



COMPARING TEACHER SALARIES: INSIGHTS FROM THE U.S. CENSUS

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Comparing Teacher Salaries: Insights from the U.S. Census

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Abstract: Teachers are more likely to be found in rural communities and low-wage metropolitan areas than are college-educated workers in other occupations. This analysis explores the extent to which the geographic distribution of teachers explains the relatively low average wage found in other studies. The analysis suggests that excluding geographic indicators from the analysis downwardly biases estimates of relative teacher wages. One important implication of these findings is that researchers should pay attention to geographic wage variations when making earnings comparisons between teaching and other occupations.

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Unlike most professionals, teachers are found throughout the United States. According to the 2000 Census, four occupations were filled by college graduates in every U.S. labor market. Three of them are education related—education administrators, elementary school teachers and secondary school teachers. The fourth is registered nursing.

The average earnings of teachers also tends to be lower than the average earnings of other college graduates. Allegretto, Corcoran and Mishel found that teacher earnings were 12 to 14 percent lower than the earnings of non-teachers in comparable occupations (Allegretto, Corcoran and Mishel 2004, page 22).

The very pervasiveness of the teaching profession may partially explain the relatively low average wage. Teachers are more likely to be found in rural communities and low-wage metropolitan areas than are college-educated workers in other occupations. According to the 2000 Census, only 17 percent of non-teaching college graduates, but 32 percent of elementary and secondary school teachers worked in rural areas. During the 1999-2000 school year, nearly two-thirds of teachers worked in labor markets where the wages for college graduates were below the national average.¹

The 2000 U.S. Census provides a unique opportunity to explore not only the relative earnings of teachers, but also the extent to which geography influences our perceptions of relative earnings. This analysis uses 1.28 million individual records from the 2000 U.S. Census to examine wages across 469 occupations and 800 labor market areas. The analysis strongly

¹ Data on wage levels by school district for 1999 come from Taylor and Fowler(2005). Data on full-time equivalent teachers per district come from the NCES' Common Core of Data for the 1999-2000 school year. Sixty-six percent of teachers work in communities with below-average wage levels for college graduates.

suggests that excluding geographic indicators from the analysis downwardly biases estimates of relative teacher wages.

A Simple Model of Labor Supply

Three basic factors determine the wages all workers—teachers and non-teachers alike—are willing to accept from their employers. First, differences in the characteristics of the workers themselves will drive differences in earnings. All other things being equal, workers with advanced degrees or increased work experience should earn more than other workers.

Second, differences in job characteristics will drive differences in wages. Some workers demand a premium because their work is relatively unattractive (sanitation engineer) or dangerous (fire fighters). Other workers may be willing to accept a lower wage because their work particularly fulfilling or their working conditions are unusually pleasant.

Finally, locational characteristics will drive differences in wages. Workers in areas with a low cost of living will be willing to accept a lower nominal wage than workers in areas with a high cost of living. Similarly, workers will be willing to accept lower real wages to live in close proximity to local amenities like beaches or parks, and will demand higher real wages to live in areas that lack such amenities.

In reduced form,

$$W_i = f(X_i, Z_j, T_k)$$

where \mathbf{X}_i is a vector of individual-specific characteristics, \mathbf{Z}_j is a vector of job characteristics that could give rise to compensating differentials and \mathbf{T}_k is vector of locational characteristics that could give rise to compensating differentials. This simple model provides the foundation for the empirical analysis.

The Data

This analysis uses the Individual Public Use Microdata Sample (IPUMS 5-Percent) from the 2000 U.S. Census.² The IPUMS 5-Percent contains information on the earnings, occupation, amount of time worked, place-of-work and demographic characteristics of individual workers throughout the United States. By design, the IPUMS 5-Percent is a representative sample of 5 percent of the U.S. population.

The IPUMS 5-Percent

The earnings data in the IPUMS is based on the self reports of individual workers.³ Workers are asked to report their total pretax wage and salary income for the previous calendar year. Thus, workers in the 2000 census are asked to report their earnings during 1999. Wage and salary income includes not only wages and salaries, but also commissions, cash bonuses, tips, and other money income received from an employer. It does not include any payments-in-kind or reimbursements for business expenses.

² The Census data files for this analysis come from Steven Ruggles and Matthew Sobek et al., Integrated Public Use Microdata Series: Version 3.0, Minneapolis: Historical Census Projects, University of Minnesota, 2003.

³ The IPUMS variable definitions in this and subsequent paragraphs were adapted from Ruggles and Sobek et al. (2003).

Workers are also asked to report their primary occupation. Generally, the primary occupation is that from which the person earns the most money. Workers who were unsure about this were asked to report the occupation at which they spent the most time. If workers listed more than one occupation, IPUMS indicates the first one listed.

Because respondents are asked about total wage and salary earnings, and not just about earnings from their primary job, the data should be thought of as describing the income of workers in a particular occupation, and not necessarily their earnings *from* that occupation. In particular, the earnings of teachers in the IPUMS will include any wage and salary earnings from summer employment.

In addition to the earnings and occupation data, this analysis also uses information on the amount of time each worker spent on the job. Respondents were asked to report the number of weeks that they worked for profit, pay, or as an "unpaid family worker" during the previous year, and the number of hours per week that the respondent usually worked. The totals include paid vacations and other paid absences, and include not only time worked in the primary occupation, but also any time worked in secondary occupations. Thus, for example, the number of weeks worked per year by teachers would include any summer employment.

Each worker record in the IPUMS is matched to a Census place-of-work area. Census place-of-work areas are geographic regions designed to contain at least 100,000 persons. The place-of-work areas do not cross state boundaries and generally follow the boundaries of county groups, single counties, or census-defined places. Counties in sparsely-populated parts of the country are clustered together into a single Census place-of-work area.

The United States Office of Management and Budget (OMB) used information on population density and commuting patterns from the 2000 Census to substantially revise its identification of metropolitan areas nationwide. For example, in Texas the OMB reclassified 22 formerly rural counties as metropolitan, separated the Midland-Odessa metropolitan area into two distinct metro areas (Midland and Odessa), and folded the Brazoria and Galveston primary metropolitan areas into the massive Houston-Baytown-Sugar Land Metropolitan area. Wherever possible, the place-of-work areas on the Census files have been mapped into the new metropolitan areas. Using the new OMB labor markets, there are 800 metropolitan areas or rural place-of-work areas in the 2000 Census.

Finally, the IPUMS 5-Percent contains a number of indicators of worker demographics. This analysis draws on the usual suspects—age, gender, race, and educational attainment. All but age are treated as fixed effects in the analysis. To allow for the non-linearity in earnings found in previous labor market studies, age and age squared are both included as independent variables in the wage analysis.

The Estimation Sample

The primary focus of this analysis is an examination of the relative earnings of teachers. Therefore, the estimation sample has been restricted to only teachers and non-teachers who are directly comparable to teachers. Self-employed workers, workers without a college degree, those who work less than half time or for less than \$5,000 per year, and anyone employed outside of the United States has been excluded. After these exclusions, the estimation sample

retains 1,276,824 employed, college-educated workers drawn from 469 occupations and 800 labor market areas.

Of those 1.28 million individuals in the estimation sample, 155,948 (or just over 12 percent) identify themselves as classroom teachers. Seventy-nine percent of the classroom teachers in the sample are elementary and middle school teachers while 21 percent are secondary school teachers. (Following Allegretto, Corcoran and Mishel (2004). and Stoddard (2005), I consider kindergarten teachers, special education teachers, post-secondary education teachers and other teachers and instructors as occupational groupings that are distinct from classroom teachers.)

As Table 1 illustrates, teachers in the estimation sample differ from other college-educated workers in systematic ways. One of the most striking differences is with respect to wage and salary earnings. The average annual earnings of teachers in the sample is \$38,000 while the average annual earnings of non-teachers is almost \$60,000. Wages for teachers are significantly below the average for non-teachers in every state in the union, but the size of the gap varies dramatically. Average teacher earnings are more than \$30,000 below average non-teacher earnings in Washington, DC, but less than \$10,000 below average non-teacher earnings in Montana, Vermont and Wyoming.

According to their self reports, teachers work substantially fewer hours than the average college graduate. Teachers report working an average of 42.8 hours per week while non-teachers report working 44.5 hours. Similarly, teachers report working 45.2 weeks per year while the average non-teacher reports working 50.5 weeks. All told, the average annual hours worked for teachers is 14 percent less than for college-educated non-teachers.

Teachers also differ demographically from other college graduates. Teachers are disproportionately female. Seventy-four percent of teachers in the sample are female while only 43 percent of non-teachers in the sample are female. Teachers in the sample are also more likely than non-teachers to be white or black, and substantially less likely to be Asian. On average teachers in the sample are slightly older than non-teachers and significantly better educated. Forty-five percent of the teachers in the sample have advanced degrees compared with only 33 percent of the non-teachers.

The Baseline Estimation

Formally, the baseline model is:

$$\ln(W_i) = X_i\beta + \sum \delta_j z_j + \sum \gamma_k t_k + \mu_s + \varepsilon_i$$

where $\ln(W_i)$ is the natural logarithm of annual wage and salary earnings for person i , X_i is a vector of the personal characteristics of person i , z_j is an indicator variable for the occupation held by person i , and t_k is an indicator for the labor market where person i works. The compound error term ($\mu_s + \varepsilon_i$) allows for the possibility that there are random effects by state. Treating state effects as random rather than fixed ensures that the estimated wage level is the same in Kansas City, Kansas as it is in Kansas City, Missouri, while allowing for a correlation in the errors among labor markets within any given state.

Table 2 presents selected coefficient estimates from the baseline model. As the table illustrates, the estimated model conforms to reasonable expectations about labor markets. Wage

and salary earnings increase with the amount of time worked, and the age of the worker (a rough proxy for experience). Someone with a master's degree can be expected to earn 11 percent more than someone with a bachelor's degree, and someone with a doctorate can be expected to earn 20 percent more than someone with a bachelor's degree. Women earn less than men of comparable age and educational attainment, possibly because age is a better indicator of experience for men than for women. Whites earn systematically more than apparently comparable individuals from most other racial groups.

Using the Baseline Model, I predicted the wage level in each occupation, controlling for location, demographics, and amount of time worked.⁴ The predicted wage level for each occupation is the mean earnings that you would expect holding all covariates at designated values and all classification variables (namely the labor market fixed effects) at their population frequencies. In this case, the designated values for the covariates are the population means for classroom teachers. Thus, the occupational wage predictions reflect the expected earnings of a person with the same demographic characteristics and hours-worked profile as the typical classroom teacher (73.5 percent female, 42.89 years old, 55 percent bachelor's degree, etcetera).

Across all occupations, the average worker with teacher characteristics could expect to earn \$40,286 per year. The highest predicted wages were for Chief Executives, Physicians and Dentists (who's predicted wages were \$72,999, \$69,704 and \$68,705 per year, respectively). The lowest predicted wages were for dishwashers and parking lot attendants (who's predicted wages were \$14,054 and \$16,355 per year, respectively).

⁴ Formally, the predicted wage level in each occupation is the least-squares mean (or population marginal mean) for the occupation fixed effect.

The predicted wage for classroom teachers was \$36,940. In other words, teachers are expected to earn 8.3 percent less than the average college graduate, even after controlling for demographic differences, geographic differences, and differences in hours worked across occupations.

Of the 469 occupations held by college graduates, 262 have predicted wages significantly below those of classroom teachers. Eighty-one occupations have wages that are insignificantly different from those of teachers and 125 have wages that are higher than teachers. However, many of the low-wage occupations are jobs that are typically held by persons without a college degree. Restricting attention only to those occupations that are held by at least 500 college graduates in the dataset, there are as many occupations with wages significantly below teachers (109 occupations) as there are with wages significantly above teachers (103). Twenty-four occupations—including Agricultural and Food Scientists, Psychologists, Chemical Technicians and Fire Fighters—have wages that are insignificantly different from teachers. Thirty-two percent of college graduates work in occupations with predicted earnings below those of classroom teachers.

Arguably, some occupations are more directly comparable to teaching than others. Allegretto, Corcoran, and Mishel (2004) identified sixteen occupations in the Current Population Survey (CPS) that were particularly comparable to teaching on the basis of an evaluation of the skills required to do the job. Table 3 identifies those sixteen occupations, and the corresponding occupations from the 2000 Census. As the table illustrates, the occupational classifications in the census files do not perfectly correspond to those in the CPS, largely because the IPUMS 5-Percent uses a finer gradation of occupations. For example, where Allegretto, Corcoran and

Mishel (ACM) identify “Editors and Reporters” as an occupation comparable to teaching, the Census separates the occupations into “Editors” and “News Analysts, Reporters, and Correspondents.”

Figure 1 illustrates the average predicted earnings and two standard error confidence bounds for the ACM comparable occupations. As the figure illustrates, the earnings of classroom teachers are near the middle of the distribution of average earnings for the ACM occupations. Eight of the 19 ACM-equivalent occupations have wages significantly below those of teachers once demographics, hours worked and the geographic distribution of employment are taken into account. News analysts, correspondents and reporters have comparable wages, and the remaining ACM occupations have predicted wages significantly above those of teachers.

On average, workers in the ACM occupations earn \$2,000 more per year than do otherwise equal classroom teachers. The employment-weighted average of predicted wages for the ACM occupations is \$38,943. Thus, teacher wages are 5.1 percent lower than the average wage for the ACM comparable occupations. While statistically significant, a 5.1 percent differential is substantially smaller than the 14.1 percent differential found by Allegretto, Corcoran, and Mishel (2004) in the unadjusted CPS data.

Furthermore, the Census does not include any information on fringe benefits, and the fringe benefits of teachers are more generous than those of non-teachers, on average (Podgursky 2003, Podgursky and Tongrut 2005). Allegretto, Corcoran and Mishel (2004) found that differences in fringe benefits between teachers and workers in the ACM occupations lead to a 1.5 percentage point larger gap in wages than in total compensation. Applying such an adjustment

here would imply that the gap in total compensation between teachers and comparable non-teachers was 3.6 percent.

Excluding Geography from the Baseline Estimation

Locational characteristics that can give rise to compensating differentials are an integral part of the baseline model. In this section I explore the bias introduced by excluding locational indicators from the analysis.

Re-estimating the baseline model excluding the geographical indicators (both the random and the fixed effects) yields the second model presented in table 2. As the table illustrates, excluding the geographic indicators alters the coefficient estimates noticeably. In particular, the returns to educational attainment are exaggerated when the geographic indicators are excluded. In the baseline model, workers with a master's degree earn 10.6 percent more than workers with a bachelor's degree; excluding geographic indicators, the differential is 12.5 percent. Excluding geographic indicators also leads to much higher wage predictions for Asian and black workers.

For most occupations, the non-geographic model generates lower estimates for the earnings of workers with teacher characteristics. The estimate of average earnings falls by 2.3 percent to \$39,352 per year. Excluding the geographic controls leads to substantial underestimates of the wage level for typically rural jobs like farm managers and conservation scientists. It leads to particularly large overestimates of the wage level in entertainment occupations (actors, camera operators and artists' agents) and finance occupations (e.g. financial analysts, securities sales agents, economists, and actuaries).

Failing to control for geographic variations leads to a significant underestimate of the wage level for classroom teachers. In the model without geographic controls, estimated teacher earnings are \$34,810 per year—5.8 percent below the baseline estimate.

Where the baseline model indicates that teacher wages are 8.3 percent below the mean, the non-geographic model indicates that teacher wages are 11.5 percent below the mean. In other words, excluding geographic indicators from the model biases the estimate of relative teacher wages downward and leads to a 40 percent larger gap between teacher wages and the average wage for college graduates.

The lack of geographic controls leads to a similar exaggeration of the difference in wages between teachers and workers in the ACM comparable occupations. Where teacher wages are 5.1 percent below the average wages for the ACM occupations in the baseline model, they are 7.6 percent below the ACM average when geographic indicators are excluded.

Analyses of relative teacher compensation seldom include controls for labor market area, in part because of limitations in the underlying data sets. In particular, the CPS—the data set used by Allegretto, Corcoran, and Mishel (2004)—is a “state-based” study that is not designed for analysis of labor market areas within states.⁵ Similarly, the public use files of the American Community Survey (ACS), which is an annual version of the IPUMS, provide information about the state of work, but no information about labor markets within states. Survey-based comparisons of average teacher wages, such as those published by the American Federation of Teachers, provide only state-level geographic detail.

So, how close can you come with state—but not local—geographic controls? The third column of table 2 presents the model with state fixed effects. As the table illustrates, incorporating state-level fixed effects brings the coefficients on educational attainment and race closer to those in the baseline model, but significant differences remain.

Those persistent differences translate into a continued underestimate of the relative teacher wage (figure 2). Even after controlling for state effects, the gap between the average wage and the teacher wage remains 10.6 percent—substantially higher than the 8.3 percent in the baseline model. The gap between the ACM occupations and the teacher wages narrows even less. Even after controlling for state fixed effects the gap is 1.9 percentage points larger than with the baseline model.

Because controlling for state-to-state differences in the wage level does little to remove the bias in estimates of relative teacher wages, the analysis strongly suggests that datasets which provide only state-level geographic information are inappropriate for analyses of relative teacher wages. It also suggests that researchers should be cautious about using state-level data to analyze the relationship between labor market opportunities, teacher compensation and teacher quality.⁶

⁵ “Technical Paper 63RV: Current Population Survey - Design and Methodology” 2002. US Department of Labor, Bureau of Labor Statistics and US Department of Commerce, Economics and Statistics Administration, US Census Bureau.

⁶ Recent studies estimating the impact of opportunity wages on teacher quality using state-level data include Loeb and Page (2000) and Hoxby and Leigh (2004).

Conclusions

Teachers are evenly spread throughout the country, but comparable non-teachers are not.

According to the 2000 Census, college graduates who are not teachers are clustered in urban areas. As a result, nearly two thirds of U.S. teachers work in labor market areas where the wage level for college graduates is below the national average.

Analysis using the 2000 Census suggests that this geographic pattern is important for analyses of relative teacher wages. Failing to control for geographic variation biases the estimate of relative teacher wages downward and leads to a 40 percent larger gap between teacher wages and the average wage for college graduates, *ceteris paribus*.

Even after controlling for demographic, geographic and hours-worked variations, the census data suggests that teacher earnings are 8.3 percent below the average for all college graduates and 5.1 percent below the mean for college graduates in the occupations identified by Allegretto, Corcoran, and Mishel (2004) as particularly comparable to teaching. However, nearly one third of college graduates work in occupations with predicted earnings below those of classroom teachers, so one cannot conclude that the earnings of teachers are unusually low when compared to other college graduates.

One clear implication of this analysis is that researchers need to pay attention to geographic wage variations when making earnings comparisons between teaching and other occupations. Controlling for geographic variation at the state level is better than the complete absence of controls, but significant bias remains unless the researcher can control for the disproportionately rural nature of teaching.

Table 1: Teachers and Non-Teachers in the 2000 IPUMS

	Teachers		Non-Teachers	
	Mean	Standard Deviation	Mean	Standard Deviation
Rural	0.320	0.467	0.167	0.373
Annual Salary	38,035	16,425	59,571	55,880
Weeks Worked	45.176	6.650	50.524	4.056
Usual Hours Worked	42.757	8.074	44.458	9.197
Bachelors Degree	0.549	0.498	0.664	0.473
Masters Degree	0.427	0.495	0.223	0.416
Professional Degree	0.014	0.119	0.070	0.255
Ph.D.	0.009	0.096	0.044	0.204
Female	0.735	0.441	0.430	0.495
Age	42.888	10.725	41.259	10.898
White	0.887	0.316	0.837	0.369
Black	0.070	0.255	0.064	0.244
American Indian	0.004	0.067	0.004	0.062
Chinese	0.003	0.054	0.019	0.137
Japanese	0.004	0.060	0.006	0.076
Other Asian	0.007	0.081	0.043	0.203
Number of Observations	155,948		1,120,876	
Note: All of the means are significantly different at the 1 percent level. Teachers are individuals in Census occupations 231 (elementary or middle school teachers) and 232 (secondary school teachers). All individuals included in this analysis have at least a Bachelor’s degree, and work at least part time in the United States.				

Table 2: The Baseline Model of Labor Earnings			
	Estimate	Standard Error	
Usual Hours Worked	0.7288	0.0025	***
Weeks Worked	0.7306	0.0045	***
Master's Degree	0.1061	0.0012	***
Professional Degree	0.0831	0.0025	***
Doctorate	0.1962	0.0027	***
Female	-0.1680	0.0011	***
Age	0.0692	0.0003	***
Age Squared	-0.0007	0.0000	***
Black	-0.0715	0.0019	***
American Indian	-0.1019	0.0074	***
Chinese	-0.1114	0.0036	***
Japanese	0.0064	0.0063	
Other Asian	-0.1077	0.0024	***
Other Race	-0.1452	0.0040	***
Multiple Races	-0.1202	0.0038	***
-2 Residual Log Likelihood		1,906,257	
Number of Observations		1,276,824	
<p>Note: The model also includes 469 occupational fixed effects, 800 labor market fixed effects and random effects by state. The asterisks indicate coefficients that are significantly different from zero at the 1-percent (***), 5-percent (**) and 10-percent (*) levels.</p>			

Table 3: The Correspondence to Allegretto, Corcoran and Mishel's Occupations Comparable to Teaching

CPS Occupation	CPS Occupation Code	Census Occupation Code	Census Occupation
Accountants and Auditors	23	80	Accountants and Auditors
Underwriters	24	86	Insurance Underwriters
Personnel-training, and Labor Relations Specialists	27	62	Human Resources, Training, and Labor Relations Specialists
Inspectors and Compliance Officers, Except Construction	36	874	Inspectors, Testers, Sorters, Samplers, and Weighers
Inspectors and Compliance Officers, Except Construction	36	601	Agricultural Inspectors
Architects	43	130	Architects, Except Naval
Forestry and Conservation Scientists	79	164	Conservation Scientists and Foresters
Registered Nurses	95	313	Registered Nurses
Occupational Therapists	99	315	Occupational Therapists
Physical Therapists	103	316	Physical Therapists
Trade and Industrial Teachers	148	220	Post-secondary Teachers
Trade and Industrial Teachers	148	234	Other Teachers and Instructors
Vocational and Educational Counselors	163	200	Counselors
Archivists and Curators	165	240	Archivists, Curators, and Museum Technicians
Clergy	176	204	Clergy
Technical Writers	184	284	Technical Writers
Editors and Reporters	195	283	Editors
Editors and Reporters	195	281	News Analysts, Reporters, and Correspondents
Computer Programmers	229	101	Computer Programmers

Table 4: Alternative Salary Models

	Baseline Model			No Geographic Controls			State Fixed Effects		
	Estimate	Standard Error		Estimate	Standard Error		Estimate	Standard Error	
Usual Hours Worked	0.7288	0.0025	***	0.7300	0.0026	***	0.7378	0.0025	***
Weeks Worked	0.7306	0.0045	***	0.7578	0.0046	***	0.7465	0.0045	***
Master's Degree	0.1061	0.0012	***	0.1251	0.0012	***	0.1139	0.0012	***
Professional Degree	0.0831	0.0025	***	0.1018	0.0026	***	0.0891	0.0026	***
Doctorate	0.1962	0.0027	***	0.2200	0.0028	***	0.2058	0.0027	***
Female	-0.1680	0.0011	***	-0.1650	0.0011	***	-0.1660	0.0011	***
Age	0.0692	0.0003	***	0.0671	0.0003	***	0.0678	0.0003	***
Age Squared	-0.0007	0.0000	***	-0.0007	0.0000	***	-0.0007	0.0000	***
Black	-0.0715	0.0019	***	-0.0299	0.0019	***	-0.0415	0.0019	***
American Indian	-0.1019	0.0074	***	-0.1545	0.0075	***	-0.1194	0.0074	***
Chinese	-0.1114	0.0036	***	-0.0099	0.0036	***	-0.0739	0.0036	***
Japanese	0.0064	0.0063		0.0752	0.0062	***	0.0313	0.0063	***
Other Asian	-0.1077	0.0024	***	-0.0167	0.0025	***	-0.0753	0.0025	***
Other Race	-0.1452	0.0040	***	-0.0833	0.0041	***	-0.1279	0.0041	***
Multiple Races	-0.1202	0.0038	***	-0.0735	0.0039	***	-0.1030	0.0039	***
-2 Residual Log Likelihood	1,906,257			1,970,513			1,932,389		
Number of Observations	1,276,824			1,276,824			1,276,824		

Note: All models include 469 occupational fixed effects. The Baseline Model also includes 800 labor market fixed effects and random effects by state. The State Fixed Effects Model includes 51 state fixed effects. The asterisks indicate coefficients that are significantly different from zero at the 1-percent (***), 5-percent (**) and 10-percent (*) levels.

Figure 1
Annual Earnings in Teaching and Comparable Occupations

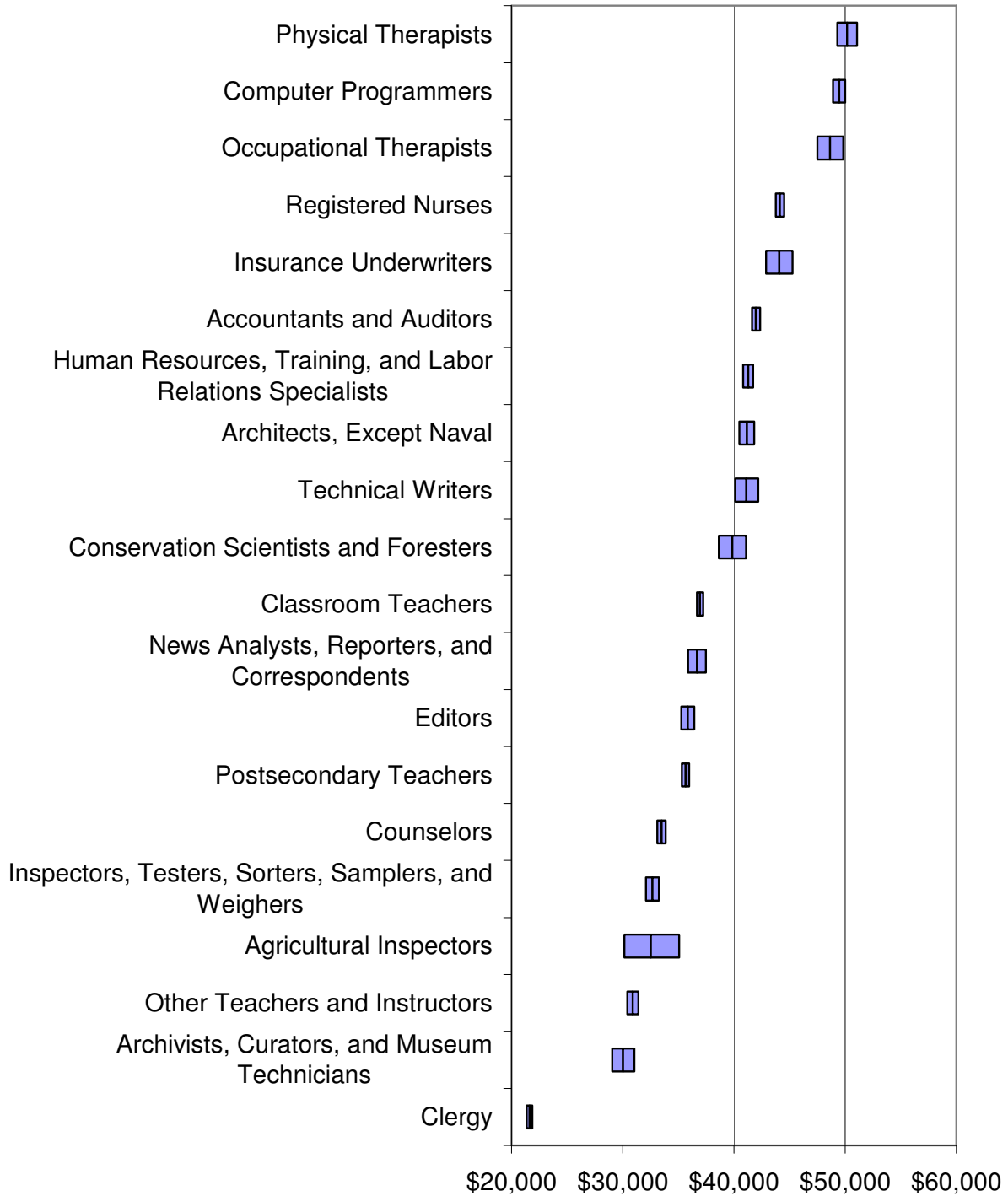
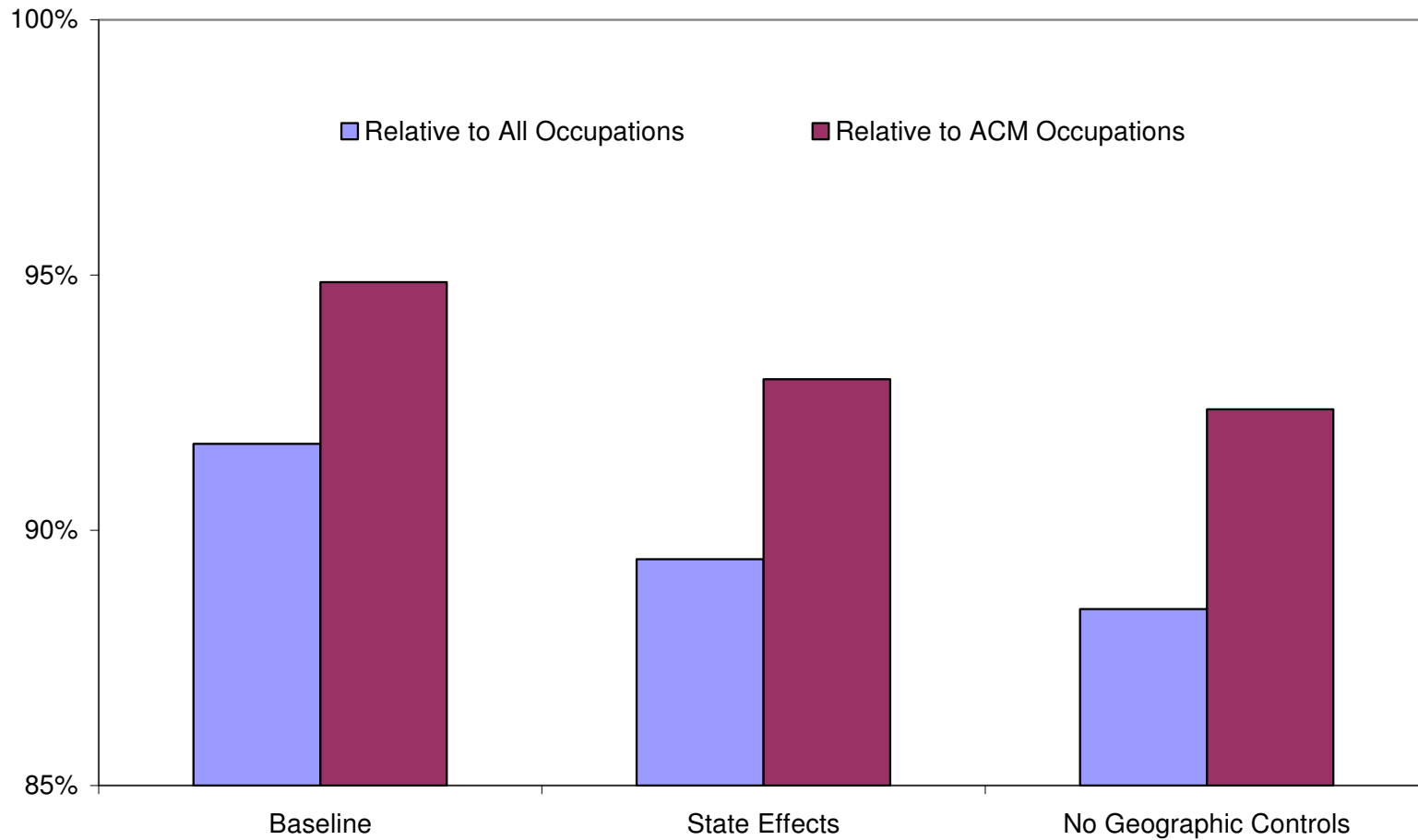


Figure 2
Alternative Perspectives on Relative Wages of U.S. Teachers, 1999



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