





# A National View of UI IT Systems

National Association of State Workforce Agencies Center for Employment Security Education and Research Information Technology Support Center

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## A. Executive Summary

State Unemployment Insurance (UI) agencies must collect state unemployment taxes and pay unemployment benefits. To perform these functions, they rely heavily on both benefits and tax Information Technology (IT) systems. In 2009, when unemployment resulting from the most recent recession was impacting state UI operations, NASWA/ITSC asked its member agencies to respond to a comprehensive survey about the status of their UI IT systems. The results of the survey, and in-depth follow-up interviews with individual states, are outlined briefly below and discussed in greater detail in the report following this summary.

# <u>The vast majority of UI IT systems are old – and based on outmoded programming languages</u>

- States developed systems for UI operations generally in the 1970s and 1980s, and many are using the same "legacy" mainframe technology based systems today. In the NASWA/ITSC survey, over 90 percent of states report using benefits or tax systems running on outdated hardware and software programming languages, such as COBOL.
- The NASWA survey found the average age of a state benefits IT systems is 22 years, and the oldest benefits system is 42 years. The average age of a state tax system is 24 years, and the oldest tax system is 41 years.
- Only eight states have a modernized benefits system, only three have a modernized tax system, and only one has modernized benefits and tax systems.
- A "modernized" UI system means the benefits or tax System uses an application technology that inherently supports web-based services and object-oriented paradigms in combination with a relational database technology. "Fully Modernized" refers to a UI system with both "modernized" benefits and tax.

#### State UI IT systems are costly and difficult to support

 Over two-thirds of states face growing costs for mainframe hardware and software support of their legacy systems. Additionally, seventy-five percent of states face major and growing challenges because in-house IT staff are retiring rapidly and there is a scarcity of IT staff skilled in older technologies.

#### Most state IT systems cannot efficiently handle today's demands

Four major areas of concern were expressed by states still running their UI Benefits and Tax systems on legacy mainframe technology:

- **Skyrocketing cost:** Nine out of 10 states report maintenance, support and ongoing operations of these old systems escalates in cost every year.
- **Poor agility:** Eighty-two percent of states report difficulties implementing new federal or state laws due to the constraints posed by their IT systems, including recent law changes involving Extended Unemployment Compensation and the \$25 Federal

Additional Compensation. Systems that add modern components onto old mainframe systems are difficult to enhance or reprogram.

- **Poor scalability:** Forty two percent of states report trouble scaling-up in a timely manner to handle workload surges. Increasing system capacity to handle higher claims levels is hampered by the number of components that must be increased rapidly and in unison. A number of legacy systems "went down" for hours or days in 2008 and 2009 due to a lack of capacity to handle the volume of claims being filed.
- Inhibited productivity: Only eight states indicate a high usage of productivity- and service-enhancing technologies, such as automated case management systems and webbased user interfaces. ("High" usage is indicated when a state uses three or more of nine technologies.) While the overwhelming majority of states have implemented internet-based services using newer tools and technologies for UI claimants, limitations posed by integrating these technologies with legacy systems create numerous inefficiencies and data errors.

#### Modernized systems lower costs and improve services and staff productivity

Even modernized UI IT systems present cost and other challenges, but the benefits of modernization are high and numerous. States with modernized benefits and/or tax systems (accompanied by re-engineered business processes) generally report:

- better staff productivity;
- improved customer service, including shorter wait times
- faster and more accurate benefit payments;
- quicker and more accurate implementation of new laws/programs; and
- lower costs.

## <u>State consortia: a new concept that allows states to share the expense of UI IT modernization</u>

- The NASWA/ITSC survey demonstrates the dire condition of state UI IT systems and the urgent need to modernize them. However, many past UI IT modernization efforts have been challenged by cost and time overruns, and have not delivered the functionality a state required.
- The price tag and uncertainty of success make continued development of customized state benefits and tax systems unlikely.
- UI IT modernization through **state consortia** is a promising new paradigm. Multiple states can pool their resources and reduce risk in pursuit of a single common system they can each use applying state-specific minor programming and configuration settings.
- The Unemployment Insurance State Information Data Exchange system is a recent model and example of a successful consortium project designed and developed by six states, some large employer TPAs and the ITSC. SIDES was designed to handle various data exchanges between states and employers. The first data exchange built for SIDES is separation information and is in production with the state of UTAH and ADP a large

- employer TPA. Currently 14 states and seven large employer groups are involved in the SIDES consortium.
- Two state consortia for UI IT Modernization have formed. When each consortium finishes its systems requirements and specifications later this year, member states will independently decide whether the specifications will "work" for their state. If so, they will seek funding for development of the common system to make it a reality.

## B. Background

NASWA/ITSC sent a survey to the UI and IT Directors of all states in 2009 to ascertain the status of UI benefits and tax systems across the nation. The survey was organized into five main areas of inquiry:

- What is the technology basis for the state's current benefits and tax systems?
- What are the major characteristics of the state's current benefits and tax systems?
- What service delivery methods are in use in the state to achieve various UI functions (e.g., self-service via the internet, call centers, and/.or interactive voice response systems)?
- What is the state's level of systems modernization (agency, staff and technology)?
- What plans does the state have for future systems modernizations?

The survey included approximately 150 questions and completing it required significant effort on the part of the states (typically, two to four business and IT staff each for a couple days). While the required state effort was high, the number and quality of the responses was also high. Forty states responded. Some states mentioned the survey was useful as a tool to inventory their UI functions and how they are delivered.

The majority of states who were unable to complete the survey were in the process of UI modernization projects and did not have the staff to complete the survey. Also, it would have been difficult for these states to properly characterize their systems given they are undergoing major changes.

Intensive follow-up interviews were conducted to clarify state responses to the survey questions. These interviews also revealed nuances about states' service delivery methods and processes. The interviews also had the serendipitous benefit of promoting the sharing of best practices among the states through NASWA/ITSC. An example of this was coordinating and facilitating state discussions between Iowa, Utah, Minnesota, Mississippi, and Michigan on their best practices regarding claimant authentication.

## C. Results

# The Vast Majority of State UI IT Systems are Old and Rely on Outdated Hardware and Software Programming Languages

States developed "legacy" systems for UI operations generally in the 1970s and 1980s, and many states are using these ancient legacy systems today. In fact, the NASWA/ITSC survey found that over 90 percent of the states have legacy mainframe systems operating on older mainframe technology and relying on outmoded programming languages such as COBOL, CICS or VSAM.

The NASWA/ITSC survey found the average age of a state benefits system is 22 years, and the oldest benefits system is 42 years. The average age of a state tax system is 24 years, and the oldest tax system is 41 years. Table 1 provides state-by-state information on the age of UI IT systems, as of 2009.

	Benefits		Tax	
	Year	Age	Year	Age
AR	1983	26	1979	30
AZ	1988	21	1991	18
CA	1988	21	1986	23
CO	1986	23	1991	18
DE	1987	22	1988	21
FL	1980	29		
GA	1982	27	1982	27
HI	1987	22	1996	13
ID	1983	26	1986	23
IA	1978	31	1978	31
KY	1983	26	1982	27
ME	1998	11	1983	26
MD	1982	27	1981	28
MI	1984	25	1984	25
MN	2007	2	2005	4
MS	2009	0	1970	39
MO	1967	42	1968	41
MT	2001	8	2004	5
NV	1998	11	1974	35
NJ	1976	33	1998	11
NC	1985	24	1985	24
ND	1973	36	1973	36
NY	1987	22	1982	27
ОН	2004	5	1986	23
OK	1987	22	1987	22
OR	1991	18	1988	21
RI	1980	29	1980	29

	Benefits		Tax	
	Year	Age	Year	Age
SC	1975	34	1980	29
SD	1975	34	1980	29
TN	1978	31	1978	31
TX	1996	13	1992	17
UT	2005	4	1999	10
VT	1988	21	1992	17
VA	1985	24	1986	23
WA	1996	13	1980	29
WV	1978	31	1987	22
WI	1983	26	2008	1
WY	1984	25	1986	23

Table 1

Only eight states have a modernized UI benefits system, only three have a modernized UI tax system, and only one has modernized UI benefits and tax system. A "modernized" UI system means the benefits or tax system uses an application technology that inherently supports webbased services and object-oriented paradigms in combination with a relational database technology. "Fully Modernized" refers to a UI system with both "modernized" benefits and tax systems.

**Modernized UI IT Systems** 

Ben	Tax	
MN	NH	MN
MS	NM	WI
MT	ОН	MA
NE	UT	

Table 2

# **States Face Growing Costs and Other Challenges Maintaining and Supporting their UI IT Systems**

1. <u>Sixty-five percent of states are experiencing increasing costs for mainframe hardware and software support</u>

As Figure 1 shows, the majority of states are facing increasing costs for mainframe hardware and software support; only one is experiencing decreasing costs. The key factors behind growing costs are:

- Mainframe operational costs are becoming more expensive to the UI agency as other state agencies migrate away from the mainframe toward modern technologies. Typically, a UI agency pays for mainframe usage through agreement with a given state's central IT service. As other of the state's agencies migrate away from mainframe systems, the UI agency remaining on the state's mainframe bears a greater burden of the hardware, software licensing and operations cost to maintain the mainframe system.
- o Mainframe capacity and usage have increased due to increases in workloads.
- States on mainframe UI benefits and tax systems are forced to also build newer technology components for Internet and telephone claims filing and other self-service functions and processing. These newer technologies have to be integrated and connected to the mainframe core system. Thus, states with mainframe legacy systems support two or more different technology hardware and software platforms.

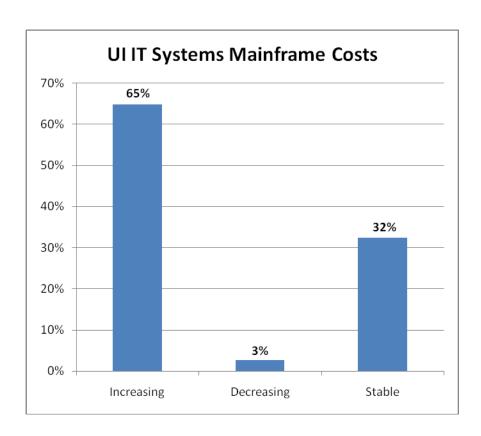


Figure 1

# 2. <u>Sixty-one percent of states are also experiencing an increase in hosting costs for their server-based applications</u>

As Figure 2 shows, the majority of states are also experiencing an increase in hosting costs for their server-based applications. The prevalent reason for this is that state centralized IT agencies who host these applications are effectively monopolies and are able to increase charges at will.

In follow-up interviews, states expressed frustration that even if they are able to migrate away from old mainframe technologies toward more web-and server-based technologies, their hosting costs will continue to grow.

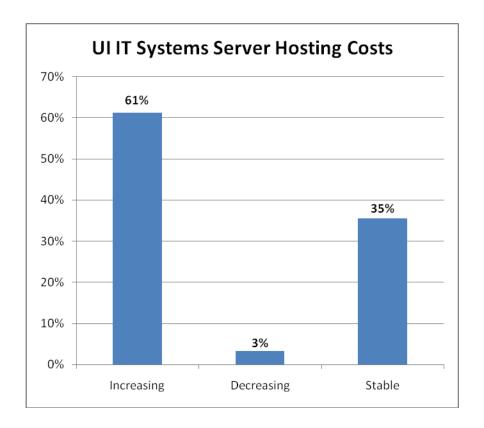


Figure 2

#### 3. The majority of states indicate challenges and costs due to IT staffing issues

States face major and growing challenges maintaining their UI IT staff. Nearly fifty percent of states report costs are growing to keep and/or hire staff with skills keyed to older technologies. Seventy-five percent of states indicate IT staff retirement is also a concern, as shown below.

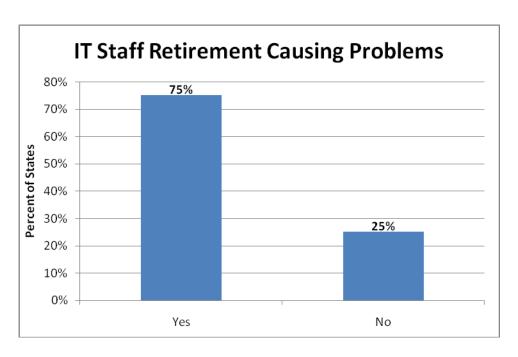


Figure 3

At the extreme, fifty percent of the UI IT staff in California and Vermont will be eligible for retirement within the next couple of years. The loss of veteran UI IT staff presents several problems for states. First, given the absence of good systems documentation in many states, veteran IT staff are often the best repositories of information on the technical aspects of the UI IT systems. Second, finding replacements is difficult. Few programmers are schooled in the programming languages on which legacy systems are based, and state UI agencies face stiff competition from other industries for these workers. (It should be noted that it is also hard for UI agencies to find IT staff skilled in more modern technologies due to state title and salary restrictions). Third, some states' systems not only use old technologies but also are proprietary software, and finding expertise in these niche technologies is difficult.

4. Seventy-five percent of states report old IT systems require increasing dependence on costly manual processes and external applications to resolve employer charging, overpayments, adjustments and other accounting functions deficiencies

In interviews with the states, seventy-five percent report using manual processes and/or ancillary tools (such as MS Access, Excel, FoxPro) to address basic systems deficiencies. The accounting functions of the state's UI Benefits and Tax system have degraded over time and do not perform quality debit and/or credit accounting. Core business functions including employer charging or relief from charges, claimant overpayments and adjustments are routinely handled outside of the core system. This results in an increase in the manual workload as well as a further deterioration of the integrity of the systems as data and calculations are performed outside of the systems such as in an Excel spreadsheet. In addition several states mentioned staff sometimes directly update

claimant or employer records in the database in order to pay a claim or correct an employer account deficiency, bypassing the system's business data edits, validation and logic checks This often results in the creation of a large volume of out of sync data or what is commonly referred to as "dirty" data. The volume of dirty data grows exponentially in some states and creates many problems downstream. When states eventually do undertake a UI IT Modernization project, the conversion of this dirty or out of sync data will almost be virtually impossible and require a record-by-record manual conversion.

States are also using supplemental tools outside the core legacy UI Benefits or Tax system to schedule appeals cases and non-monetary adjudication, wage objection and tax audit hearings, and other UI business functions that require staff assignment and case tracking. These supplemental tools frequently require their own maintenance and upkeep, and sometimes use programming languages that are also becoming obsolete (e.g., PERL, VB6).

#### 5. Many states report that supporting external interfaces is costly and a challenge

Sixty-five percent of states have semi-automated external interfaces that require some amount of manual intervention. Example interfaces are:

- Reemployment Services for Job Search and Training Assistance
- Social Security Administration SSN Validation for Authentication
- Department of Motor Vehicle river License Validation for Authentication
- Child Support
- ICON
- Department of Taxation
- Job Coding
- Address Validation

Twenty-eight percent of states supporting external interfaces report that it is costly and a challenge. As noted in section 3 above, the need to support both older and newer technology-based programming of these external interfaces requires states to hire and maintain multiple IT staff with broad technical skill sets. Also, some of these external interfaces are only partially automated between and require manual intervention and the re-keying of data.

#### 6. Over half the states have poor or worse systems technical documentation

Over time, the quality of states' UI IT technical documentation has degraded; over half the states report the quality of documentation is poor, unusable, or non-existent in supporting the system. Conversely, only three states indicate their technical documentation is better than acceptable. The percentage breakouts are shown below:

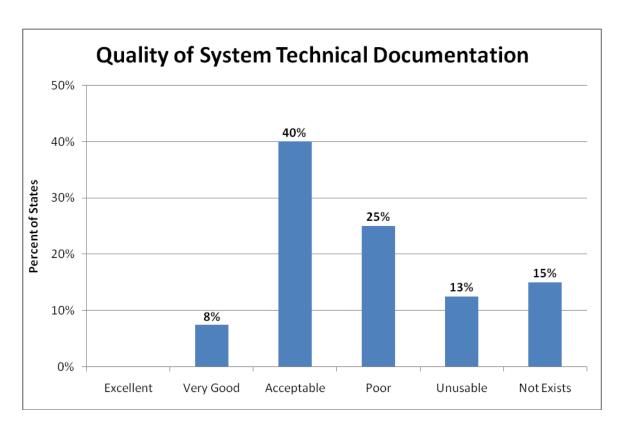


Figure 4

Based on interviews with states, documentation quality suffers the more a system ages and as a result changes; it is difficult to maintain good documentation over a long period of time and across numerous rushed systems enhancements. Additionally, many states lack structured documentation tools and processes requiring IT staff to update systems documentation after enhancements are implemented. Documenting the add on tools and additional functionality such as Internet claims filing and how it interrelates with the core legacy system is lacking or in some cases totally nonexistent.

### Most State IT Systems Cannot Handle Modern Demands and Technologies

The prior section outlined the growing challenges and direct costs states face to support state UI IT systems. This section catalogues the missed opportunities legacy systems represent. The outmoded UI legacy systems are difficult to reprogram or otherwise enhance, hard to scale up during workload surges, and inhibit agency adoption of new efficiency-promoting technologies.

#### 1. Most state systems are inflexible and difficult to enhance

As figure 5 shows, eighty-two percent of states report difficulties implementing IT enhancements due to the constraints posed by their IT systems, including enhancements necessary to implement new federal and state law changes involving Extended Unemployment Benefits or the recent \$25 Federal Additional Compensation.

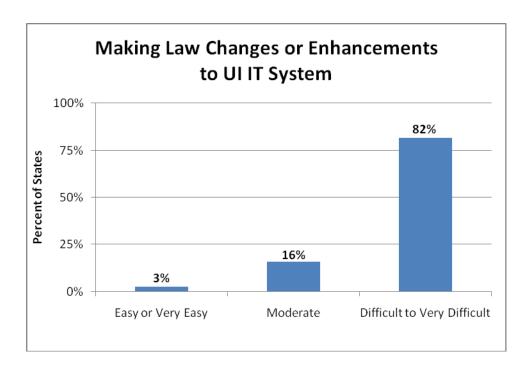


Figure 5

Based on interviews with states, implementing UI IT enhancements is difficult for several reasons:

- The cumulative effect of a large number of IT enhancements over many years results in an even greater number of computer programs and sub-programs on multiple hardware platforms. Interactions among programs and between the different systems often are not fully understood, even by IT staff, yet a given change or enhancement to one specific function can ripple through many programs and the different systems. One state described its legacy benefits system as a "huge spider web of sub-programs."
- Older systems preclude a sufficient test environment. IT staff cannot fully test enhancements until the system is deployed to production.
- The outmoded legacy technologies are much less flexible than modern technologies, so a task as straightforward as adding a data element is difficult and time consuming. Legacy

technologies constrain some things such as data element size limits, resulting in "workarounds" making future changes enormously difficult.

#### 2. <u>Most state systems are hard to scale-up when workloads surge</u>

Scaling-up in a timely manner to handle workload surges is a difficult activity for forty-one percent of states. Interviews with states reveal that, generally, scaling-up is difficult because it requires states to increase—rapidly and in unison—the capacity of so many different components that comprise their systems (e.g., the mainframe, web servers and call center hardware and software, network components such as routers and switches and telecommunication lines). Further, many state UI agencies must rely on centralized state IT service staff for some aspects of expansion, and there are typically delays in their response. Finally, state UI agencies are also dependent on telecommunications carriers. States such as Colorado, Ohio, Connecticut, Pennsylvania, Florida, Kentucky, Nebraska, New Mexico, New York, and North Carolina have experienced system outages due to the stresses of the processing loads during the recent recession.

# 3. Old state UI IT systems inhibit adoption of technologies that promote staff productivity and customer service

Having a legacy mainframe based system also hinders a state's ability to exploit productivityand service-enhancing technologies easily. The NASWA/ITSC survey ascertained whether states use any of the following technologies:

- content/document management systems
- workflow engines
- automated case management
- identity management
- forms management
- digital recording
- ad hoc reporting tools
- web-based user interface
- business rules engine
- speech recognition

Only eight states indicate a high usage of these technologies ("high" usage is indicated when three or more of the tools are used in either the benefits, tax or both systems). In interviews with these eight states, they all expressed substantial productivity or quality gains from the adoption of these technologies. Typically, states not using these technologies indicate it is extremely difficult to adopt many of them in a legacy-based environment. Of the eight states with a high usage of these productivity- and service-enhancing technologies, six have either a modernized benefits or tax system.

Web-based services for UI claimants are discussed in more detail in the next section, given their growing importance to service volume and quality.

# 4. <u>Old UI IT Systems Hinder States' Ability to Implement Internet- and Telephony-based Services to UI Claimants</u>

Legacy technologies pre-date the internet and the UI Benefits and Tax self-service model and therefore intrinsically do not support internet self-service claims filing and maintenance technologies. As conveyed by states in interviews, the inflexibility of legacy technologies has limited states' abilities to efficiently adopt web- and telephony-based services for UI claimants. Nevertheless, the overwhelming majority of states have developed and deployed online services across various UI functions (see figure 6 below). These include web-based UI claims filing (90 percent of states), employer registration, and quarterly filing (over 80 percent of states).

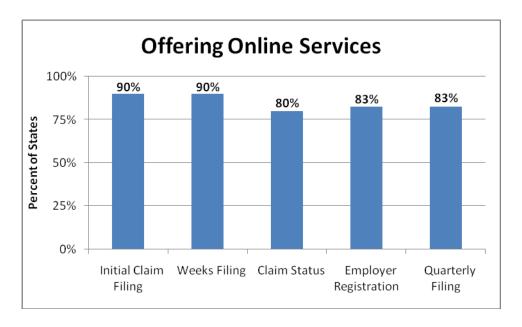


Figure 6

To overcome the limitations posed by legacy technologies, States essentially must work around them. In general, as new business challenges have arisen over many years, states have created individual web- and telephony-based solutions outside of the mainframe environment. The result is a hybrid environment consisting of a large number of separate applications on multiple hardware and software platforms with custom interfaces. For example, the State of Washington has fourteen separate data stores for its legacy tax system. Florida has fifteen separate applications comprising its benefits system.

Essentially, modernized self-service technology components are "bolted-on" to the "backend" legacy systems. Interviews with states reveal this mix of front-end modern technology components with backend legacy or mainframe architecture creates several major challenges:

- Numerous interdependencies and interfaces between components can lead to processing bottlenecks and hold-ups in the transfer of information as the front-end web-based application communicates with the backend legacy-based systems.
- In some cases, two or more systems applications will independently store the same consumer information, creating the need for synchronization between the applications and ultimately more opportunity for data integrity problems. For example, a state that deploys a call center to handle the filing of UI claims faces the challenge of synchronizing the data in this front-end system with data in the master database; any benefits system changes need to be reflected and implemented in these two—or even more—places.
- As noted above, to support a hybrid system comprised of both legacy and modernized technologies, UI more IT staff with a wider skill set which is hard to find in the labor market.
- It is costly and challenging for UI agencies to maintain and support a large number of technologies, each with patches and updates.

## **D.** Other Notable Results and Observations

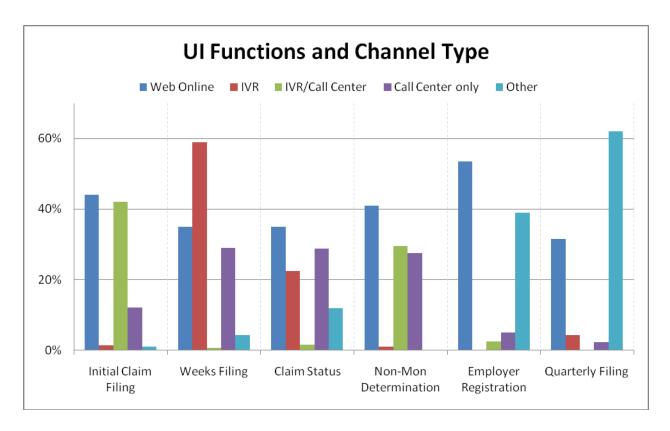


Figure 7

UI Function or Service	Web Online	IVR	IVR/Call Center	Call Center only	Other
Initial Claim Filing	44%	1%	42%	12%	1%
Weeks Filing	35%	59%	1%	29%	4%
Claim Status	35%	22%	2%	29%	12%
Non-Mon Determination	41%	1%	30%	28%	0%
Employer Registration	54%	0%	3%	5%	39%
Quarterly Filing	31%	4%	0%	2%	62%

Table 3

Figure 7 and Table 3 show that while a large majority of states provide online services, the mean usage of these services is generally less than 50%. Also, there is high variability in the use of the Web by customers. For example, one standard deviation for Initial Claims Filing is  $\pm$  28%. Further, the minimum and maximum usage are 5% and 83%.

Although a significant amount of states offer Internet/Online claim filing, many states still "touch" or manually process a large percent of these filed claims (this excludes those claims with separation issues). The agent assisted claim filing is driven by authentication-related issues, obtaining correct employer information from the claimant, obtaining the correct separating employers and employers for charging purposes, and the inability to handle various fringe claims such as TRA, DUA, CWC, etc. type claims without agent intervention.

Only four states touch less than 20% of web-filed claims before final submission into their systems (three of the four have modernized benefits systems). Some other observations:

- Some states re-enter and re-key all Internet filed claims (e.g., CT, CA)
- Some states mentioned improve their edits to facilitate self service and agentless claims filing
- Work history gaps are a key manual intervention driver

For Claimant and Employer Status, although many states do offer these services online, its only those states with UI IT Modernized systems that provide a significant amount of online account information and claimant/employer online self service maintenance of items such as address changes and bank direct deposit or debit card updates.

Finally, while many states offer employer quarterly filing services online, the dominant method of submission is paper, which is staff-intensive

- Many states have paper-based system for the following: (e.g., Employer registration, quarterly filings, separation documentation, BPC-related processes, wage objections, appeals documentation). The inbound processing of documents are staff intensive and prone to error. Typically, the handling and routing of these paper documents is a manual process, including sending from one UI unit to another. This leads to delays, lost documentation, and hinders the ability to deliver timely services. Based on discussions with states who use some form of automated Document Management and Workflow systems, they have cited the following key benefits:
  - Fewer Lost Documents Implementing workflow and document management capabilities will significantly reduce the number of lost, misfiled, or otherwise mishandled documents. There are direct cost advantages, and also gains in improved confidence for the claimants and employers in their interactions with the system.
  - o Immediate Document Access for All Users

While there are states that use some form of automated Document Management systems, the vast majority of times its use is isolated to just a small number of UI functional areas. Further, some states use multiple Document Systems, which creates support challenges and necessitates some staff to learn dual systems. Support challenges are revealed in terms of

- Tracking product updates and enhancements for two different systems
- Two interfaces to care and maintain

## E. Modernized System and Re-engineered Needs

As the results of the NASWA/ITSC survey and follow-up interviews demonstrate, states are experiencing multiple simultaneous challenges in many aspects of their UI IT systems. Across the following areas:

- 1. Quality of System Technical Documentation
- 2. IT Expertise to Support Systems retirement and resource availability
- 3. Flexibility /Extensibility of System Make Federal Law and State Law Changes
- 4. System Capacity and Scalability
- 5. Increasing Costs to Support Systems
- 6. Increasing challenges with external interfaces

Figure 8 below illustrates this point:

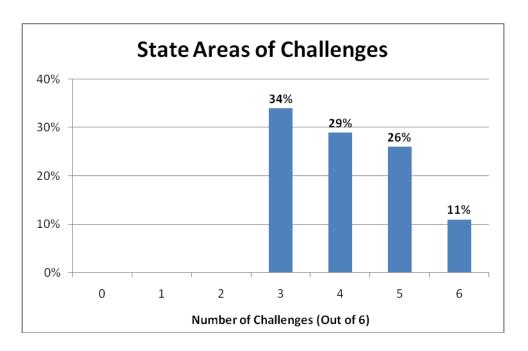


Figure 8

It is a significant note that even a state that is modernized like Minnesota does have its challenges. Their challenges are related to the lack of availability of staff resources in Modern

technologies, the difficulty of making changes due to the highly integrated nature of their benefits and tax system, scaling-out capacity, and the cost of server-based hosting. In discussion with Minnesota, while there is a drawback to having such a highly integrated system, the benefits are numerous, such as: promotes "no touch" claims submissions (improving payment timeliness and reducing manual workload), promotes "no touch" quarterly report filing by employers, promotes more timely non-monetary decisions as cases are scheduled, improves workload distribution and timeliness of task completion through case management and workflow. Finally, Minnesota DEED uses the state IT agency for infrastructure services, including capacity expansion and hosting.

- A vast majority of states (nearly 100%) indicate a need to Modernize to:
  - o Improve staff efficiencies,
  - o Improve quality and accuracy of their systems,
  - o Provide more self-service to their customers

Further, many states indicate the need for significant re-engineering (87%) of their current business processes. Some key re-engineering areas:

- Imaging of all incoming documents and creating workflow for items sent to specific staff based on role
- On-line Dynamic Fact Finding for initial claims and weekly claims
- Progressive Online Questioning for Employer Registrations
- Generation of Correspondence and Notices through a Forms Management 3rd party product with 2D Barcode to easily capture the required index fields electronically when documents are returned
- Automated Fact Finding
- Automated exception processing including repetitive processes handled by the system based on business rules
- Electronic separation information data exchange between state and employer
- Elimination of batch or delayed processing in favor of real time processing
- Automatic assignment of cases (issues) to Adjudicators, Appeals Officers, Tax Auditors, and Benefit Payment Control Examiners based on skill sets and schedule availability.
- Focus of processes to ensure all quality standards are met.
  - Including: perform benefit quality control, perform quarterly Appeals reviews, Benefit Timeliness and Quality (BTQ) reviews and perform Tax Performance System (TPS) reviews.
- Decision information is entered in one place, resulting in posting to all appropriate applications and databases.
- Collection of work search information via Internet and/or Telephone.

#### F. Benefits of UI IT Modernization

State UI agencies that have modernized their core IT systems and re-engineered their associated processes have generally seen a reduction in the amount of staffing resources needed to deliver UI services, improved performance measures in such areas as customer wait times, overpayment prevention and detection, and other quality and timeliness attributes, and the ability to much more readily modify and enhance their system to accommodate law changes and inclusion of productivity enhancing technologies.

For example, although while numerous states offer Internet/online claims filing, it is important to note that many states still need to "touch" or manually process a significant percent of Internet filed claims in order to authenticate data, obtain correct employer information from the claimant, etc. Only four states touch fewer than twenty percent of web-filed claims before final submission into their systems. Notably, three of the four have a modernized benefits system.

## G. Achieving Modernization through State Consortia

While states with Modernized Benefits and/or Tax applications realize many favorable results, UI IT Modernization Projects are a substantial undertaking, and many times these projects overrun costs and/or schedule and sometime fail altogether. In fact, about only one of five UI IT Modernization projects are on time, on budget, and deliver the required major functionality. A large software development project is not a core competency within state UI agencies. For example, UI IT agency staff are generally unfamiliar with the use of modern software technologies, methodologies, and processes used in these UI IT Modernization Projects. Further, UI IT system Modernization Projects demand a significant amount of agency staff involvement and expertise, forcing states to divert dwindling and vital staff resources away from delivery of UI services to its customers to these projects.

States have expressed need for a different paradigm then each state attempting to Modernize its UI IT systems alone. The Consortium model where states can efficiently pool their resources, is now surfacing as a prominent concept. The Consortium concept promotes the idea of developing a single, common system which many states use by making minor programming and or configuration changes based on their state-specific law and policy requirements. In this way, only a fraction of the funding investment is needed, and a much greater stewardship of the UI Trust Fund can be achieved. Further, UI IT system Modernization Projects demand a significant amount of agency staff involvement and expertise, forcing states to divert dwindling and vital staff resources away from delivery of UI services to its customers to these projects. In a Consortium, multiple states can pool and leverage their staffs (business/functional and IT) in a much more efficient and optimal manner.

One successful project using the consortium model is the UI Sate Information Data Exchange System (SIDES). SIDES was designed and developed by six states, some large employer Third

Party Agents (TPAs) and the ITSC, and made possible with funding from USDOL. SIDES began in 2005 as a way to improve timeliness and accuracy of UI separation requests from employers and to reduce overpayments and costs. SIDES is an Electronic Message Broker with two components. A machine-to-machine web services file transfer and a web site for employers. Today it is in production in the State of Utah with ADP a large employer TPA. More data exchanges between States and employers are being designed and will use the same SIDES hardware and software infrastructure. In addition, the SIDES Consortium has been expanded to 14 states and seven large employer and TPAs.

To encourage states to work together in the consortium model USDOL recently awarded Supplemental Budget Requests (SBR) to two different groups of four states to explore the feasibility of building a common UI Benefits and or Tax system. These two groups are in the midst of a two-year project to determine if states can work together and come up with commons systems requirements for a new system. The outcomes of these projects include near RFP ready documents for the common system and a small proof of concept on a manageable piece of UI functionality. Arizona, Wyoming, Idaho and North Dakota are focusing on building a new UI Benefits and Tax system design and North Carolina, South Carolina, Georgia and Tennessee are working on a new UI Benefits system.

Finally, it is noted that while states with UI IT Modernized systems have benefitted greatly, support of these systems can be somewhat daunting. Developing and keeping the requisite IT staff expertise needed to support these modernized UI IT systems can be difficult. Further, due to high level of integration of these modernized UI IT systems, changes and updates can also be an arduous activity. Again, the Consortium concept can help address these challenges in the UI IT system support phase. A system that is shared across states can leverage the pooling if IT staff capabilities more efficiently than a single state. A UI IT system change can be made once and shared by all participating states.