States of Michigan, Pennsylvania and Washington & NEOGOV

2020 Excellence Through Collaboration Award

Checkmate: Job Applicants
Executive Summary (10 points)

When State Chief Administrators admitted their greatest workforce challenge was attracting new employees to work in their organizations, NEOGOV began gathering data and analytics from their customer base of 6,000+ public sector agencies. What they found was of great concern. Across 22,800,000+ job applications and 420,000+ job openings, the number of applications per job had dropped 27% over the last 6 years. (Agencies across the nation were receiving 64 applications per job in 2014 compared to only 47 in 2019.)

Recognizing this number of open positions meant many understaffed state government workforces across the nation may not be meeting their citizen’s service expectations, NEOGOV knew it needed to help its customers by more than just raising their awareness for a call to action. In response, the NEOGOV team asked the states of Michigan, Pennsylvania, and Washington to work with NEOGOV in a pilot study on recruitment marketing. The purpose was twofold: (1) identify the root causes of too many open positions and too few applicants, then (2) create a roadmap to address those causes. The following were NEOGOV’s findings:

**The Good:** The top 1/3 of all jobs posted are typically good and don’t need attention –
- They have high conversion rates (3%+) and enough views to deliver plenty of qualified applicants
- Agencies shouldn’t spend time rewriting or advertising these postings because a high percentage of time they are meeting their target applicant count in a reasonable amount of time

**The Bad:** The middle 1/3 of all jobs posted typically need a boost in advertising on job boards -
- They have decent conversion rates (between 2 and 3%) but not enough views - they need advertising to increase their views and applicants
- Boost is a useful function on appealing jobs (high conversion), but with low views

**The Ugly:** The bottom 1/3 of all jobs posted have a very difficult time attracting applicants -
- Their extremely low conversion rates (<1%) do not see big enough increases in applicants from rewriting the job description or advertising – these positions need structural changes like scheduling, technology, etc.

The three states participating in this study were instrumental in accelerating the identification of the root causes and solutions to addressing the public sector’s low volume of applicants. After presenting the analysis and conclusions to each of the states in the study, NEOGOV went on to develop mockup software functionality. Each state then reviewed the mockup as well as a larger focus group of public sector agencies. Software changes were subsequently finalized and moved into the production phase for release in Q4 of CY2020.

NEOGOV calls this new recruiting functionality “Pinpoint workforce planning.” Using this functionality, agencies can make data-driven decisions about the actions to take on job postings based on a combination of job appeal (conversion rate) and job seeker awareness (number of views). Example decisions:

- Only advertise jobs with low views and high conversion rates of 2% and above
- Only rewrite job posting descriptions with conversion rates between 1.5% and 2% because rewriting often has a 10-15% impact on conversion
- Don’t advertise any jobs with low conversion rates (<1%) and instead make “structural changes”
- Repost continuous job postings as a seemingly new post (keep it fresh) to engage new job seekers
Collaboration (50 points)

From the fall of 2019 to the summer of 2020, the process involved face-to-face work sessions and virtual conferences. Those involved from each state included the CAO, the agency’s and/or state’s HR leadership, and staff from various user agencies responsible for recruiting and advertising spend. The NEOGOV team included CEO Shane Evangelist, Strategic Advisor Bob Oglesby, State Account Manager Paul Raspudic, plus their Data Scientists, Data Analysts, and a Copy Writer.

First, NEOGOV met with each state agency to understand their particular processes, job posting history, position benefits, and pain points. They also explained NEOGOV’s / Accenture’s survey results from approximately 3,000 public and private sector job seekers presented in the NASCA Job One report. The report identified the top motivators of each sector’s job applicants. This data would be used to improve the job posting’s attractiveness by rewriting the agencies’ associated job postings to highlight how the job meets the applicants’ motivators.

Next, the cross-functional team collaborated to select the actual job postings to include in the pilot test. They selected those that would benefit from either a job posting rewrite and/or a boost in their advertising. The goal was to increase the number of views, based on the assumption that more views would lead to more qualified applicants.

During the testing, NEOGOV checked in with each state agency every two weeks with this agenda:

- Discuss various topics including selecting job postings with low trending applicant performance;
- Review NEOGOV’s proposed job posting rewrites;
- Pick the postings to be given a boost in their advertising (NEOGOV paid for more than half of the study’s total boosted advertising costs);
- Compare results from the previous week’s job postings (those that had been rewritten, boosted, or both) to a control group of identical job postings which had none of these improvements.

Lastly, the NEOGOV team presented a draft of their analysis findings to each agency, including each state’s CAO and HR leadership. The results showed definite improvements in the number of applicants:

- 18% increase by only rewriting the job posting descriptions;
- 20% increase by only boosting the advertising;
- 35% increase when both were done (rewrite + boost).

Value Added (40 points)

This study identified three (3) key benefits around State hiring challenges: (1) Improved Productivity; (2) Improved Data-Driven Decision-Making; and (3) Reduced Spending. When looking at a macro view of how recruiting is performed by state governments across the nation, NEOGOV found it is often performed by employees in most state’s individual agencies versus those in “Central HR”. This includes responsibility for determining which job postings to advertise, where to advertise, and how much to spend. Often, these employees also handle other responsibilities and lack the recruiting expertise and experience of those in the main HR office. They also are usually more task oriented than strategic in their actions. For example, job posting descriptions are often reused, so those that currently aren’t written to be very appealing to a job seeker continue the cycle of not attracting many applicants. With the ability to view aggregate data

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from all its public sector-only customers, NEOGOV can provide insights and tools these customers are unlikely to otherwise have that help them better focus and leverage their budget-constrained human resources and advertising monies.

As it may take several years to fully measure the results from this longitudinal study, only expected results are listed below:

**Improved Productivity**
- Fewer hours spent trying to decide when to advertise or not
- Fewer hours spent on accurately identifying the best job boards to use
- Fewer hours spent trying to fill non-appealing positions until structural changes are made
- Estimated benefits:
  - Increased candidate pool and more qualified applicants
  - More time spent on higher priority activities
  - Reduced “Time to Hire”
  - Happier, more motivated, and more productive employees – both in the HR team and in the new hires - who are likely to stay longer

**Improved Data-Driven Decision-Making**
- Using data-based Artificial Intelligence to identify whether or not to advertise each posting
  - Only advertising when the data / system shows it is beneficial, not when it is “hard-to-fill”.
  - Per NEOGOV’s research data and analysis:
    - 19% of postings typically show a benefit from advertising
    - 81% of postings either attract sufficient applicants without advertising OR need structural changes because advertising won’t help increase the number of applicants

**Reduced Spending**
- **Optimize advertising spend**
  - Use artificial intelligence to decide when to advertise and to select the job boards most likely to result in more applicants per advertising dollar. The end result potentially could drastically reduce the agency’s total advertising costs.
  - Estimated savings:
    - As an example, for every $10,000 an agency was previously spending on advertising its open positions, this new functionality could save them around 75% or $7,500 of every $10,000 they spend. *(See support document for calculations.)*
      - Assumes they spend nothing on the top 1/3 that are easy to fill and split their monies equally on the other 2/3 because they don’t have the data or time to easily decide which of those postings to advertise.
    - Note: One of the states involved in this study spent approximately $700,000 as an enterprise in one year advertising their open positions. Using this new strategy would equate to a reduction in spending by approximately $525,000 during the first year alone.
- **Improve time to fill open positions versus paying duplicative overtime from being understaffed**
  - A state agency likely has been paying overtime to some of it’s workers until they fill their open positions.
  - Estimated savings:
    - As an example, if 10% of an organization’s 10,000 annually hired employees are paid $20/hour and 1.5x for overtime, boosting the advertising of 19% of those open postings could result in a reduced time to hire and $200,000+ in overtime savings. (10% = >$200k+; 15% = >$300k+ and 30% = > $600k+). *(See support document for calculations.)*