Applied HR Strategies (AHRS) Client Alert

Technology Pay Rates Rising Faster than the General Labor Market

Spring 2020 Update

Applied HR Strategies, Inc. (AHRS)
Kirkland, WA

Alert: Pay Rates in Technology Roles Rising Faster than Overall Labor Market: 2010s Market Overview

With 10-years of economic growth over the 2010s under our belt (although some of the growth was quite slow), since early 2011 we have been advising our clients that pay levels for technology professionals are rising (in some cases considerably) faster than the overall labor market as a whole, and that companies need to act to stay on top of these trends in a rising and hyper-competitive technology labor market that still exists in 2020. These trends have continued, although some recent data suggests this long-term trend might be moderating somewhat, even as many well-known technology firms continue their expansion in the Puget Sound region. Within 10 or so miles of AHRS's base in Kirkland, we see Google preparing to double its Kirkland-based workforce, Amazon and Facebook expanding dramatically in Bellevue, and Microsoft continuing to grow in Redmond and Bellevue. And these are just a few examples, of the dramatic growth we see in the Seattle area technology scene.

In the past several years we have been diving into the data more deeply. This note is an update to similar alerts that we sent out to our clients and colleagues back in 2013, 2015, 2017, 2019, and now 2020, with additional insights and more recent statistics. One key difference today vs. early 2011 when we first started noticing these trends, is that today most of the major U.S.-based tech firms are setting up office(s) and/or expanding their workforces in our region. In 2010, we had Microsoft, Amazon and others as our homegrown tech firms, but today, Google, Facebook, Adobe, Twitter, Apple, Salesforce.com, SAP and others have set up shop in Puget Sound, and most are growing quite rapidly here.

In early 2020, technology recruiting firm Dice reported that the average technology salary in Seattle was now up to $109,628 and represented a 4.3% increase over the year-earlier levels. This reported pay growth exceeds what we have been able to document over the past year for technology pay, but it does seem to confirm the rising technology pay trend is still in play as we move into 2020. Meanwhile, Milliman reports that the year-over-year change in base pay for the benchmark roles in the NW Technology Survey rose 3.3% between the summer of 2018 and 2019 (although the median change for the software engineering job family was 5.8%). In contrast, recent AHRS research on the year-over-year change in Seattle-area pay for the software (SW) engineering family via the Culpepper Technology Survey shows very limited pay movement for individual contributors, but significant base pay increases for SW engineering management. These mixed signals about current pay movement show how important it is to stay on top of current trends, as the marketplace for technology talent is much more dynamic than it is for most other benchmark roles in the labor market.

While the current levels of pay movement in late 2019 into 2020 are a bit unclear as we write this, we do know that hiring in technology continues at a rapid clip, which inevitable leads to higher wages. CompTIA (an IT industry group) reports that job openings in advanced technology jobs such as AI, machine learning and blockchain increased 74% in 2018 over 2017 levels. While we have not yet seen this same data for 2019/2020 yet, the Wall Street Journal and Moody Analytics just reported (February 2020) that the Seattle area was tied for fourth as one of the hottest job markets in the USA.

Recent and Historical (2010s) Data Trends

Historical Pay Trends in the 2010s

According to our research, base pay medians for technology jobs from the summer of 2011 to summer 2019 (eight years) were up approximately 29.5% in the *Culpepper Technology Survey* (Seattle-area data for the software engineering family), vs. 30.8% for the *Milliman Northwest Technology Survey* and 21.8% for general industry roles over the same time period. While nearly 10% additional pay growth for technology jobs doesn't sound that impressive, over time, the compounded impact of this growth has increased technology salaries dramatically over the past decade. That amounts to about an 1.2% annual additional incremental annual pay growth in technology jobs vs. non-tech general industry jobs. That roughly 1.2% additional growth means that companies passing out 3% annual pay increases are falling behind the market in pay for one of their most important skill areas (and their absolute most critical talent pool, if you happen to be in the technology business).

Table 1 - Base Pay Growth Trends in Technology and General Labor Market Jobs in the Northwest

Job Category and Data Source	Change in Median Base Pay 2011 - 12	Change in Median Base Pay 2012 - 13	Change in Median Base Pay 2013 - 14	Change in Median Base Pay 2014 - 15	Change in Median Base Pay 2015 - 16	Change in Median Base Pay 2016 - 17	Change in Median Base Pay 2017 - 18	Change in Median Base Pay 2018 - 19	Approximate Total Base Pay Change, 2011 - 2019
General Industry Benchmark Jobs – Milliman NW general industry surveys	2.5%	2.2%	2.4%	2.9%	3.0%	2.9%	2.7%	**3.2%**	**21.8%**
Technology Benchmark Jobs – Milliman NW Technology Survey	5.2%	4.2%	3.3%	3.9%	3.6%	3.6%	3.7%	**3.3% (5.8% for SW Engineering)**	**30.8%**
Software Development Jobs – Culpepper Technology Survey (Seattle Area)	6%	3%	3%	4%	2%	4%	4%	**1.4% (1% for ICs*; 5.5% Mgmt.)**	**29.5%**

* - ICs – Individual contributors (non-managers)

For the general labor market, *base pay increase medians are in the 3% range (previously in the mid 2% range, early to mid-decade, with some additional improvement in recent years).* Technology pay medians are "only" rising an additional 1% to 2% more per year in most years, but when aggregated over time, this additional incremental growth leads to large changes in base pay, and in relative pay movement compared to the general labor market. **Thus, pay levels for benchmark technology jobs are rising at much quicker pace overall** (despite some recent moderation), ranging from a 3 % to 6% annual increase (depending on data source and time comparison period) vs. 2.2% to 3.2% for the general Northwest labor market over this past decade.

Some technology job families are growing at a faster rate than others though, based on larger trends in the marketplace. For instance, we are seeing a strong demand for software engineers in general, and especially strong demand for data scientists, engineers with specialties in artificial intelligence (AI), machine learning (ML), natural language processing, high-end IT-related engineers with cloud experience, with pay rate jumps as much as 10% annualized in a few key roles. Some job families, such as those tied to older "legacy" systems (mainframe computing systems, help desk and desktop support, etc.) are seeing slower pay growth rates. These are some of the "micro-climates" ("mini" labor markets within the larger overall market for technology talent) we see in the overall very strong marketplace for technology professionals.

Base pay for "career" and senior level non-management engineers in the "hottest" job families (data science/analytics, SW engineers, engineers and specialists in AI, etc.) crested the $100,000 level several years ago, not including other forms of compensation (short-term incentives, long-term incentives - stock, etc.). No wonder so many parents wish their kids would study engineering and other so-called "STEM" occupations! Pay growth in the now less rarified $100k+ air is a bit more muted in some job families, despite the generally high demand, than for the "hot" skill areas in these same job families. Today, it's not uncommon to see some top-level individual contributors in hot jobs areas earning in excess of $150k in base pay. Prior to a few years ago, pay at these levels was reserved almost exclusively for upper-level management (director level and above).

See Table 2, below, for an overview of the pay growth (and demand) trends for some key technology areas. Most of the "hot" job families are following the direction of technology product and usage trends. With much of technology moving from in-house (on premise) installations to so-called "cloud-based" applications and services (software as a service or SaaS, or infrastructure as a service or IaaS), professionals and leaders in these areas are doing quite well. In addition, engineers in data science, AI, machine learning, neural networks and deep learning, natural language processing and related areas are booming. Five years ago, most of these technologies were rarely discussed outside of research and development (R&D) settings and universities.

Table 2 - Base Pay Growth Trends in Benchmark Technology Job Families in the Northwest

"Hot" Job Areas	Solid/Steady Demand	A Bit Soft (relative to others)
Natural language processing and deep learning	Software developers/engineers	
Data scientists/data analytics	Technology managers and directors	On-premise IT specialists
AI and Machine Learning (ML) Engineers	DevOps and application engineers	Hardware/desktop support and help desk
SW Engineers with "hot" skills (e.g., Chef, Python, Containers, Amazon Cloud development skills, etc.)	Web development	Computer operators
Advanced degrees in data science and AI	Data security specialists	Implementation specialists
"Cloud" developers/engineers	Database developers/architects	Some sales engineers

Similarly, job families that aren't doing as well are mostly a reflection of recent technology trends, as well as what is happening in the marketplace for technology products and services. We see slowly diminishing demand for some jobs like product implementation specialists (as fewer products are "installed" at customer locations) and even for some sales engineers, as more selling and product demonstration work is done via the Web, and sometimes by less-trained staff. As more applications and services move to the so-called "cloud," and laptops and mobile devices become the primary computing tools for many workers, so there is a diminishing need for desktop support and help desk personal, computer operators, and other job families that support more "legacy" systems.

Attracting and Retaining Technology Professionals, from a Rewards Standpoint

- First, make sure you have the latest pay data and do frequent pay benchmarking for key technology jobs families (at least once a year while the market is trending up more quickly than the overall market). **You can't act in a purposeful way, if you don't really know where your company stands competitively.**
- Second, ***consider or reconsider your compensation philosophy and competitive market positioning***. If you don't have a compensation philosophy, think about what you're trying to accomplish with your compensation/rewards programs, how you want to position yourself in the marketplace and what your top priorities are (attract the "best" talent, or to maintain labor costs as low as possible, for instance)? **Once you have a well-thought-out compensation philosophy, then you can develop a plan/strategy to get to where you want to be, while considering your company's resources and other priorities.**
- **Consider implementing a "differential" compensation strategy**, where some key and/or critical skill areas are treated more beneficially relative to the market for these groups. For instance, if your overall compensation philosophy is to pay at the market median (50th

percentile), you may choose to target pay at the 65th or 75th percentile for certain hot and/or crucial skill job families. This type of approach should lead to a greater or improved ability to attract and retain these key professionals.

- Once you know where you are at (see the first bullet) and know how you want to position yourself relative to the market (see bullets #2 and #3), ***you can then begin to develop a plan to get your company to where it wants to be***. This may require additional cost and/or competitive analysis, but now that you know the outline of the plan, you can work to figure out what it would take to implement it. Companies that find themselves well off their desired compensation strategy and market positioning, may need to develop a longer-term (>1 year) plan to achieve desired market-positioning levels.
- **If you have a 3% or lower merit budget, considering adding supplementary dollars for "market adjustments." for fast-growing technology roles.** If you are treating all of your people the same and with the same historically-low 3% merit budgets of the past few years, then those in high pay growth roles are steadily falling behind the market, and it will only get worse the longer it goes on. Consider adding a supplemental percentage (1% of payroll is common) to use for market-related adjustments for specified groups. If you don't do this, or something like it, your competitiveness will be continuously dropping, and eventually many of these people will leave for market-competitive pay at a different company. Maintaining your competitiveness will reduce turnover, and in the long run save your company money, and reduce lost productivity.

In addition, technology professionals tend to be more aware of their market value than most other professionals, so employers can't afford to not be fully aware of what's going on in the marketplace for these key roles. It is important to then take appropriate action based on this information and their company's compensation strategy and resources. And we would also be remiss, if we didn't point that in today's world, ***virtually every company is a technology company*** to varying degrees, so you cannot afford to not stay on top of technology pay data and data trends. Ignore at your own peril!

If you have any questions or wish to discuss this information further, please feel free to reach out to me (doug@appliedHRstrategies.com or 206-226-1029) or to Jill Odegard (jill@appliedHRstrategies.com or 206-498-9077).

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