Gartner for HR

Analytics-Driven Talent Strategy

Use external data insights to drive better decisions

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Introduction

Data as a linchpin of HR decisions

Senior business leaders increasingly look to human resources (HR) leaders to develop the expertise and capabilities they need to drive the digital ambitions of the enterprise. But the increase and convergence of talent demand is making it harder to find much-needed capabilities.

For most organizations, talent is the single biggest overhead expense and the biggest competitive advantage, so optimizing talent strategy is critical. Many in HR are now using labor market intelligence to inform talent strategy and tactics, but there's the potential to go even further — to educate the business about what it needs and use data to compel action on talent.

Labor market data enables you to understand how skills are changing within the marketplace before they impact your business, and helps you develop a more proactive approach to finding and situating key talent.

In this e-book, we illustrate just some of the ways external data on talent availability, cost and competitiveness can drive strategic talent decisions and deliver business impact, especially when used to inform recruitment tactics as well.

Data is becoming critical for sure, but it's how you respond to data insights that will determine your success.

of senior business leaders say digitalization is a priority

Only 21% of HR leaders say that current build-and-buy approaches are helping them adjust to the demands they are facing

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CHAPTER 1

Rise to the Digital Talent Challenge

Imperative: Identify who exactly to hire and where to find them

Eighty-seven percent of senior business leaders say digitalization is a top priority, and it is the job of human resources (HR) to secure the digital expertise needed to drive and support enterprise digital ambitions. Acquiring such talent is getting harder and harder.

First, competition for talent is rampant. As new technologies emerge and corporate business models evolve, many — and many types — of companies are pursuing the same talent. Second, skills and roles are evolving with technology, meaning business leaders may not even know what their own talent needs will be.

In this environment, recruiters have to handle a more complex mix of requisitions, with more specialized and unfamiliar requirements. Recruitment costs are surging, and it takes more time than ever to fill open positions — especially when recruiters are hiring for talent in areas outside of their core competence.

Recruitment challenges in the digital age

58%

of heads of recruiting have difficulty acquiring talent to maintain current business activities

64%

of heads of recruiting have difficulty acquiring talent to support a change in strategy

71%

of recruiting organizations recruit for more specialized roles than they did five years ago

20%

Recruiters report that 20% of their current requisitions are for roles with which they are unfamiliar — and these roles take 38% longer to fill

Time to fill is rising.

The median time to fill was 72 days in 2018, up from 67 days in 2017 and 61 days in 2015.

Action: Use analytics to inform talent acquisition

Talent analytics offer future-focused, data-driven insights into emerging technologies, the associated demand for new technical skills and the geographic locations that provide rich sourcing opportunities for sought-after talent.

Those insights provide the prism through which to view and make strategic talent plans that will drive business goals and ambitions — and inform decisions about the specific tactics most likely to attract sought-after talent.

For HR to embed talent strategy into management decision making, recruiting teams need a more agile and responsive recruiting operating model.

What agile recruiting teams do differently

Use responsive planning and resourcing.

Instead of planning and allocating recruiting resources based on point-in-time, top-down forecasts from the business, agile recruiters regularly source bottom-up hiring projections and adjust their services or redeploy staff as needs change.

Focus on talent trends, not current business needs.

Agile recruiters create enterprise value, specializing by task and talent segment. They aren't tied only to the internal needs of the business.

Leverage more sophisticated predictive talent analytics.

Predictive analytics help to identify what is needed, where best to find it and at what cost. Agile recruiters use those insights to demonstrate to the business what it needs, rather than just taking business requests to the labor market.

Example: Understand evolving skills

Labor market data enables you to understand how skills are changing within the marketplace before they impact your business. By taking the data into account earlier in the talent planning process, you better position recruiters and the business to secure the skills they need — when they need them most.

Roles are changing. For example, the automation of rote calculations and data reporting is affecting the skills needed for an actuary. Actuaries will need to:

- **Generate data-driven insights that drive business performance**
- **Learn new technologies outside of traditional actuarial software**
- **Develop expertise on a range of functions and business areas to find new applications for their technical skills**

Also critical is insight into the evolution of skills needs. For example, as the role of actuaries becomes more strategic and customer-centric, more technical and data-centric skills are required. In effect, actuary competencies will overlap with data scientists. But where can you find actuaries with these emerging skills?

Gartner TalentNeuron™ research (see chart on page 8) found that among a selection of studied U.S. cities, New York provides the largest talent pool for actuaries with more than three years of experience. However, only one in three of those actuaries is equipped with the emerging skills that will be required as their role evolves.

By contrast, in Chicago, Illinois, the overall talent pool is far smaller, but two out of three actuaries are equipped with emerging skills.

Armed with this type of insight, you can make important decisions about where to search for talent and what criteria to use.

Total talent supply: Actuaries with emerging skills

U.S. example: Actuaries with more than 3 years of experience

Notes

- Talent supply is as of 3Q18; estimates have been rounded to the nearest multiple of 5
- Actuarial certifications considered are ASA (Associate of the Society of Actuaries), FSA (Fellow of the Society of Actuaries), MAAA (Member of the American Academy of Actuaries), FCAS (Fellow, Casualty Actuarial Society), ACAS (Associate of Casualty Actuarial Society), FSPA (Fellow, American Society of Pension Actuaries), MSPA (Member, American Society of Pension Actuaries)
- Includes banking actuaries, but presence of actuaries working in government/hospital and health systems has been minimized

Sources: Gartner TalentNeuron analysis (source data includes government reports, desk research (including publications, job boards, public profiles)

CHAPTER 2

Talent Analytics in Practice

Imperative: Draw conclusions that drive decisions

Many in HR already use labor market intelligence to inform talent strategy, but the potential exists to go even further. HR leaders can use insights gleaned from data to educate the business about what it needs and to compel action on key issues, such as whether to buy or develop talent and where best to find and situate that talent.

There are myriad sources of labor market intelligence, from official government reports to market and organizational resources, including recruiters, internal subject matter experts, customers, job boards and more. You can also gather insights from your customers about what they value, which hints at changes that your employees will need to meet.

But in the increasingly competitive talent market, you need:

- Analytics that are more global, yet more granular than those available from government or one-off sources.
- Robust labor market intelligence that provides deep skill and location-level insights.

For example, it isn't enough just to have data on talent supply. You also need to understand talent demand and competition to make decisions about the sustainability of a location.

To leverage the predictive power of big data, do two things:

1. **Mature the analytics capability of the HR function to improve business impact.**
2. **Equip recruiters to use labor market analytics so they can operate as talent advisors.**

But it's a journey. At the outset, you'll probably use fairly basic operational metrics, such as time-to-fill and cost-per-hire data to track your own processes.

It is only later, at more advanced levels of analytics maturity, that you can become an advisor to the business — for example, by using predictive hiring forecasts and business-embedded analytics to drive decisions around where to source and locate talent that is and will be critical to the business.

Action: Use this toolkit to turn data into insights

It is one thing to surface new realities from labor market intelligence. It is another to demonstrate what those findings mean for business needs — and for hiring managers.

This toolkit provides you with 9 action steps to collect, interpret and communicate labor market data.

Collect labor market data

Ensure you don't spend more time than necessary collecting labor market insights.

1. **Understand which types of data to collect to generate the insights you need.** Examples are occupational outlook trends for skill set insights, employment rates to predict shortages, salary benchmarks to understand candidate mindset and migration patterns to optimize search processes.
2. **Find easy ways to gather labor market data.** Even without a big data engine, you can tap into available labor market data by studying macroeconomic trends and insights on competitors, candidates and the evolution of skills.
3. **Access publicly available data.** This includes official government labor market statistics from, for example, U.S. Bureau of Labor Statistics, Eurostat and publicly available data engines such as StateMaster, which provides statistics from individual U.S. states.

Interpret labor market data

Use simple, relevant questions to extract the insights that will affect your recruiting strategy.

4. **Understand the audience.** To whom will you present your insights? Are you trying to inform, convince or drive action? How educated is the audience on the issues? What business problems are they trying to solve?
5. **Turn data into insights.** Demonstrate what effect the data has on recruitment strategy. For example, do demographic trends show the workforce is aging? Do geographic trends show labor is migrating to the suburbs?
6. **Select compelling graphics.** Telling a story is often more effective when done through visuals. Select the right visualization technique to convey insights in the most engaging way. A simple Venn diagram, for instance, can demonstrate the overlap between different dimensions surfaced by data on adjacent industries.
7. **Audit the business relevance of the data representation.** Before you actually present your insights, double-check that your message is clear, relevant and aligned to business needs, and that you have chosen the most compelling way to convey your findings.

Influence hiring managers

Having established the best way to portray the labor market insights, show what they mean for recruiting strategy in a simple, logical way.

8. **Demonstrate the implications of labor market analysis.** Use your analysis to communicate your competitive position and talent supply, as well as how these should influence talent acquisition strategy.
9. **Create a tangible action plan.** For example, optimize your search criteria to take into account adjacent skill sets or alternative locations/industries. Or, optimize employment branding by posting jobs in new or different places.

Example: Show the detrimental impact of uninformed decisions

Visuals can be engaging and compelling, but you should filter and prioritize the data presented so as to highlight true insight, rather than simply making observations from data.

This image, for example, vividly shows the impact on the availability of talent supply when you layer specific skills requirements onto job postings — in this case, for marketing managers in the U.K.

A candidate universe of millions is whittled down to just 1,000 by layering on skill requirements — and that's before you even consider what percentage of that qualified talent is interested in the position and how many other employers you'll be competing with for that talent.

Supply snapshot for marketing managers in the U.K.

The impact of common job posting requirements on candidate availability

Source: Gartner TalentNeuron

Use the visual to inform dialogue and drive action

Recruiters can use this image to inform a discussion with the business about hiring for these roles and ask, for example:

- Are there similar skills we could search for instead — particularly those that make it easier to learn the most important skills for the role?
- What skills would someone in the role need to be effective immediately?
- Are there any skills not needed immediately that talent could develop over time?

This type of dialogue helps recruiters set realistic expectations at the beginning of the hiring process and recommend specific action steps based for recruitment tactics.

CHAPTER 3

Better Talent Decisions for the Business

Imperative: Use data insights to compel talent strategy

It isn't enough just to create data — or even to draw conclusions from that data. To drive action, you must turn those conclusions into insights that compel decisions.

For example, you can gather labor market data that:

- Shows short-term fluctuations in skill demand
- Identifies the skills in highest demand by geography
- Indicates skills that transcend function or industry boundaries
- Surfaces what skills competitors value

But what do you do with that data?

Potential actions for recruiters might be to:

- Recalibrate the skills they target to buy (via recruitment) in their talent strategy
- Challenge how a business line is prioritizing openings that aren't key to driving the enterprise's new business model or strategy
- Identify which new talent competitors to watch when moving into a new segment

HR leaders can also use their insights to educate the business on what the broader market is signaling about skills and competencies. Industries are transforming so fast that business leaders themselves might not be able to predict what they will need. Data-driven insights can help clarify what skills the business will need to pursue its digital ambitions, and the options available to secure the right talent.

What kind of external labor market data can help you develop an action plan?

Talent supply analysis

Data on the availability of labor can help you identify the top hubs for both core roles and evolving and emerging skills. Data enables you to see not only which markets are best overall for those skills, but which are stronger for certain skills versus others.

Wage inflation forecasts

You can marry data on the supply of talent with intelligence on its current and future cost (given wage inflation) by role and city. This improves your strategic talent plans, helps avoid the wrong locations and helps you better manage your budgets.

Competitor hiring analysis

You can monitor the roles and skills your competitors are hiring for, and where, and on which customers they might be focusing. This data can help you stay on the cutting edge with your own role design — and even with your business strategy.

Location favorability for critical roles

Choose where to locate certain roles. Data provides insights not only on talent supply, but also on demand, competition and cost. One location may have greater supply and cost, but if it also has extremely high demand, it's likely to have wage inflation. Many bad and costly location decisions have been made as a result of looking solely at talent supply.

Candidate enticements

Data can show you what is most likely to entice your target talent. Knowing these factors can tell you what to emphasize in your job descriptions and outreach to convince sought-after candidates to leave their current positions and join your organization. Enticements likely go beyond monetary compensation and benefits to include factors such as work-life balance, development opportunities, and even seniority or job title.

Action: Go beyond interpreting the data

Labor market data provides important intelligence on labor market conditions, such as the demand for or prevalence of a given skill set in an industry or location, the number of competitors for certain talent or the degree of talent mobility between organizations. But how you respond to that knowledge is what will determine your success in acquiring talent.

For example, a sought-after candidate turns down an offer, citing the compensation package. You could decide to look for other candidates who are more affordable. But data may suggest a better way is to restructure the enticements to focus on elements that are especially important to candidates in that field or location.

To determine the most effective hiring tactics and articulate meaningful hiring recommendations to the business, you'll need insight into both talent supply and your organization's own competitive position in the market (see next page).

To gauge talent supply, you need data on key dimensions of the labor market:

- Prevalence of skill set in industry
- Prevalence of skill set in location
- Level of talent mobility between organizations
- Level of demand for skill set
- Number of talent competitors in industry

To gauge your own competitive position relative to other opportunities in the labor market, you need to know how attractive your job's employment value proposition is, considering dimensions such as:

- Compensation
- Location
- Work-life balance
- Development opportunities
- Culture

Talent supply and competitive position drive hiring tactics

The most productive hiring tactics depend on both the talent supply and your organization's competitive position in the market. Data provides insight on both.

Strong competitive position

Low talent supply

Optimize your offer

E.g., Leverage your strong competitive position to poach talent with an improved offer.

Tactics:

- Increase base pay
- Increase bonus eligibility
- Offer sign-on bonus
- Improve attractiveness of job title

Optimize your screening

E.g., Apply additional filters for a more efficient sourcing process.

Tactics:

- Add or reduce the number of screening criteria
- Re-evaluate the best time to conduct screening
- Decide whether each screening criterion should be more or less restrictive
- Determine whether more or fewer screening questions should be automated

High talent supply

Optimize your search criteria

E.g., Change the hiring and search criteria to access a larger and more viable talent pool.

Tactics:

- Look at alternative industries
- Look at adjacent skill sets
- Look at alternative locations
- Uncover undertargeted talent pools by defining candidate motivations

Optimize your employment branding

E.g., Invest in improving your competitive position with influential branding messages.

Tactics:

- Create a new employee referral campaign
- Post the job in new or different places (job boards, social media, etc.)
- Use a more disruptive or emotional branding strategy
- Leverage hiring managers as brand ambassadors

Weak competitive position

Example: Identify favorable locations for hiring talent

Imagine you want to expand your AI team — or add head count to an existing one. What is the most favorable location? First, you can rank your options based on a holistic understanding of labor market data, such as talent supply and demand and salary costs.

But you also need to specify potential roles and skill sets. For AI, for example, you could include among potential hires all those with blockchain and DevOps experience as well as those just in a pure AI function.

Locations may appear to be "favorable" from a talent supply perspective, but rising peer competition could increase demand, escalating salary costs and making it challenging for your organization to hire the right talent.

At times, the demand for skills could be low and the cost point lucrative, but talent supply is nevertheless limited — so competition rises, as does time to fill. Big data can surface "sweet spots" in the global labor market that your organization can identify and leverage for various skills.

To illustrate this, Gartner TalentNeuron compared the demand/supply picture for AI roles in specific locations (see page 19). In this case, Bangalore, Beijing and Shanghai are the most favorable locations based on the combination of high talent supply, moderate demand pressure and low salary cost. These locations also have high adoption of AI technologies and an influx of top companies setting their AI business operations in these locations.

Favorable locations for AI hires

Roles requiring AI, blockchain, DevOps and related skill sets

Notes

- Talent supply is as of 2Q18
- Median salary cost is the salary cost for all the job roles combined for each location
- Demand pressure is defined as talent demand/talent supply

Source: Gartner TalentNeuron research and analysis. National Labor Statistics, desk research based on job boards, industry reports, articles and publications

Use the insights to drive recruiting strategy

After comparing locations, some are more favorable: Talent supply is high, demand is moderate, salaries are low and AI adoption is widespread.

With such information in hand, you can mine additional external and internal data to decide what tactics will more effectively and quickly attract talent in your chosen location(s).

First, optimize search criteria so you don't unnecessarily reduce the size of the desirable-talent pool. Then decide what actions you will need to take based on the strength of your brand as an employer in your targeted location. For example, if your brand is already strong, you may only need to make the job titles more attractive and offer sign-on bonuses to make your offer more compelling.

Those tactics may change if your objective is to support growth strategies beyond the near term — if, say, you are looking for next-frontier locations with talent potential in the next three to five years where you could gain first-mover advantage.

In such locations, supply is currently low but so are demand and base salaries, so you can stretch limited recruiting resources and pull specific HR levers like recruitment advertising or relocation packages to expand your pipeline of suitable candidates and build your talent pool.

Example: Tap into diverse talent pools

Many organizations have distinct diversity objectives, but it is often a challenge to find the right tactics to support the strategy. If, for example, you want to increase the proportion of tech jobs filled by women, you need to identify where best to source such talent.

External data can show you, for example:

- What tech roles are typically filled by women
- Where the talent pools are for women in technology
- Which are the top employers
- What skills are most commonly held by women in technology

You can also identify which skills (e.g., cloud, cybersecurity, technology assurance and compliance) are most often available among female professionals in different locations — pinpointing favorable locations for those candidates.

The data shown in the heat map on page 21 is an excerpt from a Gartner TalentNeuron client report that compared the availability of seven tech skills among female professionals in 10 U.S. locations (the 10 with the highest number of tech jobs filled by women in 4Q18).

Among the targeted locations for the studied skills

Washington D.C. is the most favorable location for diversity, given the combination of studied factors

New York and Washington, D.C. have the highest talent supply (~55% of total talent supply)

Philadelphia has significant talent supply and moderate salary cost, as well as high female diversity

New Orleans has low talent supply overall, and low levels of diversity

Favorable U.S. locations for female tech talent

Unfavorable — Favorable

Location	Talent Supply	Salary Cost	Talent Diversity (Female)	Average Tenure	Attrition
New York	275,200	$108,300	27.0%	4.8	11.9%
Washington, D.C.	170,500	$103,200	28.1%	4.7	11.7%
Philadelphia	89,200	$89,050	26.9%	5.1	10.4%
Minneapolis	62,600	$84,650	27.4%	4.7	13.7%
Indianapolis	25,700	$81,400	24.7%	4.7	12.6%
Albuquerque	7,100	$81,350	25.3%	5.7	9.0%
New Orleans	6,600	$83,750	25.3%	5.5	9.9%

Source: Gartner TalentNeuron

Talent supply, talent diversity and average tenure — Locations with a high supply of talent, more diversity and high tenure are color-coded green

Salary and attrition — Locations with high base salary and attrition are color-coded red

Median salary is the average salary cost for the studied skills. Talent supply as of 4Q18

Use the data to inform recruitment tactics

As with prior examples, you can use this information to inform the business about macro labor market conditions and make better tactical hiring decisions — optimizing your offer, screening and search criteria, or employment brand appropriately to attract sought-after talent.

Example: Learn from who your competitors are hiring

Imagine you are deciding how heavily to invest in developing computer and information system management skills. Roles requiring these skills include software asset managers, network services directors and IT managers. In the digital age, your competition for these roles comes from multiple industries and segments — and IT companies themselves. What can you learn from studying which skills are in demand among IT leaders and recruiters as a whole?

Gartner TalentNeuron looked at the demand for computer and information system management skills among tech giants Facebook, Amazon, Netflix and Google, and compared it to the demand across thousands of other companies (see chart on page 22).

The data shows that some skills are in significantly higher demand among tech leaders than others, and vice versa, while the fluctuations in demand for some skills is consistent across both groups. This data presents insight from which to make your own decisions. For example:

1 Where to invest more

Perhaps invest more in developing and acquiring skills for which demand is rising among tech leaders. After researching these skills (e.g., transmission control protocol) and understanding how they might be used in your organization, you could proactively identify specific skill needs to business leaders, based on the strong demand among tech leaders.

2 Where to invest less

In the same way, perhaps reduce your commitment to Six Sigma and other skills experiencing declining demand among tech leaders — who are gravitating instead toward new and emerging skills.

3 Where to maintain investment

If you're investing in skills such as Amazon Web Services or machine learning, you're probably playing catch-up with the tech giants but the demand for such skills is likely to keep growing, so you'll need to continue developing these skills, for which demand fluctuates.

Computer and Information System Managers

↑ Rising demand by tech leaders is unmatched by the overall market.

~ Demand may be fluctuating, but is consistent among tech leaders and the overall market.

↓ Declining demand by tech leaders is unmatched by the overall market.

Skill	Change (Tech Leaders)	Change (All Others)	Percentage of Job Postings Requiring Skill (Tech Leaders)	Percentage of Job Postings Requiring Skill (All Others)
↑ Transmission Control Protocol (TCP)	74.5%	N/A	5.7%	<0.9%
↑ Web Services	0.2%	-30.0%	30.5%	1.3%
↑ Architecture Framework	8.8%	N/A	5.1%	<0.9%
↑ TOGAF	6.6%	N/A	5.7%	<0.9%
~ Amazon Web Services	13.3%	465.2%	6.5%	1.1%
~ Machine Learning Techniques	16.0%	116.6%	7.2%	2.0%
~ Technical Recruiting	-55.1%	N/A	5.2%	<0.9%
~ Cloud Computing	10.4%	25.3%	20.0%	5.5%
~ System-on-Chip	10.6%	25.4%	5.5%	0.9%
~ Linux	15.7%	19.6%	8.7%	3.2%
↓ Distributed Systems	-16.8%	114.9%	6.7%	1.5%
↓ Six Sigma	-14.7%	106.2%	5.1%	4.1%
↓ Virtualization	-26.5%	27.5%	5.9%	3.1%
↓ Enterprise Architecture	-9.2%	26.9%	7.6%	3.4%
↓ Structured Query Language (SQL)	-20.2%	10.9%	12.1%	4.6%

Source: Gartner TalentNeuron

n = 308,349 job postings

Conclusion: Harness the power of data-driven insights

HR, like most functions, is seeing an explosion in the use of data, but turning raw data points into actionable insights is the key to better business outcomes. To be most effective, HR leaders will need to apply such data judgment continually:

Start with the business problem

Generate a hypothesis

Interpret the data

Tell the story

Talent attraction/acquisition is one of the most critical business problems HR needs to solve today — an issue with enormous potential business impact. For HR to play the role of strategic business partner and take a more transformational role in human capital management, take proactive steps to:

- Understand how talent drives current and future business strategy.
- Gain access to quality data on the external labor market — which can be combined with internal data on recruitment, engagement and retention trends.
- Combine internal data with robust, global external labor market data to create deep actionable insights.
- Leverage both HR and business acumen to ensure the insights generated are easy to interpret and implement.
- Use communication skills (e.g., storytelling) to gain buy-in for the recommended actions and ultimately to drive adoption of those actions.

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