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Use of Data in Public Sector Human Resources and Workforce Management: Solutions and Challenges

by Katherine Barrett and Richard Greene

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Introduction

Across the United States, a growing number of cities, counties, and states are utilizing data across agencies to improve management and make decisions.[1] The potential applications for human resource and payroll professionals, in particular, are enormous. Data has multiple uses in this sector, including analyzing attendance, forecasting workforce needs, scheduling staff time, minimizing controllable expenses, improving hiring and retention, and ensuring equitable treatment of employees.

"I'm seeing a trend, with more governments starting to use data to drive staffing and other strategic decisions," said Talona Felix, workforce business consultant for UKG.

The pressure on human resource professionals to use new tools to improve effectiveness and efficiency has become particularly intense following the pandemic, which has left many governments trying to find an oasis of useful data in a desert of empty job slots. One result of the pandemic, according to Stephen Fuller, enterprise program manager in Oklahoma City, was "not having as many people clinging to the old ways of doing things."

But the mere existence of data isn't the solution by itself, as multiple challenges stand in the way of managers who want to use the data at their fingertips. Even now, many public sector employers "traditionally have not used data to make decisions about staffing or policy changes," said Felix. "Workforce management data provides an untapped resource that many governments haven't really thought about."

About the Authors

Over the course of nearly 30 years, Katherine Barrett and Richard Greene, principals of Barrett and Greene, Inc., have done much-praised analysis, research, and writing about state and local governments.

They are nationally known authorities in performance management, budgeting and finance, human resources, procurement, tax systems, health management and policy, pensions, infrastructure, contracting, civics education, and a host of other topics.

How Can Data Help?

The benefits of using data are many, as are the challenges, and this report will delve into both sides of the equation in more depth. Here, however, are a few examples of ways in which data has been instrumental in building a resilient HR apparatus:

- Oklahoma City has been intent on using data to help pull back on the three-and-a-half months that it has taken, on average, to hire a new employee. It has done this by tracking how long different parts of the hiring process take. "Having these data elements allows us to really focus and say that it's taking 20% longer for this task rather than that task," said Fuller.

Analyzing the city's data revealed the lengthy time taken for drug and background screening. Upon realizing the degree to which this problem was standing in the way of the process, the city acted. It changed its rules so that conditional job offers could be made prior to drug screening in some cases, allowing the city to make immediate conditional job offers at its first-ever hosted job fair on February 5, 2022. More conditional job offers have been made since then.

- Several years ago, an analysis of overtime in one growing southwestern city was inspired by a female employee's complaint that she was being denied opportunities for overtime work, compared with other employees in the city's predominantly male utilities division. Data confirmed the validity of the female employee's story. A review of overtime distribution for all the individuals working for the same supervisor showed that her overtime level was 400 hours less than the next lowest overtime-receiving employee of the gas and electric division.

    When human resource officials brought the problem to the employee's supervisor, he was surprised that one of his employees felt short-changed. Data, in that case, increased awareness of a bad situation. It also put pressure on the supervisor to make a greater effort to distribute overtime more fairly.

- Collection and analysis of data can also help improve employee safety. The use of data has received increasing attention in fire departments, for example, and they are often held up as a model for other public sector endeavors.

    Fire safety and health information used to be collected in paper journals that were given to firefighters to record their encounters with hazardous materials and potential carcinogens. Those journals often sat empty or were left incomplete. A much more reliable approach has been used in recent years through the National Fire Operations Reporting System (NFORS), a mobile phone application, developed by the International Public Safety Data Institute.

    In Columbus, Ohio, firefighters were able to use NFORS data to show that the city had a problem with engine exhaust from fire trucks getting into firehouse living spaces. That led the city council to approve the idea of attaching hoses to the tailpipes of idling fire trucks — an expense it had previously rejected as too expensive, at a cost of $40,000 to $50,000 per firehouse.[2]

Use Data Wisely

Most governments are loaded with the data that flows out of their payroll and human resource systems as well as a host of other software applications. But the mere existence of a spreadsheet doesn't immediately translate into action. As Todd Park said in 2013 when he was United States chief technology officer, "Data by itself is useless . . . You can't pour data on a broken bone and heal it. You can't pour data on the street and fix it. Data is only useful if it is applied for useful public benefit."

Consider the case of an employee who was hired a few years ago to help answer queries on a department hotline. She was frequently absent, which annoyed her fellow employees who had to pick up the slack. But management hadn't focused on the problem until it analyzed a database that showed employee sick leave usage.

The data showed more than just the number of days this employee was absent. When the data was disaggregated, it turned out that she tended to miss work on alternate Wednesdays. Her supervisor discovered that her children had a half-day of school every Wednesday, and she had fallen into the habit of calling in sick when she didn't have someone to pick them up, rather than drawing attention to herself by regularly asking permission to leave the office at noon.

Understanding the problem, the supervisor proposed a solution — come in to work at 7 a.m. on Wednesdays instead of the normal start time of 8:30 a.m.; then work until noon. Employee and supervisor agreed that the missing Wednesday afternoon hours would be made up through extra time worked on other days — either by staying late or coming in early.

Said the supervisor, "Now, I wasn't losing eight hours of productivity every time she called in sick, and I didn't need to get someone to cover for her. The rest of the employees were no longer angry. Productivity went up and morale went up."

Data revealed the specifics of the problem. But had the supervisor not inquired further and applied a problem-solving approach, the data itself wouldn't have led to a happy ending for all concerned.

Barriers to Data Usage

When resources are short and multiple other barriers delay progress, it can be a struggle for governments to turn thousands of bits of data into actions that can improve the world of both public sector employers and employees.

Darin Seeley, commissioner of the Bureau of Human Resources in South Dakota said, "We're trying hard to figure out how to use data effectively. But we're still in the stage where we gather data, not where we turn it into information" — a comment echoed by many of his peers.

"When I get reports, they're sometimes just lists of categorized data," he continued. That doesn't help him translate data messages into actions that need to be taken. "My team and I are just starting to work through that, to say, 'What does this data tell us, and what are we going to do about that.'"

There are many obstacles that keep governments from using data in an optimal way to improve human resource management. The most recent International Public Management Association for Human Resources benchmarking survey on this topic comes from 2018 and cited insufficient funding as barrier number one.[3] Other issues listed in that survey were a lack of training, weak staff knowledge, lack of software access, and an absence of support from leaders.

Inadequate skills

As UKG's Felix told us, one of the big obstacles to making use of data is having employees who are fluent in the language of data and can translate it into strategic actions. "People don't know how to read and identify the data, which means there's not a lot of data analysis going on," she said.[4] One way to ease employee use of data, she added, is through actionable dashboards that are provided by workforce management technology. "That makes it easier to use data, even if you're not a data scientist."

Bringing in outside help from people who are trained in the use of data but not in the world of human resources doesn't make the problem go away. "It's not like you can get a data statistician and have them start working with the data," said Barbara Gibson, director of human resources in North Carolina. "To understand the different nuances, you also have to understand the business."

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Talona Felix, Workforce Business Consultant at UKG

Staff resistance

Pushback from employees who need to gather the data and supervisors who should use it can be a problem as well. For example, some managers can be frustrated when they believe that there's little they can do to solve the problems the data uncovers. This sometimes comes up in more heavily unionized states, where managers may resist flailing around with reports full of data about overtime when changes are stymied by negotiated agreements with organized labor.

Some managers also fear being victimized by their own data. In entities where a "gotcha" ethos prevails, the revelation that one division has poorer performance than other parallel divisions can lead to a painful search for scapegoats instead of a tool to lead to positive action by underperformers.

Another reaction that can impede progress is the commonplace "we've-always-done-it-this-way" view of some government managers. This kind of attitude stands in the way of a desire to dig deep into the numbers and find ways to alter rules and systems for the better.

As the famed biologist Marc Bekoff once said, "Often the greater our ignorance about something, the greater our resistance to change."

Need for buy-in throughout the organization

While it's of paramount importance that people who are running HR and payroll departments understand the importance of data, that awareness shouldn't stop there.

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Beth Blauer, executive director of Johns Hopkins' Centers for Civil Impact, is a firm believer in the importance of data knowledge cascading through an organization. In the book "The Promises and Pitfalls of Performance-Informed Management," she said she'd like to see "a doubling down" in the attention given to employee data skills at all levels of an organization.[5]

One key to improving data quality comes with recognition throughout an entity of the importance of data to individuals' own work.

When employees and managers start to see the value of data in their own job performance, sloppy practices —such as incomplete or inaccurate data input — start to dwindle.[6]

Clunky technology

Old, out-of-date, and inadequate technology remains a problem for many entities. Not only are new technology solutions expensive, even when the money is available, they can take years to implement. What's more, even a glitzy, new centralized system can be of limited value if it's incompatible with existing technology.

"We have 25 different agencies, and to some degree you want them to chart their own path," said Ronald Condrey, special advisor to North Carolina's Gibson. "But if they're all devoted to just their own data, you can't get enough centralized data to be of value."

The central HR system in North Carolina was implemented in 2008, "and it's hard to pull data out of it," said Condrey. The Office of State Human Resources has been trying to get funding approved so it can start the process of putting out a request for proposal for new technology.

At the start of 2022, while still waiting for money to be approved for a new central human resources system, Gibson also hoped to come up with money to hire a contractor to help with data governance. "It's a struggle, because there's so much need," she said.

Getting Buy-in

The existence of up-to-date technology is, of course, just a beginning. The all-important next step is creating a culture in the organization that is conducive to the use of the data that the computers are capable of creating.

Starting in 2017, Oklahoma City had tools that could be used to make better use of data. "The technology was there. What wasn't there, necessarily, were ways to deploy it and to get data from one place to another or even show it up on a dashboard," said Oklahoma City's Fuller.

A concrete enterprise approach to building data usage began in force in 2019. "We had petabytes and petabytes of data, but we didn't have it organized," said Fuller. "A bunch of us got together and said, 'We have an issue with different systems. They're not synchronized and not standardized, and we need to get data out of them. How can we solve this issue without spending a million dollars?'" A data analysis group, which continues to meet around lunchtime on a monthly basis, was formed to deal with the issues.

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Today, about 200 employees gather together in this and other informal clusters to discuss how to solve data problems or more easily work with different applications. High-level officials, like the budget director, often attend, as do junior employees and employees without a technological background.

The results have been dramatic. For example, prior to 2019, the city had 500 payroll earning codes and 400 separate rules that applied to pay levels and timekeeping requirements — these inconsistencies created an unfortunate situation for employees, who could be doing the same job, sitting at adjacent desks, but with different rules and pay codes applied. It also complicated data analysis.

"We didn't realize how bad it was until we did a mapping exercise and standardized," said Fuller. With work, managers were able to whittle down payroll codes and rules, with the former dropping from 500 to 200 and timekeeping and other rules cut back from 400 to 75.

The Benefits of Centralization

For decades, the debate has raged about the benefits of a decentralized HR structure versus a centralized one. There are merits to both approaches, but when it comes to data and data analysis, the benefits of centralization emerge in crystal clarity.

Pennsylvania started moving toward centralizing its human resource staff back in 2017. Reid Walsh, deputy secretary for human resources and management, believes that decision has been a gamechanger in her state's capacity to successfully use data.

But reorganizing Pennsylvania human resources and centralizing and standardizing HR data wasn't as simple as flipping a switch to shed more light in a room. It was more like building a power plant. "There were years and years of prework that we needed to do to be in a place where the data can tell a story," Walsh recalled.

It turned out to be worth the effort. By centralizing, Pennsylvania was able to solve a conundrum that had bedeviled it for many years — the penchant of individual departments to rely on their own technologies, data definitions, and data collection practices.

The change, which centralized recruitment, hiring, payroll, and timekeeping functions in the central office, also dramatically altered the role of senior leaders, as well as agency HR employees. While the latter now reported to Walsh, they still maintained offices in their old departments where they were freed up from operational tasks in order to focus more on those departments' strategic workforce needs.

For agency human resource leaders, the shift in role was accompanied by substantial training to both understand the uses of data and develop the skills to plunge in. The change put a new focus on strategy, "getting the senior leaders out of the day-to-day operational work and giving them time to work with data," said Christopher O'Neal, director of the Bureau of Talent Planning.

The training continues. As time has passed, different elements of using data have received special focus — data display, for example, and data hygiene, designed to make sure the information is accurate and kept private as necessary. Training has helped HR managers throughout Pennsylvania government know not just what to do with the data they have but how to work out what data they need.

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Examples abound of the ways data and data analysis can transform workforce management practices.

In the following section, we look at a number of concrete examples of state and local governments that have benefitted from data analysis in these areas: improving hiring, controlling turnover and overtime, uncovering equity issues, improving health, creating better performance appraisals, and developing workforce and succession planning.

Improve hiring

Hiring and retaining the employees who are needed to run governments effectively are among the biggest challenges facing state and local governments in 2022. Some 52% of state and local workers indicated they were considering leaving their jobs voluntarily due to the pandemic, according to a December study by MissionSquare Research Institute. On the other side of the equation, job applications began declining well before the pandemic.[7]

Net result: States need to hire more effectively and efficiently than at any other time in modern history.

In Missouri, getting a handle on the time it takes to hire a new employee had been close to impossible for years. Prior to 2019, there were 65 ways an applicant could apply for a job with the state, all somewhat different depending on the agency, department, or division with the job opening. "We were never able to track time to fill or the number of applicants at a state level," said Casey Osterkamp, director of the Division of Personnel. "The wide variety of hiring practices and the lack of any consistent coding made useful, high-quality data collection just about impossible."

States need to hire more effectively and efficiently than at any other time in modern history.

This problem led Missouri to bring its 16 departments together to map out current processes and agree on changes that would create one consistent statewide system.

With that in place, Missouri can now track two data elements: the "time to fill" and the state's success in making sure applications were completed and not abandoned by applicants midway through the process.

For time to hire or fill positions, the personnel division set its goal at 45 days, one of several benchmark metrics used by the Society for Human Resource Management (SHRM). That target was picked because it was ambitious yet achievable. It has not yet been met, but by tracking the data, HR managers can see that they are making progress. For all of 2020, time to fill took 65 days, with results in 2021 moving that indicator down to 58. This is a data element that is now tracked monthly.

With turnover reaching 27.4% statewide in 2021, the state's progress on this indicator is crucial. Data is also helping yield rich insights beyond speed of hiring. With data coming in from 16 executive branch agencies and other nonexecutive departments that have chosen to join in, analysts are able to see dramatic variation from one department or hiring manager to another — yielding lessons on the methods that work best to reduce hiring time.

For example, in the Department of Revenue, the time to fill positions was 35 days in 2021, while some other departments averaged more than 100 days.

By looking into processes at better-performing divisions, the Department of Personnel was able to see the advantage of setting up texting with applicants, starting to schedule interviews before the job announcement was closed, and blocking out time in advance for interviews.

By tracking its applicants' success in finishing applications, Missouri also has been able to show progress. Data shows that the application completion rate of 74% in 2020 rose to 77% in 2021, and so far in 2022, it is up to 78%.

Osterkamp emphasized the importance of committed leadership in making progress on the data front. The centralization of processes, workforce goals, and a focus on data were all top priorities of Missouri's chief operating officer. That focus provided the push that was needed for departments that might have been more resistant to change.

Controlling turnover

Though there's been a great focus on filling vacancies, keeping new employees in their jobs is equally important. High turnover is expensive for governments and negatively affects productivity.

By tracking turnover data, governments have been able to document an alarming rise in employee departures in 2021. For example, Ronald Condrey, special advisor to the human resources director in North Carolina, noted that the employee turnover rate of around 11% in 2019 and 2020 had risen to 16% in 2021 — a rise in turnover that was also seen in multiple other states.

Data also reveals danger points in a person's employment history, a piece of information that can help governments target the employees at greatest risk of sudden departure. In North Carolina, for example, first-year turnover grew alarmingly from 24% in 2019 and 2020 to 36% in 2021. "We were losing a third of all of the people we hired in the first year," Condrey said.

As in many states and localities, new-hire turnover that year was affected by many external factors relating to the pandemic. But as Missouri's Osterkamp pointed out, new-hire turnover more generally can also signal something that went wrong in either the hiring or onboarding process.

To focus in on the first three months after hiring, her office tracks the 90-day exit rate in each department. Surveys are also frequently used to measure the success of the onboarding process and to find out which factors have influenced employees when they decide to leave state government. Of Missouri's frequent surveys, Osterkamp said, "If you're not asking, it's a huge, missed opportunity."

By disaggregating data from individual departments and programs, data can point to individual departments or internal divisions where problems escalate beyond other areas. In some cases, this can be attributed to work areas that are particularly stressful for employees.

Departments of corrections and other 24/7 facilities generally have turnover rates that dramatically exceed those in other areas. In other cases, a lack of communication or questionable leadership practices may be responsible.

Reducing overtime

One costly ramification of high turnover and growing numbers of vacancies is an increase of overtime, the topic of multiple performance audits in 2020 and 2021, and the subject of the 2020 UKG report "The Great Overtime Dilemma".[8]

In recent years, often in response to audits that cite overtime problems, cities, counties, and states have freed up money in departmental budgets for data analysts who can shine a light on overtime use. In a column that ran in Route Fifty in June 2021, San Jose Auditor Joe Rois said, "You need to track this, so you know what's happening." Following a San Jose audit critical of police overtime, San Jose Police Department received a budget allocation for a data analyst to determine where and why overtime occurs.[9]

Data can signal when supervisors unfairly offer overtime to some employees but not others — potentially causing morale problems. Comparing departments with high and low levels of overtime also can help managers temporarily move around employees so that those in underutilized departments can help out departments that are stressed by too much work.

Data in government

In recent years, often in response to audits that cite overtime problems, cities, counties, and states have freed up money in departmental budgets for data analysts who can shine a light on overtime use.

Data can help leaders and managers utilize staff more productively and make sure that staffing and scheduling issues aren't leading to increased overtime use. Data can also target situations in which overtime is overused, potentially leading to fatigued and ineffective employees, morale problems, and, ultimately, declines in service and employee burnout. By using data to track consecutive hours or days worked, managers can also pinpoint employees who may be vulnerable to burnout.

In analyzing workforce management data for one county, UKG's Talona Felix became aware of a psychiatric aide whose payroll records showed she had been at work every day for 178 days. Similarly, data analysis at a state fish and wildlife agency revealed that one technology worker had worked 265 days in a row.

"I'll also look at employees who have work shifts of greater than 16 hours, and I look at the rest between shifts," she said, "and I look at employees who are showing high results for all these different issues together — consecutive days, long hours, and short rests between shifts."

Armed with that information, Felix addresses the issues she spots with managers, who often have unintentionally put employees into situations that can cause fatigue: "They're not looking at the combined impact of asking an employee to stay late or cover for someone else."

Uncovering equity issues

A growing number of states and local governments regularly assess and compare the demographic makeup of their workforces to see how closely it matches their populations. By disaggregating the information by program or agency, they can also see where imbalances occur.

One approach taken recently in Connecticut was to use data to analyze demographic representation among new hires — an important way to look at how the state may be progressing in terms of more equitable representation at a time when nearly 6,000 employees were expected to retire in 2022.

A 2021 study launched with an academic partner from the University of Connecticut[10] was designed to answer key questions about how closely Connecticut employees matched the state's population in terms of race, ethnicity, and gender. It looked into pay equity issues as well. The research utilized payroll data from the comptroller's office and had strong support from the state's executive leadership.

The study uncovered both good and bad news. It found that the proportion of the state's Black employees in many areas was equivalent to or greater than the percentage of Black people in the population as a whole. While 12.2% of the state's population is Black, the current workforce in 2021 was 12.9% Black. But the state was making much less progress with the Hispanic community. Though the state population consists of 16.9% Hispanic people, their representation in the state workforce was only 7.7%.

New-hire data — looking at who joined the Connecticut executive branch workforce in the past five years — showed new-hire representation from Black people had risen to 16.8%, while Hispanic representation overall had dropped to 5.6%.

The following chart shows a comparison of the Connecticut workforce and new hires for workers identified with Hispanic ethnicity.
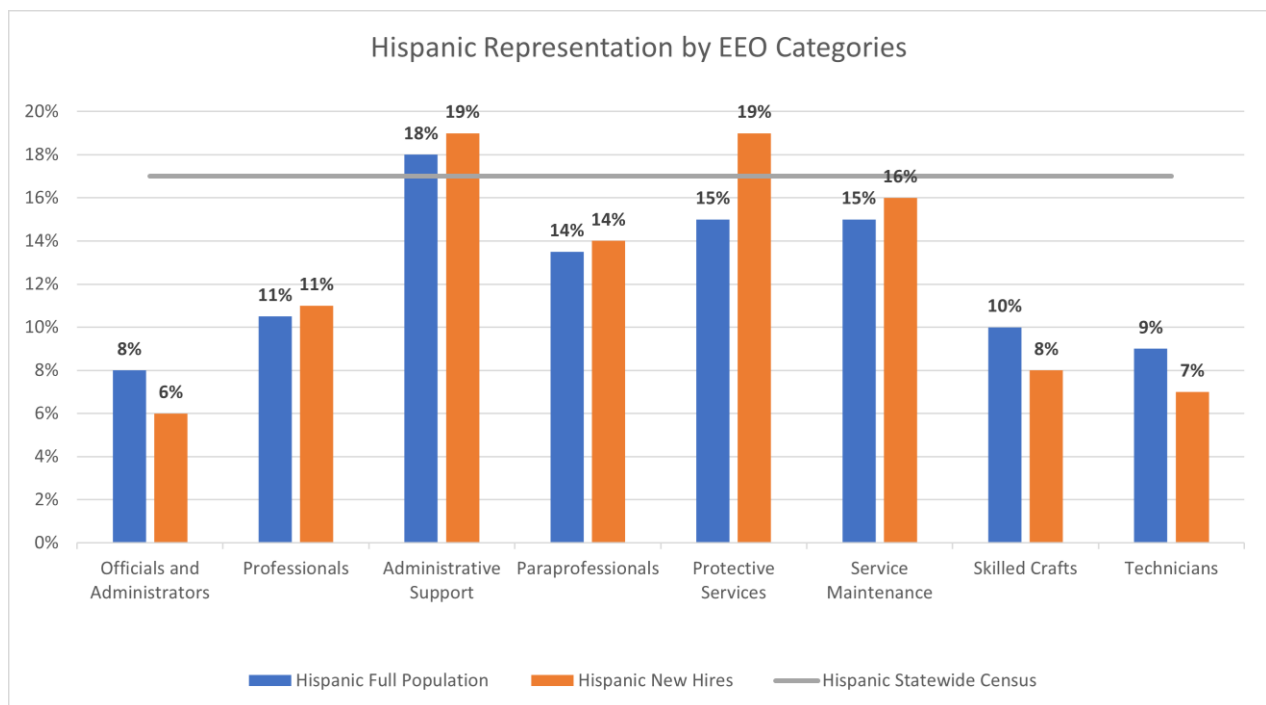
Dr. Alkadry Mohamad, professor and director of the School of Public Policy at the University of Connecticut, is hopeful that the study will be repeated on an annual basis to track the state's success in achieving equitable pay and representation. In his view, the best value of a study like this comes from disaggregation of the data to an agency or department level. In that way, management attention can be focused on the areas where inequitable representation or pay appears to be most problematic.

For example, the study found women had made gains in some fields but not in others. While women made up 20% of the engineering and construction executive branch workforce, only 15% of the individuals hired in those areas in the past five years were women.

"Right now, the information is here, and the question is 'What is going to be done about it,'" Mohamad said.

Tara Downes, assistant state comptroller, who worked with Mohamad on the report, added, "There cannot be a one-size-fits-all approach but an agency-by-agency strategy. This should force every agency to think about what it can do to cast a wider net or change the culture. I think there are things that every agency can do at the management level about over- or underrepresentation."

Improving health and controlling costs

Kentucky's ability to improve employee health and control the rise in health costs is aided by a base of information available through the Kentucky Health Plan. Kentucky is one of 29 fully self-insured states, meaning that it sets aside reserve money to handle its health claims, taking health cost risk on itself rather than relying on an insurance company.[11]

To serve its employees and taxpayers well, that information is crucial. "Without the data, we would be lost," said Sharron Burton, deputy commissioner of the Kentucky Department of Employee Insurance. "It's essential."

Although only about 30,000 covered individuals are in the executive branch of the state, its health plan also covers the legislature and judiciary, as well as other public organizations that have chosen to use the State of Kentucky as their health carrier, bringing the covered lives in the plan to almost 300,000 or 6.7% of Kentucky's total population. According to annual reports issued between 2018 and 2021, Kentucky Employee's Health Plan premium increases have consistently been below private and public employee trends.[12]

Kentucky has used its data to target specific health areas that result in larger-than-average claims to control the rise in health costs at the same time as improving employee health. The state has created special programs to focus on four areas that are responsible for a larger than average share of the state's health-care costs: diabetes, asthma, back pain, and chronic obstructive pulmonary disease (COPD).

The diabetes program, for example, focuses on preventive measures for individuals with prediabetes, while also removing co-share costs and providing free-to-the-employee prescriptions to employees with diabetes, in order to improve employees' medical compliance.

"We've reduced the costs associated with different benefits, taking care of some of the top five costs that we see for claims in our insurance program," said Robbie Perkins, director of the division of information technology for the Kentucky Office of Administrative Services.

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Beyond these efforts, Kentucky is working with a private vendor to make use of hospital pricing data and employee rebates to encourage employees to select high-value, lower-cost options for surgery or other medical procedures. In a May 2020 brief about state employee health benefits, insurance, and costs, the National Conference of State Legislatures pointed to Kentucky as one of three states that had "Right to Shop" programs that provide data to employees as to local hospital procedure costs and provide an incentive or rebate for choosing the less expensive option.[13]

The program provides incentive payments for employees and saves money for the state. For example, one employee recently received a rebate check of $750 six weeks after undergoing surgery.

The rebate stemmed from the employee's decision to compare prices and choose a hospital where the procedure was less costly than at the hospital he normally would have used. That also saved the Kentucky Health Plan $7,500.

Since 2013, when the Smart Shopper program began, Kentucky has saved $20 million through its use, excluding employee rebates. Meanwhile, employees using Smart Shopper data have come away with $500 rebate checks on colonoscopies, $150 rebates on CT scans, and $25 for simply choosing a less-expensive provider of lab tests.

"Without the data, we would be lost. It's essential."

Sharron Burton, Deputy Commissioner of the
Kentucky Department of Employee Insurance

Workforce and succession planning

As states and localities are facing a seemingly relentless march of employees out the door — either to join their other retired friends on the golf course or to take another job — workforce planning and succession planning have become more important now than at any point in recent memory.

By way of distinguishing between the two similar-sounding efforts, succession planning focuses on specific upcoming openings that can potentially be filled by people already working in the government, while workforce planning takes a broader look at strategies that will be needed in the future to ensure a healthy organization. Having good comprehensive data and using it well are critical for both these efforts.

Oklahoma City's Fuller describes the change in approach that has happened there between 2019 and today. Prior to the pandemic, there was a sense in the city that retirements would soon be escalating, but the focus was largely confined to the leadership in individual departments.

As a result, the central HR office did not have a good sense of departments that tended to have older workers and would be faced with an onslaught of retirements. It also had not absorbed how much retirement departures would affect the city as a whole.

By centralizing data from multiple departments in common datasets, officials were forced to come to grips with citywide problems that were coming at them.

Initial data analysis on retirement eligibility throughout the city, for example, jolted officials with some truly alarming news: Nearly a quarter of its employees could walk out the door immediately if they chose to retire. "We knew it was bad, but we didn't know it was that bad," said Fuller.

Analysis then followed to identify the most critical positions and also to find individuals who might be able to step into those positions when they're vacated. The idea is to get ahead of what Fuller described as the "horrible gap that is coming," a process that will be aided by a new human resources system that is now being purchased to further automate the analysis.

Data also plays a vital part in more comprehensive workforce planning, providing the ability to look somewhat more broadly at workforce needs, with data analyses that gauge the kinds of roles that will need filling in the short, medium and long term.

Multiple reports, articles, and essays on the internet portray workforce planning as a critical HR function, and it's easy to assume that means that it's also a common exercise.

But multiple conversations with human resource officials in state and local government reveal that though there's general agreement on the importance of workforce planning, it's often neglected — something that busy human resource officials know they want to do but don't have the time for.

A consulting review by the city auditor in Tempe, Arizona, recently looked at a variety of other local municipalities to see how they were handling workforce planning. The memo noted how useful workforce planning would be for Tempe, which currently does not have an entitywide workforce planning initiative.[14]

Based on a survey, the consulting review noted that only one of 16 Tempe departments had a workforce planning team. It reported that of the 11 local municipal governments the auditor's office surveyed, it found one jurisdiction, Phoenix, that had created a citywide workforce plan that included partnerships "within and across" city departments. Of the other cities, most did not have a formal workforce plan or were in the early stages of developing one, according to the Tempe memo.

Still, as the growing use of data has made it unquestionably clear that surprises are the enemy of a well-stocked workforce, there appears to be hope that data will be the ally of cities and states on this front as well.

Phoenix has been using data for workforce planning for decades — beginning before many other cities were even thinking of the importance of that effort. Its initiatives are guided by the central HR office but take place at the department level. Data used includes vacancy reports, turnover data, and detailed information about hard-to-fill positions. David Mathews, Phoenix's human resource director, said that this effort examines the business priorities for each department over the next three to five years out, considering potential reorganizations, upcoming retirements, and skill gaps in the city's current cadre of employees.

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