July 2023

UNEMPLOYMENT INSURANCE

DOL Needs to Further Help States Overcome IT Modernization Challenges

Accessibile Version

GAO Highlights

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Why GAO Did This Study

In the wake of the COVID-19 pandemic, the nation experienced historic levels of job loss. According to DOL data, approximately $878 billion in benefits were paid across all UI programs from April 2020 to September 2022. However, state UI programs with legacy IT systems faced performance issues in processing the unprecedented number of UI claims. Due to this challenge and others, GAO added the overarching UI system to its High-Risk List in June 2022.

GAO was asked to review UI IT modernization issues. The specific objectives were to (1) provide the status of modernization efforts for selected states, including the role of contracting; (2) identify notable modernization successes and challenges; and (3) evaluate DOL's management activities in assisting states and overseeing their efforts.

To do so, GAO analyzed documentation and interviewed state officials from a nongeneralizable sample of eight states (selected based on varying location and population size, among other criteria). GAO also reviewed relevant DOL policies and guidance documents and compared them to key management and oversight activities. In addition, GAO interviewed department officials.

What GAO Recommends

GAO is making three recommendations to DOL to address pilot design weaknesses, establish standards for states' UI IT performance, and then measure such performance. DOL agreed with one recommendation and partially agreed with two. GAO continues to believe all recommendations are warranted.
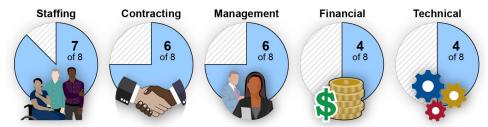
What GAO Found

The eight states in GAO's study were in varying phases of modernizing their unemployment insurance (UI) IT systems, ranging from planning to operations and maintenance. As of February 2023, six of the eight states had modernization efforts underway, but not yet completed. According to officials from the six states, these efforts were expected to replace legacy UI systems that ranged from 7 to about 50 years old. The remaining two states completed modernization efforts in 2018 and 2021 and were in the operations and maintenance phase. To support their modernization efforts, the eight states rely extensively on contractors for system development and implementation, technical support, and identity verification.

The selected states reported several modernization successes. For example, states reported improved system stability after migrating systems to cloud computing solutions and a reduction in paper-based UI processes. However, states also identified modernization challenges in five areas: staffing, contracting, management, financial, and technical (see figure).

Eight States' Unemployment Insurance IT System Modernization Challenge Areas

Source: GAO analysis of state information and interviews with state officials; images: Rogatnev/stock.adobe.com. | GAO-23-105478

Regarding staffing, most states reported not having enough staff resources and not having staff with the necessary expertise to support their modernization efforts. To help states address modernization challenges, the Department of Labor (DOL) initiated several efforts, such as sending teams of experts to states and conducting pilot tests of UI technology solutions for states.

DOL has gaps in managing its efforts to assist states' with UI IT modernization and its oversight of states' UI IT performance. Although DOL fully implemented key contract management activities on its first pilot, the department did not fully implement leading pilot design practices such as developing a data analysis plan and ensuring stakeholder communication. Without fully implementing leading pilot design practices, DOL likely cannot ensure its future pilots produce information needed to make effective program and policy decisions. Regarding oversight, although DOL is responsible for overseeing the UI program to ensure that the states are operating the program effectively and efficiently, it has not measured states' UI IT performance. Until DOL finalizes IT standards and measures state UI IT performance, the department will be limited in its ability to monitor whether states' UI systems are performing efficiently and effectively.

United States Government Accountability Office

Contents

Abbreviations

CARES Act	Coronavirus Aid, Relief, and Economic Security Act
CMMI-ACQ	Capability Maturity Model Integration® for Acquisition
DOL	Department of Labor
ETA	Employment and Training Administration
FAR	Federal Acquisition Regulation
ITSC	Information Technology Support Center
NASWA	National Association of State Workforce Agencies
OIG	Office of Inspector General
OUIM	Office of Unemployment Insurance Modernization
SOURCE	State of Ohio Unemployment Resource for Claimants and Employers
UI	unemployment insurance
UIPL	Unemployment Insurance Program Letter
WyCAN	Wyoming, Colorado, Arizona, and North Dakota consortium

July 10, 2023

The Honorable Bernard Sanders
Chair
Committee on Health, Education, Labor, and Pensions
United States Senate

The Honorable Ron Wyden
Chairman
Committee on Finance
United States Senate

Overseen by the Department of Labor (DOL) and administered by the states, the unemployment insurance (UI) program is a federal-state partnership that provides temporary financial assistance to eligible workers who become unemployed through no fault of their own. During economic downturns, UI's role in supporting workers and our overall economy becomes more vital. Following the emergence of the COVID-19 pandemic in early 2020, and related public health measures taken to contain and mitigate its transmission, the United States experienced historic job losses. In turn, the UI program was expanded.

The Coronavirus Aid, Relief, and Economic Security (CARES) Act, enacted on March 27, 2020, created three new federally funded temporary UI programs that expanded benefit eligibility, enhanced benefits, and extended benefit duration.[1] The temporary programs supplemented the existing UI program known as "regular" UI.[2] The federal government directly funded the administration of, and benefits for, the new pandemic-related UI programs and relied on state workforce agencies to determine claimants' eligibility, process claims, and issue

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[1]Pub. L. No. 116-136, §§ 2102, 2104, 2107, 134 Stat. 281, 313-28. In addition, the Consolidated Appropriations Act, 2021 created one additional temporary, supplemental UI program—known as the Mixed Earner Unemployment Compensation program. Pub. L. No. 116-260, div. N, tit. II, subtitle A, subchapter VI, § 261(a) 134 Stat. 1182, 1961.

[2]In this report, we refer to the UI program—excluding the temporary UI programs created by the CARES Act and other legislation—as the regular UI program and the benefits paid under the program as regular UI benefits. We refer to the temporary UI programs created by the CARES Act and the Consolidated Appropriations Act, 2021 as pandemic UI programs.

benefits to individuals.[3] Based on DOL data, compensation paid under regular UI, Extended Benefits,[4] and pandemic UI programs from April 2020 through September 2022 totaled approximately $878 billion.[5]

To administer their UI programs, states rely extensively on IT systems to support benefit eligibility determinations, record claimant filing information, calculate benefit amounts, and record taxes paid by employers, among other functions. However, state IT systems faced challenges in processing the unprecedented number of UI claims during the pandemic.[6] In June 2020, we reported that state UI programs with aging, or legacy, IT systems[7] that dated as far back as the 1970s had reported system performance issues.[8] More recently, we and the DOL Office of Inspector General (OIG) have also reported that states' use of legacy IT systems also contributed to the slower processing of UI payments, the inability to detect and recover improper payments

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[3]Fifty-three state workforce agencies administer UI programs across the 50 states, the District of Columbia, Puerto Rico, and the U.S. Virgin Islands. For purposes of this report, when we refer to states' administration of the UI program, we include both states and territories.

[4]The Extended Benefits program, which existed before the pandemic, provides up to an additional 13 or 20 weeks of benefits when activated in states during periods of high unemployment, according to DOL.

[5]This amount includes about $209 billion in expenditures under the regular UI and Extended Benefits programs, and about $669 billion in expenditures under pandemic UI programs, which expired on September 6, 2021. The expenditure amounts for the temporary programs represent all compensation paid throughout the existence of the programs. These programs were generally created at the end of March 2020 and expired in September 2021, though some payments may have occurred after September 2021 for weeks of unemployment prior to the programs' expiration. We obtained April 2020 through September 2022 expenditure amounts for the regular UI program, the Extended Benefits program, and the pandemic UI programs on October 12, 2022, from DOL's data downloads website at https://oui.doleta.gov/unemploy/DataDownloads.asp.

[6]Initial claims for regular UI benefits nationwide reached a historic peak of more than 6 million per week in late March and early April 2020.

[7]The Modernizing Government Technology provisions of the National Defense Authorization Act for Fiscal Year 2018 defines a legacy IT system as an IT system that is outdated or obsolete. Pub. L. No. 115-91, § 1076(8), 131 Stat. 1283, 1587 (December 12, 2017) (40 U.S.C. 11301 note).

[8]GAO, *Covid-19: Opportunities to Improve Federal Response and Recovery Efforts,* GAO-20-625 (Washington, D.C.: June 25, 2020).

(including from fraud),[9] and difficulties reporting UI program activities to DOL, among other challenges.[10]

The increased significance of UI during the pandemic not only drew attention to states' IT challenges, it also shined a spotlight on other vulnerabilities in the overarching UI system,[11] including its susceptibility to fraud, waste, abuse, and mismanagement. Based on findings from the DOL OIG, our prior reports, and the urgent need to address persistent issues in the UI system, we determined in June 2022 that the UI system should be on our High-Risk List and made an out-of-cycle high-risk designation.[12] Our high-risk designation was intended to help spur progress in resolving persistent issues by drawing attention to such issues and ways the federal government can lead efforts to find solutions. We reported that such efforts include implementing our open recommendations and those of the DOL OIG. As of July 2023, we had 19 recommendations that were not yet implemented.[13]

You asked us to review states' UI IT systems modernization issues. Our specific objectives were to (1) provide the status of modernization efforts

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[9]An improper payment is defined as any payment that should not have been made or that was made in an incorrect amount (including overpayments and underpayments) under statutory, contractual, administrative, or other legally applicable requirements. It includes, but is not limited to, any payment to an ineligible recipient. See 31 U.S.C. § 3351(4). While improper payments may be the result of errors, some may also be the result of fraudulent activities.

[10]GAO, *Unemployment Insurance: Transformation Needed to Address Program Design, Infrastructure, and Integrity Risks,* GAO-22-105162 (Washington, D.C.: June 7, 2022) and Department of Labor, Office of Inspector General, *COVID-19: States Struggled to Implement CARES Act Unemployment Insurance Programs*, Report No. 19-21-004-03-315 (Washington, D.C.: May 28, 2021).

[11]The UI system includes UI programs that were established prior to the COVID-19 pandemic (including the regular UI program and Extended Benefits), the programs established in response to the COVID-19 pandemic (such as Pandemic Unemployment Assistance and Federal Pandemic Unemployment Compensation, among others), and the state and federal administration needed to run the programs.

[12]GAO-22-105162. The High-Risk List highlights federal programs and operations that we have determined are in need of transformation. The High-Risk List also names federal programs and operations that are vulnerable to waste, fraud, abuse, and mismanagement. We release a High-Risk series report every 2 years at the start of each new Congress. As in this case, we sometimes make out-of-cycle designations to highlight urgent issues, help ensure focused attention, and maximize the opportunity for the federal government to take action.

[13]For a list of the 19 recommendations, see GAO-23-106586, appendix III.

for selected states, including the use of contractors for such efforts; (2) identify notable modernization successes and challenges; and (3) evaluate DOL's management activities in assisting states with their modernization efforts and whether it has provided effective oversight of those efforts.

To address our first and second objectives, we selected and examined the IT modernization efforts of eight states.[14] To make our state selection, we first excluded states that were included in our other UI-related reviews, as well as reviews being conducted by DOL's OIG.[15] We then selected the eight states on the basis of varying regional locations, population size, modernization status, and timeliness of benefit payments in the regular UI program. We also took into consideration states' participation in DOL's first effort to conduct a pilot test of UI technology solutions—known as the claimant experience pilot—and its initiative to send expert teams to states. Although our sample is non-generalizable, these states offered insight and perspective of their experiences in modernizing UI systems, including the role of contractors, successes, and challenges.

To provide the status of modernization efforts for the selected states and determine the role of contracting, we reviewed states' documentation of their modernization planning and development efforts, such as project plans, status reports, and contracting documents (e.g., requests for proposals). We also held discussions with officials from the selected states' UI agencies regarding the status of and plans for state UI modernization efforts and the role of contracting in such efforts. We assessed the reliability of the data related to the status of selected states' modernization efforts, such as schedule estimates, and determined that the data were sufficiently reliable for our purposes.

To identify notable modernization successes and challenges, we reviewed the selected states' UI modernization documentation, such as lessons learned reports and presentations. We also interviewed relevant UI officials from the states to identify additional modernization successes

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[14]The eight states selected for our study were Arkansas, Delaware, Maine, Nevada, Ohio, Pennsylvania, Tennessee, and Texas.

[15]The specific states and territory we excluded were Arizona, Florida, Massachusetts, Michigan, Minnesota, Wyoming, California, Florida, Georgia, Kentucky, New Jersey, Virginia, and the Virgin Islands.

and challenges reported by the officials, and discuss means for addressing the challenges.

To address our third objective, we reviewed relevant DOL documentation, such as project plans, strategies, and contracts. We then evaluated the department's claimant experience pilot against leading pilot design practices from our prior work[16] and key contract management activities from the Federal Acquisition Regulation, the Software Engineering Institute, and our prior work.[17] To evaluate DOL's oversight of states' modernization efforts, we reviewed DOL's policies, procedures, and guidance, and compared the department's efforts against leading practices for measuring the performance of IT systems identified in our prior work and by the Office of Management and Budget.[18] We also interviewed DOL officials regarding the department's management and oversight efforts. Further details on our objectives, scope, and methodology are provided in appendix I.

We conducted this performance audit from October 2021 to July 2023 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit 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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[16]GAO, *Data Act: Section 5 Pilot Design Issues Need to Be Addressed to Meet Goal of Reducing Recipient Reporting Burden,* GAO-16-438 (Washington, D.C.: Apr. 19, 2016).

[17]Federal Acquisition Regulation (FAR) subpart 37.5—Management Oversight of Service Contracts and Part 46—Quality Assurance (Note: as used in this report, the FAR is only applicable to the Department of Labor and its acquisitions), Carnegie Mellon University's Software Engineering Institute, *Capability Maturity Model Integration® for Acquisition*, Version 1.3 (CMMI-ACQ V 1.3) (Pittsburgh, Pa.: November 2010), and GAO, *USDA Systems Modernization: Management and Oversight Improvements Are Needed,* GAO-11-586 (Washington, D.C.: July 20, 2011).

[18]See GAO, *Designing Evaluations: 2012 Revision (Supersedes PEMD-10.1.4),* GAO-12-208G (Washington, D.C.: Jan. 31, 2012); *Executive Guide: Measuring Performance and Demonstrating Results of Information Technology Investments*, GAO/AIMD-98-89 (Washington, D.C.: March 1998); and Executive Office of the President, Office of Management and Budget, Circular A-11, *Preparation, Submission, and Execution of the Budget* (August 2022).

Background

The federal government and states work together to administer UI programs. Under this arrangement, states design and administer their own programs within federal parameters. These federal parameters set forth broad provisions that determine worker eligibility for the program, some benefits requirements, and aspects of program administration, among other things. States have considerable flexibility to set benefit amounts and their duration, and to establish eligibility requirements and other program details. States also are to provide customer service and address program integrity and improper payments in their UI programs.

Within the context of the federal-state partnership, DOL has general responsibility for overseeing the UI program to ensure that the states are operating the program properly and efficiently.[19] For example, DOL is responsible for monitoring state operations and procedures, providing technical assistance and training, and analyzing UI program data to diagnose potential problems.

To oversee the program, the Office of Unemployment Insurance within DOL's Employment and Training Administration (ETA) and ETA offices in six geographic regions are responsible for working with the states. The regional offices are the states' main points of contact with DOL and serve as a link between the department and the states for providing technical assistance and clarifying program policies, objectives, and priorities. Moreover, the regional offices have primary responsibility for overseeing the fiscal and management integrity of the UI program. This oversight includes ensuring that states do not provide unemployment compensation to ineligible recipients and ensuring that states detect these overpayments when they do occur.

Regular UI benefits—those provided by state UI programs since before the CARES Act was enacted—are funded primarily through state taxes

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[19]See 42 U.S.C. § 502(a); see also 20 C.F.R. Parts 601 (Administrative Procedure) and 602 (Quality Control in the Federal-State Unemployment Insurance System).

levied on employers. These benefits are intended to replace a portion of a claimant's previous employment earnings, according to DOL.[20]

The CARES Act created three federally funded temporary UI programs that expanded benefit eligibility and enhanced benefit amounts.[21] These programs were subsequently extended and amended by the Consolidated Appropriations Act, 2021, as well as the American Rescue Plan Act of 2021, and expired in September 2021.[22]

1. **Pandemic Unemployment Assistance** authorized UI benefits for individuals not otherwise eligible for UI benefits, such as self-employed workers and independent contractors, who were unable or unavailable to work because of specified COVID-19-related reasons.[23]

2. **Federal Pandemic Unemployment Compensation** generally authorized an additional weekly benefit for individuals who were

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[20]To be eligible for regular UI benefits, applicants must generally demonstrate workforce attachment, be able and available to work, and be actively seeking work. 42 U.S.C. § 503(a)(12). Administration of the regular UI program is financed by a federal tax on employers, under the Federal Unemployment Tax Act (codified at 26 U.S.C. § 3302).

[21]Coronavirus Aid, Relief, and Economic Security (CARES) Act, Pub. L. No. 116-136, §§ 2102, 2104, 2107, 134 Stat. 281, 313-28 (March 27, 2020). The CARES Act also addressed other elements of the UI system. For example, the act in § 2108 authorized certain flexibilities for states to hire additional staff and to participate in Short-Time Compensation programs, which allow workers to work reduced hours while receiving partial pay and partial UI benefits.

[22]Twenty-four states ended their participation in at least one of these programs before the programs expired in September 2021.

[23]At the time of the program's expiration in September 2021, Pandemic Unemployment Assistance generally authorized up to 79 weeks of benefits. American Rescue Plan Act of 2021, Pub. L. No. 117-2, § 9011(a), (b), 135 Stat. 4, 118 (March 11, 2021); It was first extended from December 31, 2020, to March 14, 2021. Consolidated Appropriations Act of 2021, Pub. L. No. 116-260, div. N, tit. II, § 201(a), (b), 134 Stat. 1182, 1950-1951 (December 27, 2020); PUA was first authorized until December 31, 2020. Coronavirus Aid, Relief, and Economic Security (CARES) Act, Pub. L. No. 116-136, § 2102, 134 Stat. 281, 313 (March 27, 2020).

eligible for weekly benefits under the permanent UI programs—e.g., regular UI—and the temporary CARES Act UI programs.[24]

3. **Pandemic Emergency Unemployment Compensation** generally authorized additional weeks of UI benefits for those who had exhausted their regular UI benefits.[25]

In addition, the Consolidated Appropriations Act, 2021 created the Mixed Earner Unemployment Compensation program. This program was extended by the American Rescue Plan Act of 2021 and expired in September 2021.[26] According to DOL, the Mixed Earner Unemployment Compensation program was intended to cover regular UI claimants whose benefits do not account for significant self-employment income and who thus may have received a lower regular UI benefit than the benefit they would have received had they been eligible for Pandemic Unemployment Assistance.[27]

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[24]Federal Pandemic Unemployment Compensation generally authorized an additional $600 benefit through July 2020 as well as an additional $300 benefit for weeks beginning after December 26, 2020, through the end of the program. American Rescue Plan Act of 2021, Pub. L. No. 117-2, § 9013, 135 Stat. 4, 119; Consolidated Appropriations Act of 2021, Pub. L. No. 116-260, div. N, tit. II, § 203, 134 Stat. 1182, 1953; Coronavirus Aid, Relief, and Economic Security (CARES) Act, Pub. L. No. 116-136, § 2104 Stat. 281, 318 (March 27, 2020).

[25]At the time of the program's expiration, Pandemic Emergency Unemployment Compensation generally authorized an additional 53 weeks of benefits for claimants who were fully unemployed. American Rescue Plan Act of 2021, Pub. L. No. 117-2, § 9016(a), (b), 135 Stat. 4, 119-120 (March 11, 2021); Consolidated Appropriations Act of 2021, Pub. L. No. 116-260, div. N, tit. II, § 206(a), (b), 134 Stat. 1182, 1954 (December 27, 2020); Coronavirus Aid, Relief, and Economic Security (CARES) Act, Pub. L. No. 116-136, § 2107, 134 Stat. 281, 323 (March 27, 2020).

[26]The Mixed Earner Unemployment Compensation program, which was voluntary for states, authorized an additional $100 weekly benefit for certain UI claimants who received at least $5,000 of self-employment income in the most recent tax year prior to their application for UI benefits between December 27, 2020 and September 6, 2021. American Rescue Plan Act of 2021, Pub. L. No. 117-2, § 9013(a), 135 Stat. 4, 119 (March 11, 2021); Consolidated Appropriations Act of 2021, Pub. L. No. 116-260, div. N, tit. II, § 261(a)(1), 134 Stat. 1182, 1961 (December 27, 2020).

[27]According to DOL, 51 states and territories elected to participate in the Mixed Earner Unemployment Compensation program, with Idaho and South Dakota opting not to participate. Twenty-three states terminated their participation in June or July 2021, and the remaining 28 states and territories continued participating in the Mixed Earner Unemployment Compensation program until it expired in September 2021. Maryland intended to terminate participation but did not because of litigation at the state level, according to DOL.

To help states administer their regular UI programs, DOL's UI State Administration Program funds grants to states.[28] Generally, DOL has used national projections of UI agencies' workload related to the volume of claims, as well as other factors, to develop the President's budget request for the UI State Administration Program. After funds are appropriated, DOL uses a formula, and considers state workloads estimates and other information that states provide to the department, to allocate funding to states.

Since funding is calculated, in part, on the basis of claims-related workloads, the federal funding made available to states is generally sensitive to changes in total claims, with more funding becoming available when the number of claims increases and less when they decrease. Due, in part, to reduced workloads as a result of low unemployment levels, this funding declined steadily during the decade before the pandemic. From fiscal years 2010 to 2019, funding available for state administration declined from approximately $3.2 billion to approximately $2.5 billion, a decline of about 21 percent.[29]

DOL has also provided some additional administrative funding, when available, to states to assist with various aspects of states' UI programs, including IT modernization. For example, in 2017, the department awarded supplemental grants to support states' UI IT modernization.[30] States may also use additional state funding to administer their UI programs, including modernizing IT; however, according to DOL, not all states do so. The CARES Act and other subsequent legislation included provisions for funding states' administration of the temporary UI programs.[31]

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[28]42 U.S.C. § 502(a).

[29]After adjusting for inflation, this represents a decline of about 32 percent, using the gross domestic product price index.

[30]See Department of Labor, *Unemployment Insurance Program Letter 22-17, Unemployment Insurance Supplemental Funding Opportunity for State Consortia to Modernize Tax and Benefit Systems* (Sept. 8, 2017).

[31]Coronavirus Aid, Relief, and Economic Security (CARES) Act, Pub. L. No. 116-136, § 2103, 134 Stat. 281, 317 (March 27, 2020); Consolidated Appropriations Act of 2021, Pub. L. No. 116-260, div. H, tit. I, 134 Stat. 1182, 1551 (December 27, 2020); American Rescue Plan Act of 2021, Pub. L. No. 117-2, § 9031a), 135 Stat. 4, 119-121 (March 11, 2021).

States' UI IT Environment

States rely extensively on IT to carry out their UI program functions. Specifically, IT systems are used to administer the programs and to support related administrative needs. For example, 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.

In addition, tax systems are used for:

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

- calculating tax, wage, and payment adjustments, as well as any penalties and 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.

States also use an appeals system to provide appellate and due process rights to claimants and employers. An appeals system allows any party (claimant or employer) who is dissatisfied with an adjudicator's decision to contest that decision. Appeals systems rely on IT to support virtual hearings, document and manage case files, and records keeping.

Many states continue to rely on legacy IT systems developed in the 1970s and 1980s. Legacy systems run on outdated or unsupported hardware and software that are expensive to maintain and may use older programming languages such as the Common Business Oriented

Language.[32] According to the National Association of State Workforce Agencies (NASWA), as of June 2023, 34 of the 53 states and territories were still using legacy IT systems to support their UI benefits systems, tax systems, or both.[33]

GAO and Others Have Reported States' Legacy Systems Pose Challenges

We and the DOL OIG have reported on the risks and challenges that legacy systems pose for state UI programs, which have led to, among other things, reduced efficiency and effectiveness. Examples of these include:

- Prior to the COVID-19 pandemic, in May 2016, we reported that legacy IT systems were a challenge for many states, according to our survey.[34] Specifically, 29 of 48 states (60 percent) reported that their IT systems had significant limitations, which had implications for the ability of state programs to efficiently process UI claims and serve claimants.[35] For example, state officials reported that outdated systems led staff to have to check multiple systems for claims information, which could lead to errors in processing claims that significantly reduced the efficiency and effectiveness of the program. Additionally, state officials told us that because claimants could not check status updates and other information online, they needed to rely on phone call centers, which also consumed significant staff resources.

- In June 2020, we reported that the unprecedented number of UI claims posed challenges for states' capacity to process them.[36] Specifically, state UI programs faced challenges with legacy data

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[32]The Common Business Oriented Language, which was introduced in 1959, became the first widely used, high-level programming language for business applications.

[33]NASWA represents all 50 state workforce agencies, the District of Columbia, and U.S. territories.

[34]GAO, *Unemployment Insurance: States' Customer Service Challenges and DOL's Related Assistance,* GAO-16-430 (Washington, D.C.: May 12, 2016).

[35]We did not receive survey responses from UI programs in the District of Columbia, North Carolina, and Vermont. Our review did not include UI programs in Puerto Rico and the U.S. Virgin Islands.

[36]GAO-20-625.

systems. According to DOL and representatives of state workforce agencies, states with UI IT systems that dated as far back as the 1970s had reported system performance issues. We further noted that relatively few states had load-tested their systems to handle large volumes of claims, according to representatives of state workforce agencies.

- In May 2021, the DOL OIG reported that states with legacy systems started the Pandemic Emergency Unemployment Compensation program 15 days slower than states with modernized systems, and the Pandemic Unemployment Assistance program 8 days slower on average.[37] Further, the OIG reported that legacy IT systems were a primary hindrance to states' ability to implement CARES Act UI programs more effectively. Specifically, the OIG reported that officials from 17 of 50 states and territories (34 percent) stated their IT systems were unable to implement provisions of the CARES Act, such as those creating the Pandemic Unemployment Assistance program.[38] The May 2021 report also identified legacy IT systems as one of the causes of states' inability to detect and recover improper UI payments, including fraudulent payments. For example, state officials reported that their IT systems did not have functionality for detecting and recovering overpayments. The DOL OIG made four recommendations to DOL, including to conduct a study to assess the technological needs of UI programs. DOL agreed with the recommendations but, as of May 2023, had not yet implemented them.

Our prior work between 2012 and 2020 also identified challenges that states faced in modernizing their legacy UI systems.[39] For example:

- In 2012, we reported that the nine selected states we reviewed were facing various challenges in modernizing their legacy UI systems, such as funding uncertainty, staffing limitations, and contractor

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[37]Department of Labor Office of Inspector General, Report No. 19-21-004-03-315.

[38]Arkansas, Idaho, and Vermont were not included among the states.

[39]GAO-20-625; GAO-16-430; and GAO, *Information Technology: Department of Labor Could Further Facilitate Modernization of States' Unemployment Insurance Systems,* GAO-12-957 (Washington, D.C.: Sept. 26, 2012).

limitations.[40] Specifically, states reported that declining or inconsistent federal and state funding for UI IT modernization led to difficulties in project planning. In addition, states reported uncertainties surrounding their ability to procure sufficient funding throughout the entirety of their modernization efforts. We also found that state UI IT system development can be hindered by a shortage of staff with technical and project management expertise to manage IT modernization efforts. In addition, regarding contractor limitations, the states reported challenges related to using contractors for UI modernization efforts, including having too few contractors for selection.

We recommended that DOL (1) comprehensively analyze and document challenges and lessons learned, and (2) distribute lessons learned to each state to share and foster ideas for effective modernization of UI systems. The department implemented our two recommendations.

- In 2016, we reported that the three states we selected for site visits were facing challenges in modernizing their systems.[41] Officials in the three states cited federal administrative funding constraints as the primary challenge.

- In June 2020, we reported that states faced challenges in ensuring sufficient system capacity to process the unprecedented number of UI claims during the COVID-19 pandemic.[42] According to NASWA officials, this challenge with claims processing was due to states not sufficiently load testing their systems to handle large volumes of claims prior to the pandemic.

In June 2022, we reported on the results of a stakeholder panel we convened to identify specific options for transforming UI program,

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[40]GAO, *Information Technology: Department of Labor Could Further Facilitate Modernization of States' Unemployment Insurance Systems,* GAO-12-957 (Washington, D.C.: Sept. 26, 2012). The nine states reviewed were California, Colorado, Florida, Indiana, Minnesota, Ohio, Tennessee, Vermont, and Virginia.

[41]GAO-16-430. The three states we reviewed were California, New York, and Texas.

[42]GAO-20-625.

including modernizing UI IT systems.[43] Stakeholder panelists identified strategies to help improve UI system infrastructure, including options to overcome challenges associated with modernizing IT systems. For example, multiple panelists suggested that states should

- increase the focus on the user experience in state UI IT systems;

- ensure that staff have project and product management expertise;[44]

- use incremental or modular development and implementation practices;[45] and

- establish well-defined modernization outcome goals.

Our report noted that long-standing challenges with UI administration and states' use of legacy systems pose significant risk to UI service delivery, and challenges with program integrity (including improper payments) increase the risk of significant financial losses. Accordingly, we recommended that DOL develop and implement a plan for transforming UI that meets our high-risk criteria for transformations. DOL agreed with the recommendation. As of July 2023, the department had not yet implemented it.

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[43]See GAO-22-105162. The stakeholder panel included a 2-day virtual roundtable composed of 16 stakeholder panelists whom we selected from government, the private sector, public-private partnerships, and academia to discuss topics related to transforming UI programs. We identified options for UI transformation, including those related to improving UI system infrastructure, based on our analysis of the stakeholder panel discussions. These options for transformation are not listed in any specific rank or order, and their inclusion in this report, and our prior report, should not be interpreted as GAO endorsing any of them. We did not assess how effective the potential transformation options may be or the extent to which program design modifications, and federal financial support would be needed to implement any given transformation option or combination of transformation options. The options presented do not represent a consensus among panelists but instead represent options presented by at least one panelist and then, in most cases, discussion by the group as a whole.

[44]Product management is the practice of identifying customer requirements, prioritizing those requirements, and interfacing with product owners to confirm alignment between the software components and enterprise goals.

[45]Incremental or modular development is where an investment may be broken down into discrete projects, increments, or useful segments, each of which are undertaken to develop and implement the products and capabilities that the larger investment must deliver. Dividing investments into smaller parts helps to reduce investment risk, deliver capabilities more rapidly, and permit easier adoption of newer and emerging technologies.

DOL's Prior and Ongoing Efforts to Assist States with Modernization

As mentioned earlier, DOL has general responsibility for overseeing the UI program to ensure that the states are operating their programs effectively and efficiently. DOL has taken steps to assist states with their IT modernization efforts, such as providing funding, when available, and technical assistance. For example, between 2009 and 2017, the department provided limited supplementary grants to support the establishment of state consortiums, in which three or four states work together to develop and share a common system.[46]

DOL reported to Congress from 2015 to 2020 on the progress of the consortium projects.[47] For example, in 2019, it reported that Mississippi—a member of the ReEmployUSA Consortium—deployed state-specific UI benefits and tax systems in a cloud environment in 2019.[48] However, DOL also reported that the state consortium efforts faced a number of challenges, including system quality issues and financial challenges, among others. For example, in 2016, the Wyoming, Colorado, Arizona, and North Dakota (WyCAN) Consortium reported that its biggest challenge was that its contractor was unable to deliver a working,

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[46]For example, Department of Labor, *Unemployment Insurance (UI) Supplemental Funding Opportunity for Automated Integrity Related Systems: Including Systems to Improve Services and/or Performance,* UI Program Letter (UIPL) 31-09, Change 1 (Washington, D.C.: August 21, 2009) and *Unemployment Insurance (UI) Supplemental Funding Opportunity for Program Integrity and Performance and System Improvements,* UIPL 26-11, (Washington, D.C.: July 18, 2011). According to DOL, during this prior effort, the department did not have sufficient funding to provide funding or technical assistance to all states; therefore, it provided funding and technical assistance to some states in a consortium environment to maximize the impact of the funds available.

[47]In the explanatory statement that accompanied the Consolidated and Further Continuing Appropriations Act, 2015 (Pub. L No. 113-235), which was published in the Congressional Record of December 11, 2014 (p. H 9827), Congress expressed concern that automation acquisition projects being carried out by state consortia to modernize their UI IT systems were behind schedule. The explanatory statement directed DOL to submit to the House and Senate Committees on Appropriations a report by April 1 of each fiscal year, until the funds available to the consortia are expended or expire, the status of all project funds and analysis of each project's progress toward executing the acquisition plans.

[48]The ReEmployUSA consortium included Connecticut, Maine, Mississippi, Rhode Island, and Oklahoma.

modernized system to the consortium's satisfaction, causing significant delays and legal challenges.[49]

As of February 2023, according to DOL, most of the remaining consortia states have deployed their systems. Appendix II contains additional details regarding state consortium successes and challenges.

As another method to assist states, DOL's ETA provides states with technical assistance on IT modernization by funding and overseeing the Information Technology Support Center (ITSC), operated by NASWA.[50] According to ETA officials, ITSC supports state UI IT modernization efforts by collecting and disseminating information, providing training, maintaining a collection of software tools and components, and helping states leverage the systems and products built by other states.

In 2015, ETA, in collaboration with ITSC, announced a new pre-implementation planning checklist to assist state UI agencies in preparing to launch modernized UI IT systems that support the administration of UI benefits or tax operations, or both.[51] The pre-implementation checklist denotes critical function areas that states must verify prior to launching a new UI IT system, such as call center and customer service operations, staff training on new system operations, customer help desk support, and contractor support. Any state that is preparing to launch a new UI IT system must certify that it has reviewed and accomplished, or has developed an appropriate plan addressing, these categories in a report.

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[49]The WyCAN Consortium later disbanded and Wyoming was the only state remaining when it implemented its modernized integrated benefits, appeals, and tax system in 2019.

[50]ITSC was created in 1994 as a partnership between DOL and the Maryland Department of Labor, Licensing, and Regulation to support state UI IT initiatives. DOL supports ITSC through grants to the Maryland agency, and ITSC's Steering Committee includes representatives from ETA.

[51]DOL announced the pre-implementation checklist in 2015, subsequently began requiring states to complete it in 2018, and released a reporting revision in 2020. Department of Labor, *Pre-Implementation Planning Checklist for State Unemployment Insurance (UI) Information Technology (IT) Modernization Projects,* Training and Employment Notice 28-14 (Washington, D.C.: Mar. 27, 2015); *ETA 9177 Report – Pre-Implementation Planning Checklist Report for State Unemployment UI IT Modernization Projects,* UIPL 11-18 (Washington, D.C.: Aug. 17, 2018); and *Employment and Training Administration (ETA) 9177 Report - Pre-Implementation Planning Checklist Report for State Unemployment Insurance (UI) Information Technology (IT) Modernization Projects – Additional Updates to the ETA 9177 Report and Reporting Instructions,* UIPL 11-18, Change 1 (Washington, D.C.: July 16, 2020).

More recently, in August 2021, DOL announced plans to, among other things, use $2 billion in funding, provided by the American Rescue Plan Act of 2021, to further assist states with modernizing their IT systems, detecting and preventing fraud, promoting equitable access, and assuring the timely payment of UI benefits.[52] According to the act, such funds may be used for federal administrative costs, system-wide infrastructure investment and development, and to make grants to states or territories administering UI programs.[53]

Also in August 2021, DOL announced the establishment of the Office of Unemployment Insurance Modernization (OUIM) within the Office of the Secretary to provide strategic leadership as the department works with state agencies and federal partners.[54] Using funding from the American Rescue Plan Act of 2021, DOL's OUIM initiated several efforts to assist states with their IT modernization efforts, including providing funding in the form of grant opportunities to, among other things, protect against fraud and send teams of experts (referred to by DOL as tiger teams) to states. DOL also announced that it had begun working with the U.S. Digital Service to develop modular technology solutions that states may adopt as part of ongoing modernization and improvement efforts.[55] These efforts are discussed in more detail later in this report.

In June 2023, DOL reported that it is reviewing its plan to support UI IT modernization in light of the reductions imposed by the Fiscal Responsibility Act of 2023.[56]

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[52]Department of Labor, *US Department of Labor Announces Funding to States to Modernize Unemployment Insurance System, Combat Fraud, Address Equity* (Washington, D.C.: Aug. 11, 2021).

[53]American Rescue Plan Act of 2021, Pub. L. No. 117-2, § 9032, 135 Stat. 4, 121 (March 11, 2021) amending the CARES Act (Pub. L. No. 116-136) at § 2118.

[54]Department of Labor, *Fact Sheet: Unemployment Insurance Modernization: American Rescue Plan Act Funding for Timely, Accurate and Equitable Payment in Unemployment Compensation Programs* (Washington, D.C.: Aug. 11, 2021).

[55]The U.S. Digital Service, a component within OMB, was established by the President in August 2014 and aims to improve the most important public-facing federal digital services. According to DOL, the U.S. Digital Service's involvement in the department's efforts to develop modular technology solutions ended in May 2022.

[56]In June 2023, the Fiscal Responsibility Act reduced DOL's American Rescue Plan Act funding by $1 billion. See Fiscal Responsibility Act of 2023, Pub. L. No. 118-5, § 24, 137 Stat. 10, 27 (June 3, 2023).

Selected States Vary in Their UI System Modernization Efforts and Rely Extensively on Contractors

The eight states in our study are in varying phases[57] of modernizing their UI systems. Specifically, as of February 2023, six of the eight states had modernization efforts underway, but not yet completed. Specifically,

- one state was in the requirements analysis phase during which, for example, the business requirements are to be validated; and

- five states were in a combination of phases that included planning, analyzing system requirements, design, development, testing, and operations and maintenance (also called a "mixed" phase, meaning a portion of the system is in one phase of modernization—for example, planning—but another portion is in a different phase—for example, operations and maintenance).

According to officials from the six states, these efforts are expected to replace legacy UI systems, including benefit, appeals, and tax systems, that ranged from 7 to about 50 years old.[58] The six states reported

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[57]As we previously reported in GAO-12-957, the phases of modernizing a system can be sequential or overlapping and performed in an incremental manner. The phases include (1) initiation, which identifies a business need that requires a technological solution; (2) concept, when the IT governance organization approves the business needs statement; (3) planning, which begins when the project has been formally approved and funded; (4) requirements analysis, during which the business requirements are validated and further analyzed and decomposed into functional and nonfunctional requirements; (5) design, which develops detailed specifications that emphasize the physical solution to the end user's IT needs; (6) development, in which the system developer takes the detailed design information and transforms it into machine executable form; (7) test, to determine whether the business product developed or acquired is ready for implementation; (8) implementation, in which the business product is moved from development status to production status; and (9) operations and maintenance, in which the certified and accredited business product operates in a full-scale production environment.

[58]According to DOL, modernization is a continual process aimed at addressing unmet technological needs. For example, two states that completed UI system upgrades approximately 7 years ago are in the process of modernizing again.

planned modernization timelines that range from 2 to 7 years,[59] and estimated costs between $35 to $85 million.[60]

The remaining two states completed modernization efforts in 2018 and 2021 and were in the operations and maintenance phase. Both states' modernization efforts took approximately 6 years and cost $32 and $90 million, respectively.

Table 1 provides an overview of each state's modernization effort—specifically, the age of each state's systems, modernization status and phase, timeline, and costs. Following table 1 is a graphical depiction of the modernization timelines of the selected states. Appendix III provides additional details for each state's modernization efforts.

Table 1: Overview of Selected States' Unemployment Insurance Modernization Efforts, as of February 2023

State	System age, in years (approximately)[a]	Status	Phase	Timeline[b]	Cost (rounded)[b, c]
Arkansas	50 (benefits and appeals) 11 (tax)	In progress	Mixed – planning and requirements analysis	2023 – 2025	$35 million
Delaware	35 (benefits, appeals, and tax)	In progress	Mixed – planning and requirements analysis	2022 – 2026	$49 to $85 million
Maine	5 (benefits, appeals, and tax)	Completed	Operations and maintenance	2012 – 2018	$90 million
Nevada	8-10 (benefits, appeals, and tax)	In progress	Requirements analysis	2021 – 2025	$72 million
Ohio	20 (benefits and appeals) 2 (tax)	In progress	Mixed – planning and operations and maintenance	2018 – Not yet determined[d]	Total cost not yet determined; $36 million for tax system modernization
Pennsylvania	2 (benefits and appeals) 12 (tax)	Completed	Operations and maintenance	2015 – 2021[e]	$32 million
Tennessee	7 (benefits and appeals) 40 (tax)	In progress	Mixed – requirements analysis, design, and development	2021 – 2025	Total cost not yet determined; $32 million for benefits and appeals systems modernization

[59]As of February 2023, the estimated completion date for one state (Ohio) was not yet determined.

[60]Modernization costs can vary based on a variety of factors, including the scope of the modernization effort and the complexity of state systems, among others. As of February 2023, the total estimated costs for two states (Ohio and Tennessee) were not yet determined.

State	System age, in years (approximately)[a]	Status	Phase	Timeline[b]	Cost (rounded)[b, c]
Texas	35 (benefits, appeals, and tax)	In progress	Mixed – requirements analysis, design, and testing	2018 – 2024	$76 million

Source: GAO analysis of state information and interviews with state officials. | GAO-23-105478

[a]State unemployment insurance benefits, appeals, and tax systems may be designed as standalone systems, or as part of an integrated system.
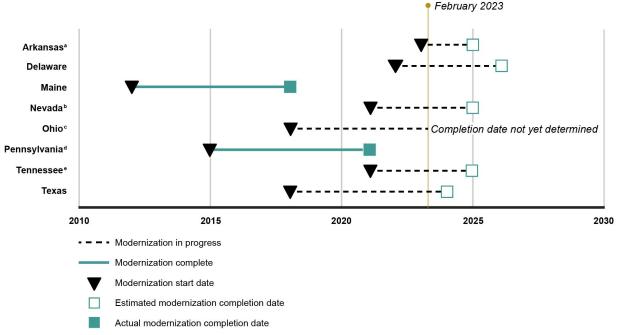
[b]For states that have a modernization status of 'Completed,' the modernization timelines and modernization costs are actuals. For other states with a modernization status of 'In progress,' the timelines and costs are estimated. States that have completed their projects have deployed their systems and entered the operations and maintenance phase.

[c]Modernization costs can vary based on a variety of factors, including the scope of the modernization effort and the complexity of state systems, among other factors.

[d]Ohio's tax system modernization effort was initiated in 2018 and completed in 2021. As of February 2023, the state was in the planning stages of its benefits and appeals system modernization and had not yet determined an anticipated completion date.

[e]Pennsylvania's 2015 to 2021 modernization effort focused on its benefits and appeals systems only.

Figure 1: Unemployment Insurance System Modernization Timeline for Selected States (as of February 2023)

Source: GAO analysis of state information and interviews with state officials. | GAO-23-105478

Note: Timelines represent state efforts to modernize their unemployment insurance benefits, appeals, and tax systems, unless otherwise noted.

[a]Arkansas' modernization effort is focused on its benefits and tax systems only.

[b]Nevada previously completed a modernization of its benefits, appeals, and tax systems in 2015

[c]Ohio's tax system modernization effort was initiated in 2018 and completed in 2021. As of February 2023, the state was in the planning stages of its benefits and appeals system modernization and had not yet determined an anticipated completion date.

[d]Pennsylvania's 2015 to 2021 modernization effort focused on its benefits and appeals systems only.

[e]Tennessee previously completed a modernization of its benefits and appeals system in 2016.

Officials from the six states that were in the process of modernizing cited a number of goals for their efforts. These included enhancing customer experience, increasing efficiency, improving business processes, and increasing flexibility to adapt to evolving federal and state requirements. Additionally, officials noted the need to address system issues faced during the COVID-19 pandemic. These issues included performance issues, difficulty implementing the UI pandemic programs, and limited system integration and automation that required additional time to process claims.

Selected States Rely Extensively on Contractors to Support Their Modernization Efforts

The eight states in our study rely extensively on contractors to support their modernization efforts. Specifically,

- all eight states have contracted with, or are in the process of contracting with, vendors to provide UI system development and implementation, modernized system maintenance and support, identity verification services, and program services (such as auditing);

- seven states have contracted with, or are in the process of contracting with vendors, for UI modernization project management and modernization technical support;

- four states use contractors to provide UI call center services, chatbot services,[61] and fraud detection; and

- three states use contractors for customer relationship management.

Figure 2 provides the roles and responsibilities of contractors and how many states use contractors for those services.

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[61]A chatbot is a program that interacts directly in a free-form conversation with users via natural language processing.

Figure 2: Contracting Roles and Responsibilities for Unemployment Insurance (UI) IT Systems Modernization for Selected States (as of February 2023)

Role	States	Number of states
UI development and implementation	AR,[a] DE, ME, NV, OH, PA, TN, TX	8
Modernized UI system maintenance and support	AR,[a] DE,[a] ME, NV, OH, PA, TN,[a] TX[a]	8
UI program services (e.g., auditing)	AR, DE, ME, NV, OH, PA, TN, TX	8
Identity verification	AR,[a] DE,[a] ME, NV, OH, PA, TN, TX	8
Modernization project management	AR,[a] DE, ME, NV, OH, PA, TX	7
Modernization technical support	AR,[a] DE, ME, NV, OH, PA, TX	7
Call center services	AR,[a] DE, PA, TN	4
Fraud protection	DE, ME, OH, TX	4
Chatbot services[b]	ME, OH, PA, TX	4
Customer relationship management	DE, ME, OH	3

AR (Arkansas), DE (Delaware), ME (Maine), NV (Nevada), OH (Ohio), PA (Pennsylvania), TN (Tennessee), TX (Texas)

Source: GAO analysis of state information and interviews with state officials. | GAO-23-105478

[a]Indicates that the state plans to use a contractor for this role.

[b]A chatbot is a program that interacts directly in a free-form conversation with users via natural language processing.

The following information provides specific examples of the roles and responsibilities of contractors pertaining to modernization efforts for the selected states. Appendix III provides additional details about each state's use of contractors.

- **UI system development and implementation:** All eight of the selected states reported that they had used, or were planning to use, contractors for the development and implementation of their modernized systems. For example, Texas contracted out its ongoing effort to develop and implement a modernized UI tax, benefits, and appeals system.

- **Modernized UI system maintenance and support:** All eight states are using, or planning to use, contractors for continued maintenance and support of their systems after the modernization projects are complete. For example, Pennsylvania's modernized benefits and appeals system was developed, implemented, and is maintained by a contractor.

- **Identity verification:** All eight states reported that they had contracted out for identity verification services. For example, Maine had a contract with NASWA to combat UI fraud through NASWA's UI Integrity Center Integrity Data Hub[62] and to provide identity verification services.

- **UI program services:** All eight states reported that they use contractors to support various aspects of their UI programs, including claimant case management and auditing. For example, Nevada officials said the state uses a contractor to provide an application that allows them to carry out employer audits.

- **Modernization project management:** Seven states said that they had used, or were planning to use, separate contractors specifically for managing their UI modernization projects. For example, Tennessee officials told us that the state used a contractor to perform a needs assessment, develop a roadmap and strategy, and provide procurement services for their modernization project. The officials noted that Tennessee also plans to have the contractor provide guidance during the state's modernization project.

- **Modernization technical support:** Seven states told us they had used, or were planning to use, contractors for additional technical support for their modernization projects. Arkansas officials said they had a contract with NASWA to develop their modernization request for proposal and planned to use a contractor to provide technical support for their modernization.

- **Call center services:** Four states reported that they contracted out, or planned to contract out, their call centers to vendors. For example, Tennessee officials stated that they had issued a proposal for a vendor to provide services for their call center.

- **Chatbot services:** Four states reported that they use contractor-provided chatbot services to interact with customers on their websites. For example, Texas officials told us that a contractor is providing the state's chatbot services.

- **Fraud detection:** Four states said that they use contractor-provided fraud detection services to help prevent fraud. For example, Ohio officials said that the state uses multiple contractor products to detect and combat fraud.

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[62]The Integrity Data Hub is a centralized, multistate data system that the UI Integrity Center operates in partnership with DOL, using DOL funding. The Integrity Data Hub is intended to provide state workforce agencies with cross-matching capabilities to analyze UI claims data to detect and prevent UI fraud and improper payments.

- **Customer relationship management:** Three states said that they use contractor-provided customer relationship management software to track interactions with claimants in order to address their needs in an efficient manner. For example, Delaware officials noted that a contractor manages their customer relationship software.

Selected States Reported Several Modernization Successes and Challenges

Selected states reported successes while in the process of modernizing. Specifically, most states reported success in using the technical services provided by NASWA's ITSC. In addition, several states noted success in establishing collaborative relationships with contractors and obtaining assistance from DOL during modernization.

- **Using NASWA ITSC's services for modernization assistance.** Six states reported success with using ITSC's services during their modernization efforts. Those states told us that the support center provided assistance during the planning, requirements analysis, and testing phases of their modernization efforts. For example, two states received help to develop their requests for proposals because of ITSC's experience with other states' modernization efforts. The Administrator for the Employment Security Division from one of those states said ITSC's assistance enabled the state to write the proposal to receive American Rescue Plan Act of 2021 funding before the availability of funding expired. Without the support center's help, the state noted that it would not have been able to complete the proposal within the allotted time.

  As another example, a senior project manager on one state's modernization project told us that they coordinated with ITSC to develop a questionnaire about other states' modernization experiences. The questionnaire was specifically intended to gather information about other states' experiences with contractors, requests for proposals, and UI system modernization, in lieu of sending out a request for information to contractors. The official said the state plans to use that information to help officials make informed decisions about their modernization projects.

  Officials from another state reported that ITSC facilitated a partnership of states who were contracting with the same vendor to share successes and challenges. The officials described it as a peer-to-peer

group with the goal of connecting states to share best practices for working with a particular contractor.

- **Establishing collaborative contractor relationships.** Three states cited collaborative relationships with contractors as a success factor in their modernization efforts. Specifically, one state noted that it focused on sharing information, working in cohesion, and clearing obstacles with the contractor to move the project forward. Another state noted that it worked together with the contractor to achieve common goals by devoting less time placing blame for mistakes and more time on resolving problems.

- **Obtaining modernization assistance from DOL.** Two states told us that DOL provided assistance during their modernization efforts. The Assistant Director for UI from one state told us DOL connected the assistant director with directors from other states in order to discuss their modernization efforts. Another state said it is using DOL's expertise to analyze data in order to develop a baseline for ensuring equitable access to UI benefits for all eligible workers.

States also reported successes after completing a portion of, or all, of their modernization efforts. Notably, half of the states reported successes from migrating UI applications and services to the cloud. In addition, two states reported areas of success in implementing the pandemic UI programs quickly and improving UI business processes.

- **Obtaining benefits from migrating UI applications and services to cloud computing solutions.** Four states told us that their states benefited from migrating UI applications and services to the cloud. For example, officials from two states noted that migrating their call center services to the cloud helped their states better manage the increase in the call volume during the pandemic. Officials from another state told us that having a modernized UI system hosted by a contractor in the cloud enabled the state to have a stable and flexible system during the pandemic. Another state said its cloud hosted system allowed it to adapt to the increase in demand for system resources during the pandemic.

- **Implementing the pandemic UI programs quickly.** Two states reported success with having the ability to quickly implement new UI programs and respond to the pandemic because their systems were modernized. For example, officials from both states told us due to modernization they were able to quickly make the changes needed to their systems to implement the pandemic UI programs.

- **Improving UI business processes.** Two states told us they had success in improving their UI business processes as a result of their modernizations. For example, officials from both states said modernization improved their business processes through automation and elimination of paper-based processes.

Additional successes cited by officials after modernization at their respective states included improved security with the implementation of multifactor authentication;[63] better identity verification; and improved customer service management with the implementation of software to manage, respond to, and resolve customer's requests.

States Have Reported Staffing, Contracting, Management, Financial, and Technical Challenges

Although the eight states in our study have taken, or are in the process of taking, steps to modernize the IT systems supporting their UI programs, they have faced challenges while doing so. Most states have identified challenges related to areas such as limited staff resources, contracting for modernization services, and management of the modernization effort. Further, half of the selected states cited financial and technical challenges.[64] Table 2 provides an overview of the reported challenges and the number of states citing that challenge; the most common challenges are discussed after the table.

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[63]Multifactor authentication in computer networks involves using two or more factors to ascertain authentication. Factors include something you know (password or personal identification number), something you have (cryptographic identification device or token), or something you are (biometric).

[64]In our earlier work, we heard similar comments from our stakeholder panelists, specifically on state challenges related to funding, staffing, and contractor limitations. See GAO-22-105162.

Table 2: Selected States' Reported Unemployment Insurance (UI) IT System Modernization Challenges

Modernization challenges	Number of states
Staffing	**7 of 8**
Limited staff resources to support modernization	7
Lack of staff with the necessary expertise	6
Contracting	**6 of 8**
Contractor did not dedicate enough staff resources, including those with UI experience	3
Alignment of goals with contractor	2
Coordination when using multiple contractors	2
Design of contractor's system was not customer-centric	2
Issues with the quality of the system delivered by the contractor	2
Lack of contractor knowledge about state laws, requirements, and existing systems and processes	2
Contractor schedule unrealistic	2
Contractor support to address system defects	2
Adapting the contractor's software to a larger state required a lot of changes to be made	1
Contractor communication issues	1
Contractor related delays	1
Management	**6 of 8**
Legal requirements were difficult to implement	3
Difficult to change organizational culture and processes	2
Focusing on modernization while responding to the COVID-19 pandemic	2
Complexity of UI business rules	1
Governance of a shared system (consortium)	1
Lack of proper documentation on prior modernization efforts	1
Maintaining priority of modernization projects while supporting legacy system	1
Financial	**4 of 8**
Limited state funding for IT modernization	2
Increase in project cost and complexity as a result of implementing a contractor product in the state data center	1
Lack of modernization funding from the Department of Labor, historically	1
COVID-19 pandemic resulted in additional cost for state modernization project	1
Significant ongoing costs for additional modifications for modernized system	1
Technical	**4 of 8**
Managing external stakeholders (e.g., interfaces, scheduling, technical requirements)	3
Testing the new system	1
Difficult to enhance legacy system due to instability	1

Modernization challenges	Number of states
Changes to system requirements and goals (e.g., scope creep)	1
Determining system functionality when using a shared system	1
Training staff on the new system	1

Source: GAO analysis of state information and interviews with state officials. | GAO-23-105478

Staffing

Seven states reported staffing as a challenge to modernization, including ensuring that there are enough staff resources to support modernization efforts and a lack of staff with the necessary expertise for the modernization efforts.

- **Limited staff resources to support modernization.** Officials from seven states noted challenges with not having enough staff to support their modernization efforts. For example, officials from four states said they did not have enough resources to run their UI programs and IT systems while managing modernization efforts. Two states told us that responding to the increase in workload from the pandemic while working on the modernization of their UI systems was challenging. The Director of the Bureau of Unemployment Compensation from another state said taking staff away from supporting the UI program and dedicating them to the modernization effort can be challenging for a smaller state.

- **Lack of staff with the necessary expertise.** Officials from six states told us that the number of technical staff and UI subject matter experts available for modernization efforts was small. For example, officials from two states said that, overall, there were not enough IT and UI program subject matter experts and they were unable to ramp up staff to support their modernization projects or make changes to their current systems. Officials from two other states said staff who know their legacy systems may retire and replacing them will be difficult. As another example, officials from one state noted that their IT staff did not have the security and cloud expertise to support the new UI IT system, which is cloud based.

Contracting

Six states reported challenges related to contracting during their UI modernization projects, such as not having enough staff resources from the contractor, issues with the alignment of modernization goals, and coordinating when using multiple contractors, among other areas.

- **Lack of dedicated contractor staff resources, including those with UI experience.** Officials from three states said their contractors did not dedicate enough personnel with experience in the UI space and in depth knowledge to the modernization projects. For example, according to one state, it learned that the contractor's staff was working on multiple state UI system implementations at one time.

- **Contractor goals and state goals were not aligned.** Officials from two states told us the contractors' goals and the states' goals for the projects were not aligned. For example, officials from one state said the modernization contractor was mostly focused on making minimal changes to its software product and not on tailoring the product to the state's business processes.

- **Coordination of project when using multiple contractors.** Officials from two states said that it was challenging to coordinate with multiple contractors on the modernization projects. For example, according to the Deputy Division Director for the UI Division for one state, coordination between multiple state contractors (such as those responsible for data center management and security) and the UI modernization contractor added complexity to the modernization project.

- **Design of contractor system was not customer-centric.** Officials from two states told us that the design of the systems was not customer-centric. For example, the Director of the Office of Unemployment Compensation Service Centers for one state said that it was clear that people with an IT background designed the UI system, but they did not design it around how UI customers would interact with the technology.

- **Issues with the quality of the system delivered by the contractor.** Officials from two states told us they had issues with the quality of the contractors' deliverables and product. For example, one state said it faced multiple rounds of edits and delays as a result of the low quality of the contractor's deliverables. The Assistant Deputy Director for UI Operations from one state told us that the poor quality of the product caused a high number of defects during user testing, which was one factor that led to the extension of the project's timeline by a year.

- **Lack of contractor knowledge about state laws, requirements, and existing systems and processes.** Officials from two states told us the contractors did not take the time to understand their laws and state processes, requiring additional time for the projects. For example, the Director of Unemployment Compensation Benefits Policy for one state told us the project management contractor did not

take the time to familiarize itself with the state's procurement rules and laws, making it difficult to move forward with the project.

- **Contractor's projected schedule is unrealistic.** Officials from two states told us the contractors provided an aggressive schedule with an unrealistic timeline for completing the modernization projects. For example, the Deputy Division Director for one state told us that, because the contractor's modernization project schedule was aggressive, it was easily disrupted by any minor changes that needed to be made. Another state told us the estimated schedule for testing did not factor in time needed to address defects and led to an extension of the project timeline.

- **Contractor support to address system defects.** Officials from two states told us they did not receive support from the modernization contractors to fix deficiencies and design issues with the systems once the warranty periods had expired. For example, one state said the modernized benefits system had issues and a backlog of defects that the contractor would not fix. The Assistant Administrator of UI from another state told us that the maintenance and support provided by the contractor covered modifying the system due to changes in the law, but did not include fixes for all of the system defects.

Management

Six states reported facing management challenges during their modernization projects, including implementing state legal requirements, changing organizational culture and processes, and focusing on modernization while responding to the COVID-19 pandemic, among other areas.

- **Implementing legal requirements.** Officials from three states said state and federal legal requirements can make implementation of the systems hard. For example, officials from two states said implementing safeguards around federal tax information when a contractor was responsible for hosting and supporting the UI system can be difficult.

- **Changing organizational culture and processes.** Officials from two states told us that making changes to the organizational culture and processes was a challenge. For example, the Assistant Director of UI for one state said staff and customers did not want to make changes to the way things are currently done. Another state told us it faced significant changes to its business processes as a result of the

modernized system and there were varying degrees of the willingness of staff to adapt to those changes.

- **Focusing on modernization while responding to the pandemic.** Officials from two states told us it was challenging to remain focused on their modernization projects while responding to the pandemic. For example, one state's Deputy Division Director for UI told us that starting the modernization project during the pandemic was difficult because tax staff needed to help with handling the increase in benefits claims.

Financial

Four states reported facing financial challenges during their modernization projects, including limited state funding for IT modernization. Specifically, officials from two states told us they faced challenges obtaining state funding for their entire modernization projects. For example, according to the Director for the Division of UI from one state, the state had obtained some funding to start the modernization but did not have all the funds it needs to complete the project. The Assistant Director of UI from another state told us that the state did not typically set aside funding specifically for modernization and the funding it did receive for modernization would not be enough to utilize an outside contractor. As a result, the state planned to modernize portions of the system using internal staff.

Technical

Four states reported facing technical challenges during their modernization projects, including managing external stakeholders. Specifically, officials from three states told us it was challenging to manage external stakeholder's requirements, integration with external systems, and interfaces with third parties during the modernization projects. For example, one state said meeting the data requirements for stakeholders whose systems were external to the modernized system (e.g., state department of labor) consumed a lot of time. According to a second state, due to the complexity of the state agency's network, understanding the integration points between all of the systems would require coordination between the modernization contractor and the agencies that are impacted. The Assistant Deputy Director for UI Operations told us it was challenging to manage the scheduling timelines and all of the interfaces with third parties (e.g., other state agencies) during the modernization project.

DOL Initiated Several Efforts to Help States Address Challenges with UI IT Modernization

Using funding from the American Rescue Plan Act of 2021, DOL has several ongoing efforts to assist states with their IT modernization efforts, including providing funding in the form of grant opportunities to reduce fraud, sending teams of experts to states, and developing modular technology solutions.

- **Providing funding to states to help reduce fraud, among other things.** During the pandemic, DOL provided grant opportunities to states to improve UI systems and processes to support program integrity, including improving cybersecurity. For example, in August 2021, DOL provided states with grant opportunities up to $140 million in American Rescue Plan Act of 2021 funds, which states could use to address fraud in UI programs and increase cybersecurity, among other things.[65] Regarding improving cybersecurity, states can use these grant funds to, for example, implement or enhance their cybersecurity defenses for their UI websites and web applications.

  We recently reported and testified on DOL's efforts to address UI fraud risks.[66] For example, in December 2022, we noted that, although DOL had taken some recent steps to assist states, the department had not yet developed an antifraud strategy based on leading practices in GAO's Fraud Risk Framework.[67] We recommended that it do so. DOL partially agreed with our recommendation and noted plans to address it. As of June 2023, the department had not yet implemented our recommendation, but reported that it is finalizing its fraud risk profile and will use it to better inform its antifraud strategy and controls.

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[65]DOL, *Grant Opportunity to Support States with Fraud Detection and Prevention, Including Identity Verification and Overpayment Recovery Activities, in All Unemployment Compensation (UC) Programs*, UIPL 22-21 (Washington, D.C.: Aug. 11, 2021).

[66]GAO*, Unemployment Insurance: DOL Needs to Address Substantial Pandemic UI Fraud and Reduce Persistent Risks,* GAO-23-106586 (Washington, D.C.: Feb. 8, 2023) and *Unemployment Insurance: Data Indicate Substantial Levels of Fraud during the Pandemic; DOL Should Implement an Antifraud Strategy,* GAO-23-105523 (Washington, D.C.: Dec. 22, 2022).

[67]GAO, *A Framework for Managing Fraud Risks in Federal Programs,* GAO-15-593SP (Washington, D.C.: July 28, 2015).

- **Sending expert teams to states.** DOL has provided multidisciplinary expert teams (referred to as tiger teams) to analyze state UI systems and process challenges, and work with states to identify areas to enhance their existing efforts.[68] The expert teams develop customized and actionable recommendations for states to implement using grant funds. Specifically, using separate funding provided by the American Rescue Plan Act of 2021, DOL provided grant opportunities totaling up to $200 million to support states in improving UI systems and processes to, among other things, better ensure the timely payment of benefits and reduce workload backlogs. In addition to implementing the expert teams' recommendations, states may request permission from DOL to use any excess funds from these grants to further improve UI systems and processes, according to the department's guidance.[69]

  As of May 2023, 29 states had received 301 final recommendations from expert teams after analyzing state UI systems and process challenges, according to DOL.[70] Example areas of recommendations include identifying technology solutions to:

  - automate portions of states' existing UI processes,

  - convert handwritten text into digitized formats and automate document processing and routing, and

  - assist with fraud detection and prevention in areas such as identity verification and cross-matching claim data with existing databases.

  As of June 2023, DOL noted that five additional states were in the process of using expert team assistance, and 11 additional states had expressed interest.

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[68]Each expert team is comprised of experts including a fraud specialist, equity/customer experience specialist, UI program specialist, business intelligence analysts, computer systems engineer/architect, and project manager. See *Grant Opportunity to Support States Following a Consultative Assessment for Fraud Detection and Prevention, Promoting Equitable Access, and Ensuring the Timely Payment of Benefits, including Backlog Reduction, for all Unemployment Compensation (UC) Programs,* UIPL 2-22 (Washington, D.C.: Nov. 2, 2021).

[69]UIPL No. 2-22.

[70]The 25 states are Alabama, Alaska, Arizona, Colorado, Connecticut, Delaware, Idaho, Illinois, Indiana, Iowa, Kansas, Kentucky, Maryland, Michigan, Missouri, Nebraska, Nevada, New Hampshire, Oregon, Pennsylvania, Rhode Island, Virginia, Washington, Wisconsin, and Wyoming.

DOL's national and regional offices are working with states on implementing the expert teams' recommendations, according to department officials. For example, the department is providing technical assistance and helping states determine how to prioritize the recommendations based on the states' needs. Further, it is offering, at no cost to the states, technical and operational project execution support to increase state capacity to implement the expert teams' recommendations.

In addition, DOL officials told us that NASWA is offering project management support to states that have received expert teams' recommendations at no additional cost. In June 2022, DOL published information on trends it identified during its first year of using expert teams as a resource for all states.[71]

- **Developing modular technology solutions.** As mentioned earlier, in August 2021, DOL announced that it had partnered with the U.S. Digital Service to develop modular technology solutions that states could adopt as part of ongoing modernization and improvement efforts.[72] In December 2021, DOL announced that it had selected Arkansas and New Jersey to participate as "build and pilot" partners for its first pilot project—known as the claimant experience pilot.[73] DOL also noted that the claimant experience pilot was the first of what the department expected to be many UI IT modernization pilot projects.

  According to DOL documentation, the claimant experience pilot was originally intended to test a centralized claimant intake service developed and maintained by the department that would enable claimants to apply for UI and verify their identities as part of a single and cohesive digital experience. DOL noted that core functionality was intended to include:

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[71]Department of Labor, *UI Modernization Tiger Team Cohort Trends*, June 30, 2022, https://oui.doleta.gov/unemploy/pdf/TigerTeamCohortTrendsJune_2022.pdf.

[72]Department of Labor, *US Department of Labor Announces Funding to States to Modernize Unemployment Insurance System, Combat Fraud, Address Equity* (Washington, D.C.: Aug. 11, 2021). According to DOL, the U.S. Digital Service's involvement in the department's efforts to develop modular technology solutions ended in May 2022.

[73]Department of Labor, *Announcing Grant Awards Made to States Selected to Participate in the Unemployment Insurance (UI) Information Technology (IT) Modernization Project - Claimant Experience Pilot* (Washington, D.C.: Dec. 2, 2021).

- user account creation,

- identity verification meeting using Login.gov,[74] and

- improved UI claim application form using plain language and modern form design principles.

However, neither state chose to adopt the pilot as originally designed. According to DOL, the states implemented the most valuable aspects of the proposed solution given their specific needs and capabilities. More specifically, when Arkansas launched its iteration of the pilot on March 31, 2022, the state adopted Login.gov, but chose to not adopt proposed plain language changes. According to Arkansas officials, the state faced challenges ensuring that proposed changes to its UI claim application would result in plain language that was both user friendly and complied with applicable laws.

New Jersey, in contrast, chose not to test Login.gov. Instead, the state adopted some aspects of the pilot claimant intake form, such as the plain language changes, but not the form itself, and worked with DOL to retrofit what it could to its current application. Although New Jersey originally planned to implement DOL's pilot intake form, in February 2022, DOL and New Jersey made the decision to pivot its implementation approach to focus primarily on plain language changes. According to DOL, this was due to the following reasons:

- Although the proposed form was more user friendly, it could only support a limited number of use cases and required more manual intervention by New Jersey in order to process claims. As a result, New Jersey did not consider the prototype viable for use by its staff.

- The form would have required New Jersey to ingest claimant data in new ways, which would require costly changes to its legacy systems in order to accommodate. This further eroded the perceived reward for New Jersey in participating in the pilot.

New Jersey subsequently launched its iteration of the pilot in April 2022. According to DOL officials, some of the changes that New

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[74]Login.gov, which is a service provided by the General Service Administration in collaboration with the U.S. Digital Service, is intended to provide a consolidated web portal for agencies to use in securing government online interactions. Specifically, for agencies that use Login.gov, the service acts as the publicly accessible website that verifies the identities of individuals seeking access to a particular agency's benefits or services. Login.gov is intended to allow such individuals access to multiple government agency programs securely and privately with one email address and password. For more information, see GAO, *Data Protection: Federal Agencies Need to Strengthen Online Identity Verification Processes,* GAO-19-288 (Washington, D.C.: May 17, 2019).

Jersey made from the pilot, such as making the application mobile responsive, resulted in tangible benefits, such as reducing the time it takes for claimants to file claims online by 40 minutes.

DOL officials noted that while testing the pilot, the department observed that states face significant challenges to adopting modular solutions. This was due to several factors, including the high cost of change associated with legacy systems, being "locked into" using certain contractors, and questions around the long-term funding and sustainability of modular solutions. In testing with New Jersey and Arkansas, officials stated that the department learned that state needs and capabilities in this area can vary significantly, which makes designing "one size fits all" solutions challenging and creates a barrier to state adoption of modular technology.
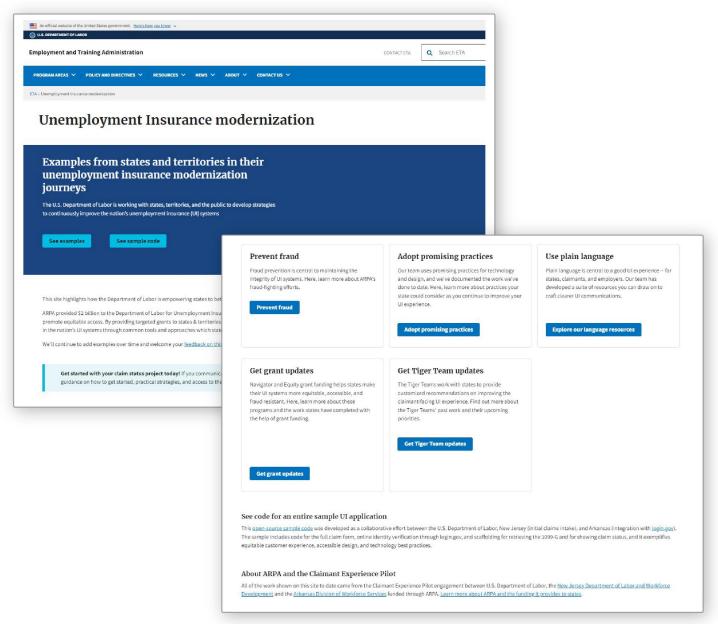
As of February 2023, DOL officials stated that the department considered the claimant experience pilot as essentially completed. They noted that DOL is working to help states adopt some of the supporting elements of the claimant experience pilot that were successful in New Jersey and Arkansas. These include

- extending implementation support of Login.gov to additional states;

- providing direct assistance on plain language to states such as Montana and Rhode Island, as well as publishing reference UI lexicon materials so they are available to all states; and

- providing IT assistance to implement mobile responsive form design to states currently lacking a mobile-friendly claimant experience.

In addition, to assist other states, DOL published examples from the pilot to its website.[75] The website included information on, among other things, technology and design practices to improve the UI customer experience, as well as using clearer language to improve communication about UI. See figure 3 for a screenshot of DOL's website on UI modernization.

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[75]See https://www.dol.gov/agencies/eta/ui-modernization.

Figure 3: Screenshot of the Department of Labor's Unemployment Insurance Modernization Website (as of May 2023)

Source: GAO screenshot of Department of Labor website (https://www.dol.gov/agencies/eta/ui-modernization), accessed May 1, 2023. | GAO-23-105478

Going forward, DOL officials stated that the department plans to continue assisting states with addressing customer experience challenges by focusing on helping them define what good UI customer experiences look like. The officials added that this effort is expected to start with defining the key capabilities, characteristics, and measures associated with effective UI claimant portals, and then focus on supporting states to help them improve in this area. The department also described plans for additional pilots to help states leverage new technology solutions.

DOL Has Gaps in Assisting and Overseeing States' Modernizations

DOL has gaps in managing its efforts to assist states with UI IT modernization and its oversight of states' UI IT performance. Although DOL fully implemented key contract management activities on its claimant experience pilot, the department did not fully implement leading pilot design practices. Regarding oversight, although DOL is responsible for overseeing the UI program to ensure that the states are operating the program effectively and efficiently, it has not established UI IT standards or measured states' performance.

DOL Fully Implemented Key Contract Management Activities for Its Claimant Experience Pilot

Effective contract management ensures that contractor activities are performed in accordance with contractual requirements and that the acquiring organization has sufficient visibility into the contractor's performance to identify and respond to performance shortfalls. It also ensures that the roles of contractors are clearly defined, thus avoiding confusion or duplication of effort in managing the tasks.

According to the Federal Acquisition Regulation, the Software Engineering Institute, and our prior work,[76] effective processes to manage and oversee contracts that support IT projects include:

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[76]Federal Acquisition Regulation (FAR) subpart 37.5—Management Oversight of Service Contracts and Part 46—Quality Assurance, Carnegie Mellon University's Software Engineering Institute, *Capability Maturity Model Integration® for Acquisition*, Version 1.3 (CMMI-ACQ V 1.3) (Pittsburgh, Pa.: November 2010), and GAO, *USDA Systems Modernization: Management and Oversight Improvements Are Needed,* GAO-11-586 (Washington, D.C.: July 20, 2011).

- establishing and maintaining a plan for managing and overseeing the contracts;

- assigning responsibility and authority for performing contract management and oversight;

- identifying the contract work to be performed and the measures by which a contractor's performance will be assessed;

- conducting reviews with contractors to ensure cost and schedule commitments are being met and risks are being managed; and

- establishing processes for verifying and accepting contract deliverables.

DOL fully implemented all five contract management activities for the claimant experience pilot. For example, DOL's quality assurance surveillance plan and its contract with the primary vendor identifies personnel with responsibility and authority for performing contract management and oversight, identifies the contract work to be performed and performance measures, and establishes processes for verifying and accepting contract deliverables. In addition, DOL met regularly with the contractor for cost and schedule reviews and documented identified risks in a risk register.

DOL Did Not Fully Implement Leading Pilot Design Practices for Its Claimant Experience Pilot

A well-developed and documented pilot program can help ensure that agency assessments produce information needed to make effective program and policy decisions. Such a process enhances the quality, credibility, and usefulness of evaluations in addition to helping to ensure that time and resources are used effectively. GAO has identified five leading practices[77] that, taken together, form a framework for effective pilot design:

- **Establishing well-defined, appropriate, clear, and measurable objectives.** Such objectives should have specific statements of the accomplishments necessary to meet the objectives. Clear and measurable objectives can help ensure that appropriate evaluation data are collected from the outset of pilot implementation so that data will subsequently be available to measure performance against the

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[77]GAO, *Data Act: Section 5 Pilot Design Issues Need to Be Addressed to Meet Goal of Reducing Recipient Reporting Burden,* GAO-16-438 (Washington, D.C.: Apr. 19, 2016).

objectives. Broad study objectives should be translated into specific, researchable questions that articulate what will be assessed.

- **Clearly articulating an assessment methodology and data gathering strategy.** Key features of a clearly articulated methodology include a strategy for comparing the pilot implementation and results with other efforts, a clear plan that details the type and source of the data necessary to evaluate the pilot, and methods for data collection including the timing and frequency.

- **Determining criteria or standards for identifying lessons about the pilot to inform future decisions.** The purpose of a pilot is generally to inform a decision on whether and how to implement a new approach in a broader context. Therefore, it is critically important to consider how well the lessons learned from the pilot can be applied in other, broader settings.

  To assess scalability, criteria should relate to the similarity or comparability of the pilot to the range of circumstances and population expected in full implementation. The criteria or standards can be based on lessons from past experiences or other related efforts known to influence implementation and performance as well as on literature reviews and stakeholder input, among other sources. The criteria and standards should be observable and measurable events, actions, or characteristics that provide evidence that the pilot objectives have been met. Choosing well-regarded criteria against which to make comparisons can lead to strong, defensible conclusions.

- **Developing a detailed data-analysis plan to track the pilot program's performance.** A detailed data-analysis plan identifies who will do the analysis as well as when and how data will be analyzed to measure the pilot program's implementation and performance. The results will show the successes and challenges of the pilot, and in turn, how the pilot can be incorporated into broader efforts. Some elements of a detailed data-analysis plan include talking to users, managers, and developers; evaluating the lessons learned to improve procedures moving forward; and other appropriate measures.

- **Ensuring appropriate two-way stakeholder communication and input at all stages of the pilot project.** Appropriate two-way stakeholder communication and input should occur at all stages of the pilot, including design, implementation, data gathering, and assessment. Failure to effectively engage with stakeholders, and understand and address their views can undermine or derail an initiative. To that end, it is critical that agencies identify who the

relevant stakeholders are, and communicate early and often to address their concerns and convey the initiative's overarching benefits.

DOL fully implemented one leading pilot design practice and partially implemented the remaining four. See table 3 for an assessment of DOL's actions to implement leading practices for a pilot program's design for the claimant experience pilot.

Table 3: Assessment of the Department of Labor's (DOL) Actions to Implement Leading Pilot Design Practices for the Claimant Experience Pilot

Leading practice	GAO assessment	Assessment rationale
Establish well-defined, appropriate, clear and measurable objectives	fully implemented	DOL defined three clear objectives for the claimant experience pilot that each allowed for data to be collected and effectively measure the adequacy of accomplishing these objectives. Each objective focused on one specific, measurable task. The three objectives were: (1) develop a modular, claimant-facing website that provides new claimants an improved user experience; (2) improve the process for completing initial intake questions; and (3) improve the process for identity proofing while keeping equity, fraud prevention, and claim timeliness at the forefront.
Clearly articulate assessment methodology and data gathering strategy that addresses all components of the pilot program and includes key features of a sound plan	Partially implemented	DOL documented a plan for state selection to participate in the claimant experience pilot, which resulted in two selected states—Arkansas and New Jersey. In a separate draft planning document, DOL articulated areas where it could compare the pilot's implementation and results with other efforts (e.g., comparing the results of the pilot with past performances from other states not involved in the pilot). The draft plan also addressed the type and source of data necessary to evaluate the pilot based on its objectives (e.g., feedback from claimants about their experience and time required for claimants to submit a new claim compared to the state's existing system). However, the draft plan did not include methods for data gathering, such as a survey. In addition, DOL did not finalize its draft plan or provide evidence that it updated its assessment methodology as the scope of the pilot changed.
Determine criteria or standards for identifying lessons about the pilot to inform decisions about scalability and whether, how, and when to integrate pilot activities into overall efforts	Partially implemented	DOL identified a set of draft metrics for determining the levels of success of the pilot (e.g., feedback from claimants about their experience and timeliness for claimants to submit a new claim compared to existing system). The department subsequently used these draft metrics to help inform its decision making when identifying and documenting lessons learned. Using its lessons learned, DOL decided to pivot the New Jersey pilot in a different direction more suited to what the state could accomplish. More specifically, DOL shifted the New Jersey pilot to focus on making language updates to improve the user experience of the state's existing claim intake website (versus implementing a new claimant intake service developed and hosted by DOL). However, DOL did not provide an updated set of finalized metrics to determine the level of success of the pivoted approach and help to inform decisions on the pilot's scalability.

Leading practice	GAO assessment	Assessment rationale
Develop a detailed data-analysis plan to track the pilot program's implementation and performance and evaluate the final results of the project and draw conclusion on whether, how, and when to integrate pilot activities into overall efforts	Partially implemented	DOL determined that a generalized, detailed data-analysis plan for both pilot states was not feasible due to the diversity of the unemployment insurance IT environments between the states. The department also noted that Arkansas and New Jersey could only implement parts of the claimant experience pilot, as originally designed. DOL documented a draft data-analysis plan for Arkansas that included, for example, plans to analyze data regarding the percentage of positive identity proofing, the average time in error queues, and calls to its call center regarding the pilot.
		However, the department did not finalize its plan. In addition, DOL did not provide a data-analysis plan for New Jersey. Instead, DOL provided documentation detailing the reasons for the pivot in its implementation plan for New Jersey.
Ensure appropriate two-way stakeholder communication and input at all stages of the pilot project, including design, implementation, data gathering, and assessment	Partially implemented	DOL provided documentation that showed how the department would conduct two-way stakeholder communication during pilot implementation and data gathering (e.g., weekly interviews with DOL and the pilot states). DOL also provided email correspondence showing two-way stakeholder communication during pilot assessment of completed goals. Additionally, DOL published results of the claimant experience pilot from New Jersey and Arkansas on its website.
		However, DOL did not provide documentation that demonstrated two-way stakeholder communication during pilot conception and design for the claimant experience pilot. In its lessons learned, DOL also identified shortfalls in its early communication with stakeholders, including a need for more conversations about pilot scope and timeline with states before finalization, and the need to have agreements with states in place earlier in the process.

Legend:
● DOL fully implemented all aspects associated with the leading practice.
◐ DOL implemented some, but not all, aspects associated with the leading practice.
○ DOL did not implement any aspects of the leading practice.
Source: GAO analysis of DOL documentation. | GAO-23-105478

The shortfalls in DOL's implementation of the leading pilot design practices were due, in part, to the department not fully ensuring that the U.S. Digital Service's documentation of the pilot was complete. DOL officials stated that the U.S. Digital Service, as an early partner, primarily led the work for the claimant experience pilot and was responsible for developing the documentation and approach for the pilot. The officials added that there were at least three iterations of the U.S. Digital Services team during that time and that may have affected the fidelity of the supporting documents. However, as the oversight entity, it was DOL's responsibility to ensure the documentation was complete.

After the U.S. Digital Service's involvement in the pilot ended in May 2022, DOL restructured its pilot process to include, among other things, additional steps for two-way stakeholder communication during pilot conception and design. If implemented on future pilots, DOL's plan for additional stakeholder communication is an important step toward

implementing the leading activities for a pilot program's design, as discussed earlier. However, DOL's updated pilot process does not specifically address other leading practices that were not implemented, such as establishing a data gathering strategy and ensuring that documentation is continuously updated and finalized.

Until DOL updates its pilot processes and implements leading practices for pilot program design for future pilot projects, it likely cannot ensure that its pilots produce information needed to make effective program and policy decisions. Further, DOL will likely be challenged in ensuring the quality, credibility, and usefulness of its pilots, and that time and resources are used effectively.

DOL Established Various Oversight Mechanisms, but Did Not Measure the Performance of State UI IT Systems

Among other things, leading practices emphasize the importance of having performance standards or metrics to provide oversight, guide decisions, and measure IT performance.[78] As mentioned earlier, DOL has general responsibility for overseeing the UI program to ensure that the states are operating the program effectively and efficiently. For example, DOL is responsible for monitoring state operations and procedures, providing technical assistance and training, as well as analyzing UI program data to diagnose potential problems.

To provide oversight of state UI IT environments, DOL established various oversight mechanisms:

- **States that have received supplemental grants are to report regularly on the progress of their projects.** For example, as we mentioned earlier, states that received grants for the consortia

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[78]GAO, *Designing Evaluations: 2012 Revision (Supersedes PEMD-10.1.4),* GAO-12-208G (Washington, D.C.: Jan. 31, 2012); *Executive Guide: Measuring Performance and Demonstrating Results of Information Technology Investments*, GAO/AIMD-98-89 (Washington, D.C.: March 1998); Executive Office of the President, Office of Management and Budget, Circular A-11, *Preparation, Submission, and Execution of the Budget* (August 2022). Metrics should be linked to strategic management processes and define what is important to the organization, what it holds itself accountable for, how it defines success, how it identifies early warning indicators of problems, and how it structures improvement efforts. Organizations should determine, among other things, what metrics are appropriate to measure the business value of IT, and what the baseline and target performance should be.

modernization efforts reported on their progress to DOL, culminating in the department's annual reports to Congress between 2015 and 2020. As another example, states that received grants from DOL's August 2021 grant opportunity to help address fraud are to provide quarterly reports to DOL with updates on progress and implementation of each grant project.[79]

- **States undergoing IT modernization projects are to complete a pre-implementation checklist before they deploy a newly modernized system.** As previously mentioned, the pre-implementation checklist denotes critical function areas that states must verify prior to launching a new UI IT system, such as call center and customer service operations, staff training on new system operations, customer help desk support, and contractor support. Any state that is preparing to launch a new UI IT system must certify that it has reviewed and accomplished, or has developed an appropriate plan addressing, these categories in a report.

- **All states are required to submit state quality service plans annually.** State quality service plans serve as the performance reporting and grant application documents through which states receive administrative funding. The plans include a summary of state performance on various measures related to operating the UI program, such as first payment promptness, detection of overpayments, average age of appeals, tax quality, and improper payments. According to DOL, the department has the ability to issue corrective action plans to states for any identified deficiencies. DOL officials noted that deficiencies can be IT-related and, if states need to make improvements, they must report progress in implementing their corrective action plans to ETA on a quarterly basis.

However, as of June 2023, DOL had not yet defined standards to measure states' UI IT performance. In November 2022, the department provided us with a draft of its UI modernization strategic plan that included a sample set of preliminary standards. According to DOL, it plans to define standards in areas such as improving the customer experience and identity verification. However, the department did not provide a specific time frame for the draft's completion or completion of the standards.

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[79]DOL, *Grant Opportunity to Support States with Fraud Detection and Prevention, Including Identity Verification and Overpayment Recovery Activities, in All Unemployment Compensation (UC) Programs*, UIPL 22-21 (Washington, D.C.: Aug. 11, 2021).

In addition, DOL had not measured states' IT performance. For example, it had not measured the number of states using cloud infrastructures to support their UI systems. Measuring areas such as this is important because it could help inform DOL of where gaps may exist in states' IT capabilities and where to commit additional resources. Although the department's state quality service plans include general UI performance metrics, as previously discussed, these do not include reporting on specific IT performance measures.

According to DOL officials, the department had not measured states' UI IT performance because it had not yet defined IT standards to measure states against. As a result, DOL is currently limited in its ability to monitor whether states' UI IT systems are performing efficiently and effectively, identify gaps in UI IT modernization, and ensure that resources are properly allocated to address any gaps.

Conclusions

States faced unprecedented challenges during the COVID-19 pandemic in ensuring their IT systems could process a historically high number of UI claims and that eligible individuals received the appropriate amount of benefits. In undertaking modernization efforts, the states have reported noteworthy successes. However, they also encountered significant challenges. To help states overcome these challenges, DOL provided grant funding, expert teams, and modular technology solutions.

However, DOL had gaps in implementing leading practices on its design of its first modular technology solution, the claimant experience pilot. Specifically, by not identifying its data gathering methodologies, finalizing its data assessment plans, or demonstrating two-way communications with key stakeholders during pilot conception and design, DOL did not position itself to fully meet the goals of the pilot. Until DOL implements these practices, the department will be hindered in its ability to ensure the usefulness of future pilot projects. In addition, DOL also had gaps in its oversight efforts as the department has not yet finalized a comprehensive set of UI IT modernization standards and measured states' IT performance against the established standards. Until it does so, it will lack a critical mechanism to measure whether states' UI IT systems are performing efficiently and effectively.

Recommendations for Executive Action

We are making three recommendations to DOL:

- The Secretary of the Department of Labor should direct the Office of Unemployment Insurance Modernization and the Office of the Chief Information Officer to update their processes for UI pilots to reflect leading practices for pilot design, and implement the leading pilot design practices that address the weaknesses that we identified on its future pilots. (Recommendation 1)

- The Secretary of the Department of Labor should direct the Office of Unemployment Insurance to define UI IT modernization standards for states. (Recommendation 2)

- The Secretary of the Department of Labor should direct the Office of Unemployment Insurance to measure states' UI IT performance against established standards. (Recommendation 3)

Agency Comments and Our Evaluation

We provided a draft of this report to DOL for review and comment. In written comments provided by DOL (reproduced in appendix IV), the department concurred with one recommendation and partially concurred with two. DOL also provided technical comments, which we incorporated as appropriate.

DOL partially concurred with our first recommendation to update its processes for UI pilots to reflect leading practices for pilot design, and implement the leading pilot design practices that address the weaknesses that we identified on its future pilots. The department noted that it agreed with our points regarding the importance of using criteria to decide which initiatives should be recommended for broader implementation. The department also described its effort to analyze the results of the claimant experience pilot in New Jersey. However, DOL stated that it did not fully agree with our conclusion that it did not use a clearly articulated assessment strategy for the pilot.

We acknowledge that DOL established a draft assessment plan that articulated areas where it could compare the pilot's implementation and results with other efforts. The draft plan also addressed the type and source of data necessary to evaluate the pilot based on its objectives. However, DOL did not finalize its draft assessment plan or provide evidence that it updated its assessment methodology as the scope of the pilot changed. Such activities are important to better ensure that DOL's pilots are well developed and documented, and produce the information needed to make effective program and policy decisions. Accordingly, we continue to believe our recommendation is needed.

DOL partially concurred with our second recommendation to define UI IT modernization standards for states. The department noted examples of its existing approach to UI performance management, such as monitoring the activities of grant-funded activities related to IT modernization to ensure progress towards intended goals.

We acknowledge that DOL has established several oversight mechanisms for the states. However, as stated in our report, DOL has not yet defined UI IT performance standards. Such standards are needed for DOL to be able to measure whether states' UI IT systems are performing efficiently and effectively, identify gaps in UI IT modernization, and ensure

that resources are properly allocated to address any gaps. As a result, we continue to believe our recommendation is warranted.

DOL concurred with our third recommendation related to measuring states' UI IT performance. The department described planned actions in line with the intent of our recommendation, such as exploring best practice measurements for IT performance in state UI systems.

As agreed with your offices, unless you publicly announce the contents of this report earlier, we plan no further distribution until 14 days from the report date. At that time, we will send copies to the appropriate congressional committees, the Acting Secretary of Labor, and other interested parties. In addition, the report will will be available at no charge on the GAO website at https://www.gao.gov.

If you or your staff members have any questions about this report, please contact Carol Harris at (202) 512-4456 or HarrisCC@gao.gov. Contact points for our Offices of Congressional Relations and Public Affairs may be found on the last page of this report. GAO staff who made major contributions to this report are listed in appendix V.

Carol C. Harris
Director, Information Technology and Cybersecurity

Appendix I: Objectives, Scope, and Methodology

Our objectives were to (1) provide the status of unemployment insurance (UI) modernization efforts for selected states, including the use of contractors for such efforts; (2) identify notable modernization successes and challenges; and (3) evaluate the Department of Labor's (DOL) management activities in assisting states with their modernization efforts and whether it has provided effective oversight of those efforts.

To address our first two objectives, we conducted in-depth interviews with management and IT staff in eight state UI offices—Arkansas, Delaware, Maine, Nevada, Ohio, Pennsylvania, Tennessee, and Texas. To make our state selections, we first excluded states that were included in our other UI-related reviews, as well as reviews being conducted by DOL's Office of the Inspector General.[1] We then selected eight states that represent varying regional locations, population size, modernization status, and timeliness of benefit payments in the regular UI program (October through December 2021). Specifically, our selection of eight states represents each of the six DOL regions; at least one small, medium, large, and extra-large state; a mix of states in each of the major phases of UI systems modernization, including planning, acquisition, development, and completed; and varying rates of benefit payment timeliness.

We also selected states based on their participation in DOL's initiatives to pilot modular technology solutions and send expert teams to states. Although our sample is non-generalizable, these states offered insight and perspectives of their experiences in modernizing UI systems, including successes and challenges. In addition, we interviewed DOL officials, reviewed state audit entities' reports, and spoke to stakeholders involved in modernization of states' UI systems, such as officials from the

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[1]The specific states and territory we excluded were Arizona, Florida, Massachusetts, Michigan, Minnesota, Wyoming, California, Florida, Georgia, Kentucky, New Jersey, Virginia, and the Virgin Islands.

Information Technology Support Center (ITSC),[2] operated by the National
Association of State Workforce Agencies (NASWA).[3]

To provide the status of modernization efforts for the selected states and
determine the role of contracting, we collected and reviewed the selected
states' documentation of their modernization planning and development
efforts, such as project plans, status reports, and contracting documents
(e.g., requests for proposals). We also held discussions with officials from
the selected states' UI agencies, including officials involved in planning
and managing the UI systems, regarding the status and plans for states'
UI modernization efforts and the role of contracting. To assess the
reliability of the data related to the status of selected states'
modernization efforts, such as project timelines, we reviewed related
state documentation (e.g., project plans and contracts), interviewed state
officials regarding the data, and confirmed the accuracy of the data in this
report with the officials. We determined that these data were sufficiently
reliable for the purposes of this report.

To identify notable modernization successes and challenges, we
reviewed the selected states' UI modernization documentation, such as
lessons learned reports and presentations. We also interviewed relevant
UI officials from the states to identify additional modernization successes
and challenges reported by the officials, and discuss means for
addressing the challenges. We then analyzed the successes and
challenges reported by the selected state UI agencies to identify
similarities and summarized the information collected.

To address our third objective, we assessed DOL's contract management
and pilot design activities. Specifically:

- To assess contract management, we reviewed DOL's contract
  management plan, delegation memorandum for contract
  responsibilities, work statements that outline the contractor's work and
  acceptance criteria, base contracts and contract modifications, and
  technical exhibits. We also interviewed department officials to gather

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[2]ITSC was created in 1994 as a partnership between DOL and the Maryland Department
of Labor, Licensing, and Regulation to support state UI IT initiatives. DOL supports ITSC
through grants to the Maryland agency, and ITSC's Steering Committee includes
representatives from Employment and Training Administration.

[3]NASWA represents all 50 state workforce agencies, the District of Columbia, and U.S.
territories.

additional information. We then compared DOL's efforts against key contract management activities from Federal Acquisition Regulations, the Software Engineering Institute, and our prior work[4] to determine the extent to which the department implemented the activities.

- To assess the pilot design, we reviewed DOL documentation from its first modular technology solutions pilot—known as the claimant experience pilot. The documents we reviewed included project plans, strategy documents, project update presentations, and processes for designing and implementing pilots, among others. We also interviewed DOL officials to gather additional information. We then compared the department's efforts against leading practices for pilot design from our prior work[5] to determine the extent to which the department implemented the activities.

For both areas above, we assessed an activity as fully implemented if the evidence provided by DOL demonstrated all aspects of the activity. We assessed an activity as partially implemented if the evidence demonstrated some, but not all, aspects of the activity. Finally, we assessed an activity as not implemented if the evidence did not demonstrate any aspect of the activity, or if DOL did not provide evidence for that activity.

To assess DOL's oversight of states' modernization efforts, we reviewed the department's policies, procedures, and guidance to identify the mechanisms that it established for providing oversight of state UI IT environments. We also interviewed DOL officials regarding the department's oversight efforts. We then compared DOL's efforts to

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[4]Federal Acquisition Regulation (FAR) subpart 37.5—Management Oversight of Service Contracts and Part 46—Quality Assurance, Carnegie Mellon University's Software Engineering Institute, *Capability Maturity Model Integration® for Acquisition*, Version 1.3 (CMMI-ACQ V 1.3) (Pittsburgh, Pa.: November 2010) and GAO, *USDA Systems Modernization: Management and Oversight Improvements Are Needed,* GAO-11-586 (Washington, D.C.: July 20, 2011).

[5]GAO, *Data Act: Section 5 Pilot Design Issues Need to Be Addressed to Meet Goal of Reducing Recipient Reporting Burden,* GAO-16-438 (Washington, D.C.: Apr. 19, 2016).

leading practices for measuring the performance of IT systems identified
in our prior work and by the Office of Management and Budget.[6]

We conducted this performance audit from October 2021 to July 2023 in
accordance with generally accepted government auditing standards.
Those standards require that we plan and perform the audit 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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[6]GAO, *Designing Evaluations: 2012 Revision (Supersedes PEMD-10.1.4),* GAO-12-208G
(Washington, D.C.: Jan. 31, 2012); *Executive Guide: Measuring Performance and
Demonstrating Results of Information Technology Investments*, GAO/AIMD-98-89
(Washington, D.C.: March 1998); and Executive Office of the President, Office of
Management and Budget, Circular A-11, *Preparation, Submission, and Execution of the
Budget* (August 2022).

Appendix II: State Consortium Successes and Challenges

Between 2009 and 2017, the Department of Labor (DOL) provided supplementary grants to support the establishment of state consortiums, in which three or four states work together to develop and share a common system.[1] These efforts were 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.

Between 2015 and 2020, DOL reported to Congress on the progress of seven consortium projects.[2] Examples of successes reported by the department include:

- As members of the ReEmployUSA Consortium, Mississippi and Maine deployed state-specific unemployment insurance (UI) benefits and tax systems in cloud environments between 2018 and 2019.[3]

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[1]For example, Department of Labor, *Unemployment Insurance (UI) Supplemental Funding Opportunity for Automated Integrity Related Systems: Including Systems to Improve Services and/or Performance,* UI Program Letter (UIPL) 31-09, Change 1 (Washington, D.C.: Aug. 21, 2009) and *Unemployment Insurance (UI) Supplemental Funding Opportunity for Program Integrity and Performance and System Improvements,* UIPL 26-11, (Washington, D.C.: July 18, 2011).

[2]In the explanatory statement that accompanied the Consolidated and Further Continuing Appropriations Act, 2015 (Pub. L No. 113-235), which was published in the Congressional Record of December 11, 2014 (p. H 9827), Congress expressed concern that automation acquisition projects being carried out by state consortia to modernize their UI IT systems were behind schedule. The explanatory statement directed DOL to submit to the House and Senate Committees on Appropriations a report by April 1 of each fiscal year, until the funds available to the consortia were expended or expire, the status of all project funds and analysis of each project's progress toward executing the acquisition plans.

[3]The ReEmployUSA consortium included Connecticut, Maine, Mississippi, Rhode Island, and Oklahoma.

- Wyoming, as the remaining member of the WyCAN consortium, was able to implement its modernized integrated benefits, appeals, and tax system by May 2019.[4]

- The Internet Unemployment System Consortium, which consisted of Idaho, Vermont, and North Dakota as of 2019, developed a customer-friendly self-service portal for UI claimants. Additionally, the consortium completed the development of its new employer audit application, which is designed to provide tax field auditors with the tools to perform a real-time audit on an employer account. The consortium also upgraded a state-developed technology used to send and receive wage and other information from other states, federal agencies, and military branches.[5]

- The Innovate UI Consortium member states, Missouri, Wyoming, Mississippi, Connecticut, Rhode Island, and Maine, were using variations of three modernized systems developed by the same contractor. The consortium was formed in order to conduct three feasibility studies to identify ways that states with a shared contractor can minimize future development and maintenance costs. The consortium had accomplished the goals of two of the studies and the third study was ongoing as of 2020.

However, DOL also reported that state consortium efforts faced a number of challenges, including system quality issues and financial challenges, among others. For example:

- The WyCAN Consortium reported that its biggest challenge was that its contractor was unable to deliver a working, modernized system to the consortium's satisfaction, causing significant project delays and legal challenges. The consortium was unable to resolve the project delays and discontinued the contractor's work on the project in 2015. The WyCAN Consortium paid a total of $16.7 million to the original contractor.

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[4]The WyCAN consortium was formed in 2009 with Arizona, Wyoming, Idaho, and North Dakota. Idaho left in 2011 to manage its own modernization effort, and at about the same time Colorado joined as the lead state. North Dakota left the consortium in 2015 due to concerns that the contractor would not be able to produce an adequate system. In 2016, Colorado withdrew to pursue a state specific solution and Arizona withdrew due to leadership changes.

[5]The Internet Unemployment System Consortium upgraded the Idaho-developed Interstate Connection Network Relay, which is used to send and receive wage and other information from other states, federal agencies, and military branches.

- The Vermont, Maryland, and West Virginia Consortium, which formed in 2011, experienced shortages with state staffing, issues with product quality, and problems meeting scheduled milestones. West Virginia struggled to provide dedicated staff for the project resulting in project delays. The consortium also expressed concerns over the quality and timeliness of deliverables received from the contractor. The consortium established quality standards and milestones for the project and worked with the contractor to achieve those goals. Even though the contractor made efforts to improve product quality, the issues continued. In early November 2019, Maryland worked with the contractor to establish delivery milestones, but the state still faced challenges with the contractor meeting the mutually agreed-upon milestones.

- The New York and New Jersey Consortium was formed to modernize the states' UI IT systems by jointly developing business and technical requirements and leveraging existing consortia products and individual state best practices. The consortium was awarded $8 million in grant money by DOL in 2013 to develop business requirements, define high-level system architecture, and a request for proposal for a development contractor. In 2015, the estimated cost for the new system was between $70 and $80 million. The consortium was unable to obtain state or federal funding in subsequent years for project development and, as a result, disbanded as of 2017.

- The Southeast Consortium for Unemployment Benefits Integration, formed in 2009, faced challenges related to a reduced timeline for the project, and state and contractor staffing. There were delays in selecting the contractor due to the need to restructure the project's governance when the lead state left the consortium.[6] The consortium faced additional project delays as a result of negotiations with the contractor related to the project deliverables and schedule. Consortium leadership and the contractor came to agreement on a strategy to put the project back on schedule. The project also faced state staffing challenges as the states struggled to provide staffing for the project and ongoing UI program operations. In addition, the staggered approach used to release the products put a significant strain on the contractor's staffing resources as they supported both the development and post implementation phases of the project for

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[6]The Southeast Consortium for Unemployment Benefits Integration was composed of South Carolina, North Carolina, and Georgia. In December 2019, Georgia withdrew from the consortium.

the three states. Project management teams from both the consortium and contractor worked closely to monitor the situation.

As of February 2023, according to DOL, most of the remaining consortia states had deployed their systems. For example, although Vermont and West Virginia left their consortium, Maryland continued with development of the new system and launched it in September 2020. In addition, Connecticut joined the ReEmployUSA consortium and launched a new system as part of the consortium in July 2022. Mississippi, Maine, and Rhode Island also remain part of the ReEmployUSA consortium and continue to work together on changes to the system. Lastly, North and South Carolina are using the Southeast Consortium benefits system.

Appendix III: Summaries of Eight Selected States' Modernization Efforts

We reviewed the unemployment insurance (UI) modernization efforts for eight selected states: Arkansas, Delaware, Maine, Nevada, Ohio, Pennsylvania, Tennessee, and Texas. This appendix includes summaries of each state's modernization efforts, including status and phase, as of February 2023.[1] This appendix also includes information on the role of contracting in each state's modernization efforts.

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[1]As previously reported in GAO-12-957, the phases of modernizing a system can be sequential or overlapping and performed in an incremental manner. The phases include (1) initiation, which identifies a business need that requires a technological solution; (2) concept, when the IT governance organization approves the business needs statement; (3) planning, which begins when the project has been formally approved and funded; (4) requirements analysis, during which the business requirements are validated and further analyzed and decomposed into functional and nonfunctional requirements; (5) design, which develops detailed specifications that emphasize the physical solution to the end user's IT needs; (6) development, in which the system developer takes the detailed design information and transforms it into machine executable form; (7) test, to determine whether the business product developed or acquired is ready for implementation; (8) implementation, in which the business product is moved from development status to production status; and (9) operations and maintenance, in which the certified and accredited business product operates in a full-scale production environment.

Arkansas

Arkansas officials, including the Assistant Director for Unemployment
Insurance and Deputy Director of Internal Operations, told us the state is
in the process of modernizing its UI benefits system—which is about 50
years old—and its tax system—which is 11 years old. The Assistant
Director for Unemployment Insurance said the state has made smaller
upgrades to its benefits, appeals, and tax systems, such as adding web-
based functionality that allows claimants to file for benefits and employers
to pay their payroll taxes; however, none of the systems have been fully
modernized.

Arkansas officials said that, due to the high-volume of claims received
during the COVID-19 pandemic, their processes for adjudicating claims
became overwhelmed because staff had to verify information and retrieve
additional information from employers, which was very time consuming. In
addition, the officials reported that the call center for the UI program could
not resolve customer problems quickly enough during the pandemic. The
officials noted that the state's challenges in addressing the increased
volume of claims and call volume were also affected by staffing issues.

According to Arkansas officials, to help improve performance during the
pandemic, the state opted to use a third party service to host its call
center in the cloud, which reduced customers' average call hold time from
2 hours to 17 minutes when fully staffed. The state also expanded its
mainframe capacity using a cloud-based service to respond to the
massive increase in claimants. The officials added that a contractor also
built an entirely new system for the implementation of the Pandemic
Unemployment Assistance program and integrated the Federal Pandemic
Unemployment Compensation and Pandemic Emergency Unemployment
Compensation programs into the existing UI processing system.[2]

State: Arkansas

System age (approximately): 50 years
(benefits and appeals); 11 years (tax)

Modernization status: In progress

Modernization phase: Mixed – planning and
requirements analysis

Initiation year: 2023

Completion: 2025 (estimated)

Reported cost: $35 million (estimated)

**Examples of the role of contracting in
Arkansas unemployment insurance
(UI) modernization efforts include**

- contracting with a vendor to move the
  state's UI system and benefits
  applications to the cloud;

- contracting with a vendor to host call
  center services;

- contracted with the National Association
  of State Workforce Agencies to provide
  technical support during development of
  the state's request for proposals for its
  ongoing modernization project; and

- using contractors to provide other
  services, such as a cloud-based
  mainframe, project management, and
  staff for its modernization project.

Source: GAO analysis of state information and interviews with
state officials, as of February 2023. | GAO-23-105478

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[2]The Coronavirus Aid, Relief, and Economic Security (CARES) Act created three new
federally funded temporary UI programs—Pandemic Unemployment Assistance, Federal
Pandemic Unemployment Compensation, and Pandemic Emergency Unemployment
Compensation—that expanded benefit eligibility and enhanced benefit amounts.
Coronavirus Aid, Relief, and Economic Security (CARES) Act, Pub. L. No. 116-136, §§
2102, 2104, 2107, 134 Stat. 281, 313-28 (March 27, 2020). In addition, the Consolidated
Appropriations Act, 2021 created one additional temporary, supplemental UI program—
the Mixed Earner Unemployment Compensation program. Consolidated Appropriations
Act of 2021, Pub. L. No. 116-260, div. N, tit. II, § 261(a)(1), 134 Stat. 1182, 1961
(December 27, 2020).

In 2021, Arkansas decided it needed to continue to modernize its UI systems. According to the state's documentation, the goals of its ongoing modernization effort are to:

- create a more user friendly interface,

- provide comprehensive and tailorable report generation, and

- provide a performance measurement capability.

According to Arkansas officials, the state contracted with a vendor to move its UI system and benefits applications to the cloud in preparation for its modernization project. The Assistant Director for Unemployment Insurance noted that it has been challenging to obtain the staff the state needs to support the UI program and the modernization project at the same time.

In June 2022, the Assistant Director for Unemployment Insurance told us that the state was in discussions with contractors. However, a lack of funding to modernize all of the state's UI systems (i.e., benefits, appeals, and tax), as well as bid protests, led to project delays.

As of March 2023, Arkansas officials reported that the state had changed its plans and decided to pursue in-house development of the benefits and tax systems, although the state still plans to rely on some contractor support for portions of UI system development, implementation, and technical support, among other areas. They explained that the amount of funds designated by the state for modernization would not be enough to utilize an outside contractor, and was better suited for modernizing the systems internally. The officials noted that they were in the planning and requirements analysis phase, and were ramping up hiring the necessary staff for the project.

Delaware

According to Delaware officials, the state has a UI modernization effort
underway to develop an integrated benefits, appeals, and tax system to
replace the current benefits and tax systems. Officials said that
Delaware's current UI systems, which were launched in the 1980s, rely
on an outdated programming language called the Common Business
Oriented Language[3] and are supported by a mainframe.

Delaware's charter for the UI modernization project notes that smaller
upgrades have been made to the systems since that time, such as adding
functionality for claimants to file for benefits online and employers to file
their tax reports electronically. According to the Director for the
Unemployment Insurance Division, many of the systems used for the UI
program are standalone with limited integration across the systems. As a
result, the state uses manual and paper-based processes to gather
information and inform claimants of issues with their claims. The official
added that the standalone nature of the UI systems also makes
integration with newer applications difficult.

According to Delaware's UI modernization project charter, the UI program
data currently resides in approximately 10 different systems. As a result,
staff resources are required to support requests for information. The state
anticipates that the process for consolidating this data will be very
complex. In June 2022, Delaware officials told us that they had contracted
with a vendor to identify data sources, as well as to gather, clean, and
extract data to a cloud-based data warehouse, in preparation for the
state's modernization efforts.

Delaware's project charter also stated that, during the COVID-19
pandemic, the state's Unemployment Insurance Division received more
claims in the first 4 weeks of the pandemic than in the prior 12 months. In
addition, the charter noted that antiquated and poorly integrated systems
hindered Delaware's ability to respond and manage the influx of claims
received during 2020 and 2021. This led to delays with claims processing
and subsequent payment of benefits that created a backlog. The Director
for the Unemployment Insurance Division told us the mainframe

State: Delaware

System age (approximately): 35 years
(benefits, appeals, and tax)

Modernization status: In progress

Modernization phase: Mixed – planning and
requirements analysis

Initiation year: 2022

Completion: 2026 (estimated)

Reported cost: $49 - $85 million (estimated)

**Examples of the role of contracting in
Delaware's unemployment insurance (UI)
modernization efforts include**

- contracting with a vendor for the
  management of its ongoing modernization
  project;

- contracting with a vendor for UI data
  cleansing, conversion, and support during
  modernization;

- contracting with the National Association
  of State Workforce Agencies to provide
  technical support during the ongoing
  modernization project;

- using contractors to provide other
  services, such as customer response
  management software, identity verification
  service, and fraud detection; and

- planning to obtain contract support to
  maintain the modernized system.

Source: GAO analysis of state information and interviews with
state officials, as of February 2023. | GAO-23-105478

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[3]The Common Business Oriented Language, which was introduced in 1959, became the
first widely used, high-level programming language for business applications.

performed well, but the state had to upgrade the web interfaces and telephone systems with additional capacity.

The Director for the Unemployment Insurance Division also noted the state's existing systems had some capability to support the pandemic UI programs, but the state determined that it could better serve claimants by using new software programs. The official said that the state deployed two cloud-based software service platforms to implement those federal programs and to handle the increase in call and email volume.

As a result of system performance issues experienced during the pandemic, in 2021, Delaware officials decided to modernize the state's UI systems. According to Delaware's project charter, the development of an integrated benefits, appeals, and tax system is intended to help the state eliminate the manual and paper processes that are used to gather information and inform claimants about issues with their claims. The goals for Delaware's modernization effort are to, among other things:

- improve the state's UI systems and processes,

- improve the security of the UI system and reduce fraud,

- deliver a better customer experience,

- improve employee experience and performance, and

- provide the capability to adapt to changing economic conditions.

Delaware's modernization project is in the planning and requirements analysis phase, according to officials. The Senior Project Leader for the Project Management Office in the Division of Unemployment Insurance said that Delaware made a decision not to issue a request for information for the modernization project. Instead, Delaware officials stated that they worked with the National Association of State Workforce Agencies (NASWA)[4] to develop a survey that Delaware sent to 16 different states to gather information about each states' modernization efforts, requests for proposals, and experiences with their modernization contractors. As of February 2023, Delaware officials told us the state intended to issue a request for proposal for its UI system modernization in late February 2023.

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[4]NASWA represents all 50 state workforce agencies, the District of Columbia, and U.S. territories.

Maine

Maine officials, including the Director and Deputy Bureau Director of Maine's Bureau of Unemployment Compensation, said that, in 2012, the state began the ReEmployME project to modernize its UI systems. According to the Deputy Bureau Director for the Bureau of Unemployment Compensation, at that time, the benefits, appeals, adjudication, and tax systems were separate systems with very limited interface and data sharing functionality. The officials said the tax and benefits systems were at least 30 years old.

According to Maine officials, when the state began exploring modernization of its UI systems, one criterion for a new system was to find a recently developed successful state system that could be tailored to Maine. The officials told us that the goals of the modernization effort were to have a system that Maine could keep current and adaptable to changing needs of the UI program, as well as reduce costs by sharing in the maintenance and enhancement costs of the system. The Director of the Bureau of Unemployment Compensation said that Maine wanted a shared system that leveraged technology with states of the same size, so that the cost and maintenance would be the same for all states.

Although there were no consortiums in place at the time Maine was looking for a shared system, the state later joined with other states to form the ReEmployUSA consortium.[5] As a member of the ReEmployUSA consortium, Maine leveraged Mississippi's pre-existing contract with a vendor to develop, implement, and deploy a new system that integrated Maine's claims, adjudication, appeals, and tax systems into one system.

Maine officials noted that governance of a shared system can be challenging for states that traditionally make their decisions independently. Officials added that developing a governance model takes time and effort. Further, they noted the importance of compromising when it comes to system functionality, ensuring compliance with state specific laws and policies, and prioritizing items based on available resources internally and within the consortium.

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[5]The ReEmployUSA consortium, originally known as the MRM Consortium, was founded in 2013 by Mississippi, Maine, and Rhode Island. Connecticut and Oklahoma joined in later years.

State: Maine

System age (approximately): 5 years (benefits, appeals, and tax)

Modernization status: Complete

Modernization phase: Operations and maintenance

Initiation year: 2012

Completion: 2018 (actual)

Reported cost: $90 million (actual)

Examples of the role of contracting in Maine's unemployment insurance (UI) modernization efforts include

- contracting with a vendor to provide project managers and technical staff to support major changes to the UI applications;

- contracting with a vendor to develop, maintain, and support the modernized system, including adding new functionality; and

- using contractors to provide other services, such as cloud services, payment detection and analytics to combat fraud, and identity verification service.

Source: GAO analysis of state information and interviews with state officials, as of February 2023. | GAO-23-105478

According to officials, during the modernization, Maine faced challenges with its contractor. Specifically, the officials noted that the contractor did not always provide enough staffing resources with significant knowledge of the UI system, which led to project delays. In addition, they noted that contractor staff turnover also contributed to project delays.

Nevertheless, Maine completed its UI modernization project in 2018 and its system is in the operations and maintenance phase. Bureau of Unemployment Compensation officials described some of the features of the modernized system, which are:

- additional self-service claimant functionality, including automated claim filing and processing, accounts for claimants to view and update information, and the ability to upload documents for different identification verification;

- the ability to integrate the pandemic UI programs into one system as opposed to having separate stand-alone systems;

- improved data access across the system; and

- a new employer portal that provides the ability to electronically file their quarterly wage reports and make contributions (previously, this system was predominately paper-based and required manual data entry by UI staff).

Maine officials said that, during the COVID-19 pandemic, the state's UI systems were stable and able to handle the unprecedented workload increase. Officials told us the claim volume in the first month of the pandemic was almost 80,000 claims compared to an average of 2,400 claims in the months prior to the pandemic.

However, according to officials, at the beginning of the pandemic, Maine experienced issues with the timeliness of payments due to several other factors. First, there were too few staff to handle the claim volume, so the state had to hire and train additional staff. A second factor was that many individuals were filing for UI benefits for the first time and were not familiar with UI and the related technology for filing claims. According to Maine officials, this required more intensive services to assist applicants, which were hampered initially by the lack of available, experienced staff. The third factor Maine officials cited was the need to develop programming code for the pandemic UI programs, which did not resemble the programming code for regular UI.

Nevada

According to Nevada officials, including the Administrator of the
Employment Security Division and the Deputy UI Administrator, the state
has a UI modernization effort underway to replace its UI benefits,
appeals, and tax systems, which it previously modernized between 2010
and 2015. Nevada's Unemployment Insurance Support Services Program
Chief noted that, although it was beneficial to have new functionality and
automated processes after the 2015 modernization effort, there have
been multiple challenges with the current system. For example, the
official stated that there is no continuing product support by the contractor
for the tax system, which the contractor originally developed for the
banking sector and not UI. As a result, the system has been difficult to
manage and maintain.

The Program Chief also noted that, although the system reporting
features are functional, they have been highly inaccurate. As a result, the
office has had to rely on ad hoc queries for information. The official added
that there were also deficiencies in how the benefits and tax systems
work together and it was hard to get those deficiencies fixed by the
contractor because there was no warranty period. Further, the
combination of the existing system issues and retaining employees with
the skills to maintain system functionality has been difficult for the
department.

When the COVID-19 pandemic began, Employment Security Division
officials stated that Nevada's benefits, tax, and appeals systems could not
handle the increased workload. Officials reported the average number of
claims before the pandemic was approximately 20,000. During the first
week of the pandemic, officials stated that there were approximately
350,000 claims per week which caused the benefits and tax systems to
crash. Officials added that the programming required to add the pandemic
UI programs was a burden on the system as it was not readily able to
process the changes, which led to claimants having difficulties when filing
claims.

In 2021, Nevada officials decided to modernize their UI systems due, in
part, to a backlog of over 1,950 system defects and the systems
performance issues experience during the pandemic. Officials stated the
goals of the 2021 modernization effort are to:

State: Nevada

System age (approximately): 8-10 years
(benefits, appeals, and tax)

Modernization status: In progress

Modernization phase: Requirements
analysis

Initiation year: 2021

Completion: 2025 (estimated)

Reported cost: $72 million (estimated)

**Examples of the role of contracting in
Nevada's unemployment insurance
modernization efforts include**

- contracting with the National Association
of State Workforce Agencies to provide
technical support during the development
of the state's request for proposals for the
ongoing modernization project;

- using a contractor for the management of
its ongoing modernization project, as well
as the development and implementation
of the modernized system; and

- using contractors to provide other
services, such as the state's case
management system, field auditing
software, and identity verification service.

Source: GAO analysis of state information and interviews with
state officials, as of February 2023. | GAO-23-105478

- increase the capacity, productivity, and efficiency of the system with accurate information and reporting readily available for the accounting department;

- reduce the amount of manual manipulation required by staff to import data from other systems into the UI systems to decrease the amount of work for staff;

- develop a user friendly front-end to make the customer's experience better;

- improve the ability to handle an increased workload (e.g., due to a pandemic); and

- be readily able to incorporate any future emergency UI programs similar to the Pandemic Unemployment Assistance program.

Nevada is in the requirements analysis phase of its modernization project. The officials noted that the state obtained assistance from NASWA's IT Support Center (ITSC) to help draft the request for proposal, which it released in February 2022.[6] In December 2022, Nevada announced that the state had awarded the contract for the modernization. As of February 2023, Nevada officials told us that project managers from the contractor have relocated to Nevada to work closely with Nevada's Department of Employment, Training, and Rehabilitation on gathering background information needed for the project.

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[6]ITSC was created in 1994 as a partnership between the DOL and the Maryland Department of Labor, Licensing, and Regulation to support state UI IT initiatives. DOL supports ITSC through grants to the Maryland agency, and ITSC's Steering Committee includes representatives from the Employment and Training Administration.

Ohio

Ohio officials, including the Assistant Deputy Director for the Office of
Unemployment Insurance Operations and the Deputy Director of IT
Security Risk and Compliance for the Office of Information Services, told
us the state has a UI modernization effort underway to replace its
benefits, appeals, and tax, systems. According to officials, Ohio's
modernization effort is for the replacement of the state's benefits and
appeals systems that are about 20 years old, and the state's prior tax
system that went live in 2011.[7]

Ohio officials said, in 2018, the state contracted with a vendor to help
develop, host, and maintain a new integrated UI system in the cloud,
known as the State of Ohio Unemployment Resource for Claimants and
Employers (SOURCE). The Assistant Deputy Director for the Office of
Unemployment Insurance Operations noted that SOURCE is expected to
be a fully integrated, modular, and configurable system for Ohio's UI
benefits, appeals, and tax functions.

When completed, the SOURCE system is expected to provide features,
such as

- a customer relationship management solution maintained by state
  staff,

- a chatbot to provide guidance to customers,[8]

- automated weekly filing and checking of claim status for benefits
  using a virtual voice agent,

- intelligent ID proofing,

- multifactor authentication,[9] and

- fraud analytics and dashboards for data analytics.

State: Ohio

System age (approximately): 20 years
(benefits and appeals); 2 years (tax)

Modernization status: In progress

Modernization phase: Mixed – planning and
operations and maintenance

Initiation year: 2018

Completion: Not yet determined

Reported cost: Total cost not yet determined;
$36 million for tax system modernization
(actual)

**Examples of the role of contracting in
Ohio's unemployment insurance (UI)
modernization efforts include**

- contracting with a vendor to provide
  consulting and project management
  during the modernization effort;

- contracting with a vendor to provide,
  manage, and host the modernized tax
  system;

- contracting with a vendor to develop,
  host, maintain, and support the
  modernized UI system in the cloud; and

- using contractors to provide other
  services, such as multi-factor
  authentication, chatbot and customer
  relationship management software, fraud
  detection, and identity verification service.

Source: GAO analysis of state information and interviews with
state officials, as of February 2023. | GAO-23-105478

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[7]Ohio completed a modernization of its 2011 tax system in 2021 but, as of February 2023,
was still in the process of modernizing its benefits and appeals systems.

[8]A chatbot is a program that interacts directly in a free-form conversation with users via
natural language processing.

[9]Multifactor authentication in computer networks involves using two or more factors to
ascertain authentication. Factors include something you know (password or personal
identification number), something you have (cryptographic identification device or token),
or something you are (biometric).

Although Ohio had a modernization effort underway when the COVID-19 pandemic began in 2020, it was not fully completed. Officials said Ohio's legacy UI systems experienced performance issues at the beginning of the pandemic. According to the Assistant Deputy Director for the Office of Unemployment Insurance Operations, Ohio received an unprecedented number of claims, which were more than the state had received in the prior 2 years combined. For example, Ohio received 28,000 claims in the month prior to the pandemic and 577,000 in the first month of the pandemic. As a result, Ohio staff struggled for the first 2 months of the pandemic to keep up with the volume of claims and to keep the systems up and running.

Ohio officials told us that the state was able to stabilize the UI systems and address the backlog of requests after a few months. However, the Deputy Director of IT Security Risk and Compliance added that, even after the state fine-tuned, optimized, and expanded the system to better enable people to file claims, there were still problems during peak times.

Ohio officials told us that the state launched the modernized tax component of SOURCE in December 2021 and the system is currently in the operations and maintenance phase. In January 2023, the state decided to terminate the contract for the development of the benefits and appeals components of the SOURCE system due to the federal indictment of two former employees who worked for the modernization contractor.[10] The officials added that, as of February 2023, the state is determining next steps for the modernization of its benefits and appeals systems.

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[10]In August 2022, two former employees of the contractor were indicted in West Virginia federal court for allegedly stealing source code and making false statements to investigators.

Pennsylvania

According to Pennsylvania officials, including the Directors of the Office of Unemployment Compensation Benefits Policy and the Office of Unemployment Compensation Service Centers, the state's existing tax system was developed internally and was launched in 2011. The tax system is currently in the operations and maintenance phase. Pennsylvania officials told us that the project to modernize its benefits and appeals systems, known as BenMod, began in 2015. According to state documentation, at the time, those systems consisted of multiple IT applications—written in different computer languages and located on different hardware platforms—working together to perform the unemployment compensation functions.

According to Pennsylvania documentation, the vision for the BenMod project was to implement an unemployment compensation benefits system that provides excellent customer service, quality, and operational efficiencies, and is sustainable and adaptable to the future. However, the Director of Unemployment Compensation Benefits Policy told us the state faced a series of challenges in acquiring the new system. For example, the official stated that:

- The modernization contractor originally developed the system for states smaller than Pennsylvania, which had different processes (such as the manual review of every claim). As a result, the official noted that Pennsylvania was still finding changes that it needed to make to the system.

- The modernization contractor did not include customer feedback when it designed the UI benefits and appeals system. As a result, the official noted that the benefits and appeals systems were not customer-centric and were not designed around how the state's customers would want to interact with the technology.

- The project management contractor did not have prior project experience related to UI benefits and appeals. As a result, the official noted that the contractor disregarded things that state officials considered critical.

- The project management and modernization contractors did not become sufficiently familiar with Pennsylvania's laws and regulations and this made it difficult to move forward with the project.

The Director of Unemployment Compensation Benefits Policy stated that, when the COVID-19 pandemic began, Pennsylvania was in the process

State: Pennsylvania

System age (approximately): 2 years (benefits and appeals); 12 years (tax)

Modernization status: Complete

Modernization phase: Operations and maintenance

Initiation year: 2015

Completion: 2021 (actual)

Reported cost: $32 million (actual)

Examples of the role of contracting in Pennsylvania's unemployment insurance modernization efforts include

- contracting with the National Association of State Workforce Agencies to provide technical support before going live with the benefits and appeals systems;

- obtaining contract support for the management of its modernization project, as well testing and technical consulting for the project;

- contracting with a vendor for the development and maintenance of its benefits and appeals system; and

- using contractors to provide other services, such as call center services, field auditing software, and identity verification service.

Source: GAO analysis of state information and interviews with state officials, as of February 2023. | GAO-23-105478

of modernizing its benefits and appeals systems that were still running on
the mainframe. Pennsylvania officials said they experienced some issues
with claims being processed in a timely manner, but the state's
mainframe system performed fine during high volumes. Pennsylvania
officials said the state's tax system did not experience any disruptions.

Pennsylvania officials said that the state fully implemented its integrated
benefits and appeals system in 2021. According to the officials,
Pennsylvania's modernized benefits and appeals systems includes the
ability to, among other things:

- implement identity verification solutions,

- replace manual paper-based processes with electronic and
  automated processes,

- search for claimants using some or all of key pieces information, and

- train staff on the new system in an easier manner.

According to officials, the system is in the operations and maintenance
phase.

Tennessee

Tennessee officials, including the Assistant Commissioner for the Employment Security Division and the Assistant Administrator for Unemployment Insurance, said the state has a modernization effort underway to replace its UI systems. According to officials, the benefits and appeals system, which was previously modernized in 2016, and the roughly 40-year-old tax system are to be integrated into one system.

The Assistant Administrator for Unemployment Insurance noted there have been challenges with the current benefits system. For example, the official stated there are system deficiencies, functionality issues, and limited contractor support for the product. As a result, it is difficult to enhance the system due to its instability. Tennessee officials added that the combination of the existing system issues and retaining employees with the skills to maintain system functionality has been difficult for the state's Labor Workforce Division.

Tennessee officials told us that, early in the COVID-19 pandemic, the state had issues scaling the UI system to meet the increase in demand from claimants filing for unemployment benefits, which led to system crashes and the website timing out. The Assistant Administrator for Unemployment Insurance noted that Tennessee had two state-wide disasters declared immediately before and at the beginning of the pandemic, which placed additional burden on the systems. The official reported that prior to the pandemic there were roughly 15,000 to 16,000 claimants a week. According to officials, at the start of the pandemic Tennessee received between a few hundred thousand to 1 million claims.

The Assistant Administrator for Unemployment Insurance added that the tax system performed well during that time since it did not experience the same workload increase that the benefits system had. However, according to Tennessee officials, there was difficulty with the vendor contracted to implement the Pandemic Unemployment Assistance and Federal Pandemic Unemployment Compensation programs because the contractor-developed system failed to keep the programs separate and the system did not know which program to use based on a claimant's situation.

Tennessee officials said that, because of the current system's performance issues, both before and during the pandemic, the state believes continued modernization is necessary for future success.

State: Tennessee

System age (approximately): 7 years (benefits and appeals); 40 years (tax)

Modernization status: In progress

Modernization phase: Mixed – requirements analysis, design, and development

Initiation year: 2021

Completion: 2025

Reported cost: Total cost not yet determined; $32 million for benefits and appeals systems modernization (estimated)

Examples of the role of contracting in Tennessee's unemployment insurance modernization efforts include

- contracting with a vendor to provide a needs assessment, roadmap, and strategy for the modernization project, as well as technical support during the development of the request for proposals for the modernization effort;

- planning to obtain contract support for the development and implementation of the modernized system; and

- using contractors to provide other services, such as the state's call center, fraud detection, and identity verification service.

Source: GAO analysis of state information and interviews with state officials, as of February 2023. | GAO-23-105478

According to the Tennessee's modernization strategy and roadmap for the project, the goals for the new UI system are to:

- align the system with business and stakeholder needs by reducing manual processes and simplifying and integrating workflows to increase efficiency and improve the stakeholder and customer experience;

- develop a system that helps the state to comply with state legislation and is flexible enough to easily adapt to evolving federal and state requirements; and

- align the system with the state's technology direction, decrease maintenance costs, and improve system performance and stability.

Additional benefits of the modernization planned include a reduction in manual and paper-based processes and improved access to data that can be leveraged to automate key workflows and tasks.

Tennessee officials stated the modernization project is split into two separate projects. The benefits and appeals modernization is in the requirements analysis, design, and development phases. The modernization project for the tax system is in the requirements analysis phase.

In February 2023, officials stated that, regarding the benefits and appeals system, Tennessee started the modernization in September 2022 and intends to launch the new system in early 2024. Regarding the tax system, the officials stated that the request for proposal for modernization of the system was released in December 2022 and they expect to award the contract in late April 2023. The officials added the state was planning to launch the new tax system by summer 2025.

Texas

According to Texas officials, including the Contract Project Manager for the Texas Workforce Commission and the Director of Applications Development and Maintenance for the IT Division, the state has a modernization effort underway to replace its UI benefits, appeals, and tax systems built in the 1980s and 1990s. The officials said Texas has been adding functionality to its UI systems for over 35 years, but had not fully modernized its systems. For example, the officials told us that an external facing self-service system was developed in the early 2000s.

The Division Director for Unemployment Insurance stated that, in 2012, Texas began a project to improve the user interface of the benefits system and to modernize the tax system. However, the director added that the project schedule for the benefits system experienced delays, so Texas decided to cancel that project along with the tax system modernization project that was occurring at the same time.

Texas officials said its current UI systems no longer have the necessary performance or agility to adapt and evolve to the fast-paced changes required to support a modern workforce of over 13 million. The officials noted that, as a result, the state has had to use a series of workarounds, including manual databases, spreadsheets, and desk procedures, to keep up with changes. According to the officials, modifying and enhancing the current system is problematic and requires extensive programming to incorporate changes.

In addition, officials told us that continually updating the UI applications because of mandated legislative and DOL changes have made the system difficult to maintain from a programming perspective. The Division Director for Unemployment Insurance added that it has become increasingly more difficult to find staff who can maintain the legacy system. Texas officials said that the system does not meet all the accessibility requirements, is not customer-centric, and does not offer the modern features that customers expect, such as mobile applications.

As a result, in 2018, Texas officials decided to modernize their UI systems to make one cohesive system. According to Texas documentation, the goals of the modernization project are to:

State: Texas

System age (approximately): 35 years (benefits, appeals, and tax)

Modernization status: In progress

Modernization phase: Mixed – requirements analysis, design, and testing

Initiation year: 2018

Completion: 2024 (estimated)

Reported cost: $76 million (estimated)

Examples of the role of contracting in Texas' unemployment insurance modernization efforts include

- contracting with the National Association of State Workforce Agencies to gather requirements for the modernization project;

- planning to obtain contract support for the management of its ongoing modernization project, as well as to provide independent verification and validation services; and

- using contractors to provide other services, such as field auditing software, data center resources and maintenance, chatbot software, fraud detection, and identity verification service.

Source: GAO analysis of state information and interviews with state officials, as of February 2023. | GAO-23-105478

- increase customer pathways to services by having flexible technology that allows customers to access information and services when, where, and how the customer needs it;

- integrate and align the systems and services so the systems work together to eliminate duplication, provide flexibility and agility for change management, streamline delivery of services, and eliminate the need to support multiple applications and platforms; and

- equip Texas Workforce Commission staff and partners with appropriate technology so they have the right tools to provide or oversee delivery of excellent customer service, pay benefits accurately, and prevent improper payments.

Although Texas had a modernization effort underway when the COVID-19 pandemic began in 2020, it was not fully completed. Texas officials told us that, during the pandemic, the backend mainframe performed very well, but there were some challenges with the external facing web-based applications. The Deputy Division Director for the Unemployment Insurance Division noted that it became a challenge to keep the systems operational and implement changes from DOL at the same time. Officials stated that, prior to the pandemic Texas had 13,000 claims a week and about 60,000 a month. Officials added that, in the first 6 weeks of the pandemic, Texas had 1.5 million claims and there was not enough system capacity to serve claimants immediately; however, they kept claimants informed through proactive messaging.

Officials stated that, in January 2021, Texas signed a contract with a vendor for the modernization project, which they expect to complete in 2024. As of February 2023, Texas officials stated they are in the requirements analysis, design, and testing phases of their modernization project.

Appendix IV: Comments from the Department of Labor

U.S. Department of Labor   Employment and Training Administration
200 Constitution Avenue, N.W.
Washington, D.C. 20210

June 16, 2023

Jon Ticehurst
Assistant Director
U.S. Government Accountability Office
441 G St. N.W.
Washington, DC 20548

Lee Hinga
Analyst in charge
U.S. Government Accountability Offices
441 G St. N.W.
Washington, DC 20548

Dear Assistant Director Ticehurst and Analyst-in-charge Hinga:

The U.S. Department of Labor (Department) appreciates the information, analysis, and insights that the U.S. Government Accountability Office (GAO) has shared in this Report. The modernization of information technology (IT) systems in the Unemployment Insurance (UI) system is an important priority for the Biden-Harris Administration. The Administration shares GAO's concerns with decades of underinvestment in state UI systems, including many state systems operating on components that have not been updated in decades and are no longer able to be properly maintained. The Department's FY2024 budget has a set of UI reform principles, including the need to address adequate administrative funding, and the resulting limits on staff capacity. States in this study cited the lack of staff resources to support UI modernization as a key constraint, and this constraint is linked to the issue of administrative funding.

The Department is deploying the funding allocated under Section 9032 of the American Rescue Plan Act (ARPA) to improve the resilience and capacity of state UI IT systems to prevent fraud while efficiently and equitable delivering benefits to workers. As illustrated in the report, the Department is piloting new technologies with our state partners, deploying experts to make recommendations for technology changes and providing significant grant funding and technical assistance to states to develop improved fraud prevention and benefits processing technologies. We share GAO's concerns about state challenges including limited staff expertise and capacity in IT modernization, project and contract management. The enactment of the Fiscal Responsibility Act of 2023 on June 3, 2023, reduced funding under Section 9032 from $2 to $1 billion. The Department is reviewing its plan with goal of developing the most effective ways to support IT modernization in states with reduced funds.

The Department partially agrees with the first recommendation to the report to update its processes to reflect leading practices for pilot design. The Department does not fully agree with

the conclusion in the report that the Department has not used a clearly articulated assessment strategy for its Claimant Experience Pilot. In the case of New Jersey, the Department has analyzed multiple data metrics including time to an application by a claimant. As a result of careful evaluation of data, New Jersey moved forward to transition from the Claimant Experience Pilot's initial scope to a new front end claimant facing interface. Testing of the interface indicated that it reduced the time required to complete an initial application, and the resulting technology will be deployed at scale to the New Jersey public in 2023. This is an example of the agile and iterative design process that the Department is using to center data-driven decision making and feedback from users to deploy technology solutions. The Department agrees with GAO's points around the importance of using criteria to decide which ARPA initiatives should be recommended to be included as on-going systemwide changes. The Department has established the Office of Unemployment Insurance Modernization to coordinate technology modernization efforts alongside Office of the Chief Information Officer and Office of Unemployment Insurance towards these ends.

The Department partially agrees with GAO's recommendation about defining IT modernization standards. The Department appreciates that GAO highlighted ways that the Department's existing performance management approach touches information technology. The Department monitors the activities of any grant funded activities related to IT modernization, such as American Rescue Plan Act dollars and supplemental administrative grants, to ensure progress towards intended goals including required quarterly progress reports. Any state deploying a new major IT system must complete an ETA 9177 IT pre-implementation checklist that includes a detailed list of steps to be completed before the new system goes live.[1] In addition, states are required to develop a state quality service plan related to the core performance measures, including timely payment of benefits and payment integrity,[2] and these plans address IT issues that impact core performance measures.

The Department agrees that additional measures related to IT performance and customer experience would provide states with clearer direction and enhance the Department's ability to support timely and accurate payment benefits among the states. Through its Office of Unemployment Insurance Modernization, the Department is defining a set of best practice measures for customer experience in the UI system. The Department is cognizant of the need to consult with states about any new measures that might be introduced, and the impact of limited administrative funding of the performance of IT system. Based on the ongoing work of the Office of UI Modernization and analysis of resource and operational concerns by states, the Department plans to continue exploring the best measurements of IT performance in state UI system as part of our IT modernization project.

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[1] "ETA 9177 Report - Pre-Implementation Planning Checklist Report for State Unemployment Insurance (UI) Information Technology (IT) Modernization Projects - Additional Updates to the ETA 9177 Report and Reporting Instructions," UI Program Letter 11-18 Change 1, July 16, 2020
https://www.dol.gov/agencies/eta/advisories/unemployment-insurance-program-letter-no-11-18-change-1
[2] "UI PERFORMS: Core Measures," https://oui.doleta.gov/unemploy/pdf/Core_Measures.pdf

2

Again, we appreciate GAO contributing to the efforts to raise awareness of the importance of the UI programs and the need to invest in information technology in the UI programs. Thank you for sharing this information and for the opportunity to respond to this Report.

Sincerely,

BRENT PARTON
Acting Assistant Secretary

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Text of Appendix IV: Comments from the Department of Labor

June 16, 2023

Jon Ticehurst

Assistant Director

U.S. Government Accountability Office

441 G St. N.W.

Washington, DC 20548

Lee Hinga Analyst in charge

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[1] "ETA 9177 Report - Pre-Implementation Planning Checklist Report for State Unemployment Insurance (UI) Information Technology (IT) Modernization Projects - Additional Updates to the ETA 9177 Report and Reporting Instructions," UI Program Letter 11-18 Change 1, July 16, 2020
https://www.dol.gov/agencies/eta/advisories/unemployment-insurance-program-letter-no-11-18-change-1

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Sincerely,

BRENT PARTON

Acting Assistant Secretary

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[2] "UI PERFORMS: Core Measures," https://oui.doleta.gov/unemploy/pdf/Core_Measures.pdf

Appendix V: GAO Contact and Staff Acknowledgments

GAO Contact

Carol C. Harris at (202) 512-4456 or HarrisCC@gao.gov

Staff Acknowledgments

In addition to the contact named above, the following staff made key contributions to this report: Jon Ticehurst (Assistant Director), Lee Hinga (Analyst-in-Charge), Brandon Berney, Chris Businsky, Rebecca Eyler, Samantha Fowler, Lisa Maine, and Drew Yarbrough.

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