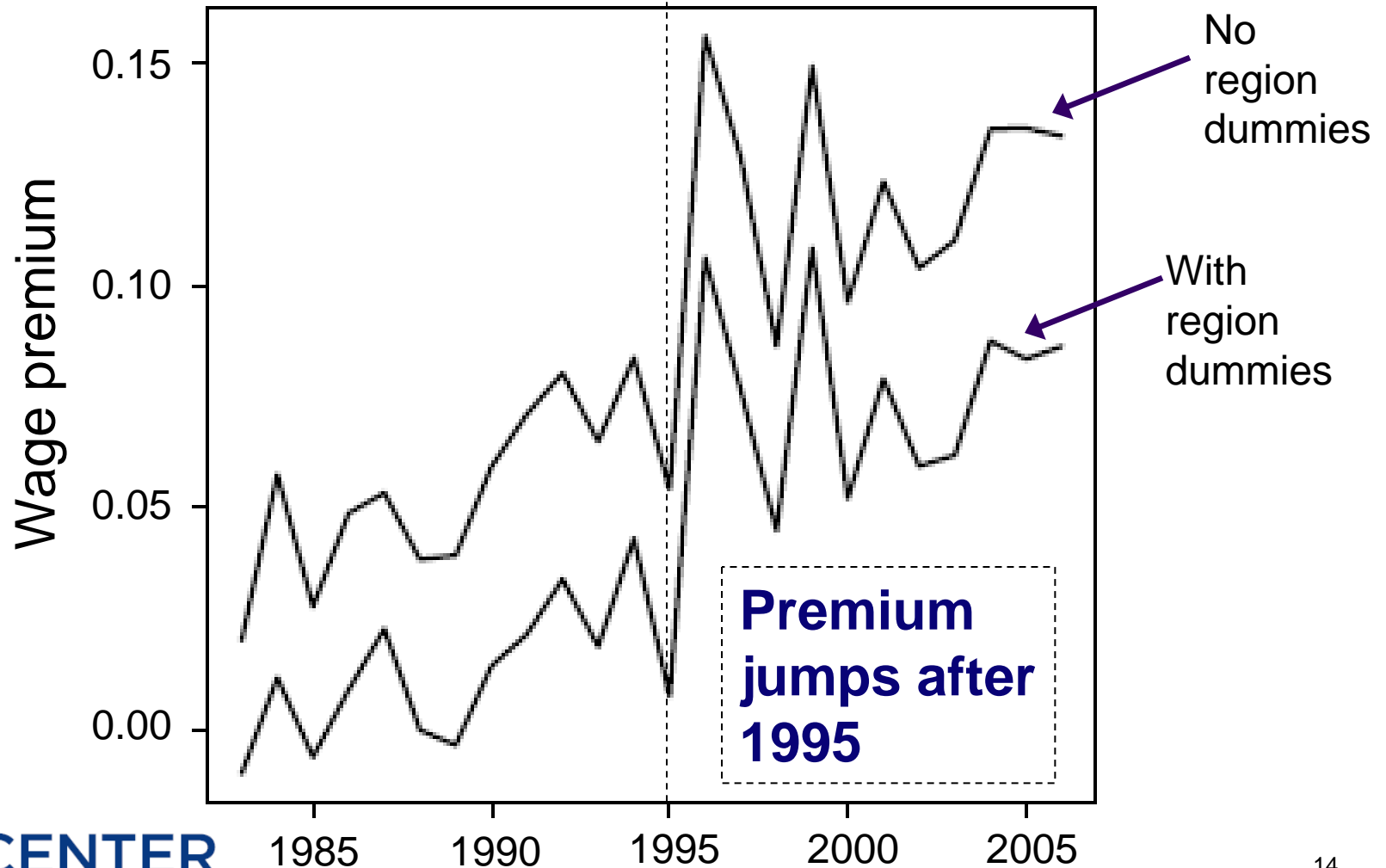
Data and methods

- Restricted sample to RNs who worked at least 20 hours per week
- Hourly wage computed
 - Usual weekly earnings divided by usual weekly hours
 - All wages adjusted for inflation to 2006 dollars
 - Deleted outliers (< minimum wage, >\$100/hr)
- Education is self-reported, based on degrees received

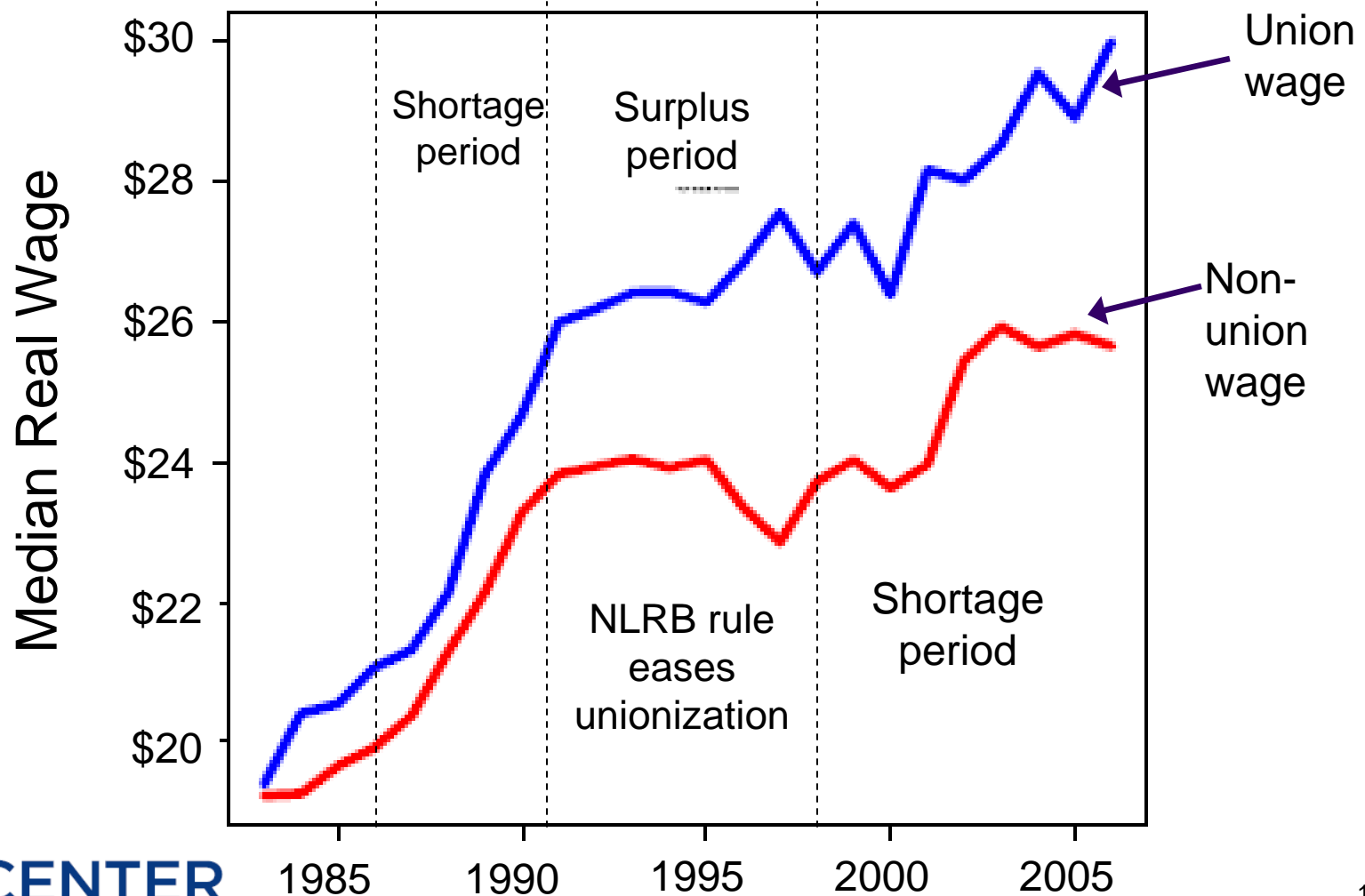
Characteristics of hospital RNs, CPS, 2000-2006

	Non-Union	Union
Hourly earnings	\$25.87 (0.10)	\$29.55 (0.24)
Female	91.8%	90.6%
Immigrant	11.8%	22.4%
Urban residence	82.5%	88.8%
White	79.6%	67.5%
Assoc. Degree	37.1%	33.6%
Bachelor's Deg.	48.3%	51.1%
Age	41.6 (0.1)	43.0 (0.2)

A brief aside: Union wage premia over time, 1983-2006



Wages for hospital RNs over time



CENTER

FOR THE HEALTH PROFESSIONS

Estimating the effect of unions on wage dispersion, part 1

- Ordinary least squares estimates of wages
 - Dependent variable: log (hourly wages)
 - Explanatory variables:
 - Education
 - Potential experience (age - 6 - years of ed)
 - Citizenship, immigration (1994 onward only)
 - Race/ethnicity, gender
 - 18 regional dummies (9 census x urban/rural)
 - Time dummies
- Separate equations for union & non-union

Estimating the effect of unions on wage dispersion, part 2

- Examine residual wages from OLS regressions
 - Compare residuals for unionized RNs to non-union RNs

Results, part 1 (OLS regression)

	Non-Union	Union
Female	-0.056**	-0.106**
Immigrant	-0.018	0.029
Black	-0.111**	-0.050
Hispanic	-0.089**	-0.069
Other race	-0.013	-0.024

Gender gap is larger for union nurses

Immigrant wage gap insignificant for union & non-union

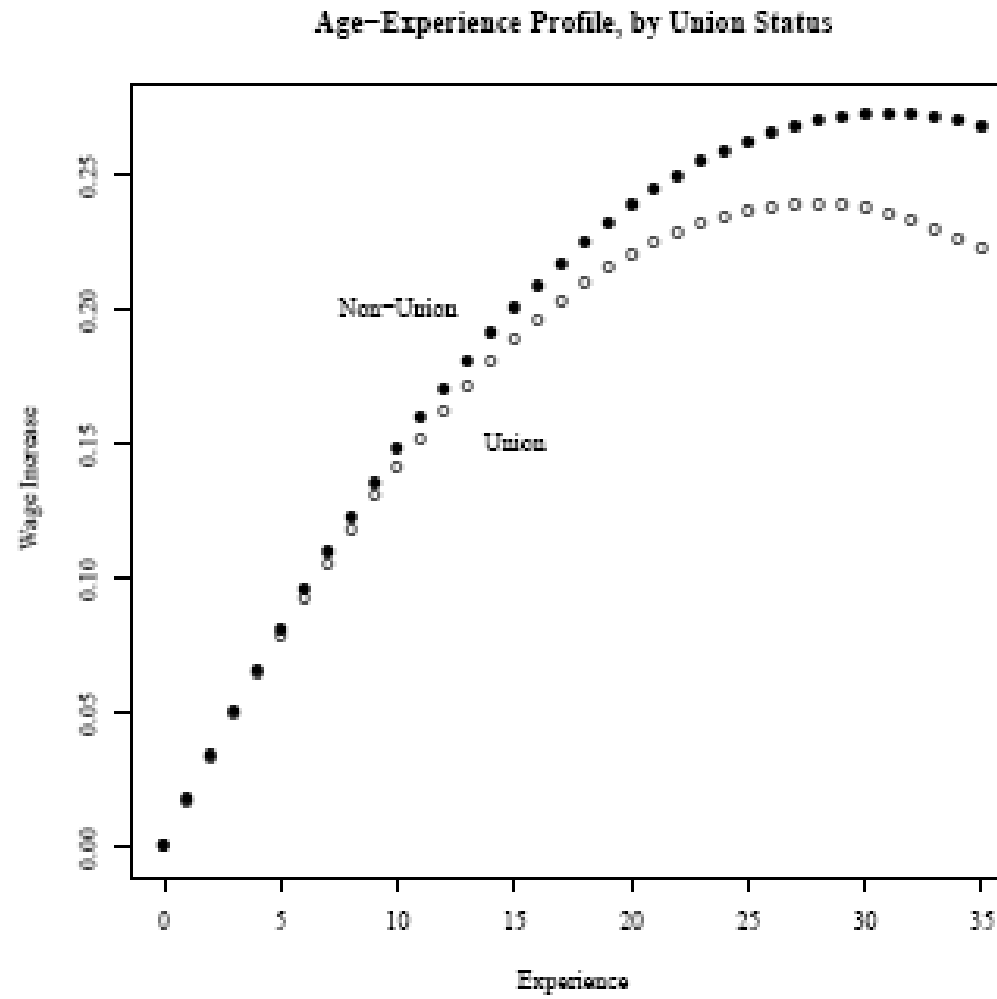
Race wage gaps disappear among unionized RNs

Results, part 1 (OLS regression)

	Non-Union	Union
Diploma	-0.111**	-0.030
Bachelor's	0.129**	0.117**
Master's	0.207**	0.222**
Doctorate	0.088**	0.070
Experience	0.018**	0.016**
Experience-sq	-0.00029**	-0.00028**

Diploma wage gap vanishes, other
education gaps don't change.
Experience gap?

Wage-experience profile

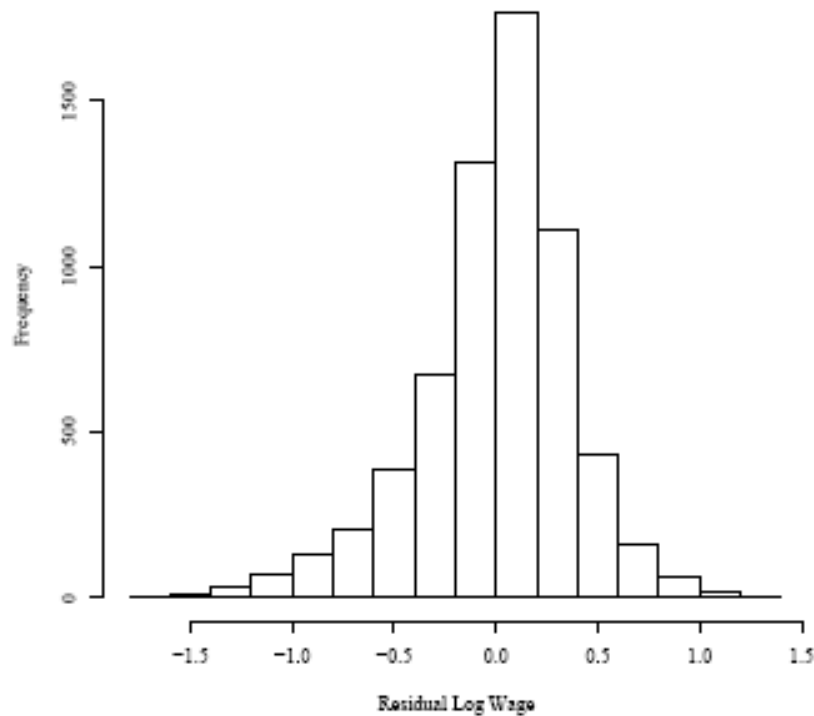


Results, part 1 (OLS regression)

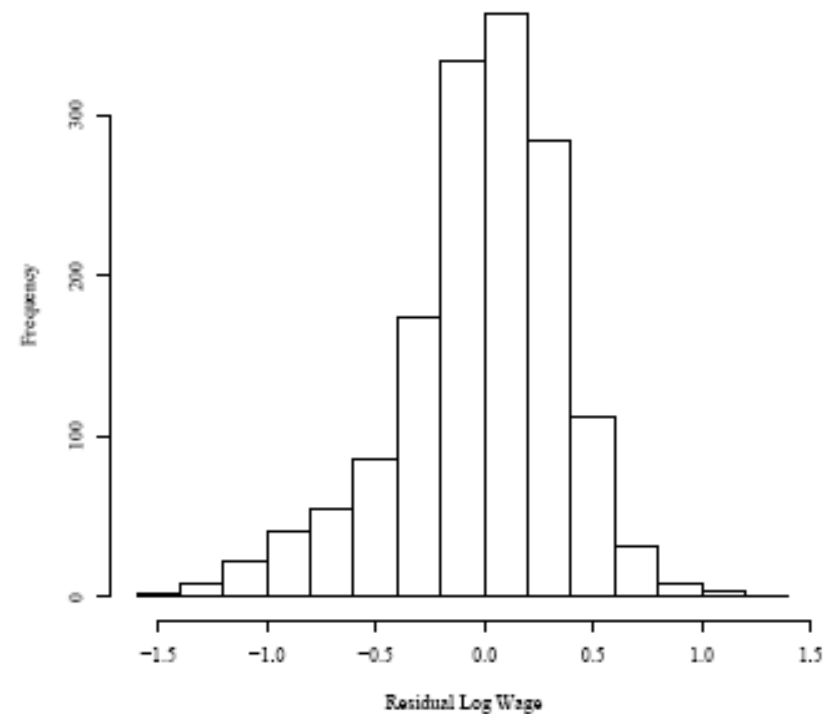
- R-squared for non-union: 0.109
- R-squared for union: 0.131
- There is less unexplained variation among unionized RNs

Results, part 2 (residual In wages)

Histogram of Residual Log Wage, Non-Union



Histogram of Residual Log Wage, Union



Conclusions

- Unions may rationalize wage-setting,
 - This leads to fewer unexplained differences in pay
- Modest effects on the wage structure:
 - No race-wage gaps among unionized RNs
 - No penalty for diploma among union RNs
 - Lower premium for experience among union RNs
 - Higher R-squared for union RNs - more transparently structured pay?