

# **Supercharging the Employment Agency:** An Investigation of the Use of Information and Communication Technology to Improve the Service of State Employment Agencies



Anthony M. Townsend  
Assistant Professor  
Department of Business Administration  
College of Business and Economics  
University of Delaware

The PricewaterhouseCoopers Endowment for  
**The Business of Government**

**About The Endowment**

Through grants for Research and Thought Leadership Forums, The PricewaterhouseCoopers Endowment for The Business of Government stimulates research and facilitates discussion on new approaches to improving the effectiveness of government at the federal, state, local, and international levels.

Founded in 1998 by PricewaterhouseCoopers, The Endowment is one of the ways that PricewaterhouseCoopers seeks to advance knowledge on how to improve public sector effectiveness. The PricewaterhouseCoopers Endowment focuses on the future of the operation and management of the public sector.

# **Supercharging the Employment Agency:**

## An Investigation of the Use of Information and Communication Technology to Improve the Service of State Employment Agencies

Anthony M. Townsend  
Assistant Professor  
Department of Business Administration  
College of Business and Economics  
University of Delaware

December 2000

# TABLE OF CONTENTS

<b>Foreword</b> .....	3
<b>Executive Summary</b> .....	4
<b>Introduction</b> .....	6
<b>Methodology</b> .....	8
Goal 1: Current Technologies .....	8
Goal 2: Determining How Agency Employees Regard Their Technology-Based Services.....	9
Goal 3: Developing Solutions .....	9
<b>Current Technologies</b> .....	10
Services for Employers.....	10
Services for Job Seekers .....	14
Services for Unemployment Insurance Claimants .....	16
<b>Respondent Evaluation of Technology Effectiveness</b> .....	18
<b>Identifying Improvements</b> .....	21
<b>Recommendations</b> .....	27
<b>Appendices</b> .....	30
A. Survey Instrument 1 .....	30
B. Survey Instrument 2 .....	31
<b>About the Author</b> .....	32
<b>Key Contact Information</b> .....	33

# Foreword

December 2000

On behalf of The PricewaterhouseCoopers Endowment for The Business of Government, we are pleased to present this report by Anthony M. Townsend, “Supercharging the Employment Agency: An Investigation of the Use of Information and Communication Technology to Improve the Service of State Employment Agencies.”

A revolution in information and communication technology has fundamentally altered the way that private sector firms organize themselves and do business with other firms and their customers. Professor Townsend examines to what extent state employment agencies have harnessed these new technologies to better serve their customers, and offers helpful suggestions on new steps they can take to further enhance their services.

Professor Townsend examined the availability of online information, e-mail contacts, online forms, online services, and interactive services at each of the country’s 50 state unemployment agencies. He notes that while most states provide services such as online job listings, there are many improvements — ranging from simple to complex — that agencies could undertake in the areas of information and communication technology to better serve customers. These areas include job search assistance, the agency-employer interface, placement assistance, job bank services, internal administration, and non-employer client access.

The report notes that technology adoption among public agencies seems to be done less for the organization’s benefit and more for the benefit of the organization’s clientele. It is our hope that this report will provide valuable insights for those who work in the area of employment services, enabling them to better serve their customers.

Paul Lawrence  
Partner, PricewaterhouseCoopers  
Co-Chair, Endowment Advisory Board  
paul.lawrence@us.pwcglobal.com

Ian Littman  
Partner, PricewaterhouseCoopers  
Co-Chair, Endowment Advisory Board  
ian.littman@us.pwcglobal.com

# Executive Summary

This report presents an examination of service delivery technologies in use by state employment agencies in the United States. In the first part of the paper, a description and distribution report of current technology practices is offered.

The second part of the report presents the results of a survey of agency personnel as to how well they feel that their agencies' technologies are helping to enhance their service delivery. In general, respondents indicate that most of their technological initiatives are improving the quality of their service and their administrative effectiveness.

The final part of the report presents a series of recommended improvements for new technology development, which have been evaluated by agency personnel. There are six general areas for potential technology-based agency improvement:

## **Job Search Assistance**

One of the fundamental responsibilities of most of these agencies is providing assistance to job seekers, some of whom are unemployment claimants and some of whom are simply seeking assistance in finding suitable employment. Using easily available software technology and existing Web capabilities, agencies could offer services such as résumé production and review, job search planning, and a variety of less interactive products such as "how-to" guides for better interviewing, writing application letters, proper appearance, etc.

## **the Agency-Employer Interface**

Successful employer relations are critical to agency effectiveness, and Internet-enabled communication technologies have the potential to enable significant improvements in the quality of these relationships. The activities associated with unemployment insurance compliance are, by definition, a burden on employers; beyond the simple cost of the unemployment insurance tax, compliance also requires significant attention to form filing and information requests from the agency. The technology is now available for agencies to create automated systems for the exchange of tax information and employee information with employers, which can significantly reduce the administrative burden on employers while simultaneously giving the agency more timely information.

## **Placement Assistance**

As we enter an era where information about jobs is available on a super-regional and national level, successful placement of lower-skill workers in geographically distant positions will require some method of concluding the hiring process without the employer's incurring the cost of applicant travel. Developing either one-way or two-way videoconferencing capabilities would allow agencies to help facilitate job placement over a broader geographic area. While placement gains from this kind of innovation may be small at first, it anticipates continuing development in teleconferencing and positions agencies to exploit these evolving technologies.

## **Job Bank Services**

The U.S. Department of Labor has developed an outstanding job listing and applicant listing database that is used by almost all state agencies on their websites. However, as good as this service is technically, respondents indicate that it does not really cover all of the jobs in a given locale. Given the proliferation of privately developed job listing sites, the recommendation here is that agencies follow the lead of a handful of states and post links to appropriate employment advertising locations.

## **Internal Administration**

The introduction of electronic documents systems, “swipe card” technology for claimants (to help track resource usage, speed up file access, etc.) and completely computerized case management systems would significantly improve the administrative effectiveness of most agencies. These types of improvements internally, when combined with a richer interface with employers, will mean that redundant data entry, data inaccuracies, and the bulk of paper files can be reduced while simultaneously improving case response times. In addition, there is value in exploring the possibility of outsourcing claims filing and initial documentation activities.

## **Non-employer Client Access**

While agencies scramble to develop technologically sophisticated systems to provide better client service, they must do all that they can to ensure that these technologies are available to all clientele. Until such time that Internet access is as ubiquitous as the telephone, agencies should invest in “access stations” (informational or interactional kiosks) in places like public libraries, shopping malls, and their own lobbies. In addition to providing access, these dedicated systems should be designed such that individuals with little computer sophistication can maximally exploit the agency’s system capabilities.

# Introduction

This study examines the technologies that state employment agencies<sup>1</sup> use to deliver their services to job seekers and unemployment benefits claimants, and that they use to interface with employers who pay unemployment insurance taxes and who (hopefully) will provide job opportunities to the unemployed. Employment services are a particularly interesting set of organizations among which to examine these technologies; they have both stable clientele relationships with relatively sophisticated technological partners (employers), and they have highly dynamic relationships with a constantly changing population of job seekers and unemployment insurance claimants who may have little technological expertise. Thus, the challenges, responses, and possible new solutions available to these agencies are representative of challenges and solutions found among many public agencies.

## Background for the Study

A revolution in information and communication technology has fundamentally altered the way that private sector firms organize themselves and do business with other firms and their customers. Bringing this same type of fundamental change to the public sector presents a new challenge. Unlike

the private sector, in which firms compete in dynamic market and product environments, many of the “products” that the public agency offers have changed little since they were first created.

This observation as to the relative stability of the product offering of many public agencies is not intended critically; indeed, the provision of “products” such as Social Security and unemployment benefits does not require modification in the products themselves unless changes are mandated legislatively. Interestingly, while many may criticize the bureaucracies that have evolved to provide these products, bureaucratic organization is actually a very efficient way to deliver a stable product to a mass market. Unfortunately, bureaucratic organizations are also resistant to changing procedures; historically, therefore, it has been difficult to introduce new technologies and organizational practices that may increase their efficiency. Since most public agencies exist in a non-competitive environment, the imperative for change does not proceed from competitive pressure, which is the driving force behind change in the private sector.

Thus, when we examine the adoption of new technologies to serve the clientele of public agencies, we must understand what has generated the adoption process (when it is occurring). Technology adoption among public agencies seems to be done less for the organization’s benefit and more for the benefit of the organization’s clientele. Research has repeatedly demonstrated that public workers are concerned with the mission of their agency; that they feel a personal connection with what it is that

---

<sup>1</sup> In this report, the term “employment agency” refers to each state commission, agency, or agencies that are charged with distributing unemployment benefits, finding jobs for job seekers, helping employers find workers, and collecting unemployment insurance taxes. Some states place all of these responsibilities into a single state agency (or commission) and some divide them into an employment agency (which matches job seekers with job opportunities) and unemployment agencies (which distribute benefits and collect taxes).



their agency does. Assuming that this trait adheres to the collective of public workers and thus to their agency, then the imperative behind adoption of technology is predicated on its ability to better serve the needs of their clientele. Thus, technological adoption is judged against a standard of improved service to the clientele, measured against an absolute standard (as opposed to the relativistic competitive standard of the private sector).

Technological change also appears to occur when federal and state funding is specifically targeted to a particular initiative. In the case of unemployment commissions, a federal program that is designed to help unemployment commissions develop better technological solutions to the challenges they face seems to have affected a number of commissions around the country. The federal program is still fairly new, and it will be interesting to see how much it is able to effect change in state commission procedures. Because there is substantial federal funding and assistance tied to at least some technological adoption, one suspects that the program will have significant impact.

# Methodology

This project was developed to accomplish three goals: first, to examine what kind of technologies unemployment commissions were using to reach out and serve their clientele; second, to find out how respondents within each commission felt their particular technological responses were working; and third, to develop a set of potential new technology solutions to enhance commission performance.

## Goal 1: Current Technologies

This study begins with an audit of technologies<sup>2</sup> that are available to serve the three functions of unemployment agencies (to match jobs and job seekers, to collect unemployment insurance taxes, and to distribute unemployment benefits). In order to assess the current level of each state agency's technology usage, I accessed each agency's website<sup>3</sup> and recorded the services that were available through the website or about which the website provided information (e.g., telephone-based services, modem-based services, kiosk services, etc.). I built the list of available services iteratively as I went through each state's site; I first determined the services described or offered by Alabama, then moved on to Alaska to see which of Alabama's services it offered and to determine if it offered any additional services. Proceeding in this way through

the fifty states, I was able to create a comprehensive list of services that could potentially be either described or offered by a state employment service. In addition to accessing the agency websites online, I also "screen-captured" the opening page of each site and any pages that described or provided service technology. I did this for two reasons: First, it provided a permanent record of the main elements of each agency's website;<sup>4</sup> and secondly, it allowed me to easily re-review websites to look for technologies that I was unaware of at the time that I had originally processed that state's website.

I categorized Internet-based technologies listed according to their type and level of sophistication within their technological category; these categories include Internet technologies, modem technologies, and phone-based consumer dial-up services. For Internet-based services, I categorized service areas based upon their most complex level of service in the following manner:

1. *Just Text:* The website offers only a simple text description of an activity (such as how to file a claim) or provides agency addresses and phone numbers. Providing this type of information over the Internet significantly increases user access and is a basic technological innovation. Most websites have some areas that are text only, even if they offer advanced services in other areas.
2. *E-Mail Contacts Available:* At this next level of complexity, the agency makes e-mail contacts available to users, which means that not only is the website more complex, but that the

---

<sup>2</sup> The technology audit was completed August 15, 1999. This is important to note, since the rapid evolution of technology services will mean that by the time this report is published, several states will have new technologies online that are not listed here.

<sup>3</sup> In some instances, there was not a single comprehensive website for each of the three functions. As noted in earlier text, some states make a distinction between their job service providers and their unemployment benefit service providers. Where such a distinction exists, I used websites for each functional area when such sites were present.

---

<sup>4</sup> I retained both electronic copies of these web pages on a CD-ROM (which retains their full color), as well as a printout of each state's pages.

agency has restructured job responsibilities so that personnel are assigned to monitor incoming queries. Again, agencies may make e-mail contacts available in some areas and not in others, within the same website.

3. *Online Forms:* Some agencies make forms available online for offline download and printing. When available, these forms are generally offered in an Adobe PDF format.<sup>5</sup>
4. *Online Services:* Online services provide a user the opportunity to engage in fairly complex searches for information in agency databases, such as job listings or regulatory information.
5. *Interactive Services:* Interactive services provide the opportunity for the user to submit information to the agency, as well as access information relevant to the submission. These types of services might include online claims filing, claims status checking, job registration, résumé filing, etc. Interactive services represent a significant technological investment, but where appropriate, they represent the most efficient exploitation of the Internet's potential.

Modem-based services represent a broad category of services that employment agencies have developed over a longer timeframe. By far the dominant type of modem-based service allows employers to submit pay data to the employment agency to assist in the calculation of their unemployment insurance taxes. Because they are technologically and historically related, I've also included disk transfer based services in this category. Disk transfer based services allow the employer to save data on computer disk and then deliver the disk to the employment agency for processing. Both of these services represent a significant increase in efficiency for the employment agency and for the employer, since neither party now must transfer data to or from paper.

Dial-up services, like modem-based services, have been evolving over a relatively long period of time. The services can range from simple information delivery systems (i.e., clients call in and press numbers on their touch pad telephone to access certain categories of information) to fairly complex data

---

<sup>5</sup> The Adobe PDF (portable document format) is a file format that makes documents available to a variety of different computer operating systems and which "locks in" the formatting of the original document. The PDF is a popular format for document transmission on the World Wide Web.

entry systems. Given limitations on the availability of Internet technology, dial-up services represent technology that is accessible to the broadest spectrum of agency clientele.

## **Goal 2: Determining How Agency Employees Regard Their Technology-Based Services**

Besides independently assessing the types of technology that employment agencies were using to serve their clientele, it was also important to assess how agency personnel felt that their technological services were helping them to better respond to the needs of their clientele. To accomplish this, a questionnaire (see Appendix 1) was sent to at least one services manager at each state agency. The questionnaire asked each respondent to evaluate their various technology-based services as to how well they worked to improve the quality of their interactions with employers, job seekers, and unemployment benefits claimants. It also asked, within each of these categories, which technologies the respondent believed to be most useful. Although it would have been interesting to request more information on a more complex instrument, I felt that it was important to hold the instrument to one page in length to encourage subject response.

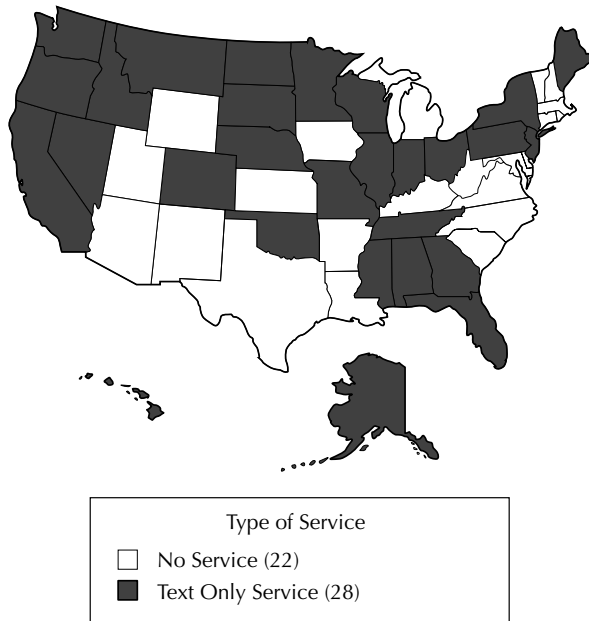
## **Goal 3: Developing Solutions**

The final part of this study focuses on describing potential innovations that may help employment agencies in the delivery of their service. Since agency managers have the greatest grasp of the many challenges associated with the delivery of their services, it was very important to ask them what types of technological responses they felt would be most helpful in improving their service delivery. To accomplish this, I included an item on the survey questionnaire that specifically asked them to describe what types of technology-based services they would like to see developed to improve the quality of their work with their clientele (see Appendix 1). Their responses were then compiled into a set of short descriptions, and compilations of these descriptions were then added to a second questionnaire containing descriptions of innovative technologies that I had identified and thought would be helpful in enhancing their service (see Appendix 2). As with the first instrument, I again kept the instrument to one page in length to encourage subject response.



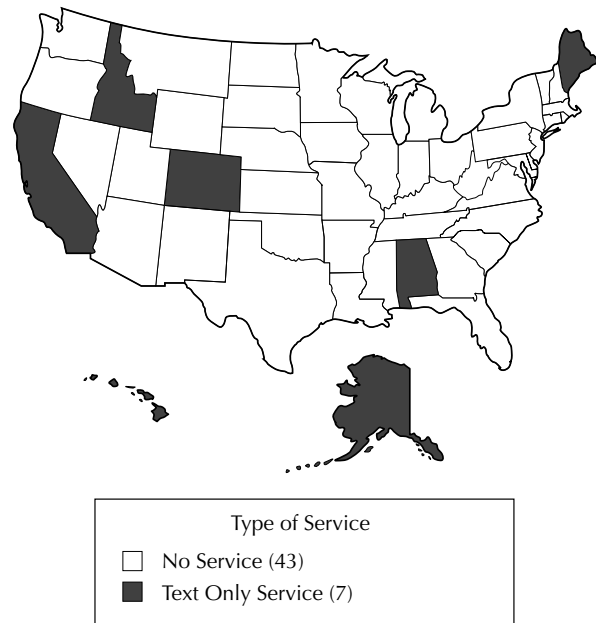
Online unemployment insurance regulations are offered by a slim majority of state agencies. Although it would certainly facilitate user access to the regulations, none of the state websites has developed the service at the time of this study (see Figure 2).

**Figure 2: Online Unemployment Insurance Regulations**



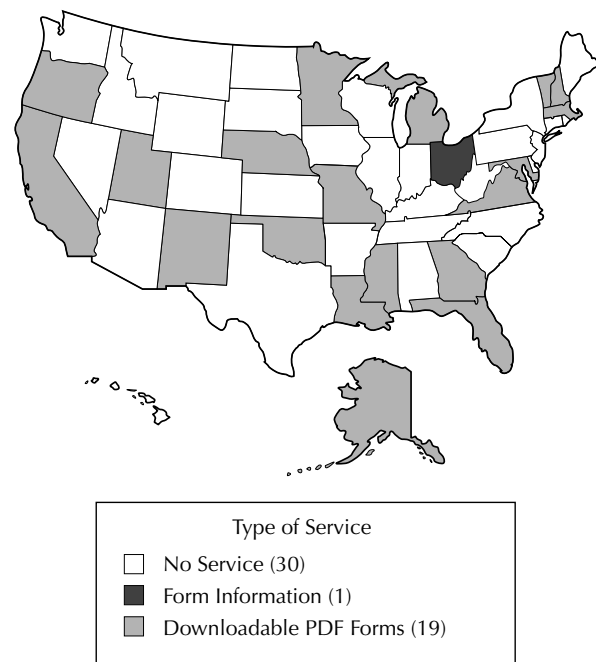
Only a handful of states offer online federal employment regulations (or even links to relevant regulatory documents). Again, this type of information is easy to provide, but has not yet been added to most websites (see Figure 3).

**Figure 3: Online Federal Employment Regulations**



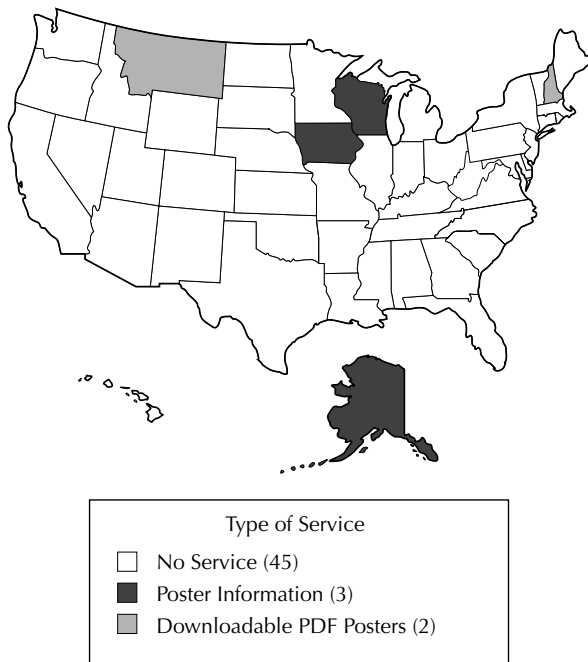
Since paper documentation is still a critical part of the employer's relationship with the employment agency, numerous specialized forms remain a critical part of the information transaction between employer and agency. To facilitate employer access to these forms, some state agencies make them available online in a portable document format (see Figure 4).

**Figure 4: Online Forms**



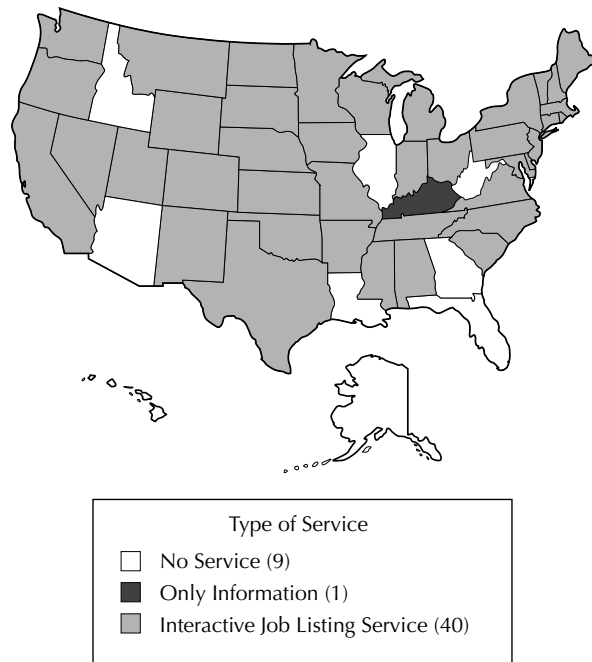
In many states employers are also required to post certain kinds of regulatory information in the workplace; the posters with this information are usually provided by the state employment agency. Two states are putting these posters online, which makes them easier for employers to access and use; three other states put information about the posters online (see Figure 5).

**Figure 5: Online Poster Information**

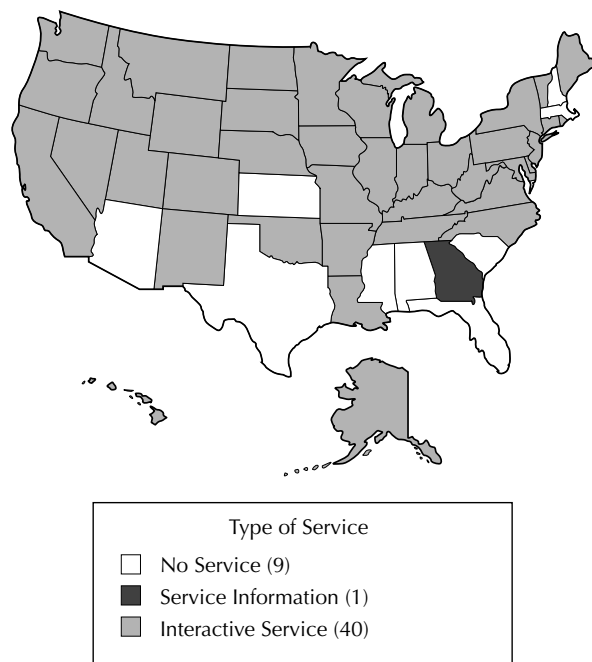


In order to help employers find qualified workers, most states provide employers access to a job listing service. State listing services provide employers with a more regional focus, as well as facilitate agency tracking of the labor market in their regulatory area. In addition to the state listing service, most states provide employers with access to the national job bank, which lists their open positions in an online database available to job seekers across the country. The national job bank is a service provided by the federal Department of Labor and access to it is provided through a state's website. State job banks generally follow the same format as the national job bank (see Figures 6 and 7).

**Figure 6: Online State Job Bank**

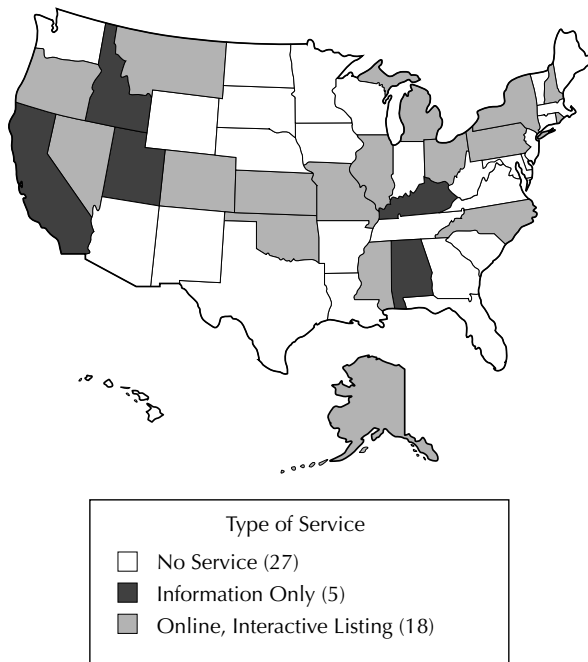


**Figure 7: Online Access to National Job Bank**



In addition to the state and national job banks, which are designed as information resources for job seekers themselves, online job listing services allow employers to notify the employment agency of jobs that they have available. By “listing” with the agency, employers know that the agency will be actively trying to match job seekers with their positions. Although some states allow online listing through their website, other states choose to post text-only information on their website (see Figure 8).

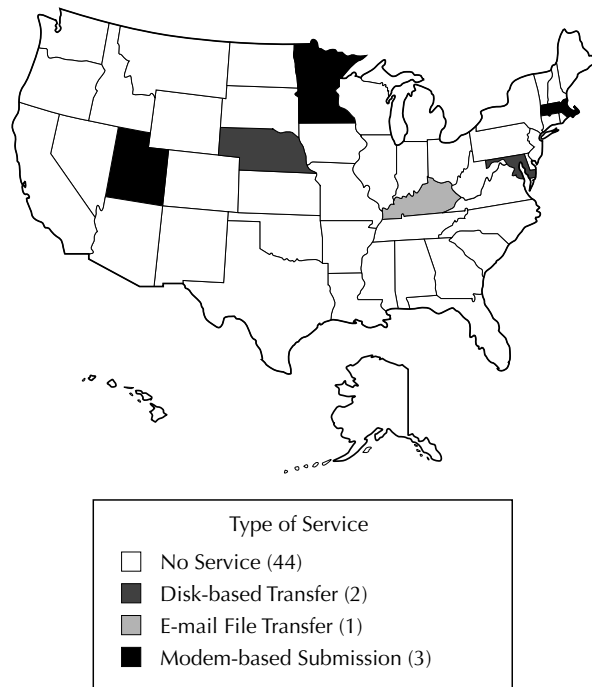
**Figure 8: Online Listing Service and Information**



Some states require employers to file information on the layoff co-worker or workers; to facilitate this process, state agencies have developed three different strategies to transmit this information electronically. The oldest form of electronic transmission of this data requires the employer to use a specialized

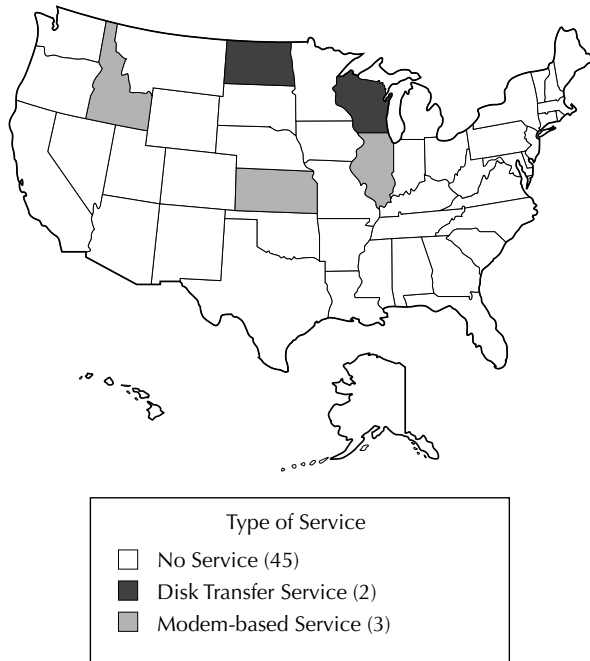
computer program to generate a data file, save this data file on disk, and then send this disk to the state employment agency. The program to generate this data is supplied to the employer by the employment agency (usually for free). An extension of this technology requires the employer to use a state-supplied computer program to generate a data file, which is then sent to the state agency using a telephone modem. A much more recently developed technology uses Internet-based forms on the state website to collect information from the employer (see Figure 9).

**Figure 9: Claims Filing Services for Employers**



The same technologies that are used for employer claims filings are also used to collect information about employers' unemployment insurance tax liability (see Figure 10).

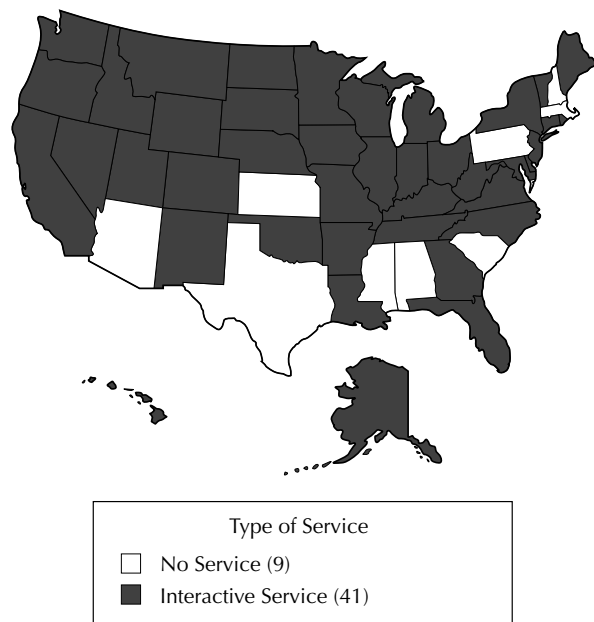
**Figure 10: Unemployment Tax Filing Services**



## Services for Job Seekers

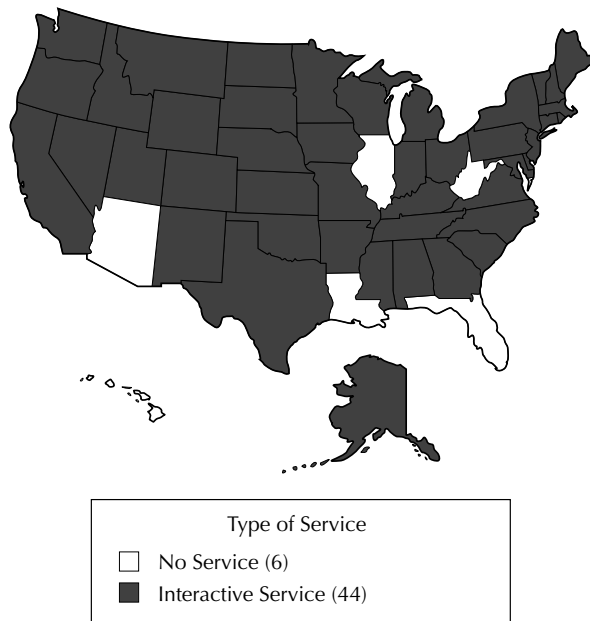
Part of the mandate of every state employment agency is to find jobs for the unemployed. To better meet this challenge, most state agencies provide job search capabilities on their Internet sites. Just as is the case with job banks for employers, the job bank for job seekers is provided by the federal Department of Labor (for the national job bank) and the state job banks follow the same protocol (see Figures 11 and 12).

**Figure 11: Online National Job Bank for Job Seekers**



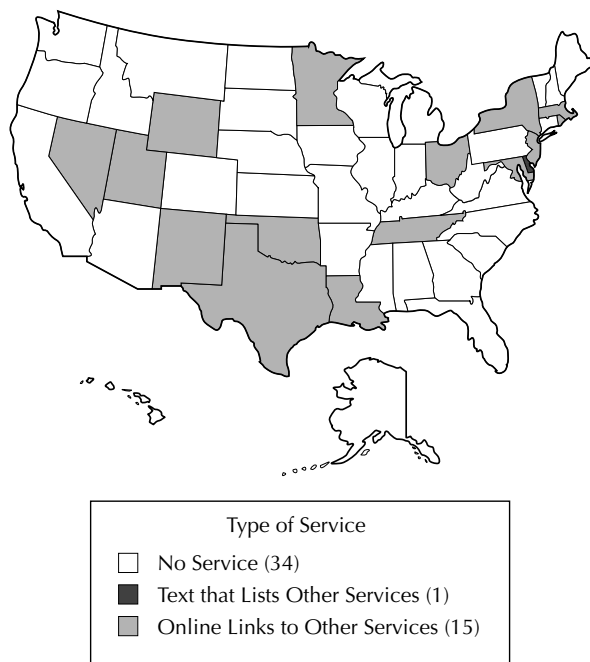


**Figure 12: Online State Job Bank for Job Seekers**



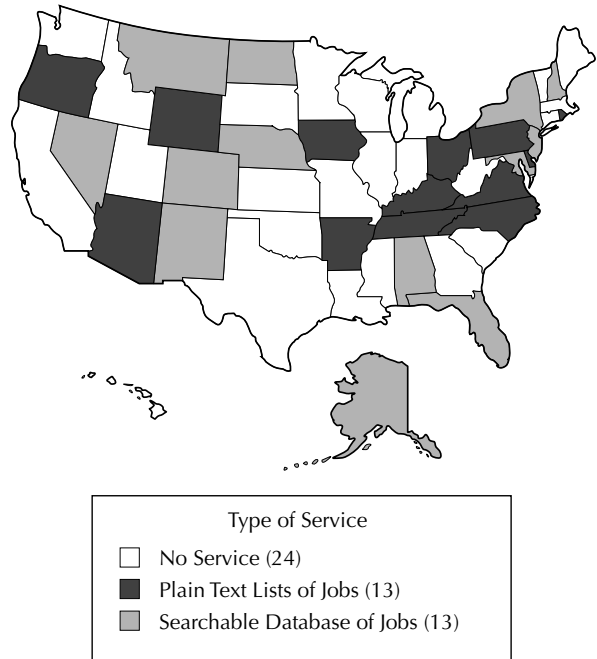
A number of states also provide links or references to a variety of other kinds of job banks on the Internet. These job banks are operated by a variety of businesses, such as major newspapers and commercial employment agencies (see Figure 13).

**Figure 13: Online Links and Referrals to Other Job Bank Services**



Many agencies also post listings of state, county and municipal jobs (see Figure 14).

**Figure 14: Online State Job Listings**



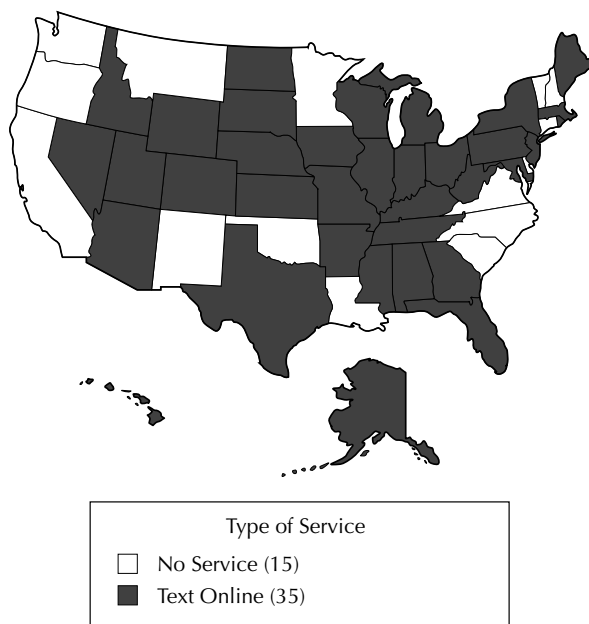
Only one state, Florida, provided an online placement service for out-of-work professionals.

## Services for Unemployment Insurance Claimants

In numerical terms, the most visible constituency of a state employment agency consists of those who are seeking unemployment insurance benefits. One of the greatest challenges facing modern state employment agencies is overcoming the common stereotype of the unemployment insurance office characterized by long lines and endless paperwork. Judging from the comments of many of the respondents, there remains a critically low ratio of agency personnel to unemployment insurance claimants; therefore, finding new ways to more accurately and efficiently process unemployment insurance claims is a high priority among these agencies.

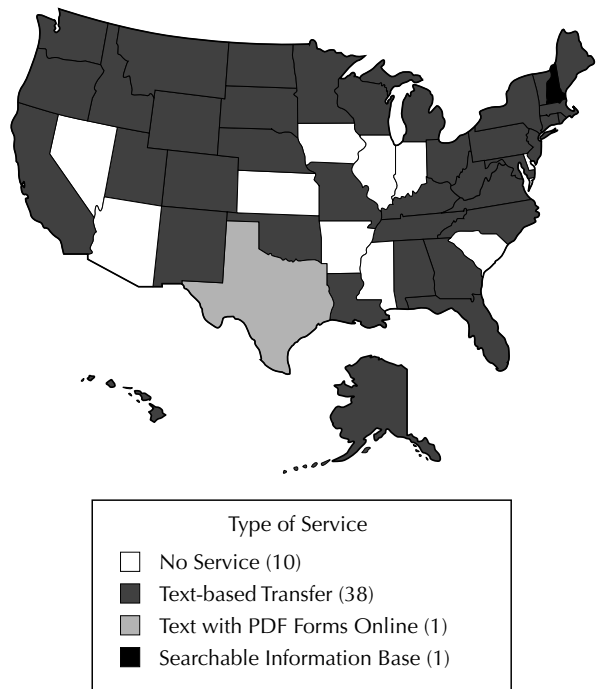
One of the most basic services an employment agency can offer is simple information about where its offices are located and relevant phone numbers for claimants to use when contacting the agency. Surprisingly, 15 states do not offer this basic level information on their websites, even though it is an almost cost-free service. Additionally, none of the states offering location information on their website has developed any kind of searchable system to aid users in finding related detailed information (see Figure 15).

**Figure 15: Online Location Information**



Information as to how to file a claim for unemployment insurance is also a natural service to offer online. In this category of information most states chose to offer only simple text-based service, although Texas offered text along with downloadable claim forms. New Hampshire provided a searchable information database (see Figure 16).

**Figure 16: Claims and Filing Information**

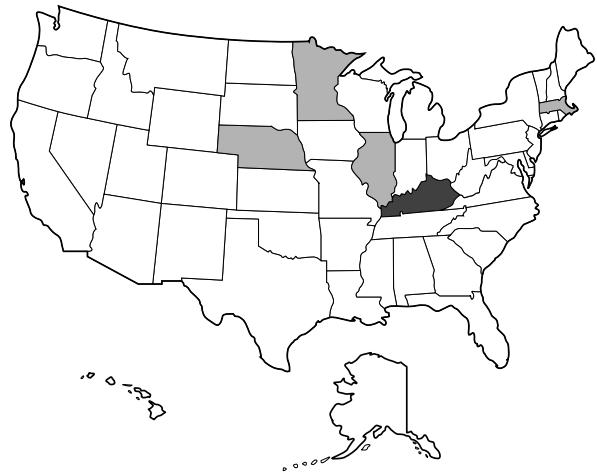


The final type of information that agencies provide to their potential claimants is information about the benefits themselves, such as duration and level of benefits. All of the states that provide this information do so in a simple text format (Figure 17).

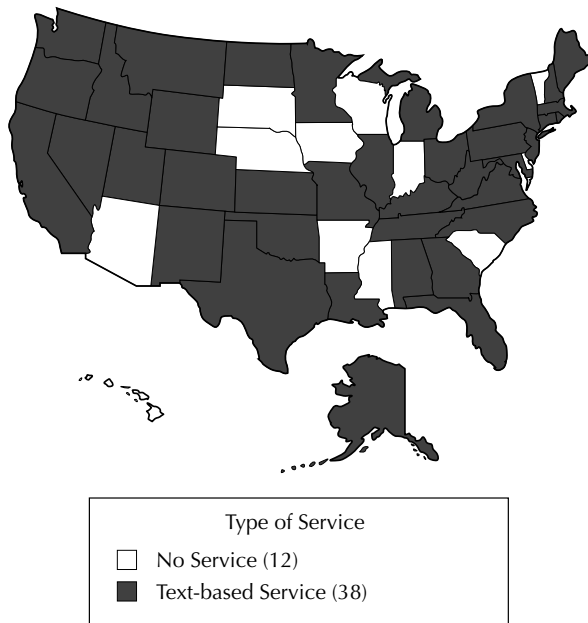
Although information services are certainly helpful, technological services that assist claimants in filing their claims and checking on the status of their claims and benefits constitutes a critical service. A number of states have developed very effective dial-up services that allow preliminary information transmission for new claims and allow existing claimants to check the status of their claims and benefits. Respondents that commented on the systems commented favorably; this is important to note, because these systems share many of the

same kinds of security issues that will be of concern when online claims filing is introduced. Since the dial-up systems appear to work well, there should be little cause to resist the development of online claims filing, benefits checking, etc. Thus, one would expect that states currently offering dial-up claimants services will move quickly to offer online services as well; given the proliferation of Internet access, one would expect other states to follow suit very quickly. Figure 18 shows current claims filing services and benefits checking services; states that have dial-up services generally have both filing and checking services.

**Figure 18: Claims and Benefits Filing and Checking Services**



**Figure 17: Online Benefits Information**



# Respondent Evaluation of Technology Effectiveness

The second goal of this study is to determine how agency employees regard their technology-based services, which was accomplished through a questionnaire that asked for three different evaluations:

1. To what extents are your various technology-based services (i.e., Internet services, telephone-based computer services, other computer services) improving the quality of your interactions with **employers**?
2. To what extents are your various technology-based services (i.e., Internet services, telephone-based computer services, other computer services) improving the quality of your interactions with **job seekers**?
3. To what extents are your various technology-based services (i.e., Internet services, telephone-based computer services, other computer services) improving the quality of your delivery of **unemployment compensation**?

Respondents were asked to select from the following four choices for each of the preceding items:

1. Not at all
2. Very little
3. Some improvement
4. A great deal of improvement

In addition to these Likert-scaled items, respondents were asked the following informational follow up questions:

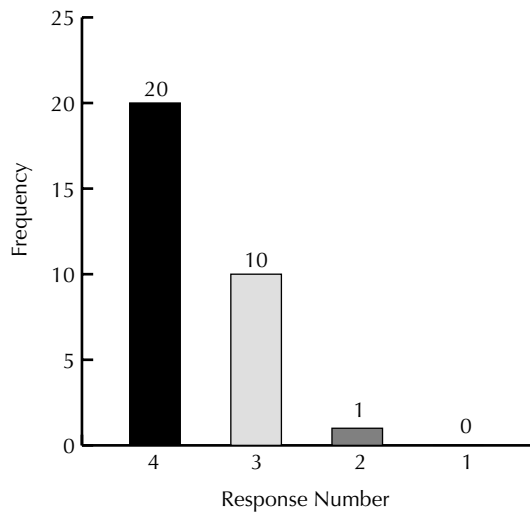
- A. Which services specifically do you feel help **employer** interactions the most? (Please give a short name of the service and description.)
- B. Which services specifically do you feel help **job seeker** interactions the most? (Please give a short name of the service and description.)
- C. Which services specifically do you feel help the quality of your delivery of **unemployment compensation** the most? (Please give a short name of the service and description.)

At the end of the survey instrument, respondents were also asked the following:

What other technology-based services would you like to see developed to improve the quality of your work with your employers, job seekers, or unemployment insurance claimants? (Please give a short description of what you would like to see.)

Figure 19 shows the frequency of responses to Item 1, regarding how well new technologies have assisted with the agency's ability to interact with employers. The responses overwhelmingly indicate (mean = 3.61) that respondents see a great deal of improvement in their interactions with employers because of recent technology implementations. In their response to the follow-up question for this category (Item A), they offered a number of responses. The predominant themes in these responses centered on the ability to have employers list jobs and look for applicants through Web-based technologies, a variety of systems (including Web-based systems) to facilitate transfer of employer material directly into commission databases, and a variety of communication enhancements between the agency and the employer (e-mail, forms online, online information services, etc.).

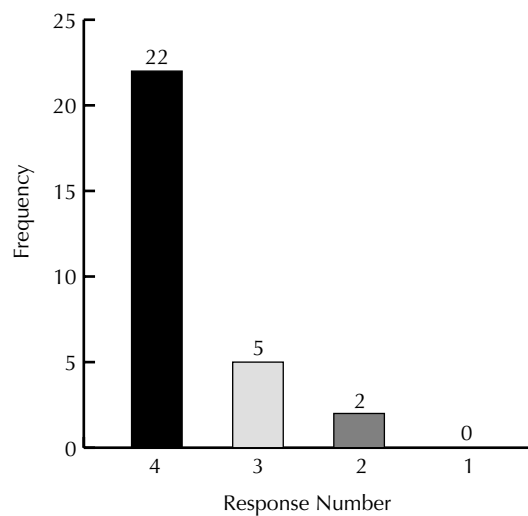
**Figure 19: To what extents are your various technology-based services improving the quality of your interactions with *employers*?**



1 = Not at all  
 2 = Very little  
 3 = Some improvement  
 4 = A great deal of improvement

Figure 20 shows the response frequencies for Item 2, regarding how well new technologies have assisted in service to the job seeker. Here, too, the response was very positive (mean = 3.68), indicating that most agencies felt that the introduction of a variety of new technical services is improving their ability to serve job seekers. In this category, services that are rated important fall into categories such as communication technologies (i.e., e-mail), online job services (including résumé listing), and a variety of information services.

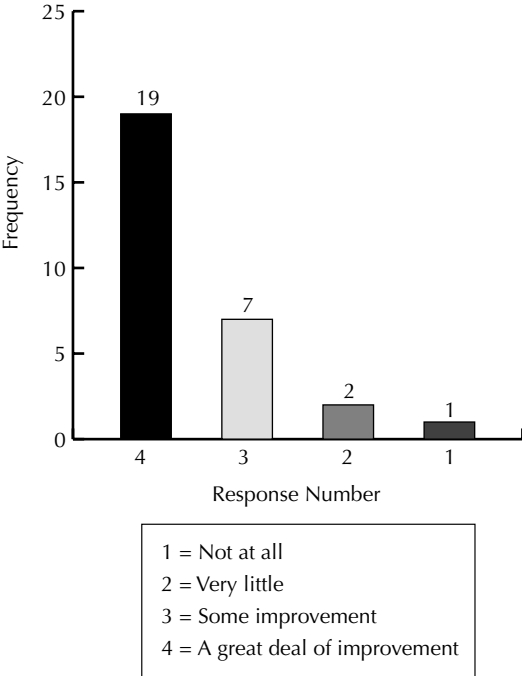
**Figure 20: To what extents are your various technology-based services improving the quality of your interactions with *job seekers*?**



1 = Not at all  
 2 = Very little  
 3 = Some improvement  
 4 = A great deal of improvement

Finally, Figure 21 shows the frequency of responses for the item “To what extents are your various technology-based services improving the quality of your delivery of unemployment compensation?” As in the preceding two categories, responses here were generally positive, although less so than the previous categories (mean = 3.52). Judging from discussion with agency employees and from notes attached to the surveys, most agency staff believe that technology services to unemployment seekers are bounded by the technological capabilities of the client. Since much of an agency’s client base is not technologically sophisticated, Internet-based service-delivery systems currently have only restricted utility.

**Figure 21: To what extents are your various technology-based services improving the quality of your delivery of *unemployment compensation*?**



# Identifying Improvements

As indicated earlier, the third phase of this research is designed to develop a set of recommendations for future technological innovations that may assist public employment agencies in improving the delivery of their service. The survey instrument used in phase two of this study included an item asking respondents to indicate what type or types of technology they would like to see developed to further improve their agency's service (see Appendix A). Based upon the information this item provided, as well as a consideration of contemporary trends in private sector organizations, I developed a list of 12 priority improvement recommendations to send out to agency staff for evaluation (see Appendix B). Each improvement was evaluated by respondents on a three-point scale, ranging from a low of 1 to a high of 3; Figure 22 presents a complete listing of each individual item and mean.

In the following sections, each of these improvements is presented in detail. I have listed the improvements in the approximate order that they were listed in the original questionnaire; I also evaluate the priority of the improvement according to the following scale:

- Priority = High: Improvements in this capability should be made immediately as they will engender both significant service delivery and administrative efficiency.
- Priority = Medium: Improvements at this level will significantly improve the quality of service, but will not significantly improve administrative efficiency.
- Priority = Low: Improvements at this level represent potential improvement in service, but the improvement will be incremental and should be undertaken after other improvement opportunities have been realized.

## Improving Job Search Assistance: Priority = Medium

*Item 1: Add greater interaction to Internet-based job search services by offering résumé assistance, search planning, etc. (Evaluation = 2.29)*

The item that participants evaluated is actually somewhat general in the sense that different states offered different levels of assistance to job seekers. Nonetheless, the positive evaluation for this recommendation indicates that agency workers believe that more can be done in this area.

As has been noted earlier in this paper, these types of technology services are somewhat bounded by the technological capabilities of the job seekers themselves. However, given the increasing number of Internet-savvy people in the workforce, there will be a commensurate increase in demand for Internet-based service of all kinds. Specific services that can be offered through the Internet could include:

- *Résumé-development programs:* These programs could take either a downloadable or a site-enabled format that allowed users to work through the process of effective résumé development in much the same way that they would using commercially available résumé-writing packages.

**Figure 22: Information Technology Recommendations and Mean Evaluations**

<b>Information Technology Recommendation</b>	<b>Mean Response</b>
1. Add greater interaction to Internet-based job search services by offering résumé assistance, search planning, etc.	2.29
2. Develop an electronic system for employers to submit unemployment claims when they lay-off workers.	2.57
3. More Internet-based interface with employers, allowing wage reporting, tax reporting, etc.	2.86
4. Development of fully integrated initial claims processing through Internet (or Internet-style) interface. System would automatically generate claimant file, letters to employers, enter claimant into job bank, etc.	2.71
5. Installation of teleconferencing systems to allow employers to interview job seekers without creating travel costs.	1.71
6. More localized and regionalized job bank/placement services.	2.17
7. Rapid migration to electronic documents systems.	2.20
8. Swipe card technology for claimants; to help track resource usage, speed up file access, etc.	2.17
9. Completely computerized case management systems.	2.67
10. Outsourcing claims filing and initial documentation activities.	1.20
11. Installing computer stations for claimants to access Internet services of the agency to file claims, check account status, etc.	2.40
12. Introduction (or expansion) of computer kiosks in malls and other public places so that claimants and job seekers can file claims, look for employment, etc.	1.50

- *Job-search planning:* As in résumé development, programs can be developed that help applicants determine career goals, job skills, and relevant search strategies. By adding multimedia technologies, such as streaming video, job seekers could also benefit from training lectures accompanied by short interactive exercises to develop both search strategy and interviewing skills.

### **Improving the Agency-Employer Interface: Priority = High**

*Items 2, 3, and 4: (2) Develop an electronic system for employers to submit unemployment claims when they lay off workers (Evaluation = 2.57).*

*(3) More Internet-based interface with employers, allowing wage reporting, tax reporting, etc. (Evaluation = 2.86). (4) Development of fully integrated initial claims processing through Internet (or Internet-style) interface. System would automatically generate claimants file, letters to employers, enter claimants into job bank, etc. (Evaluation = 2.71)*

These items each focus on a different aspect of the creation of direct interfaces between information at the employer's location and the agency's computers. The idea here is to develop a mechanism whereby when an employer terminates an employee, the employer would then generate a termination file for that employee which would contain all the information necessary to process the



unemployment claim of that person. Historically, the challenge to an implementation of this type of system has been one of communication technology, computer interoperability, and employer willingness to assume more functional responsibilities in the termination process.

Employer willingness and the capability to participate in this type of system should be changing as more employers develop the technological capabilities necessary to participate in business-to-business electronic commerce. Private sector corporations are finding that enabling business-to-business interactions through extranet systems enables a profound level of efficiency in inter-company data exchange. Similar systems would allow employment agencies and employers to develop a rich communication interface that would facilitate the easy exchange of claims-related data. Under the current system, employers must complete a significant amount of paperwork related to termination; if this paperwork could be generated automatically and transmitted electronically, the time savings to employers would be significant.

At the same time that employers are realizing the benefits of computer-based interaction with the agency, the agency realizes the benefits of having preformatted data available for each new claimant. With little or no informational input from the claimant, the agency can process the unemployment claim and preliminarily enter the claimant into the job search process. This creates enormous efficiencies for the agency and simplifies the task of filing for the unemployment claimant. With the right data coming from the employer, all that claimants need do is contact the agency with their name or Social Security number and ask that their claim be processed. Although there is little doubt that exceptional cases will occur that challenge the capabilities of such a system, significant gains in effectiveness should be realizable through the implementation of a sophisticated information-sharing system between the agency and employer.

I rated this improvement a high priority because it has the potential to significantly improve both internal administrative processing as well as simplify the interface with the employer. The benefits of internal administrative improvement are easily apparent: improved processing times and improved informa-

tional accuracy. Improving ease of use of the employer interface is also critical because it will encourage participation and compliance on the part of the employer. At best, the relationship with the agency is costly and time consuming for the employer; a more effective interface will at least reduce the time spent in compliance activities.

## **Improving Placement Assistance: Priority = Low**

*Item 5: Installation of teleconferencing systems to allow employers to interview job seekers without creating travel costs. (Evaluation = 1.71)*

At 1.71, the evaluation of this recommendation is less than favorable. The idea here was to use Internet technologies, such as streaming video or desktop teleconferencing, to enable interviewing of job seekers by employers at distant locations. Given this feedback, and upon further reflection, I believe that I understand why this recommendation does not represent a high-priority concern. Public employment agencies generally assist in the placement of job seekers looking for manual and clerical positions; they are not generally in the business of placing administrative, supervisory, or executive personnel. As such, the radius of the job search for most of the agencies' job seekers is small enough that travel to the worksite is not problematic. Therefore, distance interviewing remains a low-priority capability. That said, however, it may become increasingly important that agencies develop capabilities to provide placement assistance for low-level jobs in increasingly diverse locations. Providing interviewing services through teleconferencing may assist this process.

## **Improving Job Bank Services: Priority = Low**

*Item 6: More localized and regionalized job bank/placement services. (Evaluation = 2.17)*

There appears to be the perception among agency personnel that the job bank system developed by the Department of Labor may not provide a sensitive reflection of job opportunities relevant to many of their job seekers. Whether or not this is true is beyond the scope of this investigation; however, a number of state agencies offer ancillary job search services. A handful of states offer website links to

private job listing services in order to expand the field of potential jobs for job seekers. The combination of these private and public sector developed job banks offers significant regional and national coverage. I would recommend that, wherever possible, agencies provide linkages to free private-sector job listing services. It should be fairly simple for agencies to make private job bank services available to job seekers, both onsite and on their Web pages. Because existing job bank services provide a significant amount of coverage, this is a low priority but still important potential service improvement.

## Internal Administrative

### Improvements: Priority = High

*Items 7, 8, 9, and 10: (7) Rapid migration to electronic documents systems (Evaluation = 2.20). (8) Swipe card technology for claimants; to help track resource usage, speed up file access, etc. (Evaluation = 2.17). (9) Completely computerized case management systems (Evaluation = 2.67). (10) Outsourcing claims filing and initial documentation activities (Evaluation = 1.20).*

These four items involve technological improvements in the internal operations of the state employment agencies.

Item 7, migrating to electronic documents systems, is the first step toward developing infrastructure that supports items 8 and 9. Swipe card technologies and computerized case management systems both require significant online information, which is made possible by a total orientation toward electronic document technology. Electronic document technologies are coupled with effective database systems; the resource-wasting entry of redundant information is effectively curtailed.

Item 8, developing swipe card technology for claimants, is designed to help make many different aspects of the agency's interaction with the claimant more efficient. Swipe card technology ensures that claimant identification information is entered both accurately and quickly at any point of contact. Swipe cards can also be used to allow claimants to access personal claim and job search information from terminals located in agency offices. Used in these ways, swipe cards relieve

agency employees from a significant amount of data entry and data retrieval activity.

Item 9, computerized case management systems, is focused on the creation of more effective back-office information systems. Although many agencies report the use of increasingly sophisticated information system technologies for in-house data processing, there still appears to be a need for greater integration and simplification of the information systems used to process claimants. Given that claimant processing is very similar to human resource processing in a private organization, I would recommend that state employment agencies investigate the potential implementation of systems from commercial human resource information system suppliers, such as PeopleSoft. Many agencies currently report that they are developing systems in-house, or are working with vendors that specialize in unemployment services. Both of these options are unlikely to capitalize on state-of-the-art technologies developed for private sector organizations.

Item 10, which broached the subject of outsourcing claims filing and initial documentation activities, received the lowest evaluation of any recommendation. In the private sector, outsourcing non-core activities has been a source of significant competitive advantage and operational efficiency. Indeed, the greatest trend in private sector organization over the past decade has been an emphasis on becoming lean and nimble; bureaucratic forms of organization no longer seem to be competitively effective. Unfortunately, government agencies define themselves explicitly as bureaucracies, which makes it difficult for them to release any of their internal functions to outside providers. As such, state employment agencies frequently try to develop technologies in-house and are unresponsive to opportunities to outsource both technological and operational activities.

Interestingly, agencies are willing to "outsource" much of their job listing and job search activity to the Department of Labor. Those states that list links to private job listing services are effectively outsourcing here as well. A key challenge to making these agencies more effective will be to create an atmosphere more conducive to the exploitation of outside sources of expertise.

## Improving Non-employer Client

### Access: Priority = Medium

*Items 11 and 12: (11) Installing computer stations for claimants to access Internet services of the agency to file claims, check account status, etc. (Evaluation = 2.40) (12) Introduction (or expansion) of kiosks in malls and other public places so that claimants and job seekers can file claims, look for employment, etc. (Evaluation = 1.50)*

Both of these items address the potential of expanding technological availability to better serve the agencies' non-employer clientele.

Item 11 involves installing more computer stations in agency offices to allow claimants to access both their personal records as well as other information sources that the agency can provide. This recommendation received a fairly high evaluation relative to the others, and I believe that this is a function of evaluators' clearly seeing that any data retrieved for claimants by a computer is data that did not have to be retrieved by an agency employee. There are a variety of ways to design these systems; ease of use by the claimant must be paramount in system design. Extensive use of menus, touch-screen technology, and artificial intelligence programming begin to make the systems accessible to even the least computer literate. Large banks of these terminals in agency offices should significantly diminish long waiting lines and speed the throughput of unemployment claims.

Item 12 recommends an expansion of the use of computer kiosks in malls and other public places; it received the second lowest evaluation of all recommendations. Judging from interviews and other feedback, agencies that have these types of kiosks feel that they are working. I suspect, however, that many of the agency personnel who evaluated these recommendations had little experience with externally located kiosks. To some extent, as agencies put more and more services online and an increasing number of potential claimants acquire Internet access, the need for external kiosks may become irrelevant within the next decade. Nonetheless, until Internet access is relatively universal, agencies will need to provide access to those that are not able to provide their own.

## Anticipating External Changes

While the bulk of this report is focused on reactive technological developments by the state agencies themselves, there are other trends in the external business environment that will create new opportunities for better agency performance in the future. Trends in private sector organizational design and operational technique should make possible new initiatives by state agencies that can significantly improve delivery of service.

### Networking Organizations

One of the most pervasive trends currently affecting the private business environment is the trend toward outsourcing and strategic partnering. The "business organization" is no longer a monolithic aggregation of functional activities; rather, evolving organizational design posits a core organization of central strategic skills that outsources non-strategic functions (i.e., payroll, human resources management, accounting). Organizations that are oriented toward outsourcing are also oriented toward cross-boundary information exchange. As organizations begin to develop standardized cross-boundary data-exchange protocols, state employment agencies will want to adapt their data-gathering systems to effectively interface with dominant structures in the business environment. Doing so will enable richer data exchange between the agency and the business community, which will result in more effective service delivery.

### Virtual Work

A second, and somewhat related, organizational trend is the rise of various forms of virtual working relationships. Rapid development in communication and data processing technologies now makes it possible for teams of knowledge workers to perform effectively even though they may never work together in person. These same technologies enable a new and more meaningful level of telework, which enables workers to perform critical job functions from remote sites. Virtual work raises the possibility of bringing geographically distributed resources to bear on a number of agency problems; the technology of virtual work also enables true statewide planning, problem solving, and system development. Ideally, the ability to tap into expertise at a variety of agency locations means that more effective project teams can be developed

and better expertise brought to bear on a variety of decision-making challenges.

## Benchmark Agencies

In reviewing the technological capabilities of these agencies, a handful stood out as providing particularly good benchmarks that other states might like to use for comparison. The determination of these benchmark agencies is purely qualitative on my part, but I am hopeful that identifying these agencies will provide some basis for discussion and comparison.

- **California:** California is notable because of its remarkably complete, detailed, and yet easy-to-access Web information. Its website has well-designed, intuitive information categorization, coupled with as full a spectrum of online services as most of the top states. Viewed as an exemplar of website utility and ease of use, California is a benchmark agency.
- **Louisiana:** Like California, I selected Louisiana because of the quality of its website and Internet services. The website is easy to navigate and has a wealth of interactive information services. Most notable among these is a very effective job listing service and an excellent array of downloadable forms for employers. Louisiana gives the impression of having put their offices on the Web, with a high level of service capability.
- **Montana:** Montana was impressive for two reasons: First, they are one of the few agencies that offer links to other job listing locations beyond the ones that they administer. This is an excellent idea and should be repeated by all agencies. Second, Montana has an automatic wage reporting program (distributed free to employers) that enables employers to send information on disk or via modem. While a small number of states have one or the other, Montana has both, which demonstrates an integrating approach to technology utilization.
- **Oklahoma:** Oklahoma puts together an excellent set of job service pages on its website, with clear links to both public and private job/résumé listing services, as well as very clear and detailed access to the America's Job Bank services. The Oklahoma website provides excel-

lent job information and listing services to both employers and job seekers in an intuitive format.

Again, let me state that these are qualitative evaluations, based upon the Internet sites and other technologies that I could determine at the time of the study; I have little doubt that agencies are rapidly upgrading their technical capabilities and improving their service with technological innovation.

# Recommendations

Beyond the set of recommendations for technical improvements that I have presented thus far, there are some additional observations and related recommendations regarding the operational and philosophical orientation of these agencies that bear some discussion as well. While I would certainly be among the first to recognize that state bureaucracies are not likely to change into highly nimble, modern-form organizations, I do believe that beginning the process of adapting some recent organizational evolutions would be helpful for these agencies. Additionally, I think that some careful reflection of the agency mission, beyond the legal mandate, might help to capture a new organizational mission with a resultant re-thinking of the technology to support it.

## **Recommendation 1: State employment organizations should consider the potential of outsourcing.**

One of the most telling conversations I had during this research was with a member of the senior administrative staff at one of the agencies, who was telling me about a new agency-wide personnel system they were installing. I asked what the name of the product was, anticipating that the agency was using a commercially developed product. When the individual advised me that their in-house IT staff was building the system from scratch, I was incredulous. Upon further questioning, I discovered that the agency (like many others) does all of these projects internally.

While I can easily recognize that a state agency has unique personnel requirements, and that a state

employment commission performs a function that is performed *in toto* only by 49 other state agencies, I am certain that there is enough similarity between these other agencies (as well as between these agencies and organizations in the private sector) such that there is little reason to continue with in-house development of all but the most specialized of technologies. Not only is in-house development wasteful in that it reinvents extant technology on a regular basis, but it also fails to capitalize on significant advancements in technology that are realized in the open market of application development. I believe, though, that the in-house development mentality is simply symptomatic of the larger problem of an inwardly focused bureaucracy.

## **Recommendation 2: State employment organizations should embrace the downsizing/rightsizing movement that has enabled such positive organizational change in the private sector and apply it to state government.**

In the private sector, the mandate for change and organizational improvement is spurred by competitive pressures; in the past decade, this pressure has led to a radical revamping of most competitive organizations.

One of the most pervasive change dynamics in private sector organizations has been the movement to downsize, both by ridding the organization of superfluous business units, as well as by de-layering middle management. A state agency's "business units" are relatively fixed by legislation, but the layers of managers within each agency should be

open to careful examination. I am aware that cost and manpower reduction programs are part and parcel of modern public administration, but I believe that more can be done. In order to facilitate the further reduction of middle managers, agencies should be making a deliberate effort to acquire systems that expand managerial spans of control and that enhance the efficiency of internal information processing within each agency. Developing some of the case management technologies that I have discussed in the preceding section, coupled with automated reporting, case worker management software, and the like should both increase the efficiency of current managers, as well as reduce the total staffing level of managerial personnel.

**Recommendation 3: State employment organizations should develop a networked structure, both with private sector service providers and other agencies (both within and across state boundaries) to facilitate the efficient transfer of expertise.**

Both services and manufacturing private sector organizations have recognized that there is little to be gained by having organizational personnel performing functions that could be performed better and more efficiently by an outside organization. Payroll, personnel, maintenance, food services, accounting, and (as noted earlier), software development, have all been targeted as organizational support functions that can be moved to outsource providers. Although some state agencies do use outside software service developers,<sup>1</sup> many remain reluctant to find outsourcing opportunities for other aspects of their operations. Outsourcing ideas were among the most poorly received of the improvements that I asked agency personnel to comment on, and I believe that this is indicative of a mindset that limits agency exploration of outsourcing opportunities. I believe it is critical that agencies begin to consider outsourcing a significant portion of their work and to develop mechanisms that allow much more of the record development on employment to flow easily from employers' extant databases.

---

<sup>1</sup> Actually, almost all agencies enjoy a significant outsource relationship with the US Department of Labor, which has developed the primary national job bank that most states subscribe to. Since most states report that the job bank is a positive part of their operation, they are codifying the utility of finding outsource expertise and partnering opportunities.

If agencies could adopt a more network-oriented culture and structure, they could share expertise and form support specializations around their relevant network. Within a state network (or a multistate network), different agencies could develop better skills in specialized areas and provide support services to other agencies who would in turn support them in other ways. The current structure of many state agencies, with centralized state support services, contracting, and the like, does not lend itself to sensitive adjustment to the idiosyncratic needs of any given agency's environment. While the support services may be extensive, they remain a "one-size-fits-all" solution in a very diverse universe.

**Recommendation 4: State employment organizations should make mission and goal development an explicit and important part of agency leadership and operations.**

I believe there is a significant need for both agencies and their respective legislatures to review the overall mission and mandate of the employment commission, particularly given that advances in information technology make significant portions of these agencies' work redundant. Employers are required to keep so many records pertaining to employment, frequently duplicating information for a variety of state and federal agencies; this information needs to be integrated and systems need to be designed that allow employers to maintain a single comprehensive database of employee information in a format that is easily accessed by the variety of agencies that need the employers' data. Given the phenomenal integration of supply-chain information and inter-organizational data sharing that we currently see in the private sector, I think it is imperative that consistent standards and protocols be developed among state and federal agencies to facilitate employers' responses to agency information requests. Among the public employment agencies, it is very disappointing to see data exchange systems that require complex conversions of employers' data (by the employers themselves) in order to comply with agency reporting requirements. It is far more disappointing to see that many agencies still require paper forms or disk-based versions of this information. All of this activity simply adds to the burden of dismissing an employee that was already redundant or problematic.

## **Concluding Thoughts**

This study has examined a number of information technologies currently in use by state employment agencies across the United States. Based upon this review, a number of recommendations have been made and reviewed that may enhance the service delivery of these institutions.

While I certainly recognize that the recommendations and observations presented here are not exhaustive, I am hopeful that they will add to the dialogue as to how to continue improving the delivery of the penumbra of services offered by state employment agencies. What has particularly impressed me in conducting this research is the level of technological expertise that a number of agency employees have exhibited. These people's commitment level, both to their agency's mission and to the people who they serve, convinces me that they will make every effort to find new and better ways to serve their respective clientele.

# Appendix A: Survey Instrument 1



Thank-you for agreeing to participate in our study of technology use among public employment agencies. Your cooperation and assistance is a critical part of the success of this study; and we appreciate your help. Our goal in conducting this research is to examine how PUA's are currently using information technologies to serve jobseekers, employers, and the unemployed. This study is funded by the *PwC Endowment for the Business of Government*, and is being conducted at the *University of Delaware*. Please read and respond to the following questions. If you would like to add additional comments, please fax them to us on an additional sheet of paper. Please fax your completed form to (302) 831-1570.

1. To what extents are your various technology-based services (i.e., Internet Services, Telephone-based computer services, other computer services) improving the quality of your interactions with **employers**? (Check one)

- Not at All     Very Little     Some Improvement     A Great Deal of Improvement

Which services specifically do you feel help **employer** interactions the most? (please give a short name of the service and description)

2. To what extents are your various technology-based services (i.e., Internet Services, Telephone-based computer services, other computer services) improving the quality of your interactions with **job seekers**? (Check one)

- Not at All     Very Little     Some Improvement     A Great Deal of Improvement

Which services specifically do you feel help **job seeker** interactions the most? (please give a short name of the service and description)

3. To what extents are your various technology-based services (i.e., Internet Services, Telephone-based computer services, other computer services) improving the quality of your delivery of **unemployment compensation**? (Check one)

- Not at All     Very Little     Some Improvement     A Great Deal of Improvement

Which services specifically do you feel help the quality of your delivery of **unemployment compensation** the most? (please give a short name of the service and description)

4. What other technology-based services would you like to see developed to improve the quality of your work with your employers, job seekers, or unemployment insurance claimants? (Please give a short description of what you would like to see.)



# Appendix B:

## Survey Instrument 2



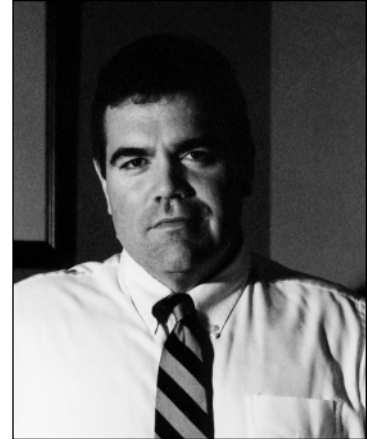
*Thank you for helping us with our research into technology and job service/unemployment service providers. In the following document, we have compiled a set of technical innovations/improvements that you recommended in your surveys, as well as some innovations we have seen in the private sector that we thought might be applicable. Please take a few minutes to evaluate these ideas; your help is instrumental to our goal of providing a set of state-of-the-art recommendations in our final report.*

**For each of the following technical suggestions, please indicate your evaluation in the appropriate box below each item.**

1. Add greater interaction to Internet-based job search services by offering resume assistance, search planning, etc.  
 Not Practical  Somewhat Useful  Very Useful
2. Develop an electronic system for employers to submit unemployment claims when they lay-off workers.  
 Not Practical  Somewhat Useful  Very Useful
3. More Internet-based interface with employers, allowing wage reporting, tax reporting, etc.  
 Not Practical  Somewhat Useful  Very Useful
4. Development of fully-integrated initial claims processing through Internet (or Internet-style) interface. System would automatically generate claimant file, letters to employers, enter claimant into job bank, etc.  
 Not Practical  Somewhat Useful  Very Useful
5. Installation of teleconferencing systems to allow employers to interview job seekers without creating travel costs.  
 Not Practical  Somewhat Useful  Very Useful
6. More localized and regionalized job bank/placement services.  
 Not Practical  Somewhat Useful  Very Useful
7. Rapid migration to electronic documents systems.  
 Not Practical  Somewhat Useful  Very Useful
8. Swipe card technology for claimants; to help track resource usage, speed up file access, etc.  
 Not Practical  Somewhat Useful  Very Useful
9. Completely computerized case management systems.  
 Not Practical  Somewhat Useful  Very Useful
10. Outsourcing claims filing and initial documentation activities.  
 Not Practical  Somewhat Useful  Very Useful
11. Installing computer stations for claimants to access Internet services of the agency to file claims, check account status, etc.  
 Not Practical  Somewhat Useful  Very Useful
12. Introduction (or expansion) of computer kiosks in malls and other public places so that claimants and job seekers can file claims, look for employment, etc.  
 Not Practical  Somewhat Useful  Very Useful

**Please feel free to add any additional ideas or comments on a second page if you like. Thank you again for your help.**

# About the Author



**Anthony M. Townsend**, Ph.D., is an Assistant Professor of Management at the University of Delaware. He earned his M.S. and Ph.D. in organizational behavior and industrial relations from Virginia Tech, and his B.A. in English from the University of Virginia.

Dr. Townsend's research interests include teamwork and technology, and the role of technology in organizations. His articles have appeared in numerous scholarly and applied journals, such as *Communications of the ACM*, *Information Systems Research*, *Industrial Relations*, *Journal of International Business Studies*, *Journal of Labor Research*, *Public Personnel Management*, and *Academy of Management Executive*.

Dr. Townsend was also awarded (along with co-author Dow Scott) the 1994 Yoder-Heneman Award for human resources research by the Society for Human Resource Management. In addition to his scholarly work, Dr. Townsend has worked with a number of *Fortune* 500 firms and continues in an active consulting practice.

# Key Contact Information

## To contact the author:

**Anthony M. Townsend**  
Department of Business Administration  
College of Business and Economics  
University of Delaware  
Newark, DE 19716-2710  
(302) 831-1570

e-mail: [amt@udel.edu](mailto:amt@udel.edu)  
website: [www.amtownsend.com](http://www.amtownsend.com)

## ENDOWMENT REPORTS AVAILABLE

### Innovations: Program Delivery

---

**Managing Workfare:** The Case of the Work Experience Program in the New York City Parks Department (June 1999)

Steven Cohen

**New Tools for Improving Government Regulation:** An Assessment of Emissions Trading and Other Market-Based Regulatory Tools (October 1999)

Gary C. Bryner

**Religious Organizations, Anti-Poverty Relief, and Charitable Choice:** A Feasibility Study of Faith-Based Welfare Reform in Mississippi (November 1999)

John P. Bartkowski  
Helen A. Regis

**Business Improvement Districts and Innovative Service Delivery** (November 1999)

Jerry Mitchell

**An Assessment of Brownfield Redevelopment Policies:** The Michigan Experience (November 1999)

Richard C. Hula

**San Diego County's Innovation Program:** Using Competition and a Whole Lot More to Improve Public Services (January 2000)

William B. Eimicke

**Innovation in the Administration of Public Airports** (March 2000)

Scott E. Tarry

**Entrepreneurial Government:** Bureaucrats as Businesspeople (May 2000)

Anne Laurent

**Rethinking U.S. Environmental Protection Policy:** Management Challenges for a New Administration (November 2000)

Dennis A. Rondinelli

**Creating a Culture of Innovation:** Lessons from America's Best Run City (January 2001)

Janet Vinzant Denhardt  
Robert B. Denhardt

### Innovations: Management

---

**Credit Scoring and Loan Scoring:** Tools for Improved Management of Federal Credit Programs (July 1999)

Thomas H. Stanton

**Determining a Level Playing Field for Public-Private Competition** (November 1999)

Lawrence L. Martin

**Using Activity-Based Costing to Manage More Effectively** (January 2000)

Michael H. Granof  
David E. Platt  
Igor Vaysman

**Implementing State Contracts for Social Services:** An Assessment of the Kansas Experience (May 2000)

Jocelyn M. Johnston  
Barbara S. Romzek

**Corporate Strategic Planning in Government:** Lessons from the United States Air Force (November 2000)

Colin Campbell

**The President's Management Council:** An Important Management Innovation (December 2000)

Margaret L. Yao

**Using Evaluation to Support Performance Management:** A Guide for Federal Executives (January 2001)

Kathryn Newcomer  
Mary Ann Scheirer

**Balancing Public Accountability and Nonprofit Autonomy:** Milestone Contracting in Oklahoma (January 2001)

Peter Frumkin

### Transforming Organizations

---

**The Importance of Leadership:** The Role of School Principals (September 1999)

Paul Teske  
Mark Schneider

**Leadership for Change:** Case Studies in American Local Government (September 1999)

Robert B. Denhardt  
Janet Vinzant Denhardt

**Managing Decentralized Departments:** The Case of the U.S. Department of Health and Human Services (October 1999)

Beryl A. Radin

**Transforming Government:** The Renewal and Revitalization of the Federal Emergency Management Agency (April 2000)

R. Steven Daniels  
Carolyn L. Clark-Daniels

**Transforming Government:** Creating the New Defense Procurement System (April 2000)

Kimberly A. Harokopus

**Trans-Atlantic Experiences in Health Reform:** The United Kingdom's National Health Service and the United States Veterans Health Administration (May 2000)

Marilyn A. DeLuca

**Transforming Government:** The Revitalization of the Veterans Health Administration (June 2000)

Gary J. Young

**The Challenge of Managing Across Boundaries:** The Case of the Office of the Secretary in the U.S. Department of Health and Human Services (November 2000)

Beryl A. Radin

**A Learning-Based Approach to Leading Change** (December 2000)

Barry Sugarman

### E-Government

---

**Managing Telecommuting in the Federal Government:** An Interim Report (June 2000)

Gina Vega  
Louis Brennan

**Using Virtual Teams to Manage Complex Projects:** A Case Study of the Radioactive Waste Management Project (August 2000)

Samuel M. DeMarie

**The Auction Model:** How the Public Sector Can Leverage the Power of E-Commerce Through Dynamic Pricing (October 2000)

David C. Wyld

**Supercharging the Employment Agency:** An Investigation of the Use of Information and Communication Technology to Improve the Service of State Employment Agencies (December 2000)

Anthony M. Townsend

**Assessing a State's Readiness for Global Electronic Commerce:** Lessons from the Ohio Experience (December 2000)

J. Pari Sabety  
Steven I. Gordon

### Revitalizing the Public Service

---

**Results of the Government Leadership Survey:** A 1999 Survey of Federal Executives (June 1999)

Mark A. Abramson  
Steven A. Clyburn  
Elizabeth Mercier

**Profiles in Excellence:** Conversations with the Best of America's Career Executive Service (November 1999)

Mark W. Huddleston

**Leaders Growing Leaders:** Preparing the Next Generation of Public Service Executives (May 2000)

Ray Blunt

**Reflections on Mobility:** Case Studies of Six Federal Executives (May 2000)

Michael D. Serlin

**Toward a 21st Century Public Service:** Reports from Four Forums (January 2001)

Mark A. Abramson, Editor

## About PricewaterhouseCoopers

The Management Consulting Services practice of PricewaterhouseCoopers helps clients maximize their business performance by integrating strategic change, performance improvement and technology solutions. Through a worldwide network of skills and resources, consultants manage complex projects with global capabilities and local knowledge, from strategy through implementation. PricewaterhouseCoopers ([www.pwcglobal.com](http://www.pwcglobal.com)) is the world's largest professional services organization. Drawing on the knowledge and skills of more than 150,000 people in 150 countries, we help our clients solve complex business problems and measurably enhance their ability to build value, manage risk and improve performance in an Internet-enabled world. PricewaterhouseCoopers refers to the member firms of the worldwide PricewaterhouseCoopers organization.

## For additional information, contact:

**Mark A. Abramson**

Executive Director

The PricewaterhouseCoopers Endowment for  
The Business of Government  
1616 North Fort Myer Drive  
Arlington, VA 22209

(703) 741-1077

fax: (703) 741-1076

e-mail: [endowment@us.pwcglobal.com](mailto:endowment@us.pwcglobal.com)

website: [endowment.pwcglobal.com](http://endowment.pwcglobal.com)

PRICEWATERHOUSECOOPERS 

The PricewaterhouseCoopers Endowment for

## The Business of Government

1616 North Fort Myer Drive  
Arlington, VA 22209-3195

Bulk Rate  
US Postage  
**PAID**  
Permit 1112  
Merrifield, VA