Public Sector Recruitment in a Time of Hyper Technological Change:
Towards a Model of E-Recruitment Adoption and Its Impact

Abstract

For the past two decades, governments at all levels have increasingly focused their human resources management efforts on developing effective e-recruitment and branding strategies in an environment of hyper technological change. For many public organizations, these efforts have centered on posting essential vacancy announcement information on their institutional employment websites, but more technologically savvy organizations have rapidly begun to adopt multifaceted and innovative approaches to recruiting new employees through the use of developing Web 2.0 technologies and third-party recruitment networks. While there is a growing body of research documenting the increasing use of these new technologies in the public sector, this paper seeks to address the variation in e-recruitment adoption by providing a summary assessment of the public sector e-recruitment environment, proposing a typological framework to explain the variation in public sector e-recruitment adoption, and last, discussing the potential impact of both robust and limited e-recruitment adoption efforts.

Jared J. Llorens
Assistant Professor
Louisiana State University
Public Administration Institute
3200 Patrick F. Taylor Hall
Baton Rouge, Louisiana 70803
jared1@lsu.edu

Paper to be presented at the 2010 American Political Science Association conference in Washington, DC.
For job seekers and employers looking for quality candidates, the contemporary employment landscape can often appear to be moving at the speed of light, and for both, efficiently and effectively navigating the plethora of recruitment opportunities and avenues can often appear daunting. Job seekers, regardless of targeted sector of employment, are faced with the task of identifying and tapping into employer recruitment efforts and, likewise, employers are tasked with trying to adapt to the needs and characteristics of an ever changing workforce. While this task is a substantial challenge for any employer, it is even more of a challenge for public sector organizations operating under increasingly limited budgets and varying levels of technical expertise. As a result of these challenges, the field of public administration has paid an increasing amount of attention to the necessity of maintaining efficient and effective recruitment processes in light of both the pending retirements of those employees belonging to the Baby Boomer generation and the employment needs of a younger generation of more technologically savvy job seekers (Voinovich, 2000; National Academy of Public Administration, 2001; Partnership for Public Service, 2007).

While current economic conditions are thought to have substantially limited an increase in public sector retirements, the recruitment process still functions as one of the key components of ensuring the presence of a high performing and productive workforce, since conventional wisdom holds that the higher the quality of candidates brought into the application process, the higher the probability that high quality candidates will also be brought into the organization (Hays and Sowa, 2010). Although there are numerous methods for recruiting potential candidates, from the use of trained recruiters attending local job fairs to print advertisements, in recent years most attention on public sector recruitment efforts has been focused on developing and refining e-recruitment practices (i.e., the use of web-based recruitment tools) since they hold
the potential to more efficiently reach a wider, often younger, candidate pool, as well as provide an almost limitless amount of information on job opportunities. The use of e-recruitment practices has received an increasing amount of attention in the field of public human resources management, but, to date, the field has yet to fully address the drivers of variation in the public sector’s adoption of new technologies and the potential impact of this variation on the composition of public sector workforces (Cober et. al., 2000; West and Berman, 2001; Llorens and Kellough, 2007; Kim and O’Connor, 2009; Hays and Sowa, 2010).

While the use of emerging technologies provides new realms of opportunity for public sector employers seeking to recruit the ‘best and the brightest’, it also raises a number of questions for scholars and practitioners. For instance, what type of organizations are best suited to leverage emerging technologies and do more technologically proficient organizations operate at a competitive advantage to those who have yet to fully jump on the technology bandwagon? Likewise, to what extent can the use of new technologies alter the composition of applicant pools, and, if altered, does the use of new technologies contribute to more talented and qualified applicant pools? The goal of this paper is to begin the process of answering these questions by providing a summary assessment of the public sector e-recruitment landscape, proposing a typological framework to help explain the variation in public sector e-recruitment adoption, and last, discussing the potential impact of both robust and limited e-recruitment adoption efforts.

**From Traditional to E-Recruitment**

Although often undervalued, recruitment can be viewed as one of the most important tasks for any high performing organization and the past decade has witnessed a remarkably dramatic shift in the manner in which job seekers obtain information on employment
opportunities. At its core, the recruitment function, whether in the public or private sector, is primarily concerned with providing timely and relevant employment information to interested job seekers in order to garner a sufficient applicant pool of potential candidates. Thus, organizations that are able to garner large, qualified applicant pools are thought to increase their potential for hiring the best and brightest candidates, with the hope that hiring such candidates will result in stable or improved organizational performance. If comparing the employment process to the construction of a major building, the recruitment component can be viewed as the building’s foundation, and a poorly executed recruitment process, much like a poorly laid foundation, can lead to future employment problems, such as inadequate performance or excessive turnover.

For many public sector organizations, the recruitment process remained relatively stable leading up to the early-1990s. In most instances, organizations would seek out potential applicants by simply sending out recruiters to job fairs or colleges, posting vacancy information in local media outlets, or relying on word of mouth advertisement. In the case of the federal government, agencies simply posted vacancy information on job boards located in federal buildings and later transitioned to the use of job kiosks (Llorens and Kellough, 2007). However, major advancements in information technology, namely the emergence of the internet, in the early 1990s quickly ushered in the use of new strategies that both supplemented and substantially altered traditional approaches to recruitment. For many organizations, the most substantial impact of the internet was the ability to post job vacancy information on organizational websites, which allowed employers to reach broader applicant pools that were not confined by geographic region. As has been noted in prior research (Cober et. al., 2000; West and Berman, 2001; Llorens and Kellough, 2007; Kim and O’Connor, 2009; Hays and Sowa, 2010), this impact has
been readily apparent at all levels of government, and, in many respects, the adoption of these new technologies by public sector employers has come to be viewed as essential for meeting future employment needs.

Despite the rapid advancement in recruitment technologies available to employers of all sizes and sectors, the past five years has witnessed an even more rapid technological transformation from e-recruitment efforts of the past. While it was once considered cutting edge to provide vacancy information and on-line application capabilities to potential applicants, the recruitment landscape has shifted to the use of more advanced technologies, commonly referred to as Web 2.0.\textsuperscript{1} Taking advantage of overall increases in the computing and processing power of modern computers and mobile computing devices, employers are now able to utilize a host of more interactive tools in recruiting candidates. Leading organizations in the area of e-recruitment can now post streaming videos of employees working in their office environments, advertise vacancy information on popular social networking websites such as Facebook and Twitter, and, in the case of extremely innovative organizations, conduct virtual job fairs where potential candidates are not even required to leave the comforts of their home to interact with a recruiter.

\textit{Public Sector E-Recruitment Adoption}

Given its tremendous potential, there is a growing body of research documenting the use of e-recruitment technologies in the public sector and much of this research highlights the considerable variation in e-recruitment practices both across and within different levels of

\begin{footnotesize}
\begin{itemize}
\item Web 2.0 generally refers to those technologies that represent the second wave of web-based functionality. Webcontent.gov, an instructional website managed by the Federal Web Managers Council, identifies “blogs, wikis, photo-sharing, video-sharing, podcasts, social networking, social bookmarking, mashups, widgets, virtual worlds, [and] microblogs” as common Web 2.0 technologies (2010).
\end{itemize}
\end{footnotesize}
government. At the local level, West and Berman’s 2000 survey of 222 municipal human resources offices found that more than two thirds of respondents used online recruitment in some form, and that approximately 79% of respondents encouraged the use of web-based e-recruitment (2001, 46). Bingham et. al.’s 2002 article on Washington State’s use of a web-based application system was one of the first efforts to document the use of new recruitment technologies at the state level, and point out the potential benefits to other state governments. More recently, Kim and O’Connor’s 2005 survey of 23 state governments found substantial variation in state government e-recruitment adoption (2010). While all surveyed states indicated that they posted vacancy information online, only 16 states allowed applicants to submit applications electronically, 11 states allowed applicants to track their applications, 17 states provided answers to frequently asked questions and only 4 states posted information on their organization’s values (53-54). While many potential applicants might envision the federal government as monolithic in its e-recruitment efforts, Llorens and Kellough’s 2007 article on the Office of Personnel Management’s (OPM) Recruitment One-Stop program highlights the considerable variation in e-recruitment adoption that also exists between federal agencies due to varying levels of technical capacity and the flexibilities inherent in personnel decentralization. Although OPM’s USAJobs website functions as a central e-recruitment portal for the entire federal government, individual agencies are still responsible for maintaining their own agency-level e-recruitment efforts, with the result being a considerable degree of variation across agencies.

To date, there have been no research efforts that have attempted to comprehensively and simultaneously assess public sector e-recruitment efforts across all levels of government, and, in many respects, any effort to do so would most likely be hampered by the rapid rate at which
new technologies are introduced into the labor market and adopted by organizations. However, a limited review of select public sector e-recruitment efforts can be quite useful in highlighting the variation in adoption efforts across the public sector. At the federal level, the efforts of the U.S. Peace Corps serves as a great example of a federal agency taking full advantage of existing technologies. Given that Peace Corp volunteers are minimally compensated, often serve in inhospitable environments, and commit to working under such conditions for two years, it is not a surprise that the organization would have to engage in extremely persuasive and informative recruitment and outreach efforts to consistently attract volunteers committed to making such a sacrifice. While it is common to find former Peace Corps volunteers recruiting at colleges and universities across the nation, the Corps appears to have fully embraced the potential to leverage emerging e-recruitment technologies in an effort to attract candidates that may not come into contact with recruiters. Through its website, the Corps provides potential applicants with access to video-journals by current volunteers, volunteer journal entries documenting day-to-day experiences in the field, photo galleries of volunteers working in the field and the ability to stay up-to-date with the activities of the Corps through an array of popular social media networking sites such as Facebook and Twitter (2010a). Perhaps the most innovative e-recruitment approach by the Corps is its use of web-based gaming to allow potential applicants to experience some of the common situations encountered by volunteers in the field.

**Insert Figure 1 here**

Illustrated in Figure 1 above, the aptly named ‘Peace Corps Challenge’ walks players through scenarios, such as remedying a contaminated water supply, encountered in a fictional village
When used in conjunction with the other technologies described above, it is easy to see how the Corps has successfully allowed interested applicants not only the ability to learn about what it’s like to volunteer, but also the opportunity to test their skill levels at responding to problems that they would most likely have to address should they apply and be accepted as a volunteer.

The U.S. Department of Education, on the other hand, serves as an example of an agency that maintains a very limited approach to attracting new talent. From the Department’s main homepage, interested applicants can link to the ‘Jobs at ED’ section of the website (U.S. Department of Education, 2010). From there, candidates can link directly to the Office of Personnel Management’s USAJobs website which is pre-filtered for those vacancies open within the Department of Education. However, unlike the Peace Corps, the potential applicant is provided with few opportunities to learn more about the Department beyond standard boilerplate language on federal leave, salaries and benefits. There are no descriptions of the working environment within the Department, nor are there any additional tools employed to convince an applicant that the U.S. Department of Education is an employer of choice.

Moving from federal to state government, the landscape is no less varied. Some states maintain fairly robust e-recruitment efforts, while others are fairly limited. For example, the Kansas Division of Administration provides job seekers with web-based vacancy announcement search capabilities, the ability to learn of upcoming applicant training workshops through Twitter, and a web-based video with the personnel director personally describing the application job process (State of Kansas, 2010). On the other hand, the State of North Dakota maintains a more limited e-recruitment presence. Although vacancy announcements are posted online,
applicants are still required to download applications and mail them in hard-copy form directly to the applicable hiring manager (State of North Dakota, 2010).

If the Peace Corps functions as an example of a public organization that has taken full advantage of available e-recruitment technologies, then the City of New Orleans serves as an example of a local government that maintains a very limited and strikingly dated approach to attracting new talent. The City’s homepage directs interested job applicants to the website for the City’s Civil Service Commission. There, job seekers are provided with a brief description of the role of the city’s civil service office, office hours, a physical address and the following guidance:

**Applications for Employment** in Civil Service positions with the City of New Orleans are taken for specific positions for which we anticipate vacancies. The announcements for these positions are posted outside of our City Hall office. Persons wishing more information on how to apply and on which applications we are currently accepting should contact our Recruitment Division at 504-658-3516 (2010).

Similar to the recruitment norms of the 1980s, there are no descriptions of the working environment within city government, no social networking tools, no opportunities to search for vacancies through the website, nor are there any additional efforts to convince an applicant that the City would be an employer of choice. On the other hand, the City of San Francisco’s e-recruitment efforts stand in stark contrast. The City’s Department of Human Resources provides introductory information to job seekers on its webpage, and then directs interested applicants to a third-party website, www.Jobaps.com, that posts vacancies for the City and allows applicants to apply for City government positions online (City of San Francisco, 2010).
The Role of Third-Party E-Recruitment

The City of San Francisco’s use of a third-party website to manage its e-recruitment activities highlights another important characteristic of contemporary public sector e-recruitment efforts - the role of both for-profit and non-profit organizations engaging in public sector recruitment. In the case of San Francisco, the city’s e-recruitment efforts are maintained by Jobaps.com, a for-profit company that advertises that, along with the City of San Francisco, its services have also been adopted by the States of Delaware and Oklahoma, and that its software “features the most sophisticated end-to-end hiring system for government agencies available anywhere and provides world-class solutions using state-of-the-art technologies to solve the unique challenges of government hiring” (Jobaps.com, 2010). Along with Jobaps.com, a number of other companies provide e-recruitment services to government agencies at all levels. One of the more well-known is Monster.com’s Government Solutions line of business which markets its e-recruitment services to federal, state and local government agencies, and also makes support services, such as discussion groups and webinars, available to its clients (Monster.com, 2010).²

A recent private sector venture into the public sector e-recruitment arena is Govloop.com. Launched in 2008, Govloop.com combines the features of popular social networking sites, such as Facebook.com, with a targeted focus on government employees (Govloop.com, 2010a). In addition to targeting members from federal, state and local government, Govloop.com also welcomes “students and individuals interested in government service,” and most important to e-recruitment activities, the website provides an e-forum for employers and job seekers to communicate on topics ranging from upcoming job announcements to tips on being an effective employee. For an example of the website’s functionality in matching employers with potential employees.

² Monster.com was also the initial provider of e-recruitment services to the U.S. Office of Personnel Management in the maintenance of the USAJobs website (Llorens & Kellough, 2007).
applicants, one recent post by a site member on the Govloop.com job forum states “I have a friend who is hiring 3 slots GS-9/13 and one GS-14 budget positions. It's a pretty cool and opening should be announced shortly on USAJOBS. Let me know if interested and I'll pass along the name.” In response, another member states “I am interested. I currently live in Denver and have been a GS 13 for DOI and DOE. My resume is attached.” (Govloop.com, 2010b). Additionally, job announcement posted on the website are also posted on the website’s Twitter page so that prospective applicants can be notified in ‘real-time’.

Along with for-profit companies such as Jobaps.com, Govloop.com and Monster.com, there has been an emerging cadre of non-profit organizations dedicated to facilitating the public sector recruitment process, primarily through e-recruitment means. Two of the more prominent organizations include the Partnership for Public Service and Publicservicecareers.org. Founded in 2001 by philanthropist Samuel Heyman to “restore prestige to government service and reestablish the federal government as an attractive employer for America’s best and brightest,” the Partnership’s undertakes an diverse array of recruitment activities that range from awards programs for outstanding federal civil servants, consulting one-on-one with federal agencies to improve their recruitment and hiring programs, and publishing original research on topics critical to federal recruitment (Partnership, 2010a). While centrally located in Washington, DC nearly all of the Partnership’s publications are available online, and, in the area of e-recruitment, the Partnership provides online tips to jobseekers on navigating the federal hiring process as well as the top places to work in the federal government (Partnership, 2010b).

Similar in many respects to the efforts of the Partnership for Public Service, Publicservicecareers.org is a nonprofit, public sector employment website jointly administered

---

3 Surprisingly, this respondent’s resume, and that of other interested applicants, was accessible without actually logging onto the website, thus raising significant privacy concerns.
by the Association for Public Policy Analysis and Management, the American Society for Public Administration and the National Association of Schools of Public Affairs and Administration. Launched in 2006 with the goal of promoting public service, one of the key components of the website is an employment listing service that matches prospective candidates with government, nonprofit, academic and consultant based employers (Publicservicecareers.org, 2010). One of the unique aspects of the website is its multifaceted approach to e-recruitment which provides the ability to view job vacancies, internships, receive target vacancy announcement alerts, and post resumes.

When viewed in combination with institutional recruitment efforts, a very complex snapshot of public sector e-recruitment practices begins to emerge. As seen in Figure 2 below, public sector organizations are faced with the complex decision of adopting an array of recruitment strategies that range from maintaining their own e-recruitment efforts to outsourcing their efforts to the private sector, or, as is the case with the City of New Orleans, electing to pursue more traditional methods of attracting qualified candidates.

Insert Figure 2 here

As a result of these varied, and oftentimes overlapping, efforts, individuals seeking public sector employment are faced with the equally complex task of navigating this potentially confusing landscape in search of the job that optimally suits their needs. In the best case scenario, job seekers can be afforded ample opportunity to access vital information in their search for an organization, but, in worst case scenarios, they can be faced with the unenviable task of locating vacancy announcements in a maze of paper-based or outsourced recruitment outreach efforts.
For researchers, this rapidly evolving environment raises two critical questions beyond simply documenting the use of emerging technologies. One, what factors or organizational characteristics help to explain e-recruitment adoption and two, to what extent can e-recruitment efforts impact the type of candidate brought into an organization?

**Towards a Typological Framework for E-Recruitment Adoption & Its Impact**

As has been noted, there is a growing body of research on public sector e-recruitment adoption that has focused on documenting innovative changes in the field and highlighting the need for public organizations to adopt new techniques to meet the needs of the contemporary labor market. An equally important task for scholars is to address the explanatory factors influencing e-recruitment adoption and the potential impact of robust and limited adoption efforts. Paul Windolf’s typology for classifying organizational recruitment strategies provides a useful basis for evaluating public sector e-recruitment efforts (1986). In a study of British and German firms, Windolf found that an organization’s choice of recruitment strategy was predicated upon both the labor market power of the organization and its organizational intelligence. Within this typology, labor market power is defined as the “degree of choice which the firm can exercise in deciding upon a particular recruitment strategy,” and can readily describe both high and low wage organizations depending upon the relevant labor market (238). For example, organizations offering high wages or increased job security would be said to hold considerable labor market power due to their competitive advantage over other employers, but low-wage organizations may also hold substantial labor market power where they are the dominant power within a labor market (e.g., a large agribusiness in a rural community). Likewise, organizational intelligence refers to the “capacity of the firm to use professional
knowledge, to collect and process information, and to work out complex labor market strategies” (239). Within this typology, organizations with high labor market power and high organizational intelligence were found to utilize innovative, in this case varied, recruitment strategies, while those with high power and low intelligence were found to maintain their status quo strategies. On the other hand, organizations with low labor market power and high organizational intelligence were found to utilize flexible recruitment strategies, and those with low power and low intelligence were found to ‘muddle through’ their recruitment efforts.

Windolf’s typology can be readily adapted and applied to public sector e-recruitment. Shown in Figure 3, below, the adapted typology serves as a useful tool for explaining the variation in public sector e-recruitment adoption discussed earlier.

**Insert Figure 3 here**

Within this typology, public sector organizations can be classified by both their labor market status and technical competency with regards to e-recruitment. High-status organizations can be those for which applicants consistently desire employment opportunities, regardless of the overall labor market, or those that hold a competitive advantage in the labor market for reasons related to wages, job security, benefits, etc. For example, the U.S. Federal Bureau of Investigation can be considered a high-status employer in the public sector law enforcement community because of the importance of its mission and overall reputation. Regardless of favorable or unfavorable economic conditions, one would expect a robust pool of candidates seeking employment opportunities within the agency. Similarly, many state and local government employers may also be considered high-status to the extent that they provide one of
the few avenues to stable employment and benefits in a local community. For example, the City of Flint, MI might be considered high-status employer, not due to its reputation as an employer of choice, but to the lack of other equally beneficial employment opportunities.

Within this context, e-recruitment technical competency refers to the capacity of an organization’s human resources professionals to either establish, utilize and/or maintain contemporary e-recruitment strategies, as well as the ability to effectively outsource such efforts to the private sector. Those organizations with high levels of technical competency in the area of e-recruitment can be expected to fully leverage existing and emerging technologies to reach talented and high-quality applicant pools, or, as is the case with the City of San Francisco, be able to identify providers that can do so for them on a contractual basis (Coursey, 2010). Those organizations with limited technical capabilities can be expected to maintain minimal e-recruitment efforts, efforts that do not take full advantage of existing technologies, or poorly executed efforts that do not reach or meet the needs of their target audience. The City of New Orleans’ e-recruitment efforts serves as a prime example of an organization that one would expect to possess a low level of technical competence with regard to e-recruitment.

While there have been increasing calls for all public organizations to leverage new e-recruitment technologies to the best extent possible, this typology also assists in predicting the potential impact of limited or robust e-recruitment efforts. Prior research on the impact of web-based recruitment has found evidence of a significant link between characteristics of web-based recruitment and perceived organizational attractiveness by interested candidates. Specifically, Zusman and Landis (2002), evaluating the perceptions of undergraduate students toward low, average, and high quality employment websites found that the quality of an organization’s site was directly related to whether or not that organization was deemed an attractive potential
employer. In a later study of college undergraduate perceptions of employer attractiveness, Cober, et. al. (2004) found that “perceptions of compensation, culture, development, aesthetics, and navigational usability were all significantly related to pursuit and recommendation intentions” (164). Overall, prior research has not addressed this link in the public sector, but Kim and O’Connor’s survey of 23 state personnel offices found that 15 states evaluated their e-recruitment efforts using a broad range of metrics, from managerial feedback to employee retention and cost per hire (2009). However, they did not report whether these metrics demonstrated a favorable impact.

While prior research addressing the return on investment for public e-recruitment practices is limited, the typology shown in Figure 3 can be helpful in predicting the adoption of e-recruitment technologies and its potential impact on applicant quality. To illustrate this point further, consider organizations classified as belonging to the first quadrant – those with high organizational status and limited technical competencies in the area of e-recruitment. While one would expect to find limited adoption of e-recruitment technologies within these organizations, the resulting applicant pool would most likely remain stable due to the relatively high status of the organization (e.g., a technologically limited government employer in a depressed community). For organizations of this sort, the stakes of e-recruitment adoption are relatively low since the nonuse of new technologies like Facebook or web-based gaming should not drastically affect their ability to recruit quality candidates within their relevant labor market.

In contrast to organizations operating in quadrant I, those operating in quadrant IV (low-status, high technical competency) stand to gain the most from a robust adoption of e-recruitment technologies. For example, consider the case of a small local government recruiting applicants in a labor market with a below average unemployment rate and substantial growth in private
sector wage rates. In this case, e-recruitment efforts hold the potential to substantially increase the quality of the organization’s applicant pools due to their ability to reach beyond local geographic boundaries and proactively attract those potential applicants residing in more limited labor markets. Conversely, organizations operating in quadrant III will miss out on such opportunities and also experience the full consequences of being a low-status employer. Last, organizations operating in quadrant II are those exemplary organizations that benefit from having a high status among job seekers and a robust adoption of e-recruitment technologies due to high technical competencies. As a result, one would expect to find the best and the brightest applicants for vacant positions in these organizations, and, quite possibly, better organizational performance as a result.

**Conclusion & Directions for Future Research**

Although the current economic downturn has negatively impacted public sector employment, the recruitment of the best and the brightest candidates into public service will remain one of the most critical tasks for public organizations at all levels government, and emerging e-recruitment technologies will hold the potential to dramatically transform efforts to fulfill this task. This paper has sought to add to the growing body of literature on the public sector’s adoption of e-recruitment technologies by providing a contemporary assessment of the e-recruitment landscape and proposing a new framework for explaining both the adoption of e-recruitment efforts, as well as the impact of both robust and limited adoption efforts. However, given the importance of recruitment to the long-term viability of the public service, future research should progress beyond descriptions of adoption efforts and seek to empirically evaluate
the extent to which the variation in public sector e-recruitment efforts impacts key human resource metrics.

In particular, future research should test the extent to which investments in e-recruitment by high-status and low-status organizations affect candidate pool quality and the overall quality of new hires. Potential measures of applicant and new hire quality could include immediate characteristics such as educational attainment, past work experience, and commitment to public service or more long-term characteristics related to new hire turnover and employee performance. Research of this sort would provide scholars and practitioners greater insight into the appropriateness and effectiveness of various e-recruitment strategies and guide future e-recruitment adoption efforts as new technologies emerge in the future.
References


Figure 1. U.S. Peace Corps Challenge (E-Recruitment Game)

Figure 2. Employment Matching in an E-Recruitment Environment
Figure 3. Typology of E-Recruitment Adoption & Projected Applicant Pools

Note: Figure based upon Windolf’s (1986) typology of organizational recruitment strategies.