

# Policy Analysis

No. 629

December 15, 2008

## *Unbearable Burden? Living and Paying Student Loans as a First-Year Teacher*

by Neal McCluskey

### Executive Summary

It is widely believed that starting public school teacher salaries are too low, and student loan burdens are too high. If true, we could be facing a situation in which recent college graduates cannot afford to go into teaching because they will be unable to repay their college debts. Public policies are already being formulated on the basis of that conclusion.

Unfortunately, the only major analysis of teacher salaries and student debt published to date is based largely on borrowers' subjective feelings about debt manageability. Likewise, more traditional methods of determining how much debt is too much offer little help because they are based primarily on general risks of default predicted by debt-to-income ratios rather than the ability of specific borrowers to handle their debts and other expenses.

To provide legislators with a more objective basis for policymaking, this paper assesses first-

year teachers' ability to pay back college loans given their actual salaries and expenses. This method eliminates both the subjectivity of determining debt burdens on the basis of debtors' feelings, and the imprecision of using correlations between debt-to-income ratios and overall default rates.

The findings presented here reveal that first-year teachers in even the least affordable of the 16 districts examined can easily afford to pay back their debts. Indeed, with just some basic economizing, a first-year teacher could not only pay back average debt, but could handle debt levels nearly three times the national average. This does not mean that current teacher salaries or student debt burdens are "right"—only markets can determine that—but it does mean that there is no need for policymakers to intervene in either teacher pay or student aid to assure that college graduates can afford to become public school teachers.

---

*Neal McCluskey is associate director of the Cato Institute's Center for Educational Freedom and author of *Feds in the Classroom: How Big Government Corrupts, Cripples, and Compromises American Education*. He blogs at [Cato-at-Liberty.org](http://Cato-at-Liberty.org).*

**Teaching: a prescription for a life of sacrifice, penury, and ramen noodles?**

## **Introduction**

There is a widespread belief that public school teachers are underpaid. Many people also feel that college debt loads are becoming unbearable. Put these assumptions together, and they make a career in teaching seem like fiscal suicide—a prescription for a life of sacrifice, penury, and ramen noodles.

Fear of this scenario becoming reality—as well as new graduates finding it difficult to enter other public service fields—has prompted significant policy rhetoric and political action in recent years. The State Public Interest Research Groups, an organization that in higher education advocates for increased student aid, called attention to the potential problem in 2006 with its report *Paying Back, Not Giving Back: Student Debt's Negative Impact on Public Service Career Opportunities*, which examines the impact of debt on prospective teachers and social workers.<sup>1</sup> In 2007, Congress enacted the College Cost Reduction and Access Act, which among other things forgives Federal Direct Loans to people in “public service jobs”—including public school teachers—after 10 years of continual public service and unmissed payments.<sup>2</sup> In May 2008, Rep. Joe Baca (D-CA) introduced the Teacher Education Assistance Creating Hope for our Future Act, which would forgive up to \$25,000 in federal student loans to any teacher who completes five years of service.<sup>3</sup> The newly reauthorized Higher Education Act directs the U.S. Secretary of Education and the Office of Management and Budget to study the impact of student loan debt on graduates entering public-service careers, and includes loan forgiveness for some teachers and others employed in areas of “national need.”<sup>4</sup> Finally, President-elect Barack Obama has proposed creating “Teacher Service Scholarships” for educators working in “high-need” fields or schools.

This paper tests assertions about unmanageable teacher debt by examining whether a first-year teacher with only a bachelor's degree and no prior teaching experience would have

serious difficulty living on his salary while making average college loan payments.

Almost as important as what this paper does, it should be noted, is what it does not do: identify how much a first-year teacher *should* get paid or how much debt a college student *should* graduate with. These are among the biggest and most contentious debates in both K–12 and higher education, but what constitutes a “fair” debt burden or salary are inherently subjective questions that empirical testing cannot answer.

This does not mean that the findings presented here are unrelated to fairness. In most sectors of American life the market determines fair wages and loan terms by balancing the desires and preferences of employers and lenders with the desires and abilities of employees and borrowers. Through millions of individual, voluntary agreements, lenders, borrowers, employers and employees arrive at borrowing and wage levels acceptable to all parties. These are truly fair terms because they are imposed on no one against their will.

In contrast to this, current student loan levels and terms, as well as teachers' salaries, are generally determined by political forces, not voluntary agreements, and revolve around what one party can impose on the other through government. This is why arriving at the truth about teacher salaries and loan burdens is so important: in the absence of markets, it is often the most compelling *political* case that carries the day, and all parties spin reality to their advantage. When it comes to salaries and college debt, teachers and students have an interest in convincing policymakers that they are struggling, and that only more government assistance can help them. In contrast, budget-conscious policymakers and taxpayers have an incentive to portray students and teachers as flush with cash in order to keep spending down. We have to get past this spin. To make the political process work as well as possible, we have to use real debt and expense numbers to determine whether teacher salaries are too low and student debt burdens too high for first-year teachers to make ends meet.

## Teacher Pay in Brief

In order to put the question of student loan affordability in context and assess the degree to which teachers can supplement their public school income, it is necessary to understand how they are paid. For the most part, public school teachers' salaries are fixed on ladders set at the district level, usually, but not always, through collective bargaining between the school board and district's school-employee union. Steps on the salary ladder are ordinarily based on a teacher's experience and education level; a teacher who has taught for 10 years and has a master's degree will earn more than a teacher with two years of experience and a bachelor's degree. There are exceptions to this—some states and districts are looking to differential pay to attract teachers in shortage areas like mathematics, science, and special education, or to pay teachers on the basis of “merit”—but the norm is still the salary ladder.

Still more contentious than the structure of teacher remuneration is the actual amount that teachers get paid, especially relative to other professions. Quantifying teacher pay sounds like it should be straightforward, but a lot depends on how the money and time are divvied up. Perhaps as a result of this, the public appears to have a deflated sense of teachers' salaries. According to a recent survey, respondents underestimated the average public school teacher salary in their state by about 30 percent, or \$14,370.<sup>5</sup>

Using the most basic measure of payment—annual wages—teacher pay is above the national average. According to the Bureau of Labor Statistics' Occupational Employment Statistics survey, in May 2007 the mean annual wage for all nonfarming occupations was \$40,690. Elementary and secondary school teachers, in contrast, had mean wages over \$50,000.<sup>6</sup>

Of course, it is most informative to compare teachers to people in lines of work with similar requirements, and when looking strictly at salaries, teachers do tend to earn less than other professionals. An analysis in *Education Week's*

2008 *Quality Counts* compendium, which used two years of data from the U.S. Census Bureau's American Community Survey, revealed that on average public school teachers earned 88 cents for every dollar earned by workers in sixteen “comparable” occupations, including accountants, computer programmers, and occupational therapists. The authors report that, using their methodology, public school teachers earned a median salary of \$44,690 while members of the other professions earned a median salary of \$50,784.<sup>7</sup>

Though overall salary data are useful, especially for understanding teachers' basic pay, many researchers argue that it is not a full portrayal of teachers' monetary compensation, in large part because it fails to account for actual time worked. With school calendars featuring many built-in breaks—including roughly two-and-a-half months in the summer—and school days averaging around only 6.5 hours in length, it is reasonable to suspect that teachers work fewer hours for their salaries than other professionals.

Recent analyses of Bureau of Labor Statistics data taken from the National Compensation Survey confirm this suspicion. Looking at 2001 data, economist Richard Vedder compared teachers' *hourly* earnings to those of numerous other professionals and found that teachers out-earned architects, mechanical engineers, biological and life scientists, and several other professionals. In 2000, the average hourly wage for a job defined as a “professional specialty” by the BLS was \$27.49, reports Vedder, while the average wage for elementary school teachers was \$28.79, secondary school teachers \$29.14, and special education teachers \$29.97.<sup>8</sup> Using 2005 NCS data, the Manhattan Institute's Jay Greene and Marcus Winters examined hourly teacher pay and arrived at similar findings. They discovered that the average public school teacher made \$34.06 per-hour in 2005, 11 percent more than the average professional specialty and technical worker.<sup>9</sup>

These analyses, while making more of an apples-to-apples comparison than simply comparing annual salaries, are still not wholly

**The average public school teacher made \$34.06 per hour, 11 percent more than the average professional specialty and technical worker.**

**Even during  
months when  
they are teaching,  
educators work  
less time  
than other  
professionals.**

satisfactory, primarily because they may undercount time worked by teachers and overcount time worked by other professionals. Sean P. Corcoran and Lawrence Mishel of the Economic Policy Institute note, for instance, that NCS data count paid time off such as paid vacations and holidays as hours worked for most professionals but not teachers, who are typically paid for roughly a 180-day year that does not include holidays and paid vacations. Greene and Winters did not adjust for this according to Corcoran and Mishel, inflating nonteachers' wages for hours *actually worked*. A more accurate measure, they argue, would calculate nonteachers' hourly pay using only days actually worked and excluding paid vacation and holidays.<sup>10</sup>

Doing what Corcoran and Mishel suggest still demonstrates much greater comparability between teacher and other professional pay than is indicated by annual salaries alone. Using OES data from May 2007, a comparison of average teacher salaries—including *private* school teachers, who get paid nearly 40 percent less than public school teachers<sup>11</sup>—and a few other professions included in the *Quality Counts* data bear this out. The lowest average hourly earnings for non-special education, nonvocational, elementary, middle, and secondary school teachers accrue to elementary school teachers at \$35.49, a figure derived using 188 days (183 instructional and 5 in-service), 7.5 hours per day, and a mean annual wage reported by the OES of \$50,040. In comparison, accountants and auditors, registered nurses, insurance underwriters, and computer programmers earn hourly wages of \$32.91, \$32.54, \$31.31, and \$37.51, respectively, figures determined by dividing the mean annual wage for each job as reported by the OES by actual hours worked, or 240 days a year (52 weeks a year, five days a week, minus ten days of paid vacation and ten paid holidays) for eight hours a day.<sup>12</sup> Only computer programmers made more per-hour than the lowest-paid subset of teachers.

One last objection to hourly-earning comparisons is that teachers work many more hours than are reflected in official time spent

at school. They grade papers, plan lessons, call parents, often after school and on weekends. "Six or seven hours is the 'contracted' workday, but unlike in other professions, the expectation for teachers is that much required work will take place at home, at night and on weekends," explains a "Myths and Facts" page on the website of the National Education Association. "For teachers, the day isn't over when the dismissal bell rings."<sup>13</sup>

It is true that teachers often work at home, but a recent BLS study suggests that even during months when they are teaching, educators work less time than other professionals. According to the study, in which participants logged how much work they did each day and where they did it, teachers worked on average 18 fewer minutes per day than other professionals. And that included only days when the subjects worked—summer and other vacation days were not included in the average.<sup>14</sup>

The longest period during which teachers are not working for their salary, of course, is during the summer, when they often pursue additional employment. Critically, *no potential income from summer employment is included in this analysis of first-year teacher compensation*, but many teachers do earn income by tutoring, managing pools, working at summer camps, house painting, freelance writing, and a variety of other jobs. According to the National Education Association, 45 percent of public school teachers worked during the summer of 2000.<sup>15</sup> Moreover, according to the BLS, roughly half of all teachers do not work past 4:00 p.m. on any given day, providing additional time that could be used for a second job. And there is evidence that teachers do use time this way: the BLS reports that while 12 percent of other professionals had second jobs while working in their primary occupation, 17 percent of teachers had second jobs during periods *when they were teaching*.

Debates over teacher compensation will certainly continue, but two important things are clear for our purposes. The first is that teachers get paid roughly on par with other comparable professionals on an hourly basis and have much more time in a year to earn money

beyond their salaries. This makes it politically difficult to justify higher pay for teachers even if their annual compensation is too low to afford average student debt because, on an hourly basis, they would have to be paid in excess of comparable professionals. The second reality, however, militates against this first concern by making it clear that teachers have plenty of time to significantly supplement their income. This last point is especially important to keep in mind when considering the analysis presented later in this report, which, because it does not include any potential income beyond a teacher's basic salary, *almost certainly underestimates a first-year teacher's total annual income.*

## Student Loans in Brief

There is no question that the “sticker price” of higher education—the published cost of tuition, fees, room and board—has gone up markedly over the last couple of decades. According to data from the College Board, the average inflation-adjusted cost of tuition, fees, and room and board at four-year private colleges grew 70 percent between 1987–88 and 2007–08, from \$19,000 to \$32,307. Over the same period, the cost at a four-year public institution rose 78 percent, from \$7,631 to \$13,589.<sup>16</sup>

So, how have students been able to afford these significant price increases? A good bit of the answer is financial aid, much of which comes through student loans. College Board data show that between 1986–87 and 2006–07, the average inflation-adjusted aid per full-time-equivalent student (which includes undergraduate and graduate students) rose 139 percent, from \$3,967 to \$9,499. This was split almost equally between grant aid (which students don't have to pay back) and federal loans (which they do), though tax benefits started to creep into the equation in 1998–99. Between 1986–87 and 2006–07, inflation-adjusted grant aid per full-time-equivalent student rose 131 percent, from \$2,014 to \$4,648, and federal loan aid rose 138 percent, from \$1,826 to \$4,337.<sup>17</sup>

In addition to these aid sources, students have increasingly taken out private loans which are not backed with taxpayer dollars and often don't carry the generous interest rates and repayment terms that federal backing makes possible. The College Board doesn't provide a per-pupil breakdown of private borrowing, but reports that in the 2006-07 academic year \$17.1 billion was borrowed from private lenders.<sup>18</sup> On the flip side, many students don't borrow any money to attend college; about one-third of four-year college students graduate debt-free.<sup>19</sup>

The concern among students, parents, politicians, and student advocacy groups is that loan amounts are becoming increasingly unbearable. According to the Project on Student Debt, between 1993 and 2004 the average amount owed by seniors who graduated with debt rose 58 percent after adjusting for inflation, going from \$12,152 to \$19,200, an appreciable rate of increase that many people fear will only grow if tuition continues to skyrocket.<sup>20</sup> This concern is especially acute for students intending to go into what many consider low-paying careers, and it's what prompted the State PIRGs to publish *Paying Back, Not Giving Back: Student Debt's Negative Impact on Public Service Career Opportunities*, a report examining the impact of debt on students planning to go into teaching or social work.

*Paying Back, Not Giving Back* asserts that given “high debt levels, the congressional fixed 6.8 percent interest rate for federal loans, and low starting salaries . . . 23 percent of public four-year college students graduate with too much debt to manageably repay their loans as a starting teacher,” as do 38 percent of private-school graduates.<sup>21</sup> The solutions provided in the report are a bit vague, but can essentially be summarized as: (1) increase need-based grant aid; (2) put caps on the amount of debt that students have to pay back and the length of time they can be saddled with debt; (3) regulate private loans more strictly, including their interest rates and terms; and (4) provide financial incentives (presumably federal) for state governments and colleges to keep tuition costs low.<sup>22</sup>

**Adjusted for inflation, college aid has risen 139 percent over the past 20 years.**

**The more aid students get from taxpayers, the less sensitive they are to price increases, and the more colleges can charge.**

While these measures may sound reasonable, they are likely to do more harm than good. Expanding aid either by increasing grants, making it easier to discharge debts, or both, will continue to drive the third-party-payer problem that has been inflating tuition prices. Essentially, the more money obtained through taxpayers (the third parties in the student-school transaction) that students and their families can use to pay for college, the less sensitive students are to price increases, the more they demand, and the more schools charge without imposing any additional “pain” on students.

The College Board data cited earlier suggest that this is happening: while real, enrollment-weighted, tuition, fee, and room-and-board costs for private and public four-year schools have risen around 75 percent over the last two decades, aid per student has grown almost 140 percent. Applying average aid per full-time equivalent student to public and private four-year college costs and adjusting to make aid amounts proportionate to the difference between public and private school costs (aid data are currently available only as an average for all students, but aid generally rises as costs rise), one can approximate the degree to which aid makes students less sensitive to increasing prices.

While the real “sticker price” rose 70 percent over the last two decades for private colleges, going from \$19,000 to \$32,307, the after-aid costs rose only 42 percent, moving from \$12,335 to \$17,489. At public schools, a 78 percent sticker price increase—\$7,631 to \$13,589—felt more like a 48 percent boost from \$4,933 to \$7,320.<sup>23</sup> Of course, students are sensitive to loans even when they are heavily subsidized, so not all aid makes students completely numb to real price increases. On the other hand, lower-than-market interest rates make them less sensitive than market rates, and with federally subsidized Stafford loans, the government pays the interest while students are in school and for six months after they graduate.

What would be the likely effects of requiring private lenders to offer lower interest rates

and/or more generous repayment terms? Both options are dangerous due to the phenomenon already discussed: the cheaper the funding, the less the constraint on students’ ability and willingness to pay, and the more schools can charge. In this regard private loans perform more of a public service than federal loans because they give a greater impetus to keep prices down. There is also a serious question of fairness when government puts its thumb on the lending scale. True balance is struck when borrower and lender find terms that are mutually agreeable, not when government privileges one party over the other.

Finally, proposals to have Washington offer schools incentives to keep tuition down are not as simple as they sound. One possible approach would involve revoking aid to students at institutions that raise tuition faster than a pre-approved rate, but this would require expensive, in-depth monitoring, and would prevent many schools from raising tuition when necessary to expand or improve their product. The other approach, which appears in a mild form in the most recent Higher Education Act reauthorization, would penalize states by withholding access to some federal money if they did not hold funding to public universities at or above average levels for previous years. Such a move ties the hands of state legislators who are attempting to balance budgets, and it hurts state taxpayers who may have other priorities than higher education.

Difficult tradeoffs confront any effort to deal with increasing student loan burdens, whether the tack is to increase access to aid or coax schools to curb prices. With these potentially painful tradeoffs in mind, it is important to know for certain whether student debt is truly so burdensome that it seriously threatens graduates’ ability to go into fields like teaching.

## **Prevailing “Unmanageable Burden” Calculations**

With teachers’ remuneration appearing low relative to comparable professionals—that

is, if one doesn't account for the additional time teachers have available for other employment—and with college graduates' debt burden growing, some people believe that many new teachers will find their student debts unmanageable. But does reality bear this out? To answer the question, we need first to know what is meant when debt is called “unmanageable.”

In general, guidelines for how much debt is too much vary widely and depend a great deal on individual financial circumstances and tolerances for risk. A general rule of thumb according to many financial advisors is to never let one's debt-to-income ratio exceed 36 percent.<sup>24</sup> Just for student loans, the general rule is to not let debt exceed between around 8 and 15 percent of one's income.<sup>25</sup> The rationale is that higher debt-to-income ratios significantly increase the risk that borrowers will default on their loans.

In determining how many teachers face overly burdensome debt, the State PIRGs used an index created by economists Sandy Baum and Saul Schwartz intended to identify unmanageable debt as perceived by borrowers, *not* what lenders identify as debt levels that dangerously increase the chance of default. In the currently available version of Baum and Schwartz's paper, they use 20 percent of income beyond 150 percent of the poverty line as their ceiling for annual payments.<sup>26</sup> So, for instance, Baum and Schwartz note that 150 percent of the poverty line for a single person was \$14,700 at the time they were writing. If a new teacher were to make \$20,000, using Baum and Schwartz's index her “manageable” annual debt payment would be \$1,060, or 20 percent of the difference between her total income and 150-percent of poverty. The State PIRGs, it should be noted, report having used a version of Baum and Schwartz's index that used 20 percent of income beyond half of the median pre-tax income for a single American—not 150 percent of the poverty line—rendering their results a bit different from what would have been yielded using the currently available version of Baum and Schwartz's paper.<sup>27</sup> Half of median pre-tax income was \$18,771.

In keeping with their goal of assessing debt burden from the borrower's perspective, Baum and Schwartz's determination of the debt maximum is informed by—but not systematically based on—several considerations. Among them are the improved earnings generated by having a bachelor's degree rather than just a high school diploma; financial-need analyses that place college costs in context with other financial demands; and analyses showing that borrowers' perceptions of how burdensome their loans are increase as their ratios of loan payments to pre-tax income rise.<sup>28</sup>

The State PIRGs used Baum and Schwartz's index to calculate percentages of new graduates of public and private four-year colleges in each state who would have had unmanageable debt had they taken teaching jobs in the state. First, they adjusted the \$18,771 half-of-median pre-tax income baseline up or down according to state-by-state median income differences. Next, they subtracted those adjusted baselines from average starting teacher salaries in each state and multiplied the remainders by 20 percent, yielding “manageable” annual loan repayment maximums. They then divided those annual maximums by 12 to get monthly maximum payments and calculated the debt level that would generate such payments for a 10-year loan with a 6.8 percent interest rate, the standard rate for subsidized Stafford loans. (The standard subsidized Stafford interest rate has since dropped and will continue to do so each year before resetting to 6.8 percent for the 2012–13 school year.) Finally, the State PIRGs calculated what percentage of new graduates from public and private four-year institutions in each state had debt levels that generated monthly payments beyond the maximum, and identified those as the percentage of new graduates whose debt was too high to manage on a first-year teacher's salary. For public school graduates, New Hampshire had the highest debt problem, with 54 percent of recent grads facing debt levels too large to handle on an average first-year teacher's salary, while Georgia was lowest at 12 percent.

The State PIRGs' analysis offers a bleak picture for first-year teachers, but it suffers

**People believe that many new teachers will find their student debts unmanageable. Does reality bear this out?**

**Whether or not teachers say they feel burdened is of secondary concern to whether or not they can actually pay their debts.**

serious problems and policymakers should not base decisions on it.

First, Baum and Schwartz's burden index—on which the State PIRGs based their calculations—is highly subjective, based in part on borrowers' self-reported feelings. Baum and Schwartz acknowledge this problem in their paper, noting that “deriving one set of benchmarks from the data reported here clearly requires a subjective judgment.”<sup>29</sup> Second, the State PIRGs use the median debt level for *all* new college graduates—not just prospective teachers—to calculate how manageable debt would be on a first-year teacher's salary. But many students no doubt consider costs and expected earnings when choosing colleges, and pick less expensive schools when their expected earnings are lower. Education majors' average debt level supports this: according to a 2005 U.S. Department of Education report, among students who borrowed for college and received their bachelors degrees in the 1999–2000 school year (the latest with available data), education majors borrowed \$1,300 less than the overall average.<sup>30</sup>

The final and most important problem with the State PIRGs' methodology—and the underlying Baum and Schwartz analysis—is that it dances around reality, estimating burdens based on borrowers reported perceptions, not the *actual expenses first-year teachers are likely to face*. It is important to know how teachers feel about their debt burdens, especially if they pass those feelings on to potential teachers and discourage them from entering the profession. But what teachers report may be exaggerated, and whether or not they say they feel burdened is at best of secondary concern to whether or not they can actually pay their debts while maintaining a reasonable quality of life. Answering that primary question is the goal of our analysis.

### **Assessing Loan Manageability by Assessing Teacher Costs**

Given average student debt, actual salaries, and expenses they are likely to face, can first-

year teachers afford to pay back their loans? To answer that question, this paper examines a geographic and demographic cross-section of districts around the country. It uses the following 16 districts, about which more information is available in Appendix A:

- Allendale County Schools, South Carolina
- Baldwin Community Schools, Michigan
- Battle Creek–Ida Grove Community School District, Iowa
- Calipatria Unified School District, California
- Clay County Public Schools, Kentucky
- Coahoma County School District, Mississippi
- Dallas Independent School District, Texas
- Denver Public Schools, Colorado
- Duval County Public Schools, Florida
- Madison School District #321, Idaho
- Memphis City Schools, Tennessee
- New York City Public Schools, New York
- Pembroke School District, New Hampshire
- Phoenix Union High School District, Arizona
- Santa Maria Independent School District, Texas
- Seattle Public Schools, Washington

Overall, the districts range in physical location from the west to east coasts, are in areas with median household incomes ranging from \$20,364 to \$54,297 and include rural and urban districts. It is not a randomly selected sample, but rather one specifically chosen to maximize the diversity of the settings examined. For each of these districts, this paper reports 2007–08 salary information for a first-year teacher with a bachelor's degree and no previous experience, and estimates the costs of both necessary expenses such as debt repayment and rent, and discretionary expenses such as a cable television subscriptions and clothing purchases.



When examining the findings of this analysis, there are several important points to keep in mind:

- 1. The teacher's income used here is only her base teaching salary.** As mentioned earlier, teachers have a great deal of time away from teaching during which they can, and often do, work other jobs that provide supplemental income. In addition, teachers often assume extra duties in their districts for which they get paid beyond their base salary, such as coaching teams, advising student groups, or helping to write curricula. Since no additional income is incorporated in this analysis, it almost certainly *underestimates, perhaps significantly*, the average first-year teacher's actual income.
- 2. No efforts were made to economize on expenses.** The costs used for numerous goods and services are based on readily available offers and prices, and no special effort to find "deals" was made. In addition, housing is calculated for a single renter in an average-cost apartment, whereas recent graduates, regardless of profession, often have roommates in below-average apartments. This means it is very likely that a thrifty teacher could get the items used here for significantly less than the cost given.
- 3. No special deductions or affordability programs were considered.** Some perks teachers get include housing assistance from their districts and educator-specific discounts from companies such as Barnes and Noble, Apple Computers, Ann Taylor, and others.<sup>31</sup> In addition, teachers and other taxpayers are often eligible for a variety of credits and deductions on their taxes. None of these or other potential savings were used in this analysis to calculate teachers' likely expenses.
- 4. This is not a nationally representative sample.** While a serious effort was made to analyze a diverse set of districts, the sample was small and not randomly selected. Resources did not

permit collection of a large, nationally representative sample, but it would be valuable to collect such a sample to verify the conclusions of this study on a truly national scale.

What were the specific conditions under which the calculations in this paper were made? More fine-grained details concerning the districts used and expenses tallied can be found in the appendices—and even more explicit data than that are available upon request—but it is important to understand a few major details up front.

The salary information is based on a 12-month breakdown—even if a teacher could opt to get paid on, say, a 10-month schedule—of annual salaries as reported by districts for a first-year teacher with a bachelor's degree and no experience. The monthly loan payment is based on a total loan of \$20,011. It is derived from the most recent estimate of average loan burden for new college graduates as calculated by the Project on Student Debt adjusted for inflation, and the smaller average debt burden borne by education majors.<sup>32</sup> Finally, expenses include

- average inflation-adjusted rents for the district and surrounding areas;
- food consumption adhering to the U.S. Department of Agriculture's "liberal" food plan plus \$32 monthly for eating out, the total of which was then adjusted for regional cost differences;
- medical and dental insurance costs borne by teachers;
- union dues, where applicable;
- costs to fill a 2000 Toyota Corolla with gasoline on a weekly basis;
- auto insurance costs for the Corolla;
- a car loan payment at a 7.43 percent interest rate and 60-month term;
- clothing purchases and laundry costs;
- miscellaneous costs that could include start-up furniture, housewares, and other new housing needs;
- telephone, internet, and television costs;
- federal and state (where applicable) taxes.

**Teachers have a great deal of time away from teaching during which they can work other jobs.**

**New college graduates who become public school teachers can easily manage average college debt.**

Appendix B presents the primary results for this income-expense analysis, and makes clear that while there was certainly variation in affordability, in none of the districts would a first-year teacher with average student debt be unable to live comfortably. Not only could a first-year teacher afford all of his staples like housing, food, and monthly student loan payments, he could afford to purchase numerous miscellaneous items, some of which he would likely already have, including dinnerware and furniture. Indeed, with the exception of Pembroke, New Hampshire, pro-rated over 12 months he could afford all those things with over \$100 remaining at the end of each month. In Dallas, he would have \$900 remaining at the end of each month.

In addition to overall affordability, the average debt-to-income ratio for the sample was 8 percent, with a high of 11 percent in Ida Grove, Iowa, and a low of 6 percent in Dallas and New York City. These results are well within the safe range of the debt estimates commonly accepted as manageable.

Clearly, first-year teachers in these districts could afford to live with security and relative comfort while making the monthly payments on average student debt. Another important question to answer, however, is what the *maximum* amount of debt is that a first-year teacher could afford. Knowing this would indicate how much students could spend on college and still manageably become public school teachers.

If we cut a bit of the most accessible “fat” from the consumption estimated in the primary analysis—those things that are nice to have but are not necessary for survival—we can get an idea. We calculate this not on a district-by-district basis, but based on the case of Pembroke, New Hampshire, the *least* affordable of the districts examined.

Splitting rent with a roommate on a still median-rent apartment in Merrimack County, New Hampshire, would immediately save \$344 a month.<sup>33</sup> Dropping down from what the USDA considers a “liberal” expenditure on food to one that’s “moderate”—but still keeping \$32 a month for restaurants—would save

an additional \$61. Finally, getting rid of the teacher’s landline telephone service, which would not be a big inconvenience as long as she keeps her cellular phone, as is increasingly common, saves \$36 a month. Just making those changes would give the teacher an additional \$441 to spend servicing her debt each month, which, added to the current monthly debt payment of \$230, could cover monthly payments on a total debt of more than \$58,000, an amount that approaches triple the national, inflation-adjusted debt average of \$21,450 based on Project on Student Debt estimates.

An itemized estimation of both basic, teaching-salary-only income and likely expenses reveals that a first-year public school teacher could easily manage average student debt. The debt-to-income ratios are typically considered manageable by standard estimates, and teachers can afford numerous necessities and amenities almost always with \$100 or more per month left over. In addition, when the maximum debt one could handle after making a few, fairly painless cuts is calculated, it is clear that no public policies need to be implemented either to raise teacher salaries or make college cheaper in order for teachers to be able to afford both their profession and student loans. This does not mean that teacher pay or college costs are currently “right” or “fair”—those are things only free markets can determine—but it does indicate that new college graduates who become public school teachers can easily manage average college debt.

## Conclusion

Whether teachers are underpaid or overpaid, and whether student debt burdens are too great, are subjective questions that cannot be answered through empirical analysis. What can be determined empirically, however, is whether teachers with varying student-debt levels can afford to service their debt and pay for the necessities of life on a first-year public-school teacher’s salary. Based on detailed analysis of the costs first-year teach-

ers are likely to face in demographically and economically diverse school districts around the country, the answer appears to be that they can afford average college debt, and well beyond average debt if they are willing to do some moderate economizing. Performing this same analysis on a larger, random sample of districts would be necessary to ensure nationally representative results, but compared to the subjective estimates typically used to identify “unmanageable” debt, the present analysis allows one to draw a more reliable conclusion: for a new graduate with no previous teaching experience, average student debt can be safely managed on a public school teacher’s salary in widely varying districts around the country.

## Appendix A: District Profiles

Note that for all categories, the most recent available U.S. Census figures were used. Population figures come from U.S. Census Bureau, “Population Finder.” Household income figures and poverty rates were taken from U.S. Census Bureau, “State and County Quick Facts.” Income figures were adjusted to 2007 dollars using the Gross Domestic Product Deflation Calculator at <http://cost.jsc.nasa.gov/inflate/GDP.html>. This was done in order to make income figures coincide with the year for which teacher salaries and affordability were calculated. Also, for noncounty and nonurban districts the median household income for the county, rather than the district, was used because the prices and other economic conditions teachers would face would be more affected by the median income for the entire county.

### **Allendale County Schools**

Location: Allendale County, South Carolina  
 Area Served: Entire County  
 Classification: Rural  
 Population Served, 2007: 10,475  
 Median Household Income, 2004: \$21,527  
     Adjusted to 2007: \$22,491  
 Percent Below Poverty Line, 2004: 32.1

### **Baldwin Community Schools**

Location: Baldwin Village, Michigan  
 Area Served: Baldwin Village and surrounding communities  
 Classification: Rural  
 Population Served, 2007: 1,182<sup>34</sup>  
 Median Household Income, Lake County, 2004: \$27,868  
     Adjusted to 2007: \$29,116  
 Percent Below Poverty Line, Lake County, 2004: 19.7

### **Battle Creek–Ida Grove Community School District**

Location: Battle Creek and Ida Grove, Iowa  
 Area Served: Battle Creek and Ida Grove  
 Classification: Rural  
 Population Served, 2007: 2,740  
 Median Household Income, Ida County, 2004: \$40,421  
     Adjusted to 2007: \$42,232  
 Percent Below Poverty Line, Ida County, 2004: 9.4

### **Calipatria Unified School District**

Location: City of Calipatria, California  
 Area Served: City of Calipatria  
 Classification: Rural  
 Population Served, 2007: 7,638  
 Median Household Income, Imperial County, 2004: \$33,674  
     Adjusted to 2007: \$35,183  
 Percent Below Poverty Line, Imperial County, 2004: 18.5

### **Clay County Public Schools**

Location: Clay County, Kentucky  
 Area Served: Entire County  
 Classification: Rural  
 Population Served, 2007: 23,730  
 Median Household Income, 2004: \$19,491  
     Adjusted to 2007: \$20,364  
 Percent Below Poverty Line, 2004: 34.3

### **Coahoma County School District**

Location: Coahoma County, Mississippi  
 Area Served: Entire County  
 Classification: Rural  
 Population Served, 2007: 27,543

Median Household Income, 2004: \$23,560  
Adjusted to 2007: \$24,615  
Percent Below Poverty Line, 2004: 30.6

**Dallas Independent School District**

Location: Dallas, Texas  
Area Served: City of Dallas and surrounding communities  
Classification: Urban  
Population Served, 2007: 1,240,499<sup>35</sup>  
Median Household Income, 2004: \$41,645  
Adjusted to 2007: \$43,511  
Percent Below Poverty Line, 2004: 16.2

**Denver Public Schools**

Location: Denver, Colorado  
Area Served: City and County of Denver  
Classification: Urban  
Population Served, 2007: 588,349  
Median Household Income, 2004: \$41,767  
Adjusted to 2007: \$43,638  
Percent Below Poverty Line, 2004: 15.2

**Duval County Public Schools**

Location: Duval County, Florida  
Area Served: Entire County  
Classification: Urban  
Population Served, 2007: 849,159  
Median Household Income, 2004: \$41,736  
Adjusted to 2007: \$43,606  
Percent Below Poverty Line, 2004: 11.7

**Madison School District #321**

Location: Madison County, Idaho  
Area Served: Entire County  
Classification: Rural  
Population Served, 2007: 36,647  
Median Household Income, 2004: \$32,569  
Adjusted to 2007: \$34,028  
Percent Below Poverty Line, 2004: 15.6

**Memphis City Schools**

Location: Memphis, Tennessee  
Area Served: City of Memphis  
Classification: Urban  
Population Served, 2007: 674,028  
Median Household Income, 1999: \$32,285  
Adjusted to 2007: \$36,902  
Percent Below Poverty Line, 1999: 20.6

**New York City Public Schools**

Location: New York, New York  
Area Served: New York City  
Classification: Urban  
Population Served, 2007: 8,724,527  
Median Household Income, 1999: \$38,293  
Adjusted to 2007: \$43,769  
Percent Below Poverty Line, 1999: 21.2

**Pembroke School District**

Location: Pembroke, New Hampshire  
Area Served: Pembroke, but the high school also serves three other towns  
Classification: Rural  
Population Served (Pembroke only), 2007: 7,353  
Median Household Income, Merrimack County, 2004: \$51,969  
Adjusted to 2007: \$54,297  
Percent Below Poverty Line, 2004: 6.3

**Phoenix Union High School District**

Location: Phoenix, Arizona  
Area Served: City of Phoenix  
Classification: Urban  
Population Served, 2007: 1,552,259  
Median Household Income, 1999: \$41,207  
Adjusted to 2007: \$47,100  
Percent Below Poverty Line, 1999: 15.8

**Santa Maria Independent School District**

Location: Santa Maria, Texas  
Area Served: Santa Maria and Bluetown-Iglesia Antigua  
Classification: Rural  
Population Served, 2000: 1,538  
Median Household Income, Cameron County, 2004: \$26,719  
Adjusted to 2007: \$27,916  
Percent Below Poverty Line, 2004: 29.4

**Seattle Public Schools**

Location: Seattle, Washington  
Area Served: City of Seattle  
Classification: Urban  
Population Served, 2007: 594,210  
Median Household Income, 1999: \$45,736  
Adjusted to 2007: \$52,276  
Percent Below Poverty Line, 1999: 11.8

# Appendix B: Data and Sources

**Table B1**  
**Teacher Income and Expenses, by District**

	Allendale	Baldwin	BC-IG	Calipatria	Clay	Coahoma	Dallas	Denver
<b>Income</b>								
Monthly Salary	\$2,422	\$2,534	\$2,177	\$3,003	\$2,808	\$2,658	\$3,625	\$2,964
<b>Expenses</b>								
Loan Payment	\$230	\$230	\$230	\$230	\$230	\$230	\$230	\$230
Rent	\$342	\$434	\$379	\$565	\$327	\$403	\$725	\$707
Food	\$354	\$329	\$329	\$347	\$354	\$354	\$354	\$347
Medical	\$93	\$26	\$6	\$102	\$0	\$18	\$24	\$0
Dental	\$0	\$0	\$8	\$102	\$21	\$30	\$13	\$0
Union Dues	N/A	\$83	N/A	\$90	N/A	N/A	N/A	\$14
Transportation	\$166	\$176	\$171	\$192	\$169	\$168	\$169	\$170
Auto Insurance	\$155	\$144	\$88	\$143	\$249	\$219	\$174	\$166
Car Loan Payment	\$94	\$94	\$94	\$94	\$94	\$94	\$94	\$94
Clothing/Laundry	\$100	\$100	\$100	\$100	\$100	\$100	\$100	\$100
Telephone (landline)	\$13	\$40	\$25	\$40	\$33	\$33	\$33	\$31
Telephone (cell)	\$40	\$40	\$40	\$40	\$40	\$40	\$40	\$40
Internet	\$42	\$30	\$22	\$30	\$33	\$33	\$33	\$31
Cable	\$42	\$38	\$35	\$38	\$33	\$33	\$33	\$31
Start-up/Miscellaneous	\$80	\$80	\$80	\$80	\$80	\$80	\$80	\$80
Taxes (State)	\$132	\$102	\$96	\$79	\$138	\$86	N/A	\$137
Taxes (Federal)	\$331	\$348	\$294	\$453	\$404	\$366	\$608	\$443
<b>Total Expenses</b>	\$2,214	\$2,294	\$1,997	\$2,725	\$2,305	\$2,287	\$2,710	\$2,621
<b>Income Remaining</b>	\$208	\$240	\$180	\$278	\$503	\$371	\$915	\$343
<b>% Income Remaining</b>	9%	9%	8%	9%	18%	14%	25%	12%
<b>Debt as % of Income</b>	9%	9%	11%	8%	8%	9%	6%	8%

*Continued next page*

**Table B1**  
**Teacher Income and Expenses, by District—Continued**

	Duval	Madison	Memphis	New York	Pembroke	Phoenix	Santa Maria	Seattle	Avg.
<b>Income</b>									
Monthly Salary	\$3,083	\$2,500	\$3,224	\$3,614	\$2,542	\$3,079	\$2,833	\$2,720	\$2,862
<b>Expenses</b>									
Loan Payment	\$230	\$230	\$230	\$230	\$230	\$230	\$230	\$230	\$230
Rent	\$670	\$334	\$614	\$790	\$687	\$697	\$463	\$808	\$559
Food	\$354	\$347	\$354	\$378	\$378	\$347	\$354	\$347	\$352
Medical	\$0	\$0	\$44	\$0	\$123	\$0	\$0	\$0	\$27
Dental	\$95	\$0	\$0	\$0	\$8	\$7	\$15	\$0	\$19
Union Dues	N/A	N/A	N/A	\$90	\$57	N/A	N/A	\$70	\$25
Transportation	\$176	\$174	\$167	\$180	\$166	\$172	\$169	\$183	\$173
Auto Insurance	\$152	\$117	\$213	\$308	\$96	\$262	\$162	\$188	\$177
Car Loan Payment	\$94	\$94	\$94	\$94	\$94	\$94	\$94	\$94	\$94
Clothing/Laundry	\$100	\$100	\$100	\$100	\$100	\$100	\$100	\$100	\$100
Telephone (landline)	\$33	\$31	\$33	\$31	\$36	\$29	\$42	\$31	\$32
Telephone (cell)	\$40	\$40	\$40	\$40	\$40	\$40	\$40	\$40	\$40
Internet	\$33	\$31	\$33	\$31	\$36	\$29	\$42	\$31	\$33
Cable	\$33	\$31	\$33	\$31	\$36	\$29	\$42	\$31	\$34
Start-up/Miscellaneous	\$80	\$80	\$80	\$80	\$80	\$80	\$80	\$80	\$80
Taxes (State)	N/A	\$113	N/A	\$272	N/A	\$71	N/A	N/A	\$77
Taxes (Federal)	\$473	\$342	\$508	\$605	\$349	\$472	\$410	\$382	\$424
<b>Total Expenses</b>	\$2,563	\$2,064	\$2,543	\$3,260	\$2,516	\$2,659	\$2,243	\$2,615	\$2,476
<b>Income Remaining</b>	\$520	\$436	\$681	\$354	\$26	\$420	\$590	\$105	\$386
<b>% Income Remaining</b>	17%	17%	21%	10%	1%	14%	21%	4%	13%
<b>Debt as % of Income</b>	7%	9%	7%	6%	9%	7%	8%	8%	8%

## Sources

This section lists all data sources except for the specific bundles of goods used to estimate clothing, start-up/misc., and telephone (landline)/internet/television costs. That information is available upon request.

**Monthly Salary.** The annual salary for a first-year teacher with a bachelor's degree and no prior experience as reported by the district either on its website or in response to a direct query, divided by 12. The figures are for the 2007–08 school year. The following are the links for salary ladders available on the Web. For districts without websites listed here, salary data were obtained by calling district offices.

Allendale County Schools: The 2007–08 salary schedule is unavailable on the district's website and was obtained through the business and finances department. The 2008–09 salary schedule is available at [www.acs.k12.sc.us/downloads/737F0EB386D349E082F8EA54C5551A45/Certified%20Salary%20Schedule%2008-09.pdf](http://www.acs.k12.sc.us/downloads/737F0EB386D349E082F8EA54C5551A45/Certified%20Salary%20Schedule%2008-09.pdf).

Baldwin Community Schools: The 2007–08 salary schedule is unavailable on the district's website and was obtained through the central business office. The 2005–06 salary schedule and criteria for increases can be found in Appendix A-1 of the Master Agreement between the Baldwin Community Schools and Baldwin Education Association, available at [www.baldwin.k12.mi.us/filesection/275/BEA\\_MasterAgreement\\_2005-2008\\_Final.pdf](http://www.baldwin.k12.mi.us/filesection/275/BEA_MasterAgreement_2005-2008_Final.pdf).

Battle Creek-Ida Grove Community School District: The 2007–08 salary schedule is unavailable on the district's website and was obtained through the business manager.

Calipatria Unified School District: The 2007–08 salary schedule is unavailable on the district's website and was obtained through the business manager.

Clay County Public Schools: The 2007–08 salary schedule is unavailable on the district's website and was obtained through the finance officer.

Coahoma County School District: The 2007–08 salary schedule is unavailable on the district's website and was obtained from the payroll clerk.

Dallas Independent School District: The 2007–08 salary schedule is no longer available on the district's website, from which it was obtained. The 2008–09 schedule is available in the district's "Salary Handbook" at [www.dallasisd.org/employment/nas/SalaryHandbook.pdf](http://www.dallasisd.org/employment/nas/SalaryHandbook.pdf).

Denver Public Schools: The 2007–08 salary schedule was found in the "Addendum to the DPS/DCTA Agreement: September 1, 2007" available at [hr.dpsk12.org/pay/pdf/2007%20Salary%20Schedule%20Changes.pdf](http://hr.dpsk12.org/pay/pdf/2007%20Salary%20Schedule%20Changes.pdf).

Duval County Public Schools: The 2007–08 salary schedule is no longer available on the district's website, from which it was obtained. The 2008–09 schedule is available at [www.duvalschools.org/static/wearedcps/employeeinfo/teacher\\_salary\\_schedule.asp](http://www.duvalschools.org/static/wearedcps/employeeinfo/teacher_salary_schedule.asp).

Madison School District #321: The 2007–08 salary schedule is no longer available on the district's website, from which it was obtained. The 2008–09 schedule is available at [d321.k12.id.us/main/](http://d321.k12.id.us/main/). After reaching the main site click on the "District" tab and then "Certified Salary Schedule."

Memphis City Schools: The 2007–08 salary schedule is no longer available on the district’s website, from which it was obtained. The 2008–09 schedule is available at [www.mcsk12.net/forms/10%20MONTH%20TEACHER%20SALARY%20SCHEDULE%20\(24%20PAY\).pdf](http://www.mcsk12.net/forms/10%20MONTH%20TEACHER%20SALARY%20SCHEDULE%20(24%20PAY).pdf).

New York City Public Schools: The 2007–08 salary schedule is no longer available on the district’s website, from which it was obtained . The 2008–09 schedule is available at [schools.nyc.gov/NR/rdonlyres/72DE1FF1-EDFC-40D7-9D61-831014B39D1E/0/7TeacherSalarySchedule.pdf](http://schools.nyc.gov/NR/rdonlyres/72DE1FF1-EDFC-40D7-9D61-831014B39D1E/0/7TeacherSalarySchedule.pdf).

Pembroke School District: The 2007–08 salary schedule is unavailable on the district’s website and was obtained from the human resources coordinator.

Phoenix Union High School District: The 2007–8 salary schedule is no longer available on the district’s website, from which it was obtained . The 2008–09 schedule is available at [www.phxhs.k12.az.us/education/sctemp/a225b445549665bd3e9c3b8b5999e426/1220464151/Teacher\\_salary\\_schedule\\_08-09.pdf](http://www.phxhs.k12.az.us/education/sctemp/a225b445549665bd3e9c3b8b5999e426/1220464151/Teacher_salary_schedule_08-09.pdf).

Santa Maria Independent School District: The 2007–08 salary schedule is unavailable on the district’s website and was obtained through the business office.

Seattle Public Schools: The 2007–08 salary schedule is no longer available on the district’s website, from which it was obtained . The 2008–09 schedule was not posted at the time this paper went to press but is scheduled to be available at <http://www.seattleschools.org/area/hr/sal.xml>.

**Loan Payment.** The monthly loan payment is derived from the most recent estimate of the average loan burden for new college graduates of four-year institutions as estimated by the Project on Student Debt, *Student Debt and the Class of 2006*.<sup>36</sup> That figure, \$21,100, was then adjusted for inflation to 2007, bringing it to \$21,450, which was adjusted again to reflect the smaller average debt burden borne by education majors. This was calculated using the 1999–2000 data in the U.S. Department of Education’s *Debt Burden: A Comparison of 1992–93 and 1999–2000 Bachelor’s Degree Recipients a Year After Graduating*, and yielded a debt level of \$20,011.<sup>37</sup> Finally, the monthly payment was derived using FinAid.org’s loan calculator by using a 6.8 percent interest rate and 10-year term.

**Rent.** For noncounty and nonurban districts this report uses median gross rents for the county in which the district is located, rather than the district alone, because the housing stock from which teachers would choose would likely extend beyond district boundaries. Rents used were reported by the U.S. Census Bureau for 2000 and adjusted to 2007 dollars. “Gross rent” is defined by the Census Bureau as “the amount of the contract rent plus the estimated average monthly cost of utilities (electricity, gas, and water and sewer) and fuels (oil, coal, kerosene, wood, etc.) if these are paid for by the renter (or paid for the renter by someone else).”<sup>38</sup>

**Food.** The February 2008 monthly cost of the U.S. Department of Agriculture’s Liberal Food Plan for a male 19–50 years of age was used. The liberal plan is “a national standard for a nutritious diet” that can be purchased at an expenditure level “in the top quartile of food spending.”<sup>39</sup> In addition, \$32 was added to the monthly cost of \$318 for the purchase of prepared foods, and the resulting \$350 allotment was adjusted for regional differences in food prices as reported by the USDA.<sup>40</sup> Note that because only costs for males were used, this figure *overstates* actual costs, because the female costs for the Liberal Food Plan are 9 percent lower than the costs for males.



**Medical/Dental.** The monthly cost borne by the teacher for medical and dental coverage as reported by the district either on its website or in response to a direct query. Where multiple plans are offered the least expensive one for the teacher was selected.

Allendale County Schools: 2007–08 medical and dental benefit information was obtained through the business and finances department.

Baldwin Community Schools: 2007–08 medical and dental benefit information was obtained through the central business office. The 2005–06 MESSA PAK-A plan information and criteria for monthly charge increases can be found on page 29 of the Master Agreement between the Baldwin Community Schools and Baldwin Education Association, available at [www.baldwin.k12.mi.us/filesection/275/BEA\\_MasterAgreement\\_2005-2008\\_Final.pdf](http://www.baldwin.k12.mi.us/filesection/275/BEA_MasterAgreement_2005-2008_Final.pdf).

Battle Creek–Ida Grove Community School District: 2007–08 medical and dental benefit information was obtained through the business manager.

Calipatria Unified School District: 2007–08 medical and dental benefit information was obtained through the business manager. Medical and dental benefit costs to the teacher were quoted as a single number, and were split in half for calculation purposes only.

Clay County Public Schools: 2007–08 medical and dental benefit information was obtained through the finance officer.

Coahoma County School District: 2007–08 medical and dental benefit information was obtained through the payroll clerk.

Dallas Independent School District: 2007–08 medical and dental benefit information is no longer available on the district’s website, from which it was obtained. 2008–09 information is available at [www.disdatyourservice.org/SiteNavTemplateBaCost5.aspx](http://www.disdatyourservice.org/SiteNavTemplateBaCost5.aspx). TRS ActiveCare 1 was used for medical and Dental HMO for dental.

Denver Public Schools: 2007–08 medical and dental benefit information is no longer available on the district’s website, from which it was obtained. 2008–09 is available at [hr.dpsk12.org/benefits/insurance/rates.shtml](http://hr.dpsk12.org/benefits/insurance/rates.shtml). Note that teachers can get medical and dental coverage at no cost to themselves using the DPS Flex Plan, which is itemized at [hr.dpsk12.org/benefits/insurance/district\\_contribution.shtml](http://hr.dpsk12.org/benefits/insurance/district_contribution.shtml).

Duval County Public Schools: 2007–08 medical and dental benefit information is no longer available on the district’s website, from which it was obtained. Information for 2008–09 is available at [www.duvalschools.org/static/wearedcps/employeeinfo/employee\\_benefits/downloads/08-09%20Medical%20Plan%20C%20Communication.pdf](http://www.duvalschools.org/static/wearedcps/employeeinfo/employee_benefits/downloads/08-09%20Medical%20Plan%20C%20Communication.pdf). Dental costs were obtained from the benefits department.

Madison School District #321: 2007–08 medical and dental benefit information was obtained through the payroll and benefits department.

Memphis City Schools: 2007–08 medical and dental benefit information is no longer available on the district’s website, from which it was obtained.. 2008–09 is available at [secure.ben](http://secure.ben)

ergy.com/ASPX/EE/ReviewPlanCosts.aspx. Dental costs are covered under the medical premium, and monthly charges were converted to 24 pay periods to reflect 12-month costs.

New York City Public Schools: 2007–08 medical and dental benefit information is unavailable. Medical information for 2008–09 is available at [www.nyc.gov/html/olr/downloads/pdf/healthb/emp\\_rates.pdf](http://www.nyc.gov/html/olr/downloads/pdf/healthb/emp_rates.pdf). Public school employees have the same insurance options as all city employees, including several that require no payroll deduction. Dental costs for United Federation of Teachers members are covered under the UFT/SIDS Participating Dentist Program.

Pembroke School District: 2007–08 medical and dental benefit information was obtained through the human resources coordinator.

Phoenix Union High School District: 2007–08 medical and dental benefit information is unavailable. Medical and dental information for 2008–09 is available on page 6 of the “Phoenix Union High School District Benefits Enrollment Guide” at [www.google.com/search?hl=en&q=%22Phoenix+Union+High+School+District%22+%22Benefits+Enrollment+Guide%22](http://www.google.com/search?hl=en&q=%22Phoenix+Union+High+School+District%22+%22Benefits+Enrollment+Guide%22). The “Middle Option” medical and “Pre Paid Option- Total Dental Administrators” plans were used.

Santa Maria Independent School District: 2007–08 medical and dental benefit information was obtained through the business office.

Seattle Public Schools: 2007–08 medical and dental benefit costs are available through the [www.seattleschools.org/area/hr/groupbenefits.xml](http://www.seattleschools.org/area/hr/groupbenefits.xml) website. Both medical and dental coverage cost an individual teacher nothing after including the district’s monthly benefit contribution. The 2007–08 district monthly contribution rate is unavailable on the district’s website, but the 2008–09 rate can be obtained via the website just cited.

**Union Dues.** The monthly dues borne by the teacher where it is necessary to be represented by a union. Agency fees, which are lesser charges nonunion members must pay to cover the costs of collective bargaining in states where districts are required to negotiate with unions, were not used. The figure includes local, state, and national affiliate dues where the teacher is required to join all affiliates, as reported by districts in response to direct queries.

Allendale County Schools: no membership requirement.

Baldwin Community Schools: Baldwin Community Schools did not report union dues, so the highest of all the districts—New York City’s—was used in its place in order to estimate the highest likely costs to the teacher. The reported figure of \$83 is *not* the reported dues.

Battle Creek–Ida Grove Community School District: no membership requirement.

Calipatria Unified School District: 2007–08 union dues were obtained through the business manager.

Clay County Public Schools: no membership requirement.

Coahoma County School District: no membership requirement.

Dallas Independent School District: no membership requirement.

Denver Public Schools: dues were calculated according to Article 1, Section 8, of the Denver Classroom Teachers Association Bylaws, available at [www.denverclassroom.org/By\\_Laws.html#ARTICLEI](http://www.denverclassroom.org/By_Laws.html#ARTICLEI). For the 2007–08 school year, the step 8, BA salary was \$39,820.

Duval County Public Schools: no membership requirement.

Madison School District #321: no membership requirement.

Memphis City Schools: no membership requirement.

New York City Public Schools: dues were calculated using “11/07–12/07” rates at [www.uft.org/member/money/tax/uft\\_dues/](http://www.uft.org/member/money/tax/uft_dues/).

Pembroke School District: 2007–08 union dues were obtained through the human resources coordinator.

Phoenix Union High School District: no membership requirement.

Santa Maria Independent School District: no membership requirement.

Seattle Public Schools: dues data were received from the Seattle Education Association by e-mail.

**Transportation.** The monthly cost to fill a 13.2-gallon Toyota Corolla fuel tank once a week with regular unleaded gasoline. The price used is from April 1, 2008, as reported for each state by the American Automobile Association.<sup>41</sup> Where public transportation is available the money could be used for that instead of driving.

**Automobile Insurance.** Estimated monthly cost for “recommended” insurance, paid in full, for a 22-year-old male with no previous accidents driving a 2000 Toyota Corolla as estimated for each state on Progressive.com.

**Car Loan Payment.** Estimated monthly cost to pay off a 2000 Toyota Corolla CE in good condition, valued at \$5,335 by the Kelley Blue Book, with a \$1,000 down payment and a 60-month loan at 7.43 percent interest.

**Clothing/Laundry.** Estimated using packages of men’s and women’s wear that would provide a full business wardrobe for the teacher with a final cost pro-rated over twelve months. The higher of the two packages—the men’s—came out to \$831, or \$69 per month, and was then applied across the board. Added to this was a monthly approximation of laundry costs for two wash loads and one hour of drying per week, plus \$3.00 per month for detergent. The final laundry cost was \$31, which added to the pro-rated clothing costs totaled \$100 per month. No costs for possible dry cleaning were included. Detailed lists of clothing in the packages and their prices are available upon request.

**Telephone (Landline)/Internet/Television.** In most cases these services were purchased in a “bundle” and the prices were either split three ways or according to the prices for specific bundle components as indicated by the provider. In two cases, complete bundles were not available and the services would have to be purchased separately. These were in Allendale, South Carolina, in which cable and internet access could be purchased as a bundle but landline telephone service had to be purchased separately, and Battle Creek–Ida Grove, Iowa, in which tele-

phone and satellite television access could be purchased as a bundle but internet access had to be purchased separately. The specifics of each plan are available upon request.

**Telephone (Cell).** The Verizon Wireless “Nationwide Basic” plan was used.

**Start-Up/Miscellaneous.** Costs were estimated using a package of home furnishings, kitchenware, and consumer electronics that a former student newly on his own might need, though most recent graduates would be expected to already have some of the items included. The total cost was \$845, which pro-rated over 12 months equaled roughly \$70 per month, a figure that was increased to \$80 to cover items possibly not accounted for in the sample package. Detailed lists of items in the package and their prices are available upon request.

**State Taxes.** All state taxes, where applicable, were estimated on 2007 state income tax forms using the teacher’s full salary as federal taxable income and without taking any non-standard credits or deductions. This was done for New York, but for New York City the local income tax was also included.

**Federal Taxes.** All federal taxes were estimated using the Internal Revenue Service’s “2007 Federal Tax Rate Schedules.”<sup>42</sup>

## Notes

1. Luke Swarthout, “Paying Back, Not Giving Back: Student Debt’s Negative Impact on Public Service Career Opportunities,” The State PIRGs’ Higher Education Project, April 2006.
2. Public Law 110-84, 110th Cong., 2d sess. (October 1, 2007).
3. HR 6144 IH, 110th Cong., 2d sess. (May 22, 2008).
4. Public Law 110-315, 110th Cong., 2d sess. (August 14, 2008).
5. William G. Howell and Martin R. West, “Is the Price Right?” *Education Next*, Summer, 2008, pp. 37–41.
6. U.S. Department of Labor, Bureau of Labor Statistics, “Occupational Employment and Wages, May 2007,” [www.bls.gov/oes/current/oes\\_stru.htm#00-0000](http://www.bls.gov/oes/current/oes_stru.htm#00-0000). The figure is for all teachers identified as elementary, middle school, and secondary (not including special and vocational education).
7. Christopher B. Swanson, “Teacher Salaries, Looking at Comparable Jobs,” *Quality Counts 2008*, pp. 16–18. It is unclear what year the salary data are from. The article suggests the data might come from a 2004 Economic Policy Institute publication, but that is not clear. Since it is the relative value of teachers’ salaries to other professionals, however, this should not effect the authors’ findings of salary comparability.
8. Richard Vedder, “Forum: Comparable Worth,” *Education Next*, Summer 2003, [www.hoover.org/publications/ednext/3347411.html](http://www.hoover.org/publications/ednext/3347411.html).
9. Jay P. Greene and Marcus Winters, “How Much Are Public School Teachers Paid?,” *Civic Report* no. 50, January 2007, [www.manhattan-institute.org/html/cr\\_50.htm](http://www.manhattan-institute.org/html/cr_50.htm).
10. Sean P. Corcoran and Lawrence Mishel, review of *How Much are Public School Teachers Paid?* Education Policy Studies Laboratory, February 19, 2007, [eps.l.asu.edu/epru/ttreviews/EPSTL-0702-229-EPRU.pdf](http://eps.l.asu.edu/epru/ttreviews/EPSTL-0702-229-EPRU.pdf).
11. Greene and Winters, Executive Summary.
12. The wage data is available at the U.S. Department of Labor, Bureau of Labor Statistics, “Occupational Employment and Wages, May 2007,” [www.bls.gov/oes/current/oes\\_stru.htm#00-0000](http://www.bls.gov/oes/current/oes_stru.htm#00-0000). The average number of paid vacation days and holidays for professionals is from the U.S. Department of Labor, Bureau of Labor Statistics, “National Compensation Survey: Employee Benefits in Private Industry in the United States, March 2007, August 2007,” p. 4, [www.bls.gov/ncs/ebs/sp/ebsm0006.pdf](http://www.bls.gov/ncs/ebs/sp/ebsm0006.pdf). The average number of days that teachers were required to work was estimated, and the 7.5-hour day was estimated by adding a half hour to the beginning and end of a 6.5-hour school day.
13. National Education Association, “Professional Pay: Myths and Facts,” [www.nea.org/pay/teacher\\_myths.html](http://www.nea.org/pay/teacher_myths.html).
14. Rachel Krantz-Kent, “Teachers’ Work Patterns: When, Where, and How Much Do U.S. Teachers Work?” *Monthly Labor Review*, March 28, pp. 52–59.
15. National Education Association, *Status of the American Public School Teacher 2000–2002*, August 2003, Table 75. [www.nea.org/edstats/images/status.pdf](http://www.nea.org/edstats/images/status.pdf), August 2003, table 75.

16. The College Board, "Trends in College Pricing: 2007," [www.collegeboard.com/prod\\_downloads/about/news\\_info/trends/trends\\_pricing\\_07.pdf](http://www.collegeboard.com/prod_downloads/about/news_info/trends/trends_pricing_07.pdf), table 4a.
17. The College Board, "Trends in Student Aid: 2007," [www.collegeboard.com/prod\\_downloads/about/news\\_info/trends/trends\\_aid\\_07.pdf](http://www.collegeboard.com/prod_downloads/about/news_info/trends/trends_aid_07.pdf), table 7a.
18. The College Board, "Trends in Student Aid: 2007," Table 1b.
19. "Student Loans," FinAid.org, [www.finaid.org/loans/](http://www.finaid.org/loans/).
20. The Project on Student Debt, "Quick Facts about Student Debt," [projectonstudentdebt.org/files/File/Debt\\_Facts\\_and\\_Sources.pdf](http://projectonstudentdebt.org/files/File/Debt_Facts_and_Sources.pdf).
21. Swarthout, p. 4.
22. Ibid., p. 11.
23. To approximate differing aid based on the costs of the school attended, the private four-year and public four-year college total charges, in constant 2007 dollars, were weighted for enrollment and an overall, enrollment-weighted average was determined. The average total aid per full-time-equivalent student was then adjusted to reflect differences from the average for public and private schools. From there, the new aid amounts were subtracted from TFRB for public and private four-year schools in the 2007–08 and 1987–88 school years and the after-aid percentage cost change was calculated. Enrollments to calculate overall average tuition were obtained from the U.S. Department of Education, *Digest of Education Statistics: 2007*, table 210, [nces.ed.gov/programs/digest/d07/tables/dt07\\_210.asp?referrer=list](http://nces.ed.gov/programs/digest/d07/tables/dt07_210.asp?referrer=list). Enrollment for 2005, the latest available, was used for 2007–08 proportions. TFRB came from The College Board, "Trends in College Pricing: 2007," table 4a. Student aid data used 2006–07 and 1986–87 (the closest to the years analyzed) from The College Board, "Trends in Student Aid: 2007," table 7a.
24. Jim McWhinney, "How Much Can You Afford?," Investopedia, [www.investopedia.com/article/s/pf/05/030905.asp](http://www.investopedia.com/article/s/pf/05/030905.asp).
25. FinAid.org recommends not letting debt payments exceed 10 to 15 percent of a borrower's income (FinAid.org, "Student Loan Advisor—Undergraduate Students," [www.finaid.org/calculators/undergradadvisor.phtml](http://www.finaid.org/calculators/undergradadvisor.phtml)), while Sandy Baum and Saul Schwartz cite an 8 percent maximum debt-to-income ratio as the lending industry standard. Sandy Baum and Saul Schwartz, "How Much Debt Is Too Much: Defining Benchmarks for Manageable Student Debt," College Board, 2006, p. 2.
26. Baum and Schwarz, p. 12.
27. Swarthout, p. 13.
28. Baum and Schwarz, p. 4–12.
29. Ibid., p. 11.
30. Susan P. Choy and Xiaojie Li, "Debt Burden: A Comparison of 1992–93 and 1999–2000 Bachelor's Degree Recipients a Year after Graduating," U.S. Department of Education, March 2005, Table 2. Ideally, the borrowing differential between different majors should be compared state-by-state, but that information is not currently available.
31. Vaishali Honawar, "School Districts Devising New Ways to Offer Teachers Affordable Housing," *Education Week*, August 9, 2006. Florida's Education Department maintains a website listing several stores and companies that offer teacher discounts at [www.fldoe.org/justforteachers/discounts.asp](http://www.fldoe.org/justforteachers/discounts.asp).
32. Project on Student Debt, *Student Debt and the Class of 2006*, [projectonstudentdebt.org/files/pub/State\\_by\\_State\\_report\\_FINAL.pdf](http://projectonstudentdebt.org/files/pub/State_by_State_report_FINAL.pdf), p. 3. The Project on Student Debt also provides an interactive map with loan averages for each state available at [projectonstudentdebt.org/state\\_by\\_state-data.php](http://projectonstudentdebt.org/state_by_state-data.php). The data it contains were not used to calculate debt amounts for this paper because it averages debt for state institutions, not debt for students from each state. The national average was also used because students have mobility—they neither have to go to school nor teach in specific states, though there can be a licensure cost to completing teacher training in one state and teaching in another.
33. Unfortunately, the Census calculation of median rent does not break units down by number of bedrooms. Presumably, though, units with different numbers of bedrooms are in the range of the median rent.
34. Includes Baldwin Village. Census data unavailable for others served.
35. Includes only the city of Dallas.
36. Project on Student Debt, *Student Debt and the Class of 2006*, [http://projectonstudentdebt.org/files/pub/State\\_by\\_State\\_report\\_FINAL.pdf](http://projectonstudentdebt.org/files/pub/State_by_State_report_FINAL.pdf), p. 3.
37. U.S. Department of Education, *Debt Burden: A Comparison of 1992–93 and 1999–2000 Bachelor's Degree Recipients a Year after Graduating*, [nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2005170](http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2005170), table 2.

- |  |   |
|--|---|
| <p>38. U.S. Census Bureau, American Fact Finder, Glossary, <a href="http://factfinder.census.gov/home/en/epss/glossary_g.html">http://factfinder.census.gov/home/en/epss/glossary_g.html</a>.</p> <p>39. U.S. Department of Agriculture, <i>The Low-Cost, Moderate Cost, and Liberal Food Plans, 2007</i>, November 2007, p. ES-1.</p> <p>40. U.S. Department of Agriculture, <i>Amber Waves</i>, "Retail Food Prices Vary Significantly Across U.S.</p> | <p>Region," <a href="http://www.ers.usda.gov/AmberWaves/February08/Indicators/OnTheMap.htm">http://www.ers.usda.gov/AmberWaves/February08/Indicators/OnTheMap.htm</a>, February 2008.</p> <p>41. American Automobile Association, "Daily Fuel Gauge Report," April 1, 2008.</p> <p>42. U.S. Internal Revenue Service, "2007 Federal Tax Rate Schedules," <a href="http://www.irs.gov/forms/pubs/article/0,,id=164272,00.html">http://www.irs.gov/forms/pubs/article/0,,id=164272,00.html</a>.</p> |
|--|---|

### STUDIES IN THE POLICY ANALYSIS SERIES

628. **The Case against Government Intervention in Energy Markets: Revisited Once Again** by Richard L. Gordon (December 1, 2008)
627. **A Federal Renewable Electricity Requirement: What's Not to Like?** by Robert J. Michaels (November 13, 2008)
626. **The Durable Internet: Preserving Network Neutrality without Regulation** by Timothy B. Lee (November 12, 2008)
625. **High-Speed Rail: The Wrong Road for America** by Randal O'Toole (October 31, 2008)
624. **Fiscal Policy Report Card on America's Governors: 2008** by Chris Edwards (October 20, 2008)
623. **Two Kinds of Change: Comparing the Candidates on Foreign Policy** by Justin Logan (October 14, 2008)
622. **A Critique of the National Popular Vote Plan for Electing the President** by John Samples (October 13, 2008)
621. **Medical Licensing: An Obstacle to Affordable, Quality Care** by Shirley Svorny (September 17, 2008)
620. **Markets vs. Monopolies in Education: A Global Review of the Evidence** by Andrew J. Coulson (September 10, 2008)
619. **Executive Pay: Regulation vs. Market Competition** by Ira T. Kay and Steven Van Putten (September 10, 2008)
618. **The Fiscal Impact of a Large-Scale Education Tax Credit Program** by Andrew J. Coulson with a Technical Appendix by Anca M. Cotet (July 1, 2008)

617. **Roadmap to Gridlock: The Failure of Long-Range Metropolitan Transportation Planning** by Randal O'Toole (May 27, 2008)
616. **Dismal Science: The Shortcomings of U.S. School Choice Research and How to Address Them** by John Merrifield (April 16, 2008)
615. **Does Rail Transit Save Energy or Reduce Greenhouse Gas Emissions?** by Randal O'Toole (April 14, 2008)
614. **Organ Sales and Moral Travails: Lessons from the Living Kidney Vendor Program in Iran** by Benjamin E. Hippen (March 20, 2008)
613. **The Grass Is Not Always Greener: A Look at National Health Care Systems Around the World** by Michael Tanner (March 18, 2008)
612. **Electronic Employment Eligibility Verification: Franz Kafka's Solution to Illegal Immigration** by Jim Harper (March 5, 2008)
611. **Parting with Illusions: Developing a Realistic Approach to Relations with Russia** by Nikolas Gvosdev (February 29, 2008)
610. **Learning the Right Lessons from Iraq** by Benjamin H. Friedman, Harvey M. Sapolsky, and Christopher Preble (February 13, 2008)
609. **What to Do about Climate Change** by Indur M. Goklany (February 5, 2008)
608. **Cracks in the Foundation: NATO's New Troubles** by Stanley Kober (January 15, 2008)
607. **The Connection between Wage Growth and Social Security's Financial Condition** by Jagadeesh Gokhale (December 10, 2007)
606. **The Planning Tax: The Case against Regional Growth-Management Planning** by Randal O'Toole (December 6, 2007)
605. **The Public Education Tax Credit** by Adam B. Schaeffer (December 5, 2007)
604. **A Gift of Life Deserves Compensation: How to Increase Living Kidney Donation with Realistic Incentives** by Arthur J. Matas (November 7, 2007)
603. **What Can the United States Learn from the Nordic Model?** by Daniel J. Mitchell (November 5, 2007)
602. **Do You Know the Way to L.A.? San Jose Shows How to Turn an Urban**

- Area into Los Angeles in Three Stressful Decades** by Randal O'Toole  
(October 17, 2007)
601. **The Freedom to Spend Your Own Money on Medical Care: A Common Casualty of Universal Coverage** by Kent Masterson Brown (October 15, 2007)
600. **Taiwan's Defense Budget: How Taipei's Free Riding Risks War** by Justin Logan and Ted Galen Carpenter (September 13, 2007)
599. **End It, Don't Mend It: What to Do with No Child Left Behind** by Neal McCluskey and Andrew J. Coulson (September 5, 2007)
598. **Don't Increase Federal Gasoline Taxes—Abolish Them** by Jerry Taylor and Peter Van Doren (August 7, 2007)
597. **Medicaid's Soaring Cost: Time to Step on the Brakes** by Jagadeesh Gokhale (July 19, 2007)
596. **Debunking Portland: The City That Doesn't Work** by Randal O'Toole (July 9, 2007)
595. **The Massachusetts Health Plan: The Good, the Bad, and the Ugly** by David A. Hyman (June 28, 2007)
594. **The Myth of the Rational Voter: Why Democracies Choose Bad Policies** by Bryan Caplan (May 29, 2007)
593. **Federal Aid to the States: Historical Cause of Government Growth and Bureaucracy** by Chris Edwards (May 22, 2007)
592. **The Corporate Welfare State: How the Federal Government Subsidizes U.S. Businesses** by Stephen Slivinski (May 14, 2007)
591. **The Perfect Firestorm: Bringing Forest Service Wildfire Costs under Control** by Randal O'Toole (April 30, 2007)
590. **In Pursuit of Happiness Research: Is It Reliable? What Does It Imply for Policy?** by Will Wilkinson (April 11, 2007)
589. **Energy Alarmism: The Myths That Make Americans Worry about Oil** by Eugene Gholtz and Daryl G. Press (April 5, 2007)