Testimony

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UNEMPLOYMENT INSURANCE INFORMATION TECHNOLOGY

States Face Challenges in Modernization Efforts

Statement of Valerie C. Melvin, Director
Information Management and Technology Resources Issues

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Why GAO Did This Study

The joint federal-state unemployment insurance program is the Department of Labor's largest income maintenance program, and its benefits provide a critical source of income for millions of unemployed Americans. The program is overseen by Labor and administered by the states. To administer their UI programs, states rely heavily on IT systems—both to collect and process revenue from taxes and to determine eligibility and administer benefits. However, many of these systems are aging and were developed using outdated computer programming languages, making them costly and difficult to support and incapable of efficiently handling increasing workloads. Given the importance of IT to state agencies' ability to process and administer benefits, GAO was asked to provide testimony summarizing aspects of its September 2012 report on UI modernization, including key challenges states have encountered in modernizing their tax and benefit systems. To develop this statement, GAO relied on its previously published work.

What GAO Recommends

In its prior report on states' UI system modernization efforts, GAO recommended that the Department of Labor conduct an assessment of lessons learned and distribute the analysis to states through an information-sharing platform such as a website. Labor agreed with the first recommendation; it neither agreed nor disagreed with the second recommendation, but stated that it was committed to sharing lessons learned.

View GAO-13-859T. For more information, contact Valerie C. Melvin at (202) 512-6304 or melvinv@gao.gov.

What GAO Found

As GAO reported in September 2012, nine selected states had made varying degrees of progress in modernizing the information technology (IT) systems supporting their unemployment insurance (UI) programs. Specifically, the states' modernization efforts were at various stages—three were in early phases of defining business needs and requirements, two were in the process of building systems based on identified requirements, two were in a "mixed" phase of having a system that was partly operational and partly in development, and two had systems that were completely operational. The enhancements provided by these systems included supporting web-based technologies with more modern databases and replacing outdated programming languages, among others.

Nevertheless, while taking steps to modernize their systems, the selected states reported encountering a number of challenges, including the following:

- **Limited funding and the increasing cost of UI systems.** The recent economic downturn resulted in smaller state budgets, limiting what could be spent on UI system modernization. In addition, competing demands and fluctuating budgets made planning for system development, which can take several years, more difficult.
- **A lack of sufficient expertise among staff.** Selected states reported that they had insufficient staff with expertise in UI program rules and requirements, the ability to maintain IT systems developed by vendors, and knowledge of current programming languages needed to maintain modernized systems.
- **A need to continue to operate legacy systems while simultaneously implementing new systems.** This required states to balance scarce resources between these two efforts.

In addition, a separate set of challenges arose for states participating in multistate consortiums, which were established to pool resources for developing joint systems that could be used by all member states:

- Differences in state laws and business processes impacted the effort to design and develop a common system.
- States within a consortium differed on the best approach for developing and modernizing systems and found it difficult to reach consensus.
- Decision making by consortium leadership raised concerns about liability for outcomes that could negatively affect member states.
- Consortiums found it difficult to obtain a qualified leader for a multistate effort who was unbiased and independent.

Both consortium and individual state officials had taken steps intended to mitigate challenges. GAO also noted that a comprehensive assessment of lessons learned could further assist states' efforts. In addition, the states in GAO's review had established certain IT management controls that can help successfully guide modernization efforts. These controls include establishing a project management office, using industry-standard project management guidance, and employing IT investment management standards, among others.

_____ **United States Government Accountability Office**

Chairman Reichert, Ranking Member Doggett, and Members of the Subcommittee:

Thank you for inviting me to today's hearing to discuss information technology (IT) systems supporting the unemployment insurance (UI) program. As you know, this is the Department of Labor's (Labor) largest income maintenance program, with its benefits serving as a critical source of income for millions of unemployed Americans. As a federal-state partnership, the program is overseen by Labor, while benefits for individuals are dependent on state law and administered by state workforce agencies.

To collect and process the tax revenue that funds the program and to determine eligibility and administer benefits, state agencies rely heavily on IT systems. However, a state survey published in 2010 found many of these systems to be old and based on outdated programming languages, costly and difficult to support, and incapable of efficiently handling workload demands.[1] Given the importance of IT to state agencies' abilities to effectively process and provide timely benefits to millions of unemployed Americans, in September 2012 we issued a report that discussed states' efforts to modernize the systems supporting their UI programs.[2] At your request, my testimony today summarizes aspects of that report, including the key challenges that states have encountered in their modernization efforts.

All of the work on which this statement is based was conducted in accordance with generally accepted government auditing standards. Those standards require that we plan and perform our audits to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

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[1]National Association of State Workforce Agencies Center for Employment Security Education and Research, Information Technology Support Center, *A National View of UI IT Systems*, July 2010.

[2]GAO, *Information Technology: Department of Labor Could Further Facilitate Modernization of States' Unemployment Insurance Systems,* GAO-12-957 (Washington, D.C.: Sept. 26, 2012).

Background

The federal-state UI program, created in part by the Social Security Act of 1935, is administered under state law based on federal requirements.[3] The primary objectives of the program are to provide temporary, partial compensation for lost earnings of eligible individuals who become unemployed through no fault of their own and to stabilize the economy during downturns. Applicants for UI benefits must have earned at least a certain amount in wages and/or have worked a certain number of weeks to be eligible. In addition, these individuals must, with limited exceptions, be available for and able to work, and actively search for work.

The federal-state structure of the program places primary responsibility for its administration on the states, and gives them wide latitude to administer the programs in a manner that best suits their needs within the guidelines established by federal law. Within the context of the federal-state partnership, Labor has general responsibility for overseeing the UI program to ensure that the program is operating effectively and efficiently. For example, Labor is responsible for monitoring state operations and procedures, providing technical assistance and training, and analyzing UI program data to diagnose potential problems.

States' Use of IT to Administer UI Programs

State agencies rely extensively on IT systems to carry out their UI program functions. These include systems for administering benefits and for collecting and administering the taxes used to fund the programs.

Benefit systems are used for

- determining eligibility for benefits;
- recording claimant filing information, such as demographic information, work history, and qualifying wage credits;
- determining updates as needed, such as changes in work-seeking status; and
- calculating state-specific weekly and maximum benefit amounts.

Tax systems are used for

- online reporting and payment of employers' tax and wage reports;

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[3]UI was initiated on a national basis as Titles III and IX of the Social Security Act of 1935. Pub. L. No. 74-271, 49 Stat. 620, codified as amended at 42 U.S.C. ch. 7, subchs. III and IX.

- calculating tax, wage, and payment adjustments, and any penalties or interest accrued;
- processing quarterly tax and wage amounts;
- determining and processing late payment penalties, interest, civil penalties, or fees; and
- adjusting previously filed tax and wage reports as a result of a tax audit, an amended report submitted by the employer, or an erroneously keyed report.

However, the majority of the states' existing systems for UI operations were developed in the 1970s and 1980s. Although some agencies have performed upgrades throughout the years, most of the state legacy systems have aged considerably. As they have aged, the systems have presented challenges to the efficiency of states' existing IT environments. In a survey published by the National Association of State Workforce Agencies (NASWA) in 2010,[4] states reported the following issues:

- Over 90 percent of the systems run on outdated hardware and software programming languages, such as Common Business Oriented Language (COBOL), which is one of the oldest computer programming languages.
- The systems are costly and difficult to support. The survey found, for example, that over two-thirds of states face growing costs for mainframe hardware and software support of their legacy systems.
- Most states' systems cannot efficiently handle current workload demands, including experiencing difficulties implementing new federal or state laws due to constraints imposed by the systems.
- States have realized an increasing need to transition to web-based online access for UI data and services.

States also cited specific issues with their legacy systems, including the fact that they cannot be reprogrammed quickly enough to respond to changes resulting from legislative mandates. In addition, states have developed one or more stand-alone ancillary systems to fulfill specific needs, but these systems are not integrated with their legacy mainframe systems, decreasing efficiency. Finally, according to the states, existing legacy systems cannot keep up with advances in technology, such as the move to place more UI services online.

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[4]National Association of State Workforce Agencies Center for Employment Security Education and Research, Information Technology Support Center, *A National View of UI IT Systems*, July 2010.

Labor's Role in Facilitating IT Modernization

In addition to providing general oversight of the UI program, the Department of Labor plays a role in facilitating the modernization of states' UI IT systems. This role consists primarily of providing funding and technical support to the state agencies. In this regard, Labor distributes federal funds to each state for the purpose of administering its UI program, including funds that can be used for IT modernization.

Through supplemental budget funds, Labor has supported the establishment of state consortiums, in which three or four states work together to develop and share a common system. These efforts are intended to allow multiple states to pool their resources and reduce risk in the pursuit of a single common system that they can each use after applying state-specific programming and configuration settings.

Labor also helps to provide technical assistance to the states by supporting and participating in two key groups—NASWA and the Information Technology Support Center (ITSC). NASWA provides a forum for states to exchange information and ideas about how to improve program operations; serves as a liaison between state workforce agencies and federal government agencies, Congress, businesses, and intergovernmental groups; and is the collective voice of state agencies on workforce policies and issues. ITSC is funded by Labor and the states to provide technical services, core projects, and a central capacity for exploring the latest technology for all states. ITSC's core services to states include application development, standards development, and UI modernization services, among others.

States Face Challenges in Modernizing Their Tax and Benefit Systems

Our September 2012 report noted that selected states[5] had made varying progress in modernizing the IT systems supporting their UI programs.[6] Specifically, we found that each of the three states that were part of a multistate consortium were in the initial phases of planning that included defining business needs and requirements; two individual states were in the development phase—that is, building the system based on requirements; two were in a "mixed" phase where part of the system was in development and part was in the operations and maintenance phase;

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[5]These states were California, Colorado, Florida, Indiana, Minnesota, Ohio, Tennessee, Vermont, and Virginia.

[6]GAO-12-957.

and two were completed and in operations and maintenance. These efforts had, among other things, enhanced states' UI technology to support web-based services with more modern databases and replaced outdated programming languages. They also included the development of auxiliary systems, such as document management systems and call center processing systems.

Nevertheless, while the states had made progress, we found that they faced a number of challenges related to their modernization efforts. In particular, individual states encountered the following challenges, among others:

- All nine states cited limited funding and/or the increasing cost of UI systems as a major challenge. For example, they said that the economic downturn had resulted in smaller state budgets, which limited state funds for IT modernization. Moreover, once funds were identified or obtained, it often took a considerable amount of time to complete the IT project. Officials added that developing large state or multistate systems may span many years, and competing demands on resources can delay project implementation. As a result, states may fund one phase of a project with the hope that funds will be available in the future for subsequent phases. This lack of consistent funding potentially hinders effective IT project planning.
- Seven of the nine states cited a lack of staff in their UI offices with the expertise necessary to manage IT modernization efforts:

  - Several states said they lacked sufficient subject matter experts knowledgeable in the extensive rules and requirements of the UI program. Such experts are essential to helping computer designers and programmers understand the program's business processes, supporting an effective transition to the reengineered process, and identifying system requirements and needs.
  - States also identified challenges in operating and maintaining a system developed by vendors because state employees may have lacked the needed expertise to maintain the new system once the vendor staff leave.
  - The states added that their staffs may implement larger-scale systems only once every 10 to 15 years, leading to gaps in required knowledge and skills, process maturity and discipline, and executive oversight.
  - States further stressed that their staffs may have expertise in an outdated computer language, while modernization efforts require them to learn new skills and more modern programming languages.

- According to a 2011 workforce survey, over 78 percent of state chief information officers confirmed that state salary rates and pay grade structures presented a challenge in attracting and retaining skilled IT talent.
- According to Labor, the limited staff resources facing states have required that subject matter experts be pulled off projects to address the workload demands of daily operations.

- Six of the nine states noted that continuing to operate their legacy systems while simultaneously implementing new UI systems required them to balance scarce staff resources between the two major efforts.

In addition to the challenges facing individual states, we found that states participating in multistate consortiums[7] encountered a separate set of challenges:

- Representatives from all three consortiums indicated that differences among states in procurement, communication, and implementation of best practices; the involvement of each state's IT office; and the extent to which the state's IT is centralized could impact the effort to design and develop a common system. As a result, certain state officials told us that consortiums were not practical; one official questioned whether a common platform or system could be successfully built and made transferable among states in an economically viable way.
- States within a consortium often had different views on the best approach to developing and modernizing systems. State officials said that using different approaches to software development is not practical when developing a common system, but that it was difficult to reach consensus on a single approach. In one case, a state withdrew from a consortium because it disagreed with the development approach being taken by the consortium.
- States had concerns about liabilities in providing services to another state. IT representatives from one consortium's lead state noted that decisions taken by the lead state could result in blame for outcomes that other states were unsatisfied with, and there was a concern that the lead state's decision making could put other states' funds at risk.

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[7]At the time of our review, three consortiums had been formed with federal funding: the Wyoming, Colorado, Arizona, and North Dakota (WyCAN) consortium; the Southeastern Consortium for Unemployment Insurance Integration (SCUBI), composed of Tennessee, South Carolina, North Carolina, and Georgia; and the Vermont, Maryland, and West Virginia technology infrastructure consortium.

One state withdrew from its leadership position because of such concerns about liability.

- Reaching agreement on the location of system resources could also be a challenge. For example, one consortium encountered difficulty in agreeing on the location of a joint data center to support the states and on the resources that should be dedicated to operating and managing the facility, while complying with individual state requirements.
- All three consortium representatives we spoke to noted that obtaining an independent and qualified leader for a multistate modernization effort was challenging. State IT project managers and chief information officers elaborated that while each state desires to successfully reach a shared goal, the leader of a consortium must keep the interests of each state in balance and have extensive IT experience that goes beyond his or her own state's technology environment.

Both individual states and consortium officials had developed methods to mitigate specific challenges and identified lessons learned. For example, several states

- were centralizing and standardizing their IT operations to address technical challenges;
- found that a standardized, statewide enterprise architecture could provide a more efficient way to leverage project development; and
- took steps to address consortium challenges they encountered, such as ensuring that each state's IT department is involved in the project.

In our report, we noted that ITSC had been tasked with preparing an assessment of lessons learned from states' modernization efforts, but at the time of our review, this assessment had not been completed. Moreover, the scope of the assessment was limited to ITSC's observations and had not been formally reviewed by the states or Labor. A comprehensive assessment would include formal input from states and consortiums, the ITSC Steering Committee, and Labor. Accordingly, we recommended that Labor (1) perform a comprehensive analysis of lessons learned and (2) distribute the analysis to each state through an information-sharing platform or repository, such as a website. Labor generally agreed with the first recommendation; it did not agree or disagree with the second recommendation but said it was committed to sharing lessons learned.

In addition, the nine states in our review had established, to varying degrees, certain IT management controls that aligned with industry-

accepted program management practices. These controls included the following:

- establishing aspects of a project management office for centralized and coordinated management of projects under its domain;
- incorporating industry-standard project management processes, tools, and techniques into their modernization UI efforts;
- adopting independent verification and validation to verify the quality of the modernization projects; and
- employing IT investment management standards, such as those called for in our IT investment management framework.[8]

If effectively implemented, these controls could help successfully guide the states' UI modernization efforts.

In summary, while states have taken steps to modernize the systems supporting their UI programs, they face a number of challenges in updating their aging legacy systems and moving program operations to a modern web-based IT environment. Many of the challenges pertain to inconsistent funding, a lack of sufficient staff with adequate expertise, and in some cases, the difficulty of effective interstate collaboration. States have begun to address some of these challenges, and the nine states in our review had established some IT management controls, which are essential to successful modernization efforts. In addition, the Department of Labor can continue to play a role in supporting and advising states in their efforts.

Chairman Reichert, Ranking Member Doggett, and Members of the Subcommittee, this concludes my statement. I would be happy to answer any questions at this time.

GAO Contact and Staff Acknowledgments

If you have any questions concerning this statement, please contact Valerie C. Melvin, Director, Information Management and Technology Resources Issues, at (202) 512-6304 or melvinv@gao.gov. Other individuals who made key contributions include Christie Motley, Assistant Director; Lee A. McCracken; and Charles E. Youman.

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[8]GAO, *Information Technology Investment Management: A Framework for Assessing and Improving Process Maturity*, Version 1.1., GAO-04-394G (Washington, D.C.: March 2004).