

Disparities Within the Digital World: Realities of the New Economy

A report on wages and working conditions in the Seattle-area IT sector

A report for the Washington Alliance of Technology Workers
WashTech
Communications Workers of America, Local 37083

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THE IT SECTOR: BEYOND THE MYTHS

“What’s remarkable about the technology picture in Seattle is how individuals have reaped the rewards of technology growth,” said Bill Curry, President and CEO of Huntron, Inc. and Chairman of the AeA Washington Council. Curry was referring to the information released by AeA [formerly, the American Electronics Association] in December 2000, about technology workers. According to the AeA/Nasdaq collaborative report, entitled “Cybercities: A City By City Overview of the High-Technology Industry,” in 1998, Seattle technology workers earned on average \$129,300, the highest in the nation for that sector and triple the average wage for a non-technology private sector worker in the city.¹

“In the last few years we buried a daughter and a granddaughter... I wish I could have stayed at home to offer my wife emotional support. ...But I had to go to work. There were the bills to pay. I don’t get paid if I don’t go to work. ...A family leave benefit would be nice.”

—Contract worker, earning \$22.60 an hour, at Microsoft.

The phenomenal growth of the new economy in the Seattle area has helped the region tremendously, creating thousands of high-wage and middle-class jobs. The computer or information technology (IT) industry in King, Snohomish and Pierce counties directly employed approximately 65,000 workers in 2000, and provided additional work for thousands of self-employed and contract workers. Now, in the midst of an economic

slowdown after 10 years of growth, it is time to assess more critically what this economic transformation has meant for the workers in the IT sector. Has the wealth created by the IT sector been distributed as equitably amongst its workers as news stories and industry reports seem to imply? What is the average IT worker likely to earn? What are the gaps between the wealthiest and the lowest earners in the industry? What are the wages and working conditions of contingent workers in comparison to those of the directly employed? During an economic downturn, do we see a disproportionate impact on low-wage and contingent workers, and on IT workers with less experience and limited access to training opportunities?

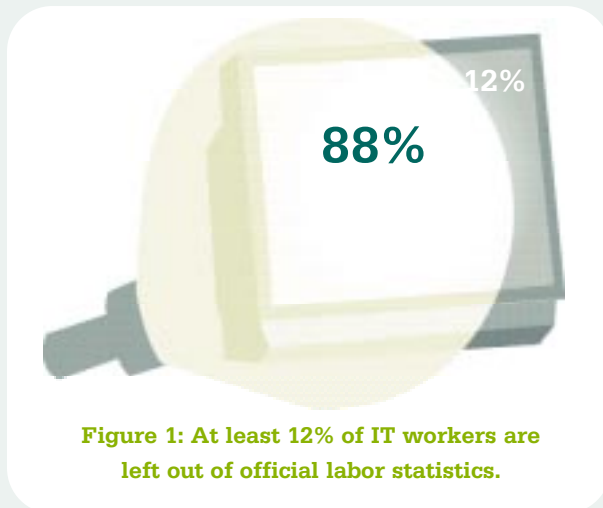
Answers to these questions involve challenging some of the major assumptions about the IT industry in the Puget Sound region. Despite the closing of dot-com companies and falling tech stock values, the stories and reports of IT wealth written over the past few years have had a cumulative and lasting effect. The public has been left with the misimpression that the majority of workers in the IT industry have become millionaires, or close to it. As one reporter noted in June of 2000:

“Here in the Northwest, talking about stock options is as common as ordering a grande latte. The subject comes up in everyday conversations as people reflect on the thousands of Microsofties and other high-tech employees who have made fortunes by exercising their stock options.”¹ⁱⁱ

¹Although beyond the scope of this study, it is important to remember that most high-tech workers—from programmers to data entry clerks—have been employed outside of the IT industry, finding jobs across the economy, in everything from aerospace to furniture making, government and universities to hospitals and banks.

The fact is that the IT sector is similar to the industries of the “old economy” with regard to gaps between wealthy and lower-wage workers, between full-time employees and contract workers, between those with no opportunity for advancement and workers at the most successful companies. The IT economy has produced its share of low-wage workers. In 1999:

- Approximately 7,450 workers (15%) of the IT workforce in King, Pierce and Snohomish counties earned less than \$16.78 an hour. Approximately 5,000 people earned less than \$14.44 an hour, while approximately 2,500 workers earned between \$14.44 and \$16.78 an hour. Only single adults with no dependents could afford to support themselves on these wages in the Seattle area, according to a study on living wages by the *Seattle Times* using a methodology developed by the Northwest Policy Center.ⁱⁱⁱ



- In the software industry, a sub-category of the IT sector, the top 1%, or approximately 260 people, earned over \$11,921 an hour, while the bottom 5%, or 1,295 workers, earned less than \$15.26 an hour.

With little access to training and extremely limited opportunities for advancement, lower-wage workers are at risk of being left behind.

High-tech workers who are contracted to IT firms through staffing agencies are generally not counted in the official tally of IT sector workers and wages. Earning less compensation on average than the directly employed, and struggling against social isolation in the workplace, these workers are rarely included in the public’s picture of the industry. When and if they are “covered” by the news media, too often these agency contractors are portrayed as highly paid younger people whose need for stimulation is satisfied by the “freedom” to change jobs frequently.

- Using data from the year 2000, we estimate that at least 7,935 IT contingent workers were excluded from the official tally of workers in the IT industry in King, Snohomish and Pierce counties. Adding in these workers would have raised the total official employment in the IT sector for the three counties from 65,000 to 72,935, an increase of at least 12%.² (This is likely a low figure.)³ [See Figure 1]

²These figures are provided by Washington State Employment Security Department in response to a special request specifically for this project.

- The average quarterly wage for contract workers in the second quarter of 2000 was \$12,772, which, if considered regular, would equal a yearly average salary of \$51,088.³ But because of company regulations, many agency contract workers are probably earning less than this annualized average. Contract workers typically face periodic layoffs, which can leave them unemployed for 1-3 months in any given year.

Often prohibited by companies from attending research conferences and seminars, and dependent on agencies that typically provide limited training opportunities, these workers are also struggling to maintain their skills in order to stay employable, let alone advance to better jobs. With an economic slowdown, these workers find it much more difficult to find contracts, and may be pressured to accept work at much lower wages than they have in the past few years.

In addition, reliance on technically correct but socially inaccurate statistics like “average wages” has helped to perpetuate and disguise a digital divide *within* the digital world. This divide separates the low-wage worker who may offer software advice over the phone, from the programmer. It separates the agency contractor who can count on months of unemployment but still provides crucial work such as program testing, from the permanent employee who has

more job security and better benefits. The “average wage” has become a convenient shorthand to remark on the wealth of the IT sector, but creates a false picture of widely shared prosperity. While newspapers have run articles that discuss how stock options inflate earnings and, more rarely, stories that analyze the differences between the typical worker’s salary and the “average” wage,⁴ perceptions are shaped by the attention-grabbing headlines such as “State gets rich on Microsoft: High-tech workers here best paid in U.S.”^{vii}

THE REPORT

In this report, we first discuss some of the primary reasons why reported wage averages for the IT sector, which do so much to influence perceptions of the industry, bear very little resemblance to the work world of the “average” or typical worker. We demonstrate how the “average wages” are severely skewed upward by a minority of employees who earn extremely high wages. So removed from what an average worker actually earns, the average wage actually tells us more about the wage gap than it does about typical earnings. This skewing is most notable in wages reported by the software industry, and can be traced to the practices of King County-located software firms which have offered valuable stock options to workers as part of their compensation. The result is that this imbalance in

³This data is provided by Washington State Employment Security Department as part of a special run request specifically for this project.

⁴“Software workers make how much?” Stephen H. Dunphy, *Seattle Times*, May 14, 2000. This article appeared after Washington Alliance of Technology Workers/CWA (“WashTech”) published a rebuttal to an earlier *Seattle Times* article that had featured a less critical pronouncement about the average wage earned by workers in the software industry in 1999.

one sub-sector of IT affects the wage distribution for the computer industry, or IT sector, as a whole. The myth of the average wage is destructive, obscuring the reality faced by the 15-20% of the IT workforce that earns less than, or in the vicinity of, a living wage.

Secondly, we consider how reports about the industry fail to account for agency contract workers. This is a problem that stems in large part from the government's anachronistic categorization of industries. When the government collects wage data from IT firms, it does not count salaries earned by most contingent workers, since the latter are on the payroll of staffing agencies rather than on the payroll of IT firms. Thus the government typically reports their wages as part of a different industry altogether, collapsing them into a larger category of "Help Supply Services" in



which their data is aggregated with data from other temporary help agencies. (A small number of help agencies that sub-contract payroll services and provide direct consulting for IT firms have been included in SIC 737.) This failure to create a separate subsection within IT for agency staffing means that an accurate assessment of the gap between contract and permanent workers is impossible to obtain. In other words, the segmentation between direct employee and contractor remains hidden due to the ways in which data is collected and reported by the government.

Throughout this report, we endeavour to offer a perspective from low-wage and contingent workers, who are central to the industry's success but whose views and experiences have been marginalized by the prevailing stories about plentiful opportunities and rewards for the self-motivated. (*These are ethnographic interviews rather than surveys, and do not constitute a representative sampling.*) These preliminary interviews with contract workers refute presumptions that workers choose to be contractors because of reputed higher wages and greater freedom when compared to direct employees. The contingent workers whom we have interviewed to date feel excluded from IT companies where they are placed, suffer from periodic unemployment and a lack of benefits, and would prefer full-time, direct employment.

Ultimately, this report constitutes a corrective to those highly publicized pieces that ignore the segmentation, or the divisions, which exist in the industry. The myths—that all IT industry workers earn extremely high wages compared to other workers in the tri-county area of King, Pierce and Snohomish counties, and, that all IT workers benefit from the wealth of the IT industry—are harmful. Not only do they become the basis upon which policies are made, but, as we show below, these myths influence the expectations of low-wage workers and contingent workers as well. As one of our respondents said, lower-wage workers may be convinced to put up with undesirable working conditions and compensation in the belief that they will soon be able to “move to Microsoft.” Contingent workers may be led to expect that contract work is a means of getting training and experience that will allow them to move ahead, but in the end, find their access to education and more secure employment blocked.

METHODOLOGY AND TERMINOLOGY

This study concentrates on workers in the IT sector, not on high-technology workers per se. High-tech workers (programmers, indexers, data entry clerks, etc.) are employed in multiple industries (aircraft manufacturing, banks and financial firms, government), not just in the IT sector. The ways in which occupational and industry data are collected and reported make a study of high-tech workers’ wages specifically in the IT industry extremely difficult.



First, occupational data is information about workers employed in particular occupations and reported according to Standard Occupational Codes. Thus, we can determine what percentage of programmers, for example, are employed in the IT or aircraft sector, but wage data is reported for the entire occupational category, and is not available by occupation/by industry. For example, we cannot measure whether there is a significant difference in wages earned by programmers in aircraft manufacturing as opposed to programmers in the IT sector.

Second, industry data is drawn from the payroll of the company, and is aggregated and reported according to Standard Industrial Codes (SIC).⁵ The SIC codes pertain to the primary function of the business, as determined by the government. Industry data is collected for the entire company, and includes wages earned by *all workers*

⁵These codes are either 2 digit, for major industry groupings, 3 digit (such as Computer Industry), or 4 digit (sub-categories within the Computer Industry, for example).

directly employed by the reporting firm. It therefore makes no distinction between workers doing high-tech jobs and all other workers at the firm. Wage and employment information for those in marketing, sales, administration and management are combined and reported with those employed in high-tech professions. Thus, information that addresses only high-tech workers within the IT industry cannot be obtained.

Some clarification of terms and sources of data is in order. The Standard Industrial Code for the IT sector is 737, Computer Services Industry. We use the terms “IT sector,” “IT industry” and “computer industry” interchangeably, but draw all data from SIC 737. Within SIC 737 there are nine sub-categories or sub-industries, each given a four-digit SIC code.⁶ The only sub-industry to which we pay significant attention is Prepackaged Software (7372), or what we also refer to as the “software industry.” This is a significant sub-category of the entire IT industry, comprising almost half of all IT industry workers. It is also the source of much of the extremely high compensation in King County. The software industry is often taken as an indicator of the health of the IT industry itself, and its high annual average wages are often reported in newspapers.

We have focused on government data for the IT industry as opposed to occupational data for high-tech workers, primarily because the widely publicized reports about wages have

done so. In order to correct the misimpression that they have caused, it is necessary to review the same data. We do, however, consider the choice itself to be problematic, if merely because the failure to acknowledge and investigate the conditions of high-tech workers in other industries contributes to the erroneous impression that all high-tech workers work for the major software firms and thus reap significant rewards.

We have relied on Washington State Employment Security Department wage data reported in Computer Industries (SIC 737) for 1999, and have received special run data from the Department to estimate the number of, and wages for, contract workers not counted in SIC 737. These special data runs extrapolated from existing data to separate employers specializing in placement of high-tech workers from the more general classifications for these firms.⁷

For the personal perspective of contract agency workers and those who work for lower-wage IT employers, we have begun to interview workers from King County. Preliminary findings are reported below. Workers were given self-administered demographic questionnaires, and engaged in an hour-long interview session that covered details about their work assignments, work conditions (including social stratification and interaction at the workplace) and the ways in which their work has impacted their lives.

⁶These nine sub-categories or sub-industries are: Computer Programming Services (7371); Prepackaged Software (7372); Computer Integrated Systems Design (7373); Data Processing and Preparation (7374); Information Retrieval Services (7375); Computer Facilities Management (7376); Computer Rental and Leasing (7377); Computer Maintenance and Repair (7378); and Computer Related Services, NEC (7379).

⁷Employment and wage data for IT agency employer sub-industry was provided by special request by the Washington State Employment Security Department. Data were drawn from Unemployment Insurance tax records from the second quarter of 2000 and are based on a list of IT-focused contract agencies that were selected from the broader industry categories in which they are classified.

I. MYTHS OF WIDESPREAD WEALTH: THE IT GOLD RUSH

Through reports, newspapers and conversations, we have all created a popular story in this region about young, motivated, highly skilled IT workers who have an endless source of employment opportunities when the industry is booming, and who earn tremendous rewards for their work. From one year to the next, reports marvel at the wages earned by workers in the IT sector. In 1999, for example, the *Seattle Times* reported that, “Local software makers last year [1998] paid an average wage of \$287,000.”^{viii} In December of 2000, the AeA released a widely disseminated report claiming that Seattle workers in the IT industry earned an average wage of \$129,000.^{ix} (This report, although released in 2000, was based on 1998 data.) A front page *Seattle Times* story from April 9, 2000 reported that employees in the local software industry (a **sub-category** of the IT industry) made, on average, \$350,000 to \$400,000 in 1999.^x This figure was echoed in a headline in the *Seattle Post-Intelligencer*, “Area Software Workers Earn \$400,000 a Year on Average.”^{xi} Some of these numbers pertain to the computer industry or IT as a whole (SIC 737), while others are specific to the Prepackaged Software sub-industry (SIC 7372). (Given that the distinction between “IT industry” and “software industry” may not be clear to many, readers may reach the wrong conclusion that all IT workers earn the very high wages reported by the software sub-industry.)

Regardless of whether one is discussing the computer industry or the software industry, the fact remains that the average wage is



not commensurate with what a typical worker actually earns. As Chang Mook Sohn, Washington state’s chief economist, said in reference to one of the *Seattle Times* stories in which he was quoted,

“I tried to explain painstakingly that it’s [the ‘average wage’] not the average worker’s average wage or annual income. It’s not. The average workers in that category make much less than that.”^{xii}

While statistically the “average” wage in 1999 for the computer industry or IT sector was \$237,749,^{xiii} a full 90% of all IT industry workers earned less than this.⁸

The data, as we argue below, is so skewed that the average does not provide a meaningful reference for discussing what an average worker earns. Due to the skewing, the alternative and more appropriate statistical tool to use is the median. The median indicates what the worker at the exact middle of all wage earners is making. That is, the median is located at the center of the range, with 50% of earners falling below it, and 50% located above it.

The median wage for the IT industry in 1999 was approximately \$65,000.^{xiv9}

Unfortunately, newspaper and industry reports too often fail to distinguish between the “average” (mean) wage and the wage that an “average” or typical worker earns. Articles that do explain the difference, such as the one headlined, “Software workers make how much?” are rare, and fail to make the front section.^{xv}

Even industry experts have been taken aback by reports of such high wages. A Kirkland-based human resources expert, Doug Sayed, publicly disputed the AeA numbers:

“I do a survey every six months,” said Sayed. “Of the 60 companies that participated in my survey, not a single one of them showed the average wages in the range that was reported by the AeA. And I’ve got several HR people who have e-mailed saying they’ve got clients who are calling saying, ‘Hey, pay me the average.’”

After Sayed admonished the AeA for including stock options in their calculations, the AeA ultimately acknowledged that their “average wage” was unrealistic. They replied,

“The reason the wage appears to be so high is that there is one industry (Prepackaged Software) that skews the data. The average annual wage for Prepackaged Software is \$288,300 and this pulls the rest of the wages up. The remaining industries [within IT] have average wages in the \$50,000-60,000 (range), on par with the rest of the nation.”^{xvi}

As we explain below, Prepackaged Software (SIC 7372), or the “software industry” is one reason why the average for IT is so skewed.

⁸Since we had percentile hourly wages for the industry, we multiplied the 90th percentile wage by 2,080 (the number equivalent to presumed full-time hours) to gain an annual average wage.

⁹These figures typically do not include wages earned by high-tech contractors working through service agencies.

The average wage for the software industry is much higher than all other sub-industries within the IT sector. As reported by the *Seattle Times*, in 1999 the mean wage for Prepackaged Software workers in King County was, in fact, \$399,837. In comparison, the mean annual wages in the remaining eight sub-categories in the IT sector in King County ranged from \$44,000 to \$71,500.^{xvii} More than 22,000 people worked in these eight categories, or nearly the same number of people as employed in Prepackaged Software. Yet, the software industry is often used as shorthand or as a bellwether for the entire IT sector. Constant publication of the data from the one sub-category of software creates a misimpression of what the average workers in other sub-industries earn. When the earnings from Prepackaged Software are included in the IT sector data, they contribute to a severe skewing, making it appear as though far more people are earning extremely high wages than is really the case.

HIGH AVERAGES AND LOW WAGES: THE DISPARITIES THAT THE AVERAGE STORY MISSES

With the myths about the “average” that abound, there is little recognition of the fact that there are lower-wage IT workers. As in any other industry, within the IT sector there are wage disparities between the top and bottom earners.

WAGE DISPARITIES IN THE IT SECTOR (SIC 737)

Within King, Snohomish and Pierce counties, the top 10% of IT workers earned \$79.00 an hour or more. The median wage was approximately \$31.00 an hour, while

the bottom 10% earned just \$14.44 an hour or less.¹⁰

Thus, the top 10% earned approximately 5.5 times as much as the bottom 10%. This is less equitable than the ratio calculated by the Washington State Employment Security Department from 1997 wage data for all industries in the state, in which the top 10% of earners made approximately four times as much as the bottom 10%.^{xviii}

WAGE DISPARITIES IN PREPACKAGED SOFTWARE (SIC 7372)

Compared to the computer industry or SIC 737 as a whole, there are particularly strong wage disparities within the Prepackaged Software industry sub-group. The top one percent, or approximately 260 people in this sub-category, earned over \$11,921 an hour. (This figure does not include Bill Gates and other corporate officers.) The bottom 5%, or 1,295 workers, earned less than \$15.26 an hour. The bottom 10% in this category earned \$26.00 an hour or less. The median wage was \$143.11 an hour, and the top 10% earned over \$1,935.20 an hour. **The top 10% thus earned 13.5 times the median wage, and 74 times the wage of the bottom 10%.** (Figure 2 on the following page shows these disparities is measured according to \$200.00 increments.) Thus, the highest wage earners cause an extreme skewing within the sub-category of Prepackaged Software. Because this category has approximately 50% of IT sector workers within it, the data from this sub-category has an important impact on calculations that are done for the entire industry.

¹⁰ As mentioned above, these hourly wages are drawn from payroll data that report for a 40 hour work week. It is widely assumed that IT workers often work more hours than this.

WHY DOES THE AVERAGE FAIL?

Often, the mean or “average” is regarded as the best indicator of what is “normal” because its calculation is based on access to all of the relevant data. However, if 90% of workers are earning less than the “average,” it means that the wage distribution is too skewed for the average to be an appropriate indicator of what is typical. Instead, the average wage for the IT industry is showing the effect of the “outliers” or those extremes at the end of the earnings range, i.e., the small cluster of workers who earn over \$2,000 an hour in Computer Services or \$11,000 an hour in Prepackaged Software. (We reiterate that the top five officers at Microsoft are not included in this data.) The outliers (at both the high and low ends) have to be removed from the calculation to tell us anything about the “normal” worker. Instead, reports are relying on the calculation of an average that includes all of the wages, allowing the highest outliers to dramatically influence the outcome.

The top wage earners in Prepackaged Software are generally not being paid enormous salaries. Rather, their extreme wealth derives from exercised stock options. According to state economist Roberta Pauer,

“Last year, [1999] exercised stock options drove annual earnings to the vicinity of \$350,000 per employee. Obviously most of the industry’s workforce do not make that figure. But as a statistical average, they do.”^{xix}

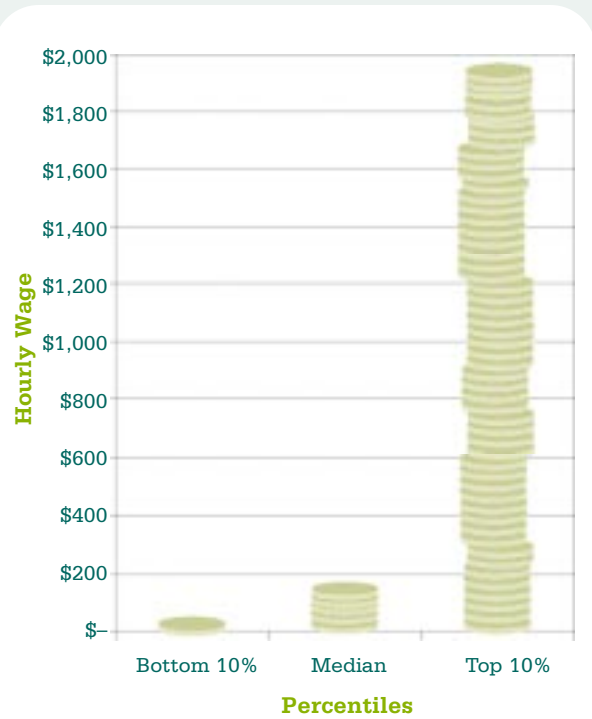
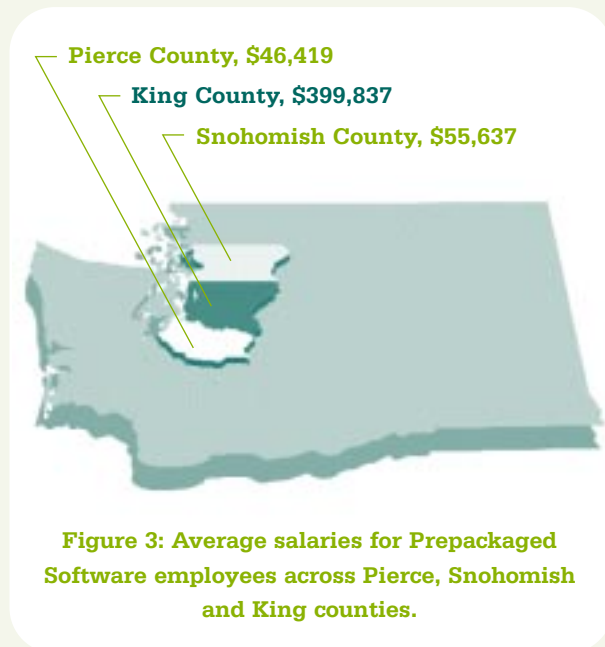


Figure 2: Percentile wages for the software industry, King, Snohomish and Pierce counties, 1999.

Even the *Seattle Times* article acknowledged that, “Wages alone account for only about 15 percent of [the \$350,000-\$400,000 average wage figure]. “Eighty-five percent of it, says Sohn, is exercised stock options.”^{xx} With stock options removed from compensation, even the mean wage for Pre-packaged Software looks far more realistic, between \$60,000- \$65,000.

The reported earnings for Prepackaged Software are, in turn, influenced by a few major IT companies in King County, which offer high-value stock options as part of com-

pensation. The impact of these high-value stocks can be highlighted by comparing the wage data for Prepackaged Software workers in the three counties. Workers in Prepackaged Software in Pierce County, for example, earned an average wage of \$46,419 in 1999, and those in Snohomish County received \$55,637, compared to \$399,837 for workers in King County.^{xxi} [See Figure 3] This is largely attributable to Microsoft, whose stock values soared in the 1990s. With the problems encountered by tech stocks and the economic slowdown, the averages will likely decline somewhat. However, the fundamental structure of the industry—which created the enormous income disparities—will remain.



Finally, data collection and reporting methods may contribute to the skewing. All industry data is drawn from company payrolls and thus includes only those directly employed by the company. Like many busi-

nesses, IT companies outsource lower-paying non-high-tech jobs (like administrative or janitorial services); the lower wages earned by these workers are not reported in the wage data. But the data do include wages for the highest-paying non-high-tech jobs, like senior management. Thus, a large number of lower-paid non-high-tech workers are excluded from the IT industry's wage data, while higher-paid non-high-tech workers are included. It must be said, however, that this is a generalized data problem, given that outsourcing is a typical business practice. We cannot assess whether IT data is more effected by these practices as compared to other industries or whether it means that we have underestimated the degree of segmentation in the industry.

IMPACT OF MYTHS ON REAL LIVES AND EXPECTATIONS: LOW-WAGE WORKERS

Disparities between top and bottom earners exist in all industries. So too, all industries create low-wage jobs. However, public pronouncements about high averages allow the plight of lower-wage workers to drop out of the discourse. Within King, Snohomish and Pierce counties, 7,250 people, or 15% of the IT workforce, earned less than a living wage in 1999. Another 5% barely earned a living wage, garnering under \$19.00 an hour. (For a family of two children and one adult, a living wage ranges between \$17.59 and \$20.62 in the three counties).^{xxii} Approximately 5,000 people earned less than \$14.44 an hour, while 2,450 people earned between \$14.00 and \$17.00 an hour. In contrast, the top 500 earners (the top 1%) were paid over \$2,176 an hour—more than 180 times the wage paid to the lowest earning 5%. The misimpression

caused by the careless use of data and by overwhelming headlines has a real effect on workers' lives. This is particularly true for those who are in low-wage jobs and do not have the training opportunities or experience to move into the high-wage jobs that are too often presented as the norm. Said one worker who earns approximately \$13.00 an hour at a low-wage call center that supports IT firms,

“People are grateful to work [there] to get the experience, and then expect to move...and make \$90,000 a year... Their attitude is...they're unhappy because of low pay, but they'll get theirs in a year or so... I don't believe that many of them make it to Microsoft.”

His co-workers are reluctant to take their lunch break and other breaks to which they are entitled, because, he says, they are expected to prove that they “deserve” or are “grateful” for the jobs that they have. Although training was offered, it was at a cost that this low-wage worker could not afford. The chance to “move up” the ladder in these firms is limited, and when the company fails to make training accessible, people remain fixed in lower-wage jobs.

Yet another respondent, a manager at one of the area's low-wage call centers doing IT work, expressed frustration at the low wages of the front-line employees, whose earnings of \$9.00-\$13.00 an hour did not provide them with a real living wage for the area. The manager was also upset at the company's failure to provide adequate benefits, affordable training and a supportive environment.



WashTech marches for workers' rights in Seattle during an anti-WTO protest, November 1999.

II. “AVERAGE WAGE” DATA EXCLUDES AGENCY CONTRACT WORKERS

Average (or mean) wages are also misleading because they do not include a very significant percentage of IT industry workers: agency contract workers who are on the payrolls of staffing agencies but who work for the IT firms in the area. (This is in addition to a significant group of workers who are beyond the scope of this study: vendors or self-employed contractors.)¹¹ According to state economist Sohn, “Many tech people that are in that [Prepackaged Software] industry are not counted because their payroll comes from the staffing industry.”^{xxiii}



Thousands of these IT industry workers are uncounted and their wages untallied as part of the IT sector, due to the manner in which the data about industries is collected and reported. Staffing agencies that primarily serve IT firms and/or provide high-tech workers (programmers, indexers, technical writers, web developers, systems analysts) to non-IT firms are considered to be part of the IT sector within popular discourse, yet are not typically counted as such in government data. Despite the fact that IT companies rely heavily on contracted workers and vendors, most of the time the latter are not considered part of the IT sector because they are direct employees of help services agencies and not of the IT companies themselves. Instead of being included in the IT category (SIC 737), IT staffing agency data are most often compiled as part of the “Help Supply Services” (SIC 7363), in which their numbers are reported along with other business staffing agencies that are non-IT specific. (As noted above, a handful of agencies that sub-contract and provide direct consulting to IT firms have been included in SIC 737). It is therefore difficult to isolate the number and wages of IT contract workers, leaving most of these workers as “hidden contributors” to the IT industry. Data reporting methods are thus a culprit in this regard: SIC categories have not kept up with changes in business practices and the growing dependence of certain industries on a steady supply of specialized contingent labor.

¹¹If a worker is a true “independent contractor,” or self-employed individual, he or she won't be included in the official industrial statistics at all. The state's payroll database does not include sole proprietorships or self-employed workers. At Microsoft, independent contractors are known as “vendors.” On top of the thousands of agency contractors working at Microsoft, we estimate that it and other IT firms employ several thousand vendors in the Puget Sound region.

IN FACT, THESE AGENCY WORKERS CONSTITUTE A SIGNIFICANT PERCENTAGE OF THE AREA'S IT WORKERS.

Agency contracting firms employed more than 7,935 IT contract workers who worked as IT professionals in King, Snohomish and Pierce counties in the last quarter of 2000. If we consider agency staffing firms that provide IT workers to be part of the IT industry, these workers increase the IT workforce in the three-county region by 12%.^{xxiv}

The inclusion of their wages might give a more realistic and lower overall average for the sector. This is because the average wage earned by contract workers is less than the average (and median) IT sector wage. The mean quarterly wage for an IT agency employee for the second quarter of 2000 was \$12,772. If considered as a regular wage, this would come to an annual average wage of \$51,088—less than the \$65,000 median wage.

It would be erroneous to conclude, however, that contract workers even earned an annual average wage of \$51,088. In fact, an average annual wage for contract workers is difficult to derive from industry data for two related reasons:

- 1 Major industry users of agency workers artificially induced a cycle of employment and unemployment by limiting the duration of contracts to a year or less, even when the project and work continue beyond that time. After a year's contract, many workers experience a mandatory layoff of up to three

months. This cycle is specifically influenced by the major IT employer, Microsoft, whose hiring practices changed following the launching of a class action lawsuit by “permatemp” workers who charged that, as multi-year contract workers, they were Microsoft employees in everything but name, pay and benefits.

“Phil,”¹² a 45-year-old contract worker, who is the primary income earner for his family of four, had a period of 90-100 days of unemployment after his first 9-month contract ended. During that time, he switched agencies because his first agency “was unresponsive as far as finding me a new assignment.”

A 45-year-old contract worker, “Mark,” was dismissed from his work due to a mandatory break. Even before this enforced period of unemployment had been institutionalized, he had periods without work. “During the periods between contracts, I have delivered pizza, moved trees, made Web sites...” He estimates that his salary last year was \$40,000, but that this year it will be much less.

“Celeste,” a 40-year-old contract worker with S&T OnSite, experienced a period of unemployment after having completed a five-month contract. Her previous unemployed period of two months (which occurred before the hundred-day break policy was implemented), following a six-month contract at the same company, did not “count” toward the company's hundred-day mandatory break.

¹² All the names of respondents have been altered in order to protect their identities.

A period of one to three months of unemployment before finding another contract position may not be unusual. About 2,500 people^{xxv} who are payrolled through staffing agencies work on contract for Microsoft, making it the largest single user of IT agency staffers in the region. Its policies regarding layoffs, therefore, have a significant impact on contract workers and the average wages for this group.

Although less-than aggressive job-seeking agencies may be part of the reason for extended periods of unemployment, switching agencies as a way of finding employment is not necessarily a viable option. Many workers must sign “non-compete” clauses, which ostensibly prohibit workers from easily changing agencies. These clauses are sometimes waived but may be more strictly enforced when agencies are competing with each other to staff certain kinds of positions with particular companies. Moreover, agency-hopping was not a solution for three of the people interviewed, who noted that their current agency had “cornered the market” on the kind of work that they did, or had monopolized that work amongst the major industry players.

As we describe below, there are a number of obstacles that agency contract workers face if they attempt to obtain full-time employment.

- 2 The second reason why it is impossible to calculate an annual average salary for a contingent worker based on industry wage data is that wages can vary considerably from one contract to another. Celeste has

worked for \$21.00 an hour through S&T OnSite at Microsoft, but earned \$13.00 an hour at General Employment, which staffs Amazon.com. Mark has also done IT work through agencies for anywhere between \$10.00 and \$20.00 an hour. Thus, even when they are continuously employed throughout a single year, workers who change contracts may experience significant fluctuations in wages.



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III. THE OTHER MYTH: AGENCY CONTRACTORS' WORLD OF EXCITING OPPORTUNITIES

Most frequently, the work conditions of contingent workers are unexplored, and their own perceptions of the industry, of age and gender discrimination, are left out of the stories about the IT sector. Yet when contract workers do appear in public discourse, they are often represented as high-energy risk-takers with a low threshold for boredom for whom contracting is not about “insecurity” but about “freedom.” These images contribute to the myth that all contract IT workers are unconventional and highly-paid freelancers, and that opportunities for work are plentiful. (Interestingly, while the economic downturn has curbed some of these impressions about opportunity, the option of agency contract work has been proffered as a *solution* to the tightening job market.)

For many workers made jittery by the recent dot-com economic failures, one columnist writes,

“The answer is renouncing the traditional employment relationship by doing contract work... Supporters say contracting provides the freedom to work at home, or at least to change your environment every few months—a welcome switch for techies who are easily bored... It also gives a person exposure to different technologies... Plus, for workers with top-line skills, billing by the hour can be more lucrative than a regular full-time job...”^{xvii}

Descriptions such as this one portray the world of IT contract workers from the perspective of those who can command extremely high compensation. For thousands of others, the promises of great rewards and ongoing learning remain unrealized.

About her contract work at Microsoft, Janine says, “I do the same thing day after day—I’m like a factory worker.” Janine had quit her full-time position at one IT firm after a recruiter from a service agency convinced her that through them she would be able to find a different, more highly skilled job that she wanted. But after signing up with the agency, Janine discovered that she did not have the portfolio or years of experience that were required. She is now working at Microsoft as a contractor, doing the same job that she had had as a direct employee at her old firm, but without the variety of tasks that she had enjoyed doing previously.

Workers like Janine fulfill major duties within the IT industry often without comparable benefits, job security or training opportunities, all the while carrying a psychological burden of being a “second-class citizen” in the workplace.



Contract workers are often treated as if disposable by IT employers in Washington state.

WAGES WITHOUT BENEFITS

“I’ve never had a real vacation. I don’t know if I’ll ever be able to retire.” —Mark

“In the last few years we buried a daughter and a granddaughter... I wish I could have stayed at home to offer my wife emotional support... But I had to go to work. There were the bills to pay. And I don’t get paid if I don’t go to work... A paid family leave benefit would be nice.” —Phil

The wages earned by contract workers cannot be deemed comparable to those earned by full employees. The latter receive benefits, such as medical insurance, vacation, sick leave and pension, which significantly increase both the financial (as well as emotional) value of their overall compensation. The “benefits” for a full-time employee are simply costs for contract workers, who need to pay most of their medical and dental insurance premiums out of their own pockets. These expenses can be prohibitive if workers require family medical benefits. (At one agency, workers paid \$150.00 in co-payments a month for individual medical, and they were lucky to have part of the cost covered by the agency.) They do not receive sick leave, family leave or retirement (although some agencies do offer 401(k) with minimal matching funds). Moreover, the possibility of keeping up insurance payments is reduced when contracts expire, leaving workers and their families without medical coverage. Many of the respondents

did report an agency-provided “vacation benefit.” Although the specifics varied, generally this amounted to a bonus of approximately one week’s salary after the worker had completed 1,500 or more hours of work.

TRAINING

Although the respondents all believed that training was essential in order to continue working at their current jobs, and crucial if they wanted to move into a different, better position, none believed that they received sufficient on-the-job or formal training from their worksite or agency to do so. They all struggle to get training, and cannot get jobs for which they do not already have the skills and experience. As one respondent commented, “They (employers) don’t look at a person for what they can learn, but for what they can do.”

In terms of on-the-job training,¹³ Janine has received from Microsoft “just what I need for the job. But the other contractor who has [a similar job] hasn’t even been given that.” Mark, however, was let go from one of his contracts because the company failed to provide the on-the-job training that they had promised. When he finally began to ask co-workers for assistance in learning, he was let go.

Agencies differ considerably in the kinds of training opportunities that they provide, with some offering courses and others providing partial tuition assistance after contractors have worked a certain number of

¹³The training Janine’s agency offers is conditional upon a certain number of hours worked for them, and consists of partial tuition paid to a university or community college. Janine has not been employed long enough to take advantage of that.

hours/months. However, in these preliminary interviews none of the respondents thought they received the training that they really needed. One respondent noted that an introductory course in XML, offered by Volt (a major IT staffing agency), was useful but “a follow-up never materialized.” Others mentioned the need for courses in HTML, Java and C++, in order to continue getting work.

The importance of training cannot be overestimated. The IT sector produces new versions of its products almost every eighteen months. For industry workers to keep up to date on the latest changes in technology they need to have continuous training. High-tech contractors are at particular risk for missing out on educational and training opportunities because neither the agencies nor the IT companies are investing in them for the future. The option of returning to school in order to obtain comprehensive training was considered desirable but less than feasible for respondents supporting families and/or for those whose savings were depleted during periods of unemployment.

SECOND-CLASS WORKERS

The divide within the digital workforce for contract workers involves more than quantifiable figures, such as wages and opportunities, like access to training. Contract workers expressed a sense of social isolation and alienation in reaction to a difference in treatment, which was enforced by management but spread to the most basic human interactions at the workplace. Angered and hurt by being treated as sec-

ond class citizens, contract workers also felt that this social “quarantine” affected their work and productivity (and, as we discuss below, affected their chances of gaining full-time employment).

An enforced social distinction between permanent employee and contract worker was something noted by every person we interviewed. They spoke of the “blue badges” [permanent employees] vs. “orange badges” [agency workers] at Microsoft, where a culture of “separate but not equal” now exists. This is particularly reinforced during “morale days” when employees go out together but contract workers are excluded. As Janine points out, however, segregation is pervasive.

“People don’t talk to me. Blue badges don’t talk to orange badges. They went skiing, I didn’t get to go; they went to movies, I didn’t get to go; they had a party [in the evening at someone’s house], and I didn’t get invited. You say ‘hi’ and they don’t say ‘hi’ back. It may sound silly, but it hurts my feelings—they don’t let me join in any of the reindeer games.”

“More and more,” says Celeste, “temps are reminded that they are temps.”

“Managers,” says Phil, “are forced to treat you like second-class citizens... When they do morale events you can only go as a guest of a blue badge—but then you have to be off the clock. As a group they think, ‘we have to treat you like shit because you’re a temporary employee.’”

Typically, contract workers at Microsoft are not permitted to join in games on the playing fields during their breaks, use the exercise facilities (without paying dues), shop in the Microsoft store where software is available at major discounts, or go to the Christmas party.

For some workers, this social segmentation also affects the work itself. Janine, who has experience with two other companies doing precisely the same work she is doing now, is frustrated that she is not allowed to participate in meetings and share her knowledge. “I’ve worked for two of their competitors—you would think that they might ask me about how [these other companies] have handled the same problems. I have so much to offer...”

The social isolation can be compounded by the knowledge that if they were direct employees they would be able to see their project to completion. For example, Phil’s contract will end before the software he is currently working on will be ready for testing. Frustrated by that, and disappointed, he noted that a direct employee would be able to test the software that she/he develops.

GETTING THE PERMANENT JOBS

With agencies portraying themselves as bridges to full-time positions (as in Janine’s case, for example), one could conclude that contract workers are either not interested in full-time positions or are making their way



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into full-time work slowly. Our interviewees expressed preference for full-time employment over their contract positions. This sentiment is consistent with findings from federal government surveys that report contingent workers would prefer full-time jobs.¹⁴

Some contractors have found, however, that barriers hinder them as they attempt to move to full-time positions even if they have the requisite skills and experience for the work. These barriers may be increasingly institutionalized. Contract workers with whom we spoke were not allowed to attend company conferences and presentations on research where they could continue to learn about developments in their fields. Workers also reported that they were unable to receive assistance in finding permanent jobs from those who know their work the

¹⁴According to the Bureau of Labor Statistics, for example, over 50% of contingent workers surveyed would have preferred a full-time job. This compares to 39% of contingent workers who preferred contingent work. *Monthly Labor Review*, Department of Labor, Bureau of Labor Statistics, (originally published December 22, 1999): (stats.bls.gov/opub/ted/1999/dec/wk3/art03.htm)

best: managers and supervisors. Supervisors, they observed, seemed reluctant to or even fearful of recommending them for a permanent position, even though these same supervisors encouraged them to apply for these jobs “through the outside.” It was easier, suggested one respondent, to get an informational interview about a job opening if applying as an unemployed or “otherwise employed” IT worker than it was to get such an interview applying as a contract worker working within the company walls.

Our interviewees also pointed out that the industry seemed to have a preference for hiring young men. All our respondents suggested that age and/or gender played a role in hiring.¹⁵ “I’m getting interviewed by 20-year-olds; are they really able to be objective?” wondered a 44-year-old. A 38-year-old woman commented that, “They tend to

hire a certain type of person. They look for a gung-ho cheerleader type...” Age and gender discrimination could go hand in hand: “They’re looking to hire young men in their 20s—their ideal employee.” For lower-wage positions, gender and age could fit together differently. Although a permanent employee, a manager at a call center observed male managers “hiring pretty young girls.” The glass ceiling was also evident. This same manager, a woman, received a lower salary than did a male co-worker despite having nearly identical career paths. “We got hired at the same time, did the same work, were promoted at the same time,” but her salary is \$5,000-\$6,000 less than her male co-worker’s. When she confronted management about the disparity, their only response was to question “‘How did you find out what he earned?’ We’re not supposed to know each other’s salaries.”



¹⁵ Although none of our respondents referenced race as an issue, we recognize that others have regarded racism, both individual and institutional, as a problem in the IT industry.

Like other businesses, IT companies justify the employment of contract workers by citing the need for flexibility. But they make an additional argument that the project-oriented nature of the work makes it even more necessary for IT companies to hire contractors. Our interviewees questioned this last claim, pointing out that simply because a project concludes does not mean that the “work” ends. Everyone, even full-time high-tech employees, works on a project basis. Moreover, some of the agency workers we talked to were forced to leave their projects before the work had, in fact, concluded. That IT companies had “permatemps” suggests that the greatest business rationale for contracting is the desire to keep total compensation costs low.

In addition to the general problems faced by agency contractors given company practices and the perceived discrimination, contractors find it even harder to find full-time employment, let alone contracting work, in the tightening job market. Anecdotes suggest that once well-paid contractors are now taking cuts in wages, while there is a longer wait for contracting positions amongst those who do not have the most up-to-date skills and command of computer languages like Java and C++.^{xxvii}



CONCLUSION

It is undeniable that the IT sector has transformed the region's economy, creating a substantial number of higher-wage jobs. Yet, as we have shown, the average wages vastly overstate what an average worker earns, and these averages perpetuate a social blind spot about those who are low-wage or contingent workers. A full 90% of IT industry workers made less than the mathematically correct "average IT wage" of \$237,749 in 1999. The median wage, a much better indicator of what the average worker earned, was approximately \$65,000. As the myths of IT prosperity circulated, the earnings and conditions of the 15-20% of IT workers who earned less than or barely a living wage in 1999 in the three-county region went largely unnoticed. The IT support work provided by call center and help desk workers, who earn between \$9.00 and \$13.00 an hour, who often don't receive training opportunities let alone the other benefits given to the well-paid workers, escaped public consideration.

Contract workers who now face regular periods of unemployment, during which they may no longer be able to afford medical insurance for themselves or their families when they may take pizza-delivery jobs to make ends meet, are also largely absent from discussion. This is most remarkable considering that agency contract employees constitute a significant proportion of the IT workforce. Although we consider this figure to be low, we estimate that in the three-county region there are over 7,000 agency contract workers, a 12% increase to the officially counted IT sector workforce.

Despite the myths of widespread prosperity that suggest otherwise, like the "old econo-

my," the IT economy has its share of internal inequities. This is most obvious in the software industry, where the top 10% earned 74 times the amount earned by the bottom 10% of workers. And yet software is the one sub-industry most likely to be singled out as the bellwether of the entire computer industry. Pronouncements about this sub-industry's average wage—which was \$400,000 in 1999—is the source of many of the public misperceptions about the wealth of the average IT worker.

It is particularly important to understand how the industry is divided between the wealthy and the average worker, the top earners and the low-wage workers, the permanently employed and the contingent workers, as we enter a period of economic slowdown. Those who are already on the margins of poverty or who lack steady employment will likely be the most vulnerable. As work becomes scarcer, contract workers, who already face obstacles to permanent employment, may find periods of unemployment extending as companies save costs by cutting back on hiring. The situation may become even more precarious for these workers as their bargaining power decreases as unemployment increases, and companies justify lower wages by pointing to the stalled economy. Lower-wage workers who are already on the cusp of poverty may find their salaries stagnating or, worse, the jobs that they have being moved to other areas where labor costs are lower. The lack of decent wages and job security for these workers may prove significant for the future of the region's economy.

There are many factors that still need exploring that are well beyond the scope of

this study. One of the most important issues raised by workers was that of training. The claim by numerous players within the industry that there is an insufficient number of trained people to perform IT jobs needs to be considered in light of the practices that may hinder qualified workers from applying for permanent jobs, and/or from receiving training that would make them qualified. Although there is a great need for ongoing training in order to stay employable and move into better (and permanent) jobs, low-wage and contingent workers often lack access to such training. In most cases, neither companies nor agencies provide contract workers with adequate access to classes, research seminars or conferences. Employers of low-wage workers provide limited training opportunities at best. It is difficult for low-wage workers and for many contract workers (whose wages vary considerably, and who may take odd jobs during periods of unemployment) to afford training offered by area colleges.

Important for the health and growth of the IT sector in the region, training opportunities must be made available to lower-wage and contingent workers, or we run the risk of exacerbating the already existent gaps between the “haves” and the “have-nots” in the digital world. Deeper investigation into contingent and lower-wage worker educational needs is essential, as is the development of programs that are designed to provide these workers with affordable training opportunities. A failure to provide contract workers with the skills to keep up with changes in the industry may lead, in the long term, to a surfeit of workers who are cast aside as their knowledge becomes obsolete.

Ensuring that agency contract workers maintain/advance their employability may become increasingly important to the region as a whole if the IT industry’s dependence on such workers grows. We have made a preliminary estimation of the number of contract workers in the IT industry, but do not really know the full extent to which the IT sector itself relies on contingent labor, and whether its dependence is growing. Understanding how the industry is functioning will allow a more informed public discussion about, and appropriate policy initiatives that respond to, the needs of the industry relative to the rights and needs of its workforce.

An investigation into the dynamics of contract worker employment/unemployment is also necessary in order to produce both a realistic assessment of annual wages over a number of years and an understanding of how such dynamics may have an effect on the demand for social services during periods of unemployment. Combined with official estimates about the number of non-living wage jobs in the IT sector, it would be possible to better estimate the social costs that the industry produces, and how much the public is subsidizing the industry’s failure to provide affordable family health insurance and other benefits to all of its workers.

Ultimately, understanding the reality beyond the “myths of prosperity and opportunity” will help us create policy that is judicious, equitable and far-sighted and will help workers assess and respond to their situations.

ENDNOTES

ⁱ Press Release, Business Wire (Tuesday December 5, 2000). The AeA report was released in the first week of December, 2000, but used 1998 data.

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ⁱⁱⁱ Figures regarding the living wage for the state can be found in the "Northwest Job Gap Study: Searching for Work that Pays," University of Washington's Northwest Policy Center and the Northwest Federation of Community Organizations, (1999). Figures were updated and modified to reflect living wages in the Puget Sound region in a *Seattle Times* article, "In 'Job Gap' there's just no getting ahead," Susan Gilmore and David Heath, *Seattle Times*, November 6, 2000. (The table of figures on the varying levels of living wages by family appears only in the print version of the newspaper.)

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^v Washington State Employment Security Department, Percentile Hourly Wages for the Computer Services Industry, King, Snohomish, and Pierce Counties, 1999.

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^{xii} "Seattle Times Misleads Readers on Software Pay Data...Again," Mike Blain, WashTech News, April 11, 2000.

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The report was prepared by the Worker Center under the direction of WashTech / CWA staff, officers and members. The Worker Center is the economic and workforce development division of the King County Labor Council, AFL-CIO in Seattle, Washington.

Worker Center staff members responsible for this report:

Amelia Kalant, Ph.D., Research Associate, was the lead writer and interviewer.

Julie Farb, Research Director, was the lead researcher and editor.

Rich Feldman, Executive Director, provided project oversight.

Peter Kardas of the Labor Education and Research Center of The Evergreen State College assisted with interviews and editing.

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WASHTECH/CWA

2900 Eastlake Avenue East, Suite 200

Seattle, WA 98102

Phone: (206) 726-8580

Fax: (206) 323-6966

E-mail: contact@washtech.org

URL: www.washtech.org

WORKER CENTER—KING COUNTY LABOR COUNCIL, AFL-CIO

2800 First Avenue, Suite 252

Seattle, WA 98121

Phone: (206) 461-8408

Fax: (206) 461-3669

E-mail: mainoffice@wc-kclc.org

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