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Assessing the Effectiveness of E-Recruitment Efforts in State Government

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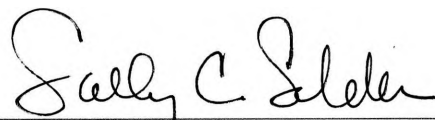
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Assessing the Effectiveness of E-Recruitment Efforts in State Government

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Contents

Abstract

This study provides an evaluative framework for state e-recruitment efforts. Challenged by the impending retirement of the baby boomer generation, public employers are implementing innovative hiring practices to aid in the recruitment of a new, talented workforce. Web-based recruitment offers an opportunity for state recruiters to reach a broader pool of job seeker talent. An effective framework for assessing the adequacy of state hiring websites would establish a set of criteria to aid in the development and implementation of state e-recruitment efforts. The framework is based on a literature review of relevant recruitment strategies in the public and private sector, featuring *Content* and *Usability* as the two foundational criteria for e-recruitment success. Two analysts apply this framework, developed to accurately measure the extent to which state hiring websites serve as a tool for attracting job applications, to all fifty state e-recruitment efforts over a one year period. After gathering and quantifying the results, the data are correlated to critical hiring figures provided by state personnel departments in the 2008 iteration of the Government Performance Project. Correlations related to the percentage of employees leaving in the probationary period and applications per job opening demonstrate the relevance of the evaluation framework in relation to recruitment effectiveness. As a way of promoting best practices in state e-recruitment, the findings of the study highlight key innovations in existing hiring websites as a model for underdeveloped state recruitment efforts and demonstrate the potential benefits of developing an effective state e-recruitment effort.

Introduction

State governance faces a formidable challenge in the coming decade, as the impending retirement of the baby boomer generation augers the arrival of a new guard in public governance. As some states report the number of personnel eligible to retire in the next five years as high as fifty-five percent (Wooters, 2009), the evident disappearance of essential human capital establishes the need for innovation and strategic direction in state personnel departments. The implementation of effective recruitment practices will play a vital role in determining the shape of this new public workforce, as the recruitment of a fresh generation of public servants will require a competitively modern and refocused approach (Cober, Brown, Blumental, Doverspike & Levy, 2000). For states beginning to lose the experience and wisdom of one era of public service, the unique opportunity to retool and replenish human capital should be less of a burden and more of a boon. The development and implementation of effective recruitment strategies can aid in the attraction and retention of a fresh workforce for state governments.

In the public sector, recruitment is a focal issue for human resource professionals. Key data points from the 2008 Pew Center on the States Government Performance Project support the need for effective recruitment strategies in the public sector. High retirement eligibilities foretell a departure of essential human capital resources over the next five years: the average number of classified employees eligible to retire over a five-year time horizon sits at 26.7% of the total full time workforce. [1] States stand to lose a significant portion of their human capital over the next five years, and if human resource departments do not fill open positions left by retirements in an effective manner, states will see their ability to deliver services adversely impacted.

Consider the fact that states fill an average of 5,158 open positions per year, ranging across the entire job type spectrum, from Staff Physician III to Watercraft Operator I. The reality

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[1] State recruitment and retirement data from the 2008 iteration of the Government Performance Project

is that states rely extensively on their ability to provide services via human capital. Then consider that states receive, on average, 85,781 applications for open positions each year. The average time it takes a state to fill an open position is sixty-eight days. When positions are left open for extended periods of time, productivity of the organization will likely suffer (Mathis & Jackson, 2002). This means that states, on average, have to fill about fourteen jobs per day, have a little over two months to fill each job, and must select from twenty-three applicants per job opening. After all of this effort, 23.7% of these newly hired employees leave or are terminated within the initial probationary period.[2] The costs of high new hire turnover are extensive, because not only are the dollars invested in recruitment lost, but costs associated with employee orientation and training are incurred as well. High new hire turnover rates in the states raise concerns about the quality of new hires brought into the workplace and the expectations that these new hires gather from the recruitment process. The combination of high retirement eligibility with high new hire turnover rates in the states brings recruitment to the forefront of current concerns in human resource management for public administrators.

The rise of a global internet culture in the past decade has revolutionized the way that people seek information and resources. For this reason, job seekers turn to the internet more than ever in their quest for employment, in 2002, Pew Internet and American Life Project reported that, in a typical day, more than four million Americans use the internet to search for a job. Corporate recruiters recognized this trend and made a concentrated effort to expand their online recruitment efforts (Young & Foot, 2005). There are several other reasons that the internet appeals as a recruitment medium over other options such as newspapers and professional recruitment agencies. Notably, in-house online recruitment efforts significantly lower costs

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[2] Probationary periods are the period of employment directly following the hiring decision and acceptance; typically these periods last six to twelve months (Mathis and Jackson, 2002)

associated with employee recruitment (Cober et al., 2000, Cappelli, 2001). Maurer and Liu estimate e-recruitment to save as much as 87% per employee, a significant cost improvement for organizations public or private (2007). Even more critical is the ability for organizations to have full sovereignty over what is placed on their recruitment website, a luxury that is hardly afforded by headhunters or online job banks. This autonomy gives the organization full control of the contact point between the job seeker and the potential employer, a contact point that is a consistent primary indicator of job seeker attraction to employment prospects (Cober et al., 2000).

Web-based recruiting, also known as e-recruitment, is a process by which organizations use internet technology to source recruitment information online (Kim & O'Connor, Forthcoming). By 2001, 90% of large U.S. companies were recruiting through the internet (Cappelli, 2001), and that number is most certainly higher today. A human resources system survey implemented by CedarCrestone in 2007 pointed to talent acquisition services as the most widely used strategic human capital management application for the private sector. Compared to the expediency of e-recruitment in the private sector, it holds an equal, if not greater importance in the public sector. As an aging workforce gives way to a new, computer-savvy applicant pool, public sector organizations should design and implement e-recruitment solutions in order to compete with private sector interests for valued human capital.

All fifty states currently have some version of a recruitment website that would qualify as e-recruitment; however, the mere presence of e-recruitment efforts does not necessarily translate into innovative practice in the public sector. In this regard, the question at hand is not a matter of why state governments use e-recruitment, but the extent to which these practices contribute to the strength of their hiring process and performance outcomes. Thus, this study will examine the

quality of state e-recruiting sites as they contribute to those outcomes. This is particularly important as state governments continue to pump valuable funding into state recruitment efforts designed to attract potential employees. Which states are doing a better job of leveraging their e-recruitment efforts towards improving their overall recruitment practices and how?

Literature Review and Development of Assessment Criteria

Despite the evident importance of e-recruiting, as Kim and O'Connor note (Forthcoming), researchers have not developed an effective framework for assessing the adequacy of these state recruitment websites. Their study purports to examine the implementation of e-recruitment initiatives in state government, culminating in a survey of state recruitment managers that evaluates e-recruitment from a state employer perspective. However, they do not develop a set of criteria that objective evaluators can use to assess e-recruiting efforts in the states. Kim and O'Connor's study (Forthcoming) focuses on the self-reported methods used by state e-recruiters, creating a self-reporting bias in the data; also, the results of Kim and O'Connor's study do not link the reported methods to effective recruitment outcomes. This study strives to compliment the findings of Kim and O'Connor by evaluating e-recruitment from the job seeker perspective, instead of the recruiter perspective.

In review of literature as it pertains to public service recruitment over the past five years, there is little to no evaluative research that links touted e-recruitment methods to recruitment outcomes. The majority of the research done in terms of public personnel recruitment is descriptive in nature, oftentimes exploring current innovations or observing trends; these articles do not investigate public sector recruitment in a qualitative, evaluation context, as a driver of human resource outcomes. Llorens and Kellough (2007) address the growth of web-based recruitment and selection technologies in federal government recruitment contexts, describing efforts made by the federal Office of Personnel Management towards leveraging e-recruitment

processes. Lavigna and Hays (2004) address recruitment and selection in a global context, observing and describing modern trends in initiatives taken by national governments in their hiring efforts. The volume of literature on public personnel recruitment is slim, and those articles which do pertain to such recruitment are wholly descriptive in nature.

Furthermore, there are no efforts towards compiling an evaluative framework that assesses efforts from an objective, job seeker perspective. Without such a reliable framework, little has been accomplished in research towards the end of developing potent and productive e-recruitment practices in the states. This study takes root in the lack of such a framework, as an evaluative effort designed to link specific e-recruitment approaches to hiring outcomes in a predictive capacity instead of a descriptive one.

To design a reliable evaluative framework, this study reviews the extant e-recruitment literature and extracts relevant recruitment metrics and assessment tools. As mentioned, little progress has been made towards the evaluation of state recruitment efforts, however, there is a plethora of research on effective employee recruitment and corporate e-recruitment (Breaugh & Starke, 2000). In 2003, Williamson, Lepak, and King introduced the concept of content-usefulness as a tool for mediating the relationship between organizational perception and website orientation. Similarly, Cober, Brown, and Levy (2004) set forth three factors that influence organizational attractiveness: form, content, and function. The assessment tool used in this study consolidates these factors into two distinct criteria, *Content* and *Usability*, as suggested by the concept of content-usefulness. Figure 1 serves as a visual overview of the assessment tool components and an explanation of the assessment tool follows.

Figure 1: E-recruitment Assessment Tool
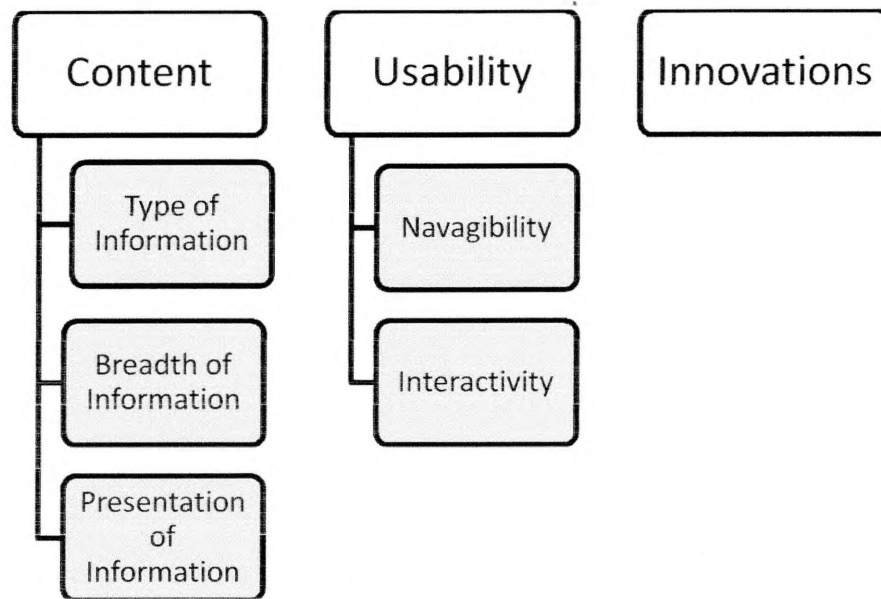
An essential shortcoming to the application of classical economics to labor market dynamics relates to the inability of job seekers to obtain knowledge about labor market opportunities (Schwab, 1982). Without such knowledge, job seekers cannot pursue the job that provides maximal utility, this being to the detriment of the labor market as a whole. As Maurer and Liu (2007) have indicated, a tool for collecting and disseminating information such as the internet can reduce such labor market inefficiencies. With the proliferation of information through the internet medium is the factor that eliminates such labor market inefficiencies, it is clear that the particular information conveyed in recruitment efforts is critical to attracting applicants. The term content, in the context of recruitment, refers to the selected configuration of information conveyed through recruitment mediums. Recruitment research suggests that quantity, focus, and framing of content have a direct effect on organizational attraction (Cober, Brown, Levy, Cober & Keeping, 2003). Accordingly, this study divides the *Content* criteria into three sub-criteria: *Type of Information*, *Breadth of Information*, and *Presentation of Information*.

Type of Information strives to capture the most important components of *Content* as information critical to attracting the job seeker. These components include elementary information regarding compensation, developmental opportunities, and organizational structure as reliable predictors of job seeker attraction (Cober et al., 2003). Compensation is the most substratal component in the *Content* criterion. Recruitment research demonstrates that job seekers spend a considerable amount of time observing salary and benefits offered by an organization (Cable & Judge, 1994). This sub-criterion, consequently, places an emphasis on the presence of salary and benefit information on the website. A verbal protocol analysis conducted by Cable and Graham (2000) established developmental opportunities as content which job seekers spent extensive amounts of time discussing. Thus, developmental opportunity information is a fundamental component to the *Content* criteria in this study. The last component to *Type of Information* relates to organizational culture, as recruitment research validates perceptions of culture as a heavy influence on job seeker attraction (Cable, Aiman-Smith, Mulvey & Edwards, 2000). Work by Dineen, Ash, and Noe (2002) echoed such sentiment, providing evidence for attraction as a product of perceptions about person-organization fit[3]. Organizational values are essential to conveying content and should be clear and prominently communicated throughout the site (Cober et al., 2000). Organizational culture could have a wide variety of meanings and examples. Perceptions of organizational culture are closely linked to the image of the organization, yet oftentimes this image is misrepresentative and misleadingly positive (Cable et al., 2000). In order to optimize perceptions about person-organization fit, the available information about one's environment must be accurate and influential in nature (Dineen et al., 2002). This information might be constructed and presented through several

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[3] Person-organization fit is the congruence between an individual's knowledge, skills, and abilities and the organizational/cultural characteristics associated with employment (Mathis and Jackson, 2002)

auspices, including realistic job previews, mission statements, employee testimonials, and regional characteristic summaries. As the abovementioned research suggests, the three most important components of *Content* are compensation (salary and benefits), development opportunities, and organizational culture.

Breadth of Information captures the importance of quantity of content within the context of recruitment. In terms of breadth of content, the internet has a definite advantage over other forms of recruitment. The internet provides an extensive relaxation of spatial constraints that serve as a hindrance in traditional job sourcing mediums (Cober, Brown & Levy, 2004). Although the potential to create depth of information is not unlimited, this potential is certainly immense in comparison to newspaper or radio advertisement sources. This flexibility allows e-recruiters to present information beyond essentials indicated in the *Type of Content* section. A study by Gatewood, Gowan, and Lautenschlager (1993) demonstrated that "[organizational] image is a function of the information that is available to an individual at a given time". Furthermore, exposure to a greater quantity of information appreciates organizational image and is positively correlated with intentions of pursuing employment (Gatewood et al., 1993). For this reason, this study purports to examine specific elements of content that would reflect an appropriate quantity of information on the website. Note that Maurer and Liu (2007) have warned against the presentation of too much information to the job seeker; the recruitment source must avoid content that forces the job seeker to wade through irrelevant information, suggesting a practice of circumventing content that distracts or confuses the potential applicant. This sub-criterion has far more components than the other sub-criteria by way of necessity, as the most accurate method for determining the quantity of information was to evaluate a large number of website elements. This section recognized the presence of the following as components:

frequently asked questions section, privacy policy, downloadable application, recruiter contact information, internship opportunities, current trends/news section, recruitment calendars, diversity information, hard-to-fill jobs, and veteran's preference information. These components encompass the most important peripheral content that should be part of a state e-recruitment website.

Of the three sections within the *Content* criteria, *Presentation of Information* is the most examined and academically dissected approach to recruitment (Maurer & Liu, 2007). This research, done on multiple fronts and in examination of various recruitment mediums, generally promotes the same notion, that aesthetic presentation plays a role in organizational attraction. Cober et al. (2000) suggested that usage of images and graphics increases surfer curiosity. Furthering this notion, e-recruiters should use a variety of audio and video information channels to convey content; the depth of sensory content dictates the vividness of the website, consequently affecting attraction to the organization (Maurer & Liu, 2007). Cober et al. (2003) indicated the importance of focusing surfer attention by manipulating the presentation of information, citing consumer literature suggesting aesthetics as a determinant of job seeker attraction. However, the experimental study following the hypothesis did not find perceptions of aesthetic elements on the website as related to organizational attraction. This finding, to some extent, discredited aesthetics as influential components on recruitment websites. Zusman and Landis (2002), however, hypothesized that the quality of a website experience will dictate whether an e-recruitment medium successfully maintains the attention of the job seeker, with the quality of the website being a function of the presentation of its content. This hypothesis held true, as job seekers preferred companies with more attractive web pages to those with less attractive pages. This study considers aesthetics, but places less weight on this sub-criterion than

the other two. This portion of the study accounts for five components of attraction: color (vividness of font and background), images, multimedia/video, balance, and clarity of font. Colors, graphics, and font are means for enhancing website attractiveness and the format of the text has a decided effect on perceived attraction (Zusman & Landis, 2002). Video or use of multimedia also drives attraction by increasing the sensory depth of the website and thereby augmenting vividness (Maurer & Liu 2007). Although the importance of aesthetics is often overstated, this study purports to examine *Presentation of Information* on state e-recruitment websites due to its effect on content and subsequent influence on perceptions of organizational attractiveness.

Whereas *Content* plays an integral role in the e-recruitment process by providing the job seeker with recruitment-related information, *Usability* bridges the gap between such recruitment information and the uninformed job seeker. *Usability* acts as a buoy for potential applicants afloat on the vast expanse of ocean that is online job searching. Agarwal and Venkatesh (2002) suggested that usability is likely to be an essential metric for determining the success of an organization's web presence. Expanding this assertion, Williamson, Lepak, and King (2003) indicated that individual perceptions of usability may actually drive the relationship between orientation of the recruitment website and organizational attraction. This puts a premium on developing a website oriented towards guiding user perceptions. The primary consideration of e-recruitment managers should be in the creation of a user-friendly website from an applicant's perspective (Cober et al, 2000). *Usability* has two key sub-criteria as examined in this study: *Navigability* and *Interactivity*.

Navigability is a subtle driver of organizational attraction that has a structural role in the exposition of e-recruitment efforts. Cober et al. (2003) defined navigational usability as the

user's ability to find information. Their study found that navigability is a cue for organizational attraction because navigability serves as an indirect implication of organizational quality. Agarwal and Venkatesh (2002) presented navigability as "ease of use", a function of the cognitive effort required to navigate the website. Navigability is essential to e-recruitment efforts because it is the capacity to provide pacing and organization to an environment that has very limited number of ordained constraints and rules. The flexibility of the internet, while an effective tool when used correctly, can prove just as destructive when the lack of navigability hinders and confuses the end user (Cober et al., 2003). The *Navigability* portion of the *Usability* criterion has six components that are evaluated in the study: job search functionality, presence of links to agency websites, multiple language options, presence of a site map, consistency of navigation bar, and absence of broken links or under construction pages. *Navigability*, being the structural bridge between the user and the recruitment information, has extreme importance to the e-recruiter, as increasing a recruitment website's ease of use enhances organizational attraction for the job seeker (Williamson et al., 2003). A key component of state hiring websites' navigability relates to the job seekers ability to find a suitable job, thereby emphasizing the importance of the job search function. There is a certain amount of peculiarity for state e-recruitment websites, as oftentimes the variety and breadth of job types is greater than that of private sector competitors, therefore increasing the priority of providing potent job search options. The study identifies five common search features that should be part of an effective e-recruitment effort: type-in text search, search by location/region, search by agency, search by income/pay, and search by job type or category. The role that navigability plays, especially in the context of state e-recruitment efforts, is critical in guiding job seekers to their organizational fit.

The second part of *Usability* is e-recruitment *Interactivity*. Interactivity, for the purpose of our study, is the process by which elements of a recruitment website establish a relationship between the job seeker and the e-recruiter. It is imperative that this relationship is a product of the online job search process so that potential applicants feel comfortable with the concept of employment (person-organization fit) and proceed to pursue the application process (Cober et al., 2000). This should be the primary motivation of the e-recruitment effort: enticing the job seeker to apply for a job. Providing a useful experience on hiring websites is only part of the equation; the challenge lies in serving the instrumental goal of the organization (Agarwal & Venkatesh, 2002). That goal is to bring in a high volume of quality applicants. If applicants cannot envision themselves as a fit in the organization, then the e-recruitment effort has failed, underscoring the importance of interactivity. The *Interactivity* sub-criterion has four components: feedback capacity, personalization options, community interfaces, and the ability to apply online. The ability to apply online is the most basic, yet most vital form of interactivity for e-recruiters. Cober et al. (2000) demonstrated the significance of providing an online application option, indicating that an increase in the time between initial exposure to recruitment related information and opportunity to apply decreases the likelihood of actual application. E-recruiters should capitalize on the dynamicism of the internet and offer online applications to take advantage of the initial relationship that has been built with the job seeker. Further elements foster interest and contribute to the seeker-recruiter relationship. Personalization allows the user to provide information to the recruitment website, which can be stored for future use by the user and the recruiter. Community interfaces foment communication between an organization and a potential employee through job message boards, organizational chat rooms, recruiter blogs, or email subscription services. The last component of *Interactivity* is feedback, which plays an integral

role in the relationship dynamic. Feedback is unique in that it allows the job seeker to place a stake in the success of the organization before even applying. This aids in the development of a relationship between the job seeker and e-recruiter while providing the opportunity for improvement of the actual online experience. *Interactivity*, as a mode of communicative experience, supports the construction of a relationship between the job seeker and the e-recruiter, and therefore encourages application.

Separate from the main criteria of *Content* and *Usability* is an *Innovations* category. By having every component contained within the *Content* and *Usability* criteria, a state hiring website can receive a perfect score through the assessment tool. Several states offer features that are exceptional and show initiative and innovation in terms of e-recruitment; this category deals with those elements that might place a state e-recruitment effort in an innovative category beyond what is expected. *Content* and *Usability* represent the core components which drive state hiring website effectiveness, while the *Innovations* category reflects those elements of state hiring websites that go above and beyond the traditional views of recruitment effectiveness. There are six opportunities for extra points identified by the study: applicant tracking capacity, job matching system, résumé building tool, application management feature, job basket feature, and number of clicks from the state homepage. In fostering a relationship between the job seeker and e-recruiter, providing information regarding the status of the user's application helps to maintain a line of communication between the employer and the potential employee. Application tracking capacity provides the ability for a job seeker to monitor the progress of their application process. In the spirit of linking the job seeker to a suitable job, this study awards credit to e-recruitment efforts that match a user to a probable job fit by way of competencies or qualifications. Likewise, maintaining the simplicity of the online application process further aids

job seekers and encourages application. Application management acts as such a simplifier, allowing the user to create one job application and use it to apply for several jobs. Another simplifier recognized in the study is the job basket tool, whereby a user can store multiple job listings and apply simultaneously for several listings in the basket. An immense tool for job seekers is résumé development assistance; this feature can take the form of résumé construction tips or can be as robust as providing free online software or templates to guide users. The final component worth extra points relates to the e-recruiters ability to transport users to the recruitment source; it is critical to minimize the number of clicks between the state homepage and the hiring homepage. These extra point opportunities work to recognize the presence of e-recruitment innovation and excellence.

Methodology

The purposes of this study are three-fold. First, this study developed an assessment tool for evaluating state e-recruitment efforts and utilized the assessment tool to evaluate fifty state hiring websites[4]. The second purpose of this study was to provide feedback to state e-recruiters regarding the effectiveness of their e-recruitment effort and identify existing areas of innovation in other state e-recruitment efforts to serve as an example for fledgling efforts. To facilitate the second purpose, this study will examine other salient relationships between the findings of the study and key hiring metrics. Lastly, this study sought to examine e-recruitment longitudinally, examining the rate of change in state e-recruitment efforts over a fourteen month period from July 2007 to September 2008.

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[4] One state, Pennsylvania, has separated their e-recruitment effort between civil service and non-civil service jobs. with two distinct webpages; accordingly, these efforts were graded separately and all of the data presented will reflect a sample size of n=51 instead of the expected 50; correlation analyses reflect data from the Pennsylvania civil service e-recruitment website and discard scores from the non-civil service e-recruitment website for clarity

Given the aforementioned criteria, this study developed and validated an assessment tool that could accurately assess the effectiveness of state e-recruitment efforts. This tool is provided in Appendix A and is based upon the criteria proposed in the preceding literature review. Because the review of the literature, including both academic and trade publications, did not yield a reliable state e-recruitment evaluation tool, the construction of this assessment tool and coding scheme, as discussed in the previous section, grew forth from an amalgam of private e-recruitment assessment tools, scholarly work on organizational attraction factors, and research on recruiting and hiring. The design of the instrument included a series of statements about a website's content and usability. Raters indicated whether or not a state's website met the criteria and responses were coded 0 (did not meet criterion) or 1 (met criterion). To test the tool initially, two raters evaluated five randomly selected states' web sites using the coding instrument. The team repeated this process twice. After each evaluation, the assessment team modified the instrument to better fit state hiring websites. Appendix A also shows the weighting schemes used for compilation of the final assessment score. These weighting schemes are based on the suggested importance of the criteria as they relate to overall e-recruitment in the academic literature. In addition to the academic literature, these weightings were tested and modified during the initial testing of the assessment tool to ensure reliability and relevance.

To satisfy the third purpose mentioned above, the study examined how rapidly change diffuses by assessing states' websites at two points in time: June 2007 and September 2008.[5] To ensure consistency across these two observations, the study used the same raters and the same coding instrument. The study examined the interrater reliability by computing the correlation between the two coders' ratings (Larsson 1993). The correlation was .99 in June 2007 and .99 in September 2008. To resolve the discrepancies, the raters reexamined the observations, discussed

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[5] Any changes made to state hiring websites after September 2008 were not taken into account in this study.

how each rater coded the observations, and reached a joint consensus about how to code them (Larsson 1993).

Hypotheses

As noted above, a primary purpose of this study was to develop an assessment tool for evaluating the recruitment effectiveness of hiring websites in each state government. This study posits two hypotheses about the impact of the quality of state hiring websites on critical hiring metrics for state governments.

Hypothesis 1: State hiring websites with higher assessment scores in (a) Content *and (b)* Usability *are positively correlated with the average number of job applications per job opening in state government.*

Hypothesis 2: States hiring websites with higher assessment scores in (a) Content *and (b)* Usability *are associated with lower separation rates of new employees during the probationary period.*

The hypotheses are examined using the June 2007 website evaluations and data collected from state governments via an online survey distributed to state personnel directors in the spring of 2007 as part of the Pew Center on the States' Government Performance Project. Hiring metrics were not collected in 2008 and the study did not examine correlations using the 2008 recruiting webpage evaluations.

The tertiary purpose of this study is to provide feedback to state recruiters regarding the effectiveness of their e-recruitment effort. For this reason, there is an extensive section interpreting the results of the study and highlighting the innovations of superlative state e-recruitment efforts. State governments interested in improving their recruitment capabilities will

strive to make improvements to their e-recruitment efforts on a regular basis. Therefore the third hypothesis examined in this study is as follows:

Hypothesis 3: State governments with higher scores in the People category of the Government Performance Project will improve their e-recruiting websites more rapidly than states receiving a lower grade.

This hypothesis may seem to defy conventional wisdom, because it would seem that lower scoring e-recruitment efforts have an increased incentive to make changes and better their efforts. However, because state recruiters are not in direct competition with each other (but rather with private employers in their state), the incentive to provide a better e-recruitment program than another state is diminished. Selden (Forthcoming 2009) demonstrates that higher performing states are more apt to pursue opportunities for human resource management innovation and reform. Therefore, it is hypothesized that states that have demonstrated a capacity to make changes and stay on the cutting edge of state governance are more likely to make improvements to their e-recruitment effort over a one year period.

Impact of E-Recruiting on Selected Recruiting and Hiring Metrics

The availability of varied data points gathered from the 2008 Government Performance Project provides the opportunity to demonstrate the validity and importance of e-recruitment in terms of objective hiring metrics. Correlating the websites' scores to key hiring data reveal the underlying importance of e-recruitment efforts in state government. Two critical correlations were clear when compared to the hiring data collected, as discussed below. These correlations can be found below in Table 1.

Table 1: Pearson Correlations for Comparison between 2007 Government Performance Project State Recruitment Data and July 2007 State Hiring Website Evaluation Scores

All recruitment data from Fiscal Year 2006 unless otherwise noted	Number of states reporting data, n =	Pearson Correlation		
		Total Score	Content Score	Usability Score
Employees involuntarily separated in the probationary period	37	-.113	-.224*	.012
Employees voluntarily separated in the probationary period	32	-.260*	-.284*	-.175
Applications per job opening	27	.309*	.143	.396**

** *Statistically significant at the .05 level (one-tail test)*
* *Statistically significant at the .10 level (one-tail test)*

The focal objective of e-recruitment efforts is to entice job seekers to apply for jobs and the usability of these efforts should drive the volume of applications (Agarwal & Venkatesh, 2002). This assertion holds true in this study. The study found support for Hypothesis 1b: the relationship (r = .396) between website *Usability* scores and average number of job applications per job opening is statistically significant. States with more usable websites receive more applications. Improving e-recruitment *Usability* is key to strengthening applicant pools and is most effectively accomplished by implementing an online application process. Such a process not only saves costs associated with paper application, it opens doors to a bevy of recruitment improvement opportunities. Selection is a far more efficient process, but more importantly, job application can be integrated into the same medium as the original job information. Job seekers are more likely to apply when the application is in the same place as the original job information (Cober et al., 2000). Clearly, this is the driver of volume and should be a key purpose in e-recruitment. *Navigability* and *Interactivity* provide the foundation for an effective online application process and a high volume of applicants demonstrate the value of such a process. The relationship between *Usability* and applications per job opening shows the validity of the *Usability* part of the study. This relationship also confirms one part of the primary hypothesis,

that there is a linkage between website *Usability* scores and the average number of job applications per job opening in state government.

The study also found support for Hypothesis 2a. States with higher *Content* scores had lower voluntarily turnover ($r = .28$) and involuntarily turnover ($r = .22$) of new hires in the probationary period. There is critical difference between voluntary turnover and involuntary turnover as they reflect recruitment efforts. Involuntary turnover in the probationary period is a hiring metric that suggests the quality of new hires as they are brought onto the job; organizations that attract a lower quality job seeker would likely see higher rates of involuntary turnover in the probationary period. The relationship between *Content* scores and high involuntary turnover rates supports the assertion that states offering better content on their website tend to have better quality candidates apply for and accept positions in their state service. Voluntary turnover in the probationary period is a statistic that captures the extent to which state governments develop the job expectations of the job seeker prior to application and acceptance. If e-recruitment efforts do not present job information in a clear and realistic format, job seekers do not gather an accurate understanding of the person-organization fit (Dineen et al., 2002). This misunderstanding often manifests itself within the initial probationary period. The percentage of employees leaving in the probationary period (during the first six months of employment with the state) captures this disconnect in job perception versus job reality. This further supports the conclusion that realistic job previews should be a part of the recruitment efforts and emphasizes the importance of content elements of a hiring website. Hiring websites should appeal to job seekers through three content dimensions: type, breadth, and presentation. The crucial dimension to bridging the gap between job expectations is the type of information. Expectations hinge on critical elements such as salary information, benefits information and development opportunity

information. Paramount to overcoming the disconnect is accurate presentation of cultural values of the organization; features such as mission statement, vision statement, and employee testimonials go a long way towards providing a realistic job preview for job seekers (Dineen et al., 2002). The other components of *Content* should not be discounted either, as the deeper e-recruitment experiences give better detail to ground job expectations, and aesthetics aid in providing cues for job seekers regarding reliability and credibility of the recruitment message (Cober et al., 2003). Put simply, states that e-recruit with a focus on relevant and thorough content have lower rates of voluntary employee turnover in the probationary period because they have painted an accurate picture of public service in their state through their recruitment medium. The correlation between employees leaving in the probationary period and *Content* scores demonstrates the relevance of *Content* grades in terms of key hiring metrics in state government.

The strength of the abovementioned correlations demonstrate the validity of the hiring website assessment tool developed at the outset based on extant recruitment literature, and thus satisfy the first purpose of this study. Hypotheses 1a and 2b were not expected to yield significant correlations because theoretical understandings of the criteria as they relate to hiring practices suggest that an association would be unlikely. Quality of content on state hiring websites do not seem to drive applications per job opening and varied approaches to usability do not seem to affect turnover rates in the probationary period. The critical hypotheses put forth prior to implementation of the study were that there would be a correlation of statistical significance between scores derived from this study and critical hiring data for state governments. The key hiring data point of turnover in probationary period correlated with *Content* scores and the key hiring metric of job applications per job opening correlated strongly

with *Usability* scores. These correlations demonstrate the validity of the assessment tool and confirm parts of Hypotheses 1 and 2.

Evaluation of State E-Recruiting Efforts

The second purpose of this study was to provide feedback to state human resource departments regarding the effectiveness of their e-recruitment efforts and identify existing areas of innovation in other state e-recruitment efforts. Table 2 and Appendix B present descriptive data regarding the assessment of state hiring websites as of July 31, 2007. The next section presents innovations that states may consider for the various criteria presented in the study.

Table 2: Summary Descriptive Statistics for July 2007 State Hiring Website Evaluation

N=51 websites	Mean	Standard Deviation	Minimum	Maximum
Overall Score (out of 114)[6]	51.63	15.45	25.60	89.40
Content Score (out of 100)	45.16	15.15	24.00	88.00
Type of Information	48.73	23.13	10.00	100.00
Breadth of Information	37.75	17.36	10.00	80.00
Presentation of Information	47.35	23.20	15.00	100.00
Usability Score (out of 100)	50.63	19.34	17.00	88.00
Navigability	50.78	20.48	5.00	95.00
Interactivity	50.39	34.00	0.00	100.00
Innovations Score (out of 14)	4.28	2.71	0.00	9.00

As noted above, states have the greatest opportunity to improve their websites through the content they publish. The top four overall scores are among the six states that received maximum credit for the *Type of Content* section. All except one state satisfied the primary component for *Type of Information*, the presentation of salary information within the job listings. Seventy-five percent of the hiring websites included benefit information to compliment the salary information. Much of the innovation for this section originated in the cultural values

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[6] Overall Score = (Content Score x .60) + (Usability Score x .40) + Innovations Score

component. This component encompasses the extent to which information is provided regarding cultural values of the organization that might aid the seekers in determining the workplace environment. One of the most effective manners to convey such culture is through employee testimonials. Maryland was the only hiring website to feature an employee testimonial section. A simple quote accompanied by a picture can go a long way towards helping the job seeker feel comfortable about the workplace environment. Other states did an exemplary job of presenting useful cultural information as a means for attracting job seekers. Washington State, with the third highest overall score, did an exceptional job of painting a panoramic picture of workplace culture and lifestyle. Three pages are linked from the homepage that support culture: one page explaining the importance of public service, another page on the variety of career choices available with state employment, and a third page thoroughly describing the Washington State region and the benefits of residence in Washington State. This rounded approach gives the seeker a complete concept of what the workplace environment entails. Similarly, top overall scorer Vermont touts a culture page outlining the importance of civil service, the variety of opportunities, the quality of workforce, the total compensation packages, and the general quality of life that serves as tools of attraction for job seekers. Cultural information acted as the distinguishing innovation for the *Type of Information* sub-criterion, and states that provided relevant information tended to score much higher in the evaluation.

The sub-criterion *Breath of Information* held the greatest quantity of components to better get a sense of the depth of information each website presented. The states did not prove consistent in the maintenance of a variety of relevant information. The most commonly presented information was frequently asked question sections (70% prevalence) and privacy policies (55% prevalence). Those numbers are representative of the eclectic nature of this sub-criterion, as there

was little consistency of breath across the state hiring websites. Only eight of the states satisfied more than half of the components in *Breath of Information*. Expectedly, Vermont was among the innovators in this section. The diversity section on the Vermont hiring page was a thorough, explanatory narrative of the diversity policy and practice within the state hiring process. Vermont also stands out as the only website to provide both a recruitment calendar and a testing schedule for the job seeker. Among other innovators providing detailed content that surpasses the initial components of this section are Virginia and Texas. Virginia, with one of the top overall scores, offers a very useful résumé development section. This section includes an extensive résumé writing tip sheet that might aid the job seeker. Texas, one of the most unique hiring websites evaluated, provides an innovation by making available external labor market data as a supplement to its job listings. This provides seekers a comparative look at labor data that are difficult to otherwise obtain. Texas, the only state that incorporates private sector job listings into its search engine, offers a comparative process through this labor market data. *Breadth of Information*, by its nature, is a very eclectic and varied section, giving way to an assortment of innovations.

The third sub-criterion of the *Content* category is *Presentation of Information*. This section serves to evaluate the aesthetics of each website. Although this section is subjective by nature, the inter-coder reliability coefficient was greater than .98. Several states provided innovation in this section, and conversely, many states did very poorly aesthetically. Only 56% of the states utilized a vivid color scheme and 43% of the states used images on the homepage. Amongst the most impressive homepages were the states of Delaware, New York, and Vermont. Delaware features a vivid, yet simple color scheme of blue and gold and utilizes a large employee picture that is different upon every visit to the homepage. New York utilizes a variety

of colors to highlight important links and information on its website. This not only provides for a better user perception but also enhances the navigability of the site. New York also utilizes a rotating homepage image similar to Delaware. A distinguishing aesthetic element within this section was the use of animation/video to improve the user experience and drive attraction. Less than 8% of the states provided some kind of multimedia/animation experience to the user. Complimenting a dynamic color scheme, a simple flash presentation provides some movement to the Vermont homepage without distracting the user. Connecticut offers a full video presentation outlining and aiding a new user applying for a job. Likewise, West Virginia utilizes a four-part application demo that describes the application process in full detail. These multimedia opportunities not only aid applicants but also create a positive, sophisticated image of state public service.

Among the innovations within the *Navigability* sub-criterion, several states stood out as offering superior and clever search functions. While 88% of the states offered some manner of search function, many of these websites featured weak or limited search capabilities. California, Florida, Georgia, Minnesota, Nevada, New York, Tennessee, Texas, and Washington all featured exceptional search engines for job listings; these states offered a type-in text search, location/region search, agency search, income level search, and a job type search. This variety of search options gives the job seeker more flexibility and customization when hunting for the appropriate job. In addition to having these five search functions, Tennessee also provided a search by academic major function. This search helps job seekers unfamiliar with the public sector employment, and might encourage young, entry-level college graduates to apply. Iowa offers a remarkable search option, whereby the seeker can enter textual qualifications/competencies and the engine returns pertinent job opportunities. In an employment

landscape driven by skills, qualifications, and competencies, this search feature seems to be on the cutting edge of recruitment. A seeker can simply cut and paste qualifications out of their résumé in order to find relevant job listings. The job listing search engine, as a bridge between the job seeker and the job sought, is an essential component to efficient navigation in hiring websites. Another innovation worth mentioning is the inclusion of multiple language options on the website. In a competitive workforce, state hiring websites should adapt to the dynamic demographic composition of their potential employees and implement recruitment accommodations such as providing language options. Having said that, only two of the states provided multiple language options. Nevada and New Jersey incorporated language options into their websites; Nevada utilizing the Altavista Babel Fish page translator and New Jersey translating several pages on their website as well. This is a feature that should take root in state hiring websites over the next decade, as recruiters make adjustments to shifts in workforce demographics. Navigation innovation is essential to the scope of hiring website improvement, as navigability serves an important role in job seeker attraction.

The final section of innovations relates to the contributions of interactivity in state hiring websites. The most impressive example of interactivity in the states goes to Kansas and its inclusion of a "Jobs Blog". This recruiter blog acts as an opportunity for recruiters to personally connect to potential employees in a comfortable, casual internet environment. The informality of a blog helps foster communications while building essential employee-employer relationships prior to the application process. Feedback is important for building a website that provides for the needs of the applicant. Although user surveys are far from an internet novelty, very few state hiring websites implement such technology. Colorado, despite a low overall score, is one of only two state hiring sites that offer a user survey instrument. Colorado and Vermont both utilize a

simple, yet adequate user survey as a manner of encouraging feedback and fomenting improvement. Another interactivity innovation relates to job listings and the user's ability to share jobs with a friend via email. The "email a job" feature is an ingenious recruiting tool that can aid employers by exposing job listings to an untapped market of job seekers' friends. A recruiter, lacking intimate knowledge of the job seeker, might have difficulty linking a job seeker to the appropriate job; whereas, the friend, cognizant of such intimate knowledge, can do the recruiters tough task for them through this email a friend feature. Top *Overall* scorer Vermont, as well as top *Interactivity* scorer Iowa both boast this powerful feature. The "email-a-friend" recruitment tool can be an excellent gateway to a new market of passive job seekers and can be a useful tool for linking a potential employee to a job with little effort from recruiters. This, along with the user survey and recruiter blog, is an excellent opportunity to attract applicants through interactivity and active recruitment techniques.

There are a few other correlations worth mentioning that point to best practice in state human resource management. States that scored well in the *Content* section of the study were more likely to have a branding program ($r = .30$, one-tail significance at the .028 level). This relationship conforms to a common sense approach to e-recruitment. Employment branding is the use of marketing techniques designed to distinguish the unique characteristics of employment with one organization over those of its competitors (Backhaus & Tikoo, 2004). If a state has implemented a branding program, it likely has placed an emphasis on the delivery means for its recruitment message. This emphasis, almost always, translates into a better content delivery on hiring websites. A frequently-used barometer for the degree of centralization in state government is the percentage of human resource management staff that operates out of the central human resource department office. This study saw a moderate correlation between centralization of

human resources management and overall website scores ($r = .24$) at a .065 level of significance (one-tail test). This relationship points to centralized human resource departments as more likely to have potent e-recruitment programs. It is understood that many e-recruitment efforts are central by their nature, as a single access point for job seekers pursuing state employment. For this reason, many of the better e-recruitment efforts require a strong central human resource management presence for their effective implementation, and those states with more resources in the central human resource department are better able to satisfy that need. Although this study focuses on e-recruitment as a vehicle for driving job seeker attraction, the complementary motivation for effective e-recruitment is as a mode of driving down cost. This study supports that assertion, as states that had an online application system were more likely to have lower costs per new hire ($r = -.62$, reported at a level of significance of .05, one-tail test). These correlations provide some insight as to the necessity of e-recruitment and the factors needed to provide an effective e-recruitment product.

<u>**Examining Change in E-Recruitment**</u>

The second evaluation took place in September 2008, to allow more than a year for improvements by state e-recruiters. The results of the second iteration of the evaluation can be found in Appendix C and Table 3 provides the summary statistics for this round. Again, note that any changes made to state hiring websites after September 30, 2008, are not reflected in these scores. Table 4 provides summary statistics for the difference between the scores of the July 2007 and the September 2008 iterations of the website evaluation study; see Appendix D for state by state data regarding these differences.

Table 3: Summary Descriptive Statistics for September 2008 State Hiring Website Evaluation

N=51 websites	Mean	Standard Deviation	Minimum	Maximum
Overall Score (out of 114)	54.02	16.40	26.90	93.40
Content Score (out of 100)	47.03	16.06	22.00	88.00
Type of Information	48.24	21.42	10.00	100.00
Breadth of Information	37.94	18.09	10.00	80.00
Presentation of Information	57.65	24.79	20.00	100.00
Usability Score (out of 100)	51.61	19.10	15.00	85.00
Navigability	50.00	19.92	5.00	95.00
Interactivity	54.02	33.38	0.00	100.00
Innovations Score (out of 14)	5.16	3.21	0.00	11.00

Table 4: Summary Descriptive Statistics for Difference between July 2007 and September 2008 State Hiring Website Evaluations

N = 51 websites	Mean Change	Standard Deviation of Difference	Minimum Change	Maximum Change
Overall Score	2.39	11.33	-20.40	31.40
Content Score	1.87	14.42	-34.00	52.00
Type of Information	-0.49	20.93	-60.00	60.00
Breadth of Information	0.20	11.70	-25.00	40.00
Presentation of Information	10.29	25.80	-35.00	85.00
Usability Score	0.98	14.48	-25.00	46.50
Navigability	-0.78	13.69	-35.00	37.50
Interactivity	3.63	24.29	-60.00	80.00
Innovations Score	0.87	2.09	-6.00	5.00

As evidenced by the average differences in the 2007 and 2008 evaluations, overall e-recruitment efforts experienced little change during the fourteen-month period between the two iterations of the evaluation. Only 23.5% of the websites (12 states) had a difference in score of more than 10 points. This phenomenon could have several causes, from a lack of funding in human resource departments to unwillingness to adapt to changing standards of e-recruitment from state recruitment managers. Not all of the changes were positive either, as 39.2% of hiring

websites underwent a negative change from the first to second iteration. In the context of state recruitment efforts in direct competition with private recruitment efforts, this statistic is quite alarming. For those factors evaluated through the assessment tool, many states are moving backwards in terms of their capacity to provide an effective e-recruitment experience to the job seeker. There is no simple explanation for this phenomenon, but speculation points to hiring freezes in several states and a diminished focus on recruitment for human resource managers during the 2008 recession. From July 2007 to September 2008 the hiring landscape had changed dramatically, as many states stopped hiring altogether and those who were still hiring were not having the same difficulty finding qualified personnel. Simply, in 2008 there was less incentive for state human resource departments to provide a powerful and effective e-recruitment experience. For this reason, some states were less apt to support recruitment features on their websites, especially if these states were not hiring. This further calls attention to the significance of the low scores reported in the first iteration of the study and the need for states to consider the innovations of their peers in the implementation of e-recruitment solutions if the economy improves and the supply of quality job seekers declines.

More positively, several states made significant improvements in the time period from July 2007 to September 2008. Georgia revamped its effort to bring a better array and display of content features. The Georgia e-recruitment homepage went from one of the worst in the nation to one of the best and, despite some steps backwards in terms of *Usability*, these improvements were reflected in its score. Ohio was another state that refocused its effort to provide a better overall product through a new "Applicant Care Center" and an increased focus on aesthetics. Several states improved their efforts simply by adding a talent acquisition application to their website, allowing job seekers to apply online. These states included South Carolina,

Massachusetts, Kentucky, Illinois, and Oklahoma. Utah made exceptional gains in terms of website content by implementing a new "Life Elevated" brand, and centering e-recruitment efforts on this brand. All of these states have demonstrated a commitment to improving their e-recruitment efforts by identifying weaknesses in their approach and addressing these issues directly.

The third hypothesis examined in this study is whether state governments scoring higher overall in the People category of the Government Performance Project are more likely to improve their hiring website scores from June 2007 to September 2008. In order to test this hypothesis, differences in the scores from the first iteration to the second iteration were correlated to criteria scores from the 2008 Government Performance Project. No statistically significant correlation was found in the comparison, denying the hypothesis put forth at the outset. This means that states scoring better on the 2008 Government Performance Project "report card" were not more likely to make changes to their e-recruitment system from June 2007 to September 2008. The most apparent rationale for the lack of a direct relationship is the nature of the 2008 Government Performance Project. Recruitment was only one of the five main criteria investigated in the project, creating four other criteria components that cluttered the relationship. Furthermore, e-recruitment implementation was only a minor feature of the hiring criteria, making it one of many factors considered in the assignment of a grade (including qualitative factors discovered in interviews with state personnel representatives). Clearly, the relationship might exist, but the amount of noise in the correlation makes it difficult to discern given the data.

Limitations and Opportunities for Further Study

The essence of the website evaluation was to take qualitative factors and convert them into measurable and assessable quantitative metrics. Such a conversion is rarely tidy, and, as with this instance, often breeds unwanted variables and contingencies. There were a series of limitations worth noting in this study, some semantic and some more systemic.

First, understand that it is extremely difficult to evaluate state website aesthetics and content criteria in an objective, consistent fashion over the course of the year. The dichotomous grading setup proposed to eliminate as much subjectivity as possible, and the high inter-coder reliability suggests that this approach produced valid results. However, the two individuals did not work in full independence; there was some mutual understanding and discussion regarding specific elements on various websites. In this regard the consistency of the evaluation does not lie in its ability to be wholly objective as its criteria relate to the website elements, but rather, its capacity to effectively grade all of the websites in a consistent fashion. Any consensus reached by the evaluators was applied to each and every website in the study.

There is a potential that a bias sprouted from these the prototype test sessions conducted before implementation of the full evaluation instrument, as the assessment tool was modified in response to some of the elements contained on the five state websites. One of the websites contained within this random selection was Vermont, and in some ways this e-recruitment effort was used as a benchmark effort in the development of the assessment tool. As Vermont was the top scorer in the first iteration of the study, there is a chance that a bias resulted from the development process. This was one of the reasons that there was such importance in demonstrating the validity of the primary hypothesis, as high correlation with critical hiring data points lends to the effectiveness of the assessment tool despite the potential bias evident.

The assessment rubric is used as a tool to take a snapshot of state hiring websites as they existed in 2007 and 2008. Naturally, the hope is that this tool will be a guideline for states that wish to make improvements to their e-recruitment approach. Yet, it is important to note that the assessment is static, and that technological change, innovation, and emerging trends in public service recruitment methods will require a reshaping of the evaluation tool. The idea is that, eventually, the components contained in the *Innovations* category of the study will become part of the body of the assessment tool, and new innovations will serve to add extra credit to achieving states.

The last limitation to note is a detail regarding the time factors for the hiring data in comparison to the study. Much of the data collected for the 2008 Government Performance Project were for fiscal year 2006, yet the first website evaluation took place in July of 2007. This means that any changes made to the website before July 2007 and after December 2006 are considered as part of the first assessment but would not affect the correlated hiring data. How concerning is this limitation? In that six month period it is unlikely that there were more than four major recruitment system changes that would affect the relationship when considering that only four major changes were made in the fourteen month period between the first and two iterations of the study. Even should there have been an irregularly high number of changes, there is a lag factor on the data that would make it unlikely that even fiscal year 2007 would have appropriately reflected the changes. Because the relationship between effective e-recruitment and favorable hiring data contain a significant amount of noise (this being a limitation of the study itself), it is unreasonable to think that the six month period would have yielded significant changes in the correlations when considering the consistency of the hiring data from year to year. Although the methodology for testing the hypothesis is far from perfect from a statistical

perspective, there is little difficulty looking beyond these limitations in consideration of the practicality and the common-sense of the assessment tool and the methodology used in this study as it potentially helps state practitioners build effective e-recruitment solutions.

Where can one turn for further study of the relationship between effective e-recruitment efforts and productive state governance? The first place to turn would be towards the competitors for state recruiters. There should be some effort made to compare the results of this study with a similar approach evaluating private e-recruitment efforts. Given a wider scope, taking a random sample of private enterprise and evaluating their e-recruitment systems might demonstrate the need for increased funding for recruitment efforts in state government. It is generally accepted that most state governance practices (insofar as they are considered business practices) fall far behind in comparison to private business practices. This notion is concerning if one recognizes that the main competition for the business of public governance are the very same private businesses, especially in terms of recruitment and the market for quality employees.

Another area that might prove fruitful for further study is the other half of e-recruitment, as it relates to the employee selection process. This study focuses on the front-end of e-recruitment as it relates to attracting talent. E-recruitment has two fundamental purposes: as a tool for attracting quality job seekers and enticing these potential employees to apply and as a tool for examining and screening applicants in order to expedite and improve the recruitment process (Cober et al., 2000). This study explored the first purpose of e-recruitment, as a device of organizational attraction in state government. E-recruitment also has many other uses as a selection tool, as it provides opportunities to automate applicant screening tasks and review applications in a more analytical, objective fashion. This would require access and knowledge of

state e-recruitment that is unavailable to the public; this requirement augments the potential value of such a study as an opportunity to make state governance strategies more transparent.

Concluding Remarks

There is no doubt that recruitment will become a focus for state personnel agencies as the baby boomer generation starts to reach retirement age. Recruitment efforts will concentrate on appealing to a new generation of public servants, a generation that is far more "plugged in" than previous generations. It naturally follows that state recruitment efforts should be "plugged in" as well. Gone are the days when job seekers rely on word of mouth and classified sections of newspapers for job information. The internet has influenced labor markets to make them more efficient, benefiting both job seekers and employers alike. Speaking generally, state personnel agencies are far behind the private sector in terms of e-recruitment; in order to compete for new recruits, these agencies will need to improve the content and usability of their hiring websites.

Two key factors drive effectiveness of e-recruitment efforts. *Usability* acts as a foundation for the attraction effort, combining the enabling features of *Navigability* and the relationship-building capacities of *Interactivity* to conduct the e-recruitment experience for the job seeker. With an effective foundation, the information presented in the *Content* criteria can work to appeal to the seeker, combining appropriate *Breadth*, relevant *Type*, and useful *Presentation* of information to convey the critical elements of the job opportunity. As demonstrated, states with better implementation and a clearer understanding of these criteria attracted more applications and were more successful in retaining new hires. Moving into a new era of public service, e-recruitment proves to be a primary challenge for state employers, and therefore, it is an incredible opportunity for excellence in state governance.

Appendix A – State Hiring Website Assessment Tool

CONTENT (60%)
Type of Information (50% of Content)

Salary Information	Is pertinent salary information displayed *in job listings*?	30%
Benefit Information	Is there prominently displayed information provided on job benefit packages with the job listings *or* otherwise?	10%
Development Information	Is there prominently displayed information provided regarding career development opportunities available to employees? (does not include training calendar or development course offering list)	30%
Cultural Values Information	Is there prominently displayed information provided regarding cultural values of the organization that might aid the seeker in determining the workplace environment? (mission statement, employee testimonials)	30%

Breadth of Information (30% of Content)

FAQs	Is there a frequently asked questions section on the site to aid applicants?	10%
Privacy Policy	Is the privacy policy *linked from the homepage or FAQ page*?	10%
Downloadable Application	Is there a downloadable version of job applications prominently displayed on the website *or* within the job listing?	10%
Contact Information	Is there recruiter contact information available *within the job listings*? (name and email/telephone where the applicant can direct questions)	10%
Internship Information	Is there pertinent information on internship opportunities *linked from the homepage or FAQ page*?	10%
Current Trends and News	Is there state news or current trends feature prominently displayed *on the homepage*?	10%
Recruiting Calendars	Are recruiting calendars, job fair schedules, or applicant exam schedules available on the website?	10%
Diversity Information	Is there information *on the homepage or FAQ page* regarding organizational diversity in the workplace available on the website directed towards recruitment efforts? (does not include EEOC statements or diversity statistics)	10%
Hard-to-Fill Jobs	Is there information or a link presented *on the homepage* regarding "hot jobs" or spotlighted jobs that would be hard to fill for the organization?	10%
Veteran Preference	Is there information regarding veterans' services or preference featured *on the homepage or FAQ page*?	10%

Presentation of Information (20% of Content)

Color	Does the website feature a vivid color scheme that is visually appealing? (more than two prevalent colors *on the homepage*)	20%
Images	Are there images *on the homepage*? (beyond those found on an uppermost website banner)	20%
Animation and Videos	Is there animation or video on the website?	20%
Balance	Is there visual balance on the website (information presented on both sides *of the homepage*)?	20%
Text	Is the text readable? (large enough to read, headers and sub-headers distinctive, and body text organized *on the homepage*)	20%

USABILITY (40%)

Navigability (60% of Usability)

Job Search Function	Note the number of Job Search features available: • type-in text search • search by location or region • search by agency • search by income level or pay band • search by job type or category	25%
Agency Links	Are there links to corresponding agency pages *within the job listings*?	25%
Multiple Language Options	Are there language selection options for non-English speaking applicants *on the homepage or FAQ page*?	5%
Site Map	Is a site map available *on the homepage or FAQ page*?	15%
Consistent Navigation Bar	Is the navigation bar (*left side of the page only*) consistent a page deep off the homepage?	15%
Absence of Broken Links / Under Construction Pages	Is there an absence of broken links or under construction pages on the website?	15%

Interactivity (40% of Usability)

Feedback Capacity	Does the website encourage and allow the opportunity for users to provide feedback as to the effectiveness and usability of the hiring website as a manner of facilitating improvements to the e-recruitment process? (e.g. feedback forms, direct email links, user surveys)	20%
Personalization	Is there the opportunity to create a personal profile that stores information unique to the user for future use?	25%
Community Interfaces	Are there community interfaces on the website that encourage communication between an organization and a potential employee? (job message boards, organizational chat rooms, recruiter blogs, email subscription services)	20%
Ability to Apply Online	Do users have the option of applying online?	35%

INNOVATIONS (possible 14 extra points)

E1	Application Tracking	Does the website allow the user to track the progress of their application review?	+ 2
E2	Job Matching	Does the website notify the applicant of relevant job opportunities based on competencies or qualifications of the applicant?	+ 2
E3	Resume Tool	Does the website provide tools or counseling in the creation and revision of a job resume/application? (does not include online application processes)	+ 2
E4	Application Management	Does the website allow the user to create one job application and use it to apply for several jobs?	+ 2
E5	Job Basket	Does the website provide a Job Basket feature in which the user can store multiple job listings and apply simultaneously for several listings in the basket?	+ 2
E6	Number of Clicks to Hiring Homepage	How many clicks from the State homepage to the Hiring homepage?	+ 0 - 4

Appendix B – July 2007 State Hiring Website Evaluation

State	Total	Content	Usability
Vermont	89.4	88	74
Indiana	84.2	70	88
Washington	80.8	75	72
Virginia	77.8	76	63
Nevada	69	48	83
Wisconsin	68	55	65
Iowa	67.9	55.5	64
Kentucky	67	79	44
Hawaii	65.6	69	48
Georgia	63.8	36	88
New York	63.4	57	73
Arizona	63	46	68.5
Delaware	62.8	41	73
Idaho	61.3	43	85
Minnesota	60.2	54	47
Alaska	59.6	35	79
Michigan	59.2	50	58
Maine	56.8	47	59
Ohio	56.8	38	67.5
Connecticut	56.6	71	35
Kansas	55.8	55	52
Maryland	55	57	42
Florida	54.9	34.5	73
Tennessee	54.6	43	57
North Carolina	53.6	48	57
Oregon	53.3	47.5	52
West Virginia	51.8	45	42
South Dakota	50.6	41	55
California	49.8	47	49
New Mexico	49.4	40	56
Alabama	48.8	43	45
Utah	48	36	51
Texas	46.6	33	57
Pennsylvania (Civil)	43.4	46	27
Wyoming	43.4	32	48
Nebraska	42.5	50.5	23
Massachusetts	42.4	32	53
Arkansas	39.2	31	39
Illinois	38.8	45	19.5
New Hampshire	38.5	32.5	37.5
Missouri	35	31	36
Louisiana	34.6	27	41
Oklahoma	33.6	32	26
North Dakota	32.8	40	17
Montana	30.8	30	32
Pennsylvania (Non-Civil)	30.8	32	29
South Carolina	30.8	32	24
Rhode Island	29.3	29.5	24
New Jersey	28.8	28	30
Colorado	27.4	25	26
Mississippi	25.6	24	28

Appendix C – September 2008 State Hiring Website Evaluation

State	Total	Content	Usability
Georgia	93.4	88	79
Vermont	89.4	88	74
Washington	81.1	80.5	64.5
Virginia	81	78	63
Utah	79.4	85	56
Iowa	74.4	69	60
Ohio	71.8	52	74
Kentucky	71.7	64.5	65
Wisconsin	70.6	56	65
Illinois	69.2	63	66
Indiana	65.4	39	80
Arizona	65.2	45	73
Nevada	63.8	36	83
Alaska	63.2	51	64
Delaware	63.2	45	68
Idaho	63	45	85
New York	60.4	52	73
Kansas	59.3	55.5	55
Oklahoma	58.8	37	69
Maine	58	47	62
Alabama	57.8	49	58.5
Oregon	57.6	51	57.5
South Carolina	57	46	56
Massachusetts	56.5	32.5	80
California	56.2	43	61
Minnesota	55.4	40	56
Michigan	55.2	60	33
North Carolina	54.8	50	57
West Virginia	54.6	44	48
Connecticut	51.2	62	30
Florida	47	26	56
South Dakota	46	37	44.5
Arkansas	45.8	36	48
Hawaii	45.2	35	48
Nebraska	42.4	45	26
Wyoming	42.2	33	43.5
Maryland	42	44	29
Louisiana	40.4	46	32
Texas	39.8	33	45
Pennsylvania (Civil)	39.6	43	27
New Mexico	39	34	39
New Hampshire	38.8	30	42
New Jersey	38.2	43	21
Montana	37.1	45.5	19.5
Tennessee	36	38	33
North Dakota	32	33	30.5
Missouri	31.2	31	31.5
Mississippi	30	22	42
Colorado	29.8	29	26
Pennsylvania (Non-Civil)	26.9	29.5	18
Rhode Island	26.9	31.5	15

Appendix D – Difference between July 2007 and Sept. 2008 Website Evaluations

State	Total Difference	Content Difference	Usability Difference
Alabama	9	6	13.5
Alaska	3.6	16	-15
Arizona	2.2	-1	4.5
Arkansas	6.6	5	9
California	6.4	-4	12
Colorado	2.4	4	0
Connecticut	-5.4	-9	-5
Delaware	0.4	4	-5
Florida	-7.9	-8.5	-17
Georgia	29.6	52	-9
Hawaii	-20.4	-34	0
Idaho	1.7	2	0
Illinois	30.4	18	46.5
Indiana	-18.8	-31	-8
Iowa	6.5	13.5	-4
Kansas	3.5	0.5	3
Kentucky	4.7	-14.5	21
Louisiana	5.8	19	-9
Maine	1.2	0	3
Maryland	-13	-13	-13
Massachusetts	14.1	0.5	27
Michigan	-4	10	-25
Minnesota	-4.8	-14	9
Mississippi	4.4	-2	14
Missouri	-3.8	0	-4.5
Montana	6.3	15.5	-12.5
Nebraska	-0.1	-5.5	3
Nevada	-5.2	-12	0
New Hampshire	0.3	-2.5	4.5
New Jersey	9.4	15	-9
New Mexico	-10.4	-6	-17
New York	-3	-5	0
North Carolina	1.2	2	0
North Dakota	-0.8	-7	13.5
Ohio	15	14	6.5
Oklahoma	25.2	5	43
Oregon	4.3	3.5	5.5
Pennsylvania (Civil)	-3.8	-3	0
Pennsylvania (Non-Civil)	-3.9	-2.5	-11
Rhode Island	-2.4	2	-9
South Carolina	26.2	14	32
South Dakota	-4.6	-4	-10.5
Tennessee	-18.6	-5	-24
Texas	-6.8	0	-12
Utah	31.4	49	5
Vermont	0	0	0
Virginia	3.2	2	0
Washington	0.3	5.5	-7.5
West Virginia	2.8	-1	6
Wisconsin	2.6	1	0
Wyoming	-1.2	1	-4.5

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