Department of Health and Human Services (HHS)
Administration for Children and Families (ACF)
Office of Child Support Enforcement (OCSE)
Division of State and Tribal Systems (DSTS)
Streamlined Feasibility Study (FS) Guide

FINAL

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1.00	12/15/2020	Raghavan Varadachari Tevlin Thompson Greg Jordan Danny Hutchison	DSTS Director OCSE IT Specialists	Baseline Document

Preface

As child support enforcement systems (CSES) approach their end of useful life, states, territories, and tribes (hereafter, collectively referred to as states) are considering CSES modernization projects. This optional guide was prepared to aid IV-D directors, state CSES leadership staff, and Office of Child Support Enforcement (OCSE) professionals with preparing and/or reviewing *Streamlined Feasibility Study (FS)* artifacts associated with CSES modernization – in lieu of preparing and/or reviewing the more comprehensive or traditional documentation described in the HHS/ACF Feasibility, Alternatives, and Cost Benefit Analysis Guide (Jul 1993) and related documents (See Appendix B: References).

This guide seeks to establish a streamlined analytical approach, develop a high-level framework for both analysis and document preparation, and provide simplified cost analysis worksheets (and other supporting artifacts) to enable a state to analyze and compare candidate modernization alternatives. Even with these aids, there are challenges associated with analysis, judgment, and determinations required of the individuals conducting and preparing a Streamlined FS. Note that while there are numerous examples distributed throughout this guide, it does not attempt to provide a "cookbook" approach or a set of solutions. This guide is designed to enable (1) states to efficiently prepare a Streamlined FS and (2) OCSE to conduct a timely federal review and approval of a state's artifacts.

Comments from OCSE's central and regional office staff and state child support directors were incorporated, wherever possible, into this guide. However, the true test will be how well this guide supports state staff with performing their assigned tasks and whether it remains relevant and useful.

OCSE welcomes feedback from those using this guide. For your convenience, a form is included in Appendix H: Streamlined FS Guide/Template/Spreadsheet: Evaluation, Comments, and Suggestions for Improvement Form to this Guide. This feedback form or any other written comments may be forwarded to:

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Administration for Children and Families
Office of Child Support Enforcement
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Read Me First

- Throughout this document the terms Streamlined Feasibility Study (FS) [*a.k.a., Streamlined Feasibility Study (FS) document (2020)]*, 2020 FS, FS/AoA/CBA, and FS are used interchangeably; each is generally referred to as FS.
- Throughout this document the terms legacy FS [*a.k.a., traditional, rigorous, or comprehensive Feasibility Study (FS), Analysis of Alternatives (AoA), and Cost Benefit Analysis (CBA) document (July 1993)]*, 1993 FS, FS/AoA/CBA, and FS are used interchangeably; each is generally referred to as FS.
- The 1993 FS process will be retired on September 30, 2021. Effective October 1, 2021, the 2020 FS process will become OCSE's primary reference for CSES modernization.
- Until September 30, 2021, a state may choose to follow the more traditional, rigorous, or comprehensive 1993 FS process described in the HHS/ACF Feasibility, Alternatives, and Cost Benefit Analysis Guide (July 1993) in lieu of the 2020 FS process described in this document (also known as a Streamlined FS Guide). That is, using this 2020 FS process for child support enforcement system modernization is optional, until the 1993 FS process is no longer recognized by OCSE.
- Results from either the 2020 FS or the 1993 FS for a CSES modernization project will require that a state's CSES be certified or re-certified.[1]
- For states selecting either the replatforming/refactoring or enhancement alternative, a FS is not required. These alternatives should be addressed as a 'development project' contained within a state's annual advance planning document update (AAPDU), which is submitted to OCSE for consideration.
    - For replatforming/refactoring efforts (i.e., no function, capability, feature enhancements, or modifications are integrated during the replatforming/refactoring process), a compliance visit or re-certification of the state's CSES may not be required.
    - For enhancement efforts (Type #1: routine application, security, infrastructure, and underlying open source software patches, as well as minor function, capability, or feature modifications; Type #2: incremental modernization, phased strategy, modular, or other 'long timeline' approach that upgrades or changes one functional component at a time), a compliance visit or re-certification of the state's CSES may not be required. However, if this strategy results in significant changes to the CSES system architecture, re-certification may be required.
- For software development methodology, a state may use any methodology it chooses (e.g., Waterfall, Agile, or Hybrid). Currently, many states have adopted the agile methodology. However, waterfall is still being employed by some states.
- Hereafter, states, territories, and tribes are collectively referred to as 'states.'

[1] *Automated Systems for Child Support Enforcement: A Guide for States – Updated 2017 (AT-17-11) [A Certification Guide for the States]*

Notes to the Author

[This document is a guide that may be used in conjunction with the Streamlined FS template to aid the author with preparing Streamlined FS artifacts for a child support enforcement system (CSES) modernization project. As such, it includes numerous boilerplate examples (statements, paragraphs, tables, and figures) that may be inserted into the state's streamlined FS…by inserting text related to the state's project.

- *Text enclosed in square brackets ([text]) provides guidance to the document author, or describes the intent, assumptions and context for content included in this document.*
- *Text enclosed in angle brackets (< text >) indicates a field that should be replaced with information specific to a particular project.*
- *Text and tables are provided as boilerplate examples of wording and formats that may be used or modified as appropriate to a specific project. These are offered only as suggestions to assist in preparing project documents; they are not mandatory formats.*
- *See Figure in Section 1.1 in the Streamlined FS Guide for the Child Support Enforcement System Modernization Decision Points.*
- *A state* may *decide to change its CSES acronym from the current/legacy CSES acronym to a new/modernized CSES acronym. For states that choose to keep their current CSES's name, replace references to* < State's (new CSES Acronym) > *with* < State's (legacy CSES Acronym) > *when preparing its FS documentation.*

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Executive Summary

The Executive Summary provides a high-level overview of key points that are supported by information and data included within the body of the Streamlined Feasibility Study (FS). As such, summarize key points in this FS. Outline what this modernization investment (hereafter referred to as "project") is about, benefits it will provide, and how it aligns with the goals and objectives of the organization. No new or unsupported information or data should be included within the Executive Summary. Avoid ambiguous acronyms, terminology, and concepts. Include a statement for readers desiring more detail – that additional information, data, and descriptions may be found within the body of this FS.

1 Introduction

< State's > FS documents our approach, analyses, and justification to modernize the *< child support enforcement system (CSES) (acronym) >.* This streamlined FS has been prepared by *< State >* in lieu of the more traditional, rigorous, or comprehensive FS as described in the Department of Health and Human Services/Administration for Children and Families (HHS/ACF) Feasibility, Alternatives, and Cost Benefit Analysis Guide (1993) (and related documents listed in Appendix B: References). Upon reviewing this document, the reader should be able to understand what the project is about, the role of the project in the *< State's department/agency/ enterprise >* modernization plan, and the business justification for this project. The reader should also appreciate how the project improves the overall efficiency and effectiveness of the *< State's (CSES acronym) >*. Following completion of this FS, *< State >* will submit it – along with supporting artifacts – to the OCSE for consideration.

1.1 How to Use this Guide

OCSE prepared this guide for IV-D directors, state CSES leadership staff (e.g., project managers, budget analysts, senior program analysts, architects, technical staff), and project members responsible for reviewing alternatives, developing costs, assessing benefits, selecting a systems development approach, and preparing a CSES modernization FS. It is important to note that one of the benefits of using this streamlined FS approach is that review and approval takes less time than the traditional, rigorous, or comprehensive FS. This guide helps a state's personnel prepare a FS, as well as federal personnel as they evaluate a state's FS submission for modernization. That is, OCSE will use the FS guide as a measure to evaluate a state's efforts for comprehensiveness, and to consider the merits of the state's proposed solution(s). [See Appendix E: Streamlined FS Assumptions, Constraints, Risks, Issues, and Dependencies (ACRIDs) for assumptions, constraints, risks, issues, and dependencies (ACRIDs) associated with preparing a streamlined FS (*hereafter referred to generically as a "FS")*.]

As shown in Figure 1 (Single OpDiv only), the state should determine the total amount of funding (state plus matching federal funding) available to do system modernization.

1. If the total amount of available funding (state plus federal) is $50 million or more,[2] consider replacing the full system, which will also require that the state's CSES be re-certified. These are the steps for full replacement:
    a. A FS is conducted.
    b. After the FS is conducted, the state will submit it to OCSE for review and approval.
    c. OCSE will approve the FS and determine the frequency of independent verification and validation (IV&V). OCSE will send a formal approval response letter to the state; this letter also specifies the frequency of IV&V.

[2] The amount of $50 million is based on estimated costs in calendar year 2020.

   i. If OCSE does not approve the FS, the state should review the issues that caused the disapproval and resolve any issues.
   ii. After all issues have been resolved, OCSE will approve the FS with a formal response letter; this letter also specifies the frequency of IV&V.

d. After the FS has been approved, the state will prepare and submit the Implementation Advance Planning Document (IAPD) to OCSE for review and approval. OCSE will send a formal approval response letter to the state.
e. After the IAPD has been approved, the state should begin creating and/or finalizing procurement documents [e.g., request for offer(s)(RFO), request for proposal(s)(RFP), request for quote(s)(RFQ), and/or request for service(s)(RFS)]. The state should submit each procurement document to OCSE for review and approval prior to release to the vendor community. OCSE will send a formal approval response letter to the state for each procurement document.
f. After the state has selected a vendor, the state will submit each draft contract to OCSE for review and approval prior to execution. OCSE will send a formal approval response letter to the state for each contract.
g. The state will need to update the AAPDU and submit it to OCSE for continued funding approval.

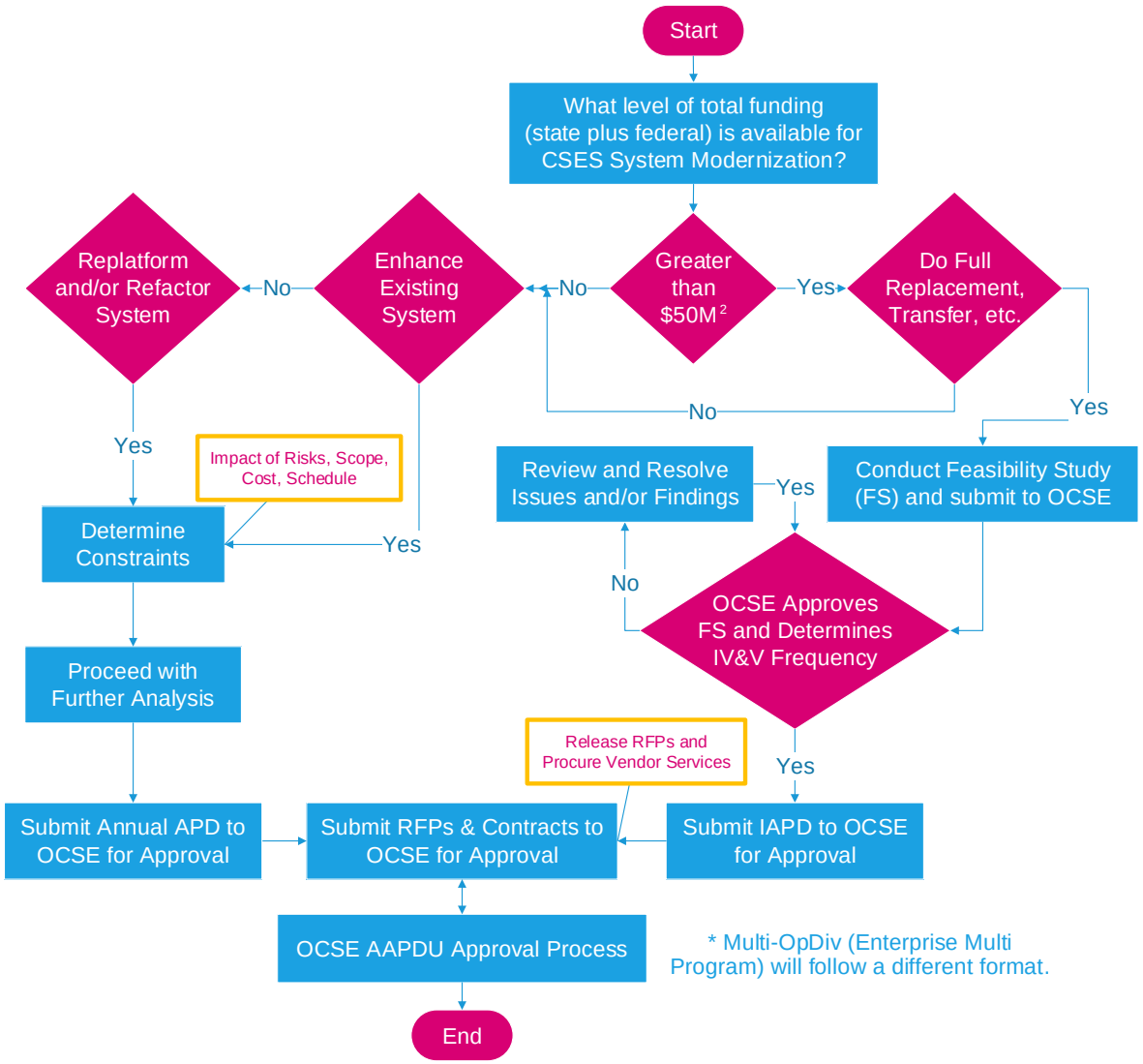

Figure 1: Child Support Enforcement System Modernization Decision Points

2. If the total amount of available funding (state plus federal) is $50 million or less, these are the steps if the state chooses to enhance (rather than replace) the existing system; or the state can consider replatforming and/or refactoring (enhancing, replatforming, or refactoring does not trigger the FS requirement). For replatforming, refactoring, or system enhancement, a re-certification or compliance visit may or may not be required. However, ACF/OCSE reserves the right to review any previously approved Family Support Act of 1988 (FSA-88) and/or Personal Responsibility and Work Opportunity Reconciliation Act of 1996 (PRWORA) functionality if compliance is in question. This will be determined on a case-by-case basis.
    a. The state should determine constraints associated with their modernization choice.
    b. The state should proceed with further analysis of the existing system.

c. After the IAPD has been approved, the state should begin creating and/or finalizing procurement documents. The state should submit each procurement document to OCSE for review and approval prior to release to the vendor community. OCSE will send a formal approval response letter to the state for each procurement document.
d. After the state has selected a vendor, the state will submit each draft contract to OCSE for review and approval prior to execution. OCSE will send a formal approval response letter to the state for each contract.
e. The state will need to update the AAPDU and submit it to OCSE for continued funding approval.

[Please note that enhancing, replatforming, or refactoring does not trigger the FS requirement, nor does each automatically trigger the need for IV&V services. ACF/OCSE will assess project risk to determine the level of federal oversite on a case-by-case basis, pursuant to 45 Code of Federal Regulations (CFR) §95.626.]

1.2 Mission Statement

OCSE is part of ACF within HHS. ACF fosters the health and well-being of families, children, individuals, and communities. ACF provides leadership, partnership, and resources for the compassionate and effective delivery of human services. ACF administers programs carried out by state, territory, county, city, and tribal governments as well as by private, non-profit, community, and faith-based organizations designed to meet the needs of a diverse cross-section of society.

OCSE provides direction, data, funding, guidance, and oversight to state, territory, and tribal child support programs. OCSE assists in locating parents, establishing parentage and support orders, enforcing orders, and collecting child support. OCSE partners with federal, state, tribal and local governments and others to promote parental responsibility so that children receive support from both parents even when they live in separate households.

State and local child support agencies implement policies to establish fatherhood, set realistic orders, collect payments, and reduce child support debt. State and local child support programs also develop innovative strategies to improve the well-being of children. Each state and tribe manages cases and operates its child support program based on individual state, tribal, and federal regulations. They offer services to all who need them, regardless of income, residency, nationality, or gender.

The child support program operates under Title IV-D of the Social Security Act[3]. The child support program's mission is to enhance the well-being of children by assuring that assistance in obtaining support, including financial and medical support, is available to children through locating parents, establishing paternity and support obligations, and monitoring and enforcing those obligations. The child support program functions in all states and several territories and tribes. State, territory, and tribal programs are operated primarily through state or county social services departments, attorneys general offices, or departments of revenue.

[3] *SSA references are summarized in Appendix B.*

1.3 Background

As a state's CSES reaches the end of its useful life, the state may be considering a system modernization project. Federal guidance issued in July 1993 (and further clarified with AT-06-03 and related documents listed in Appendix B: References.) required states to conduct a rigorous FS for each alternative examined. Examples of states' concerns with the July 1993 guidance includes – but is not limited to – the following:

- Preparation requirements for how to conduct the rigorous FS and what to submit to OCSE are confusing and preparation costs are too high.
- Some alternatives required by a FS are outdated or not well-defined.
- The CBA section requires considerable effort and detail; much of this work seems to result in artificial measures.
- Circumstances often change by the time the FS is completed – either the technical issues or solutions change, state government leadership changes, or other unforeseen changes occur that effectively negate the original buy-in to the project.
- A rigorous FS takes considerable time to complete, conduct meetings with OCSE representatives, and receive federal approval.
- There does not appear to be a reasonable path to evolve toward a sound contemporary solution. That is, we request that OCSE provide guidance on how to figure out other possibilities toward CSES modernization; the July 1993 FS is outdated and does not help much anymore.

Typically, modernization feasibility studies require a state to do the following:

- Assign and dedicate staff – with considerable level of effort – to conduct a rigorous FS.
- Hire a Program Management Office (PMO) Services vendor to participate in and/or prepare the required FS documentation.
- Evaluate up to five alternatives, down-select to three viable alternatives, and compare them to the legacy, Status Quo system.
- Travel to multiple states to review, compare, and evaluate each state's system as a candidate transfer system. Scheduling these trips and meetings requires considerable effort and time to plan, coordinate, conduct, and follow-up.
- Perform detailed, line-by-line requirements comparison and scoring against a transfer candidate system.
- Perform detailed cost modeling and cost benefit analysis, including a return on investment analysis to determine the break-even point.
- Prepare documentation that is typically ~400-600 pages in length plus supporting artifacts (e.g., supporting appendices; and requirements, scoring, and costing spreadsheets), and then forward the entire FS package to OCSE for review and approval.

Following completion of the state's FS documentation, OCSE conducts one or more on-site IV&V review meetings at a state designated location(s), prepares a detailed FS report, reviews the state's response(s) to IV&V assessment findings, determines the IV&V meeting frequency to be followed throughout the development phase, and subsequently approves the state's FS after all findings are resolved or addressed by the

state. In sum, an entire process may take one to three years – or more – for a state to successfully complete and receive approval of their FS. Following approval, the state begins preparing the corresponding modernization IAPD and anticipated vendor services' RFPs, which include comprehensive statements of work (SOWs).

The FSA-88 was the first major piece of legislation mandating that Title IV-D programs develop and operate a single, statewide computer system. On *< date >* OCSE certified *< State's CSES acronym >* as fully meeting the automation requirements in FSA-88. Since that time, federal legislation – such as the PRWORA and the Deficit Reduction Act (DRA) of 2005 – mandated additional requirements for state automated computer systems. That is, all state computer systems must meet all federal certification requirements mandated under FSA-88 and PRWORA. PRWORA requirements mandated that states develop various automated enhancements and incorporate them into their respective Title IV-D child support enforcement systems. PRWORA development activity for *< State >* ensued from *< start date >* to final certification for the *< State's CSES acronym >* on *< date >*.

Since the *< State's CSES acronym >* certification on *< date >*, it has not been significantly upgraded, enhanced, or modernized. To date, minor enhancements that have been integrated into *< State's CSES acronym >* have not required it to be recertified.

…or…

Since initial certification, the *< State's CSES acronym >* has been significantly upgraded or modernized using the *< _____ alternative. >* The *< State's CSES acronym's >* most recent modernization project was initiated on *< date >* and completed on *< date >.* Since *< State's CSES acronym's >* architecture, requirements, functionality, and/or capabilities *< were/were not > < significantly enhanced …or… changed >,* re-certification *< was/was not >* required; it ensued from *< start date >* to final certification on *< date >.*

…and/or…

More recently, the *< State's CSES acronym >* has been *< replatformed/refactored or enhanced. >* The *< State's CSES acronym >* replatforming/refactoring or enhancing began on *< start date >* and was completed on *< date >.* Since overall requirements, functionality, and capabilities *< remained constant …or… significantly changed >,* re-certification *< was/was not >* required.

…and…

< State's current operational CSES acronym >, which has been operational since *< date, >* is expected to reach end of useful life on *< date. >* That is, its useful life is estimated to be in *< 'x' >* years. *[Briefly describe the status of the current operational CSES; include high-level information that will be supported with more detail in the remainder of this FS.]*

1.4 Modernization Methodology

As part of the analysis effort for CSES modernization, a state's program and technical teams are typically evaluating the need, suitability, pros and cons, cost, efficiency, and

sustainability of various alternatives. OCSE recognizes this analysis work and seeks to simplify modernization documentation requirements and preparation processes by eliminating or modifying selected feasibility study steps required by the July 1993 guide. That is, OCSE's goal is to ask states to summarize their business case, conduct a 'light-weight' analysis of alternatives, conduct an abbreviated cost and benefits analysis, and consolidate this information/data into a single, concise document. This process is defined as a streamlined FS, rather than a traditional, rigorous, or comprehensive FS. Additional goals for this OCSE defined FS document are as follows:

- Enable state personnel to prepare – potentially without the need for dedicated contractor support – by simplifying guidance on what needs to be included within a streamlined FS.
- Minimize the required level of detail and complexity, such that a streamlined FS may be fewer than 50 pages in length – plus a supporting cost spreadsheet(s).
- Reduce the alternatives analysis, costing, and preparation effort associated with the best, optimal, or state's selected solution (e.g., select one alternative instead of two or three alternatives to compare against the Status Quo system).
- Reduce the level of effort to conduct the requirements analysis; eliminate the function point analysis (FPA) and the rigorous scoring/weighting analyses.
- Eliminate the need to travel to multiple states to review, compare, and evaluate each state's CSES as a candidate transfer system.
- Simplify the cost benefit analysis; eliminate the requirement for cost modeling/simulations and break-even point analyses.
- Eliminate the requirement for OCSE to conduct an on-site IV&V assessment review meeting(s) at a state designated location(s) or prepare a detailed FS report. [Note that states will still need to address OCSE's comments/questions and issues/concerns identified during the streamlined FS review.]
- Reduce the OCSE review and approval time to be as little as two weeks. [Note that states will still need to factor a 60-day period[4] into their modernization schedule for OCSE to review their streamlined FS.]
- Provide three separate documents – a streamlined FS guide, FS template, and cost analysis spreadsheet template for states to use, as desired.
- Design the streamlined FS template, such that a state may copy/paste selected FS information and data directly into the IAPD (or other state/federal funding request documentation).
- Design the streamlined FS methodology as a sequence of topics where the outputs from one topic contribute to the subsequent topic until the final topic yields the FS's underlying objective – the state's preferred alternative.

[4] *45 CFR §95.611(d) – Prior Approval Conditions: Prompt action on requests for prior approval. The Department will promptly send to the approving Federal program offices the items specified in paragraph (b) of this section. If the Department has not provided approval, disapproval, or a request for information which is reflected in a record, within 60 days of the date of the Departmental letter acknowledging receipt of a State's request, the Department will consider the request to have provisionally met the prior approval conditions of paragraph (b) of this section.*

1.5 Purpose of this Guide

As conveyed during the February 2019 OCSE State Systems Symposium and its subsequent Dear Colleague Letter (DCL) entitled "Streamlining Feasibility Studies" (DCL-19-05) (July 23, 2019), OCSE is determined to streamline requirements for conducting feasibility studies associated with modernization of statewide systems. In lieu of the more traditional, rigorous, or comprehensive FS described in the HHS/ACF Feasibility, Alternatives, and Cost Benefit Analysis Guide (July 1993), the purpose of this guide is to aid IV-D directors, state CSES leadership staff (e.g., project managers, budget analysts, senior program analysts, architects, technical staff), project members, and OCSE professionals with preparing and/or reviewing a streamlined CSES modernization FS. That is, a state has the option of preparing a streamlined FS using less effort and documentation than the rigorous feasibility study requirements specified by July 1993 federal guidance.

In general, states may consider the following approaches (not in any order or preference) when considering system modernization. Note that replatforming, refactoring, or enhancing does not trigger a "feasibility study" requirement, while the other approaches do.

- **Replatforming or refactoring**: Replatforming includes moving to a new environment (platform and/or operating system) and is often augmented with software refactoring (code translation) to a different language. Alaska, Arkansas, Colorado, Idaho, Kansas, Mississippi, Ohio, Pennsylvania, Rhode Island, Tennessee, and Utah have chosen this path of modernization. Although the complexity or risk of this CSES modernization project may not be significant, OCSE – at its discretion and on a case-by-case basis – may require a re-certification review, compliance visit, or both. Note that this approach needs a modernization project plan, along with a revised AAPDU (or As-Needed APD), and OCSE approval.
- **Enhancing Existing Solution Architecture**: If the Status Quo's architecture and technology can be cost-effectively modified and/or upgraded to modern technologies and capabilities (e.g., systems that are already employing SOA technologies may possibly be upgraded with more current SOA or similar technologies), a state may choose to enhance the Status Quo system. Enhancement refers to upgrades, changes, and/or modifications that may not be significant enough to warrant a compliance visit or re-certification review. Although the complexity or risk of this CSES modernization project may not be significant, OCSE – at its discretion and on a case-by-case basis – may require a re-certification review, compliance visit, or both. Note that this approach needs a modernization project plan, along with a revised AAPDU (or As-Needed APD), and OCSE approval.
- **Transfer a system from another state**: At the time of this publication, state systems that are popular transfer candidates include Delaware, Florida, and New Jersey. Additional transfer candidates available include Oregon and South Carolina.
- **Build your own**: As the name indicates, a state may opt to build their own unique CSES with the help of contractors. Maryland has chosen this alternative.

- **Commercial-off-the-shelf (COTS) or Government-off-the-Shelf (GOTS)**: Several vendors in the child support community offer COTS products that states may consider implementing for their modernization. At the time of this publication, Florida chose the COTS alternative. Following certification of a CSES, it is considered a GOTS system, and it is potentially available for transfer to other states. Additionally, states should remember to clarify the variety of COTS/GOTS systems they will be using in terms of customer relationship management (CRM) platforms: software as a service (SaaS), platform as a service (PaaS), infrastructure as a service (IaaS), or other technology (See ACF-OA-PI-13-01).

1.6 Scope

To reinforce OCSE's goals of concise documentation, less preparation time, and a more efficient federal review and approval cycle, the following streamlined FS documentation is for states to use, as desired: (1) Streamlined FS Guide, (2) Streamlined FS Template, and (3) Streamlined FS Cost Analysis Spreadsheet.

- The Streamlined FS Guide includes guidance specific to child support that walks states through the feasibility study methodology and analysis process toward efficiently choosing their optimal or preferred modernization solution.
- The Streamlined FS Template is an optional template for FS preparation. That is, a state may design a different document, as long as it includes all of the information/data identified in the streamlined FS guide. [Note that this template meets the regulatory requirements associated with federal guidance released prior to 2020.]
- The Streamlined FS Cost Analysis Spreadsheet includes a framework to assist states with capturing lifecycle modernization costs.

The streamlined FS guide, template, and cost analysis spreadsheet provide a framework for states to use as they conduct CSES modernization planning and analysis, and prepare associated documentation, which they expect to submit to OCSE for consideration.

1.7 Intended Audience

This streamlined FS guide, template, and cost analysis spreadsheet were prepared with state IV-D directors, state CSES leadership staff (e.g., project managers, budget analysts, senior program analysts, architects, technical staff, and project members), and HHS office(s) or professionals as the intended audience. *Table 1* summarizes the audience for which this FS is expected to be of interest for project support and/or the approval process.

Table 1: Intended Audience

Name	Office Symbol	Position or Role	Gov or Ctr

1.8 Document Authors and Contributors

Table 2 summarizes the state's government and contractor personnel who participated in preparing the streamlined FS.

Table 2: Streamlined Feasibility Study Authors and Contributors

Name	Office Symbol	Position or Role	Gov or Ctr

1.9 Document Organization

The balance of this streamlined FS Guide and Template are organized as follows, such that each topic is addressed and documented. Note that each section depends upon information provided in one or more of its predecessors:

- Section 1 is the Project Introduction.
- Section 2 provides General Project Information.
- Section 3 presents an overview of the Status Quo CSES.
- Section 4 captures the Statement of Need/Problem Statement.
- Section 5 captures the Desired Benefits and Objectives.
- Section 6 provides the Requirements Analysis.
- Section 7 provides the Analysis of Alternatives.
- Section 8 provides the Cost Benefit Analysis.
- Section 9 presents the Risk Assessment.
- Section 10 identifies the Preferred Solution.
- Appendix A provides the Streamlined Feasibility Study Approval Form.
- Appendix B provides a list of References.
- Appendix C provides pertinent Definitions.
- Appendix D provides pertinent Acronyms.
- Appendix E provides streamlined FS Assumptions, Constraints, Risks, Issues, and Dependencies (ACRIDs).
- Appendix F describes how to populate and use the streamlined FS Cost Analysis Spreadsheet Template.
- Appendix G provides the 45 CFR §95.610 Submission of Advance Planning Documents. [Note: See the most current version of the CFRs referenced throughout this document.]
- Appendix H provides the User Suggestions and Feedback Form.

2 General Project Information

[Add a brief overview of the state's modernization project.] Table 3 captures project information for the *< State's (new CSES acronym) >* modernization project.

Table 3: General Project Information

Topic	Project Information
Project Name	*< Enter a name for the proposed project >*
Submission Date	*< mm/dd/yyyy >*
Desired Start Date	*< Enter a desired start date for the requested project >*
Requested By	*< Enter full name >*
Business Owner	*< Enter Business Owner/Manager supporting this document >*
Contact Information	*< Enter email address and phone number of primary contact >*
Project Charter Approved By State	*< Enter full name >*
Project Charter Date	*< mm/dd/yyyy >*

2.1 *< State's >* Project Stakeholders

Table 4 summarizes the state's state IV-D director, significant organizations, offices, and individuals directly and indirectly impacted by the *< State's (new CSES acronym) >* modernization project.

Table 4: Project Stakeholders

Name	Office Symbol	Position or Role	Gov or Ctr

2.2 *< State's >* Organizational Relationships

The *< State's >* IV-D Services Organization (Figure 2) shows the hierarchical relationships between the child support services office and pertinent state offices (including local, county, and/or judicial), federal offices, the *< State's (current/legacy CSES Acronym) >* operations and maintenance (O&M) support services team, the anticipated *< State's (new CSES Acronym) >* modernization project team(s) [e.g., PMO; Design, Development, and Implementation (DDI); Quality Assurance (QA); and Training], and the anticipated IV&V team. Only significant positions/roles are identified; contractor positions/roles are highlighted with an asterisk.

< Insert Figure Here >

Figure 2: *< State's >* IV-D Services Organization

2.3 *< State's >* Modernization Project Timeline

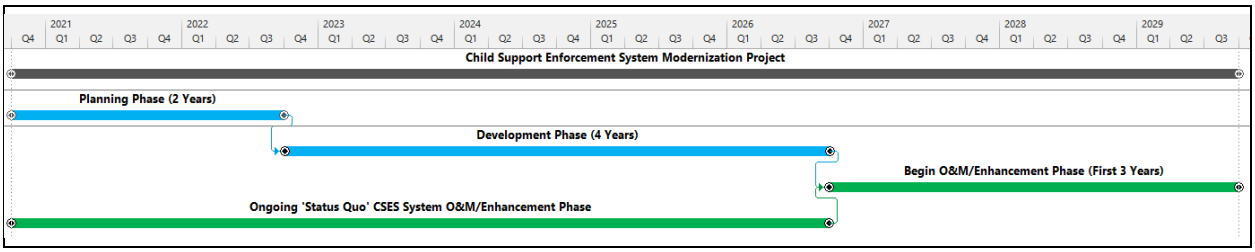

Figure 3: Notional Modernization Project Timeline

A state's modernization project timeline provides an overview of the CSES modernization project phases (planning, development, plus the first three years of the modernized CSES O&M/Enhancement timeline), as well as ongoing legacy CSES O&M/Enhancement until the state's modernized CSES is operational. Figure 3 shows a notional modernization project timeline, while Figure 4 decomposes the planning phase into its various activities.

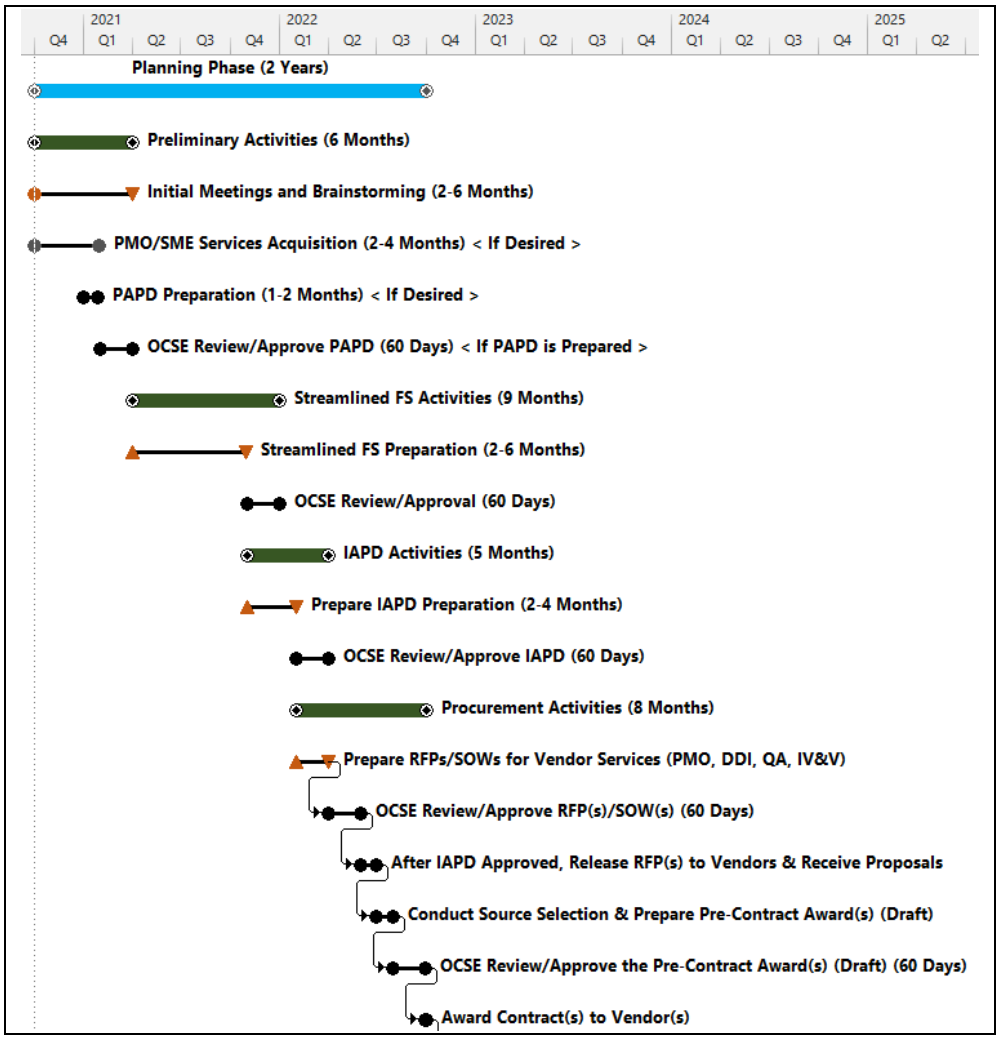

Figure 4: Notional Modernization Project Planning Phase Timeline

- The **Planning Phase** includes preliminary activities [e.g., conducting initial meetings and brainstorming; and preparing the Planning Advance Planning

Document (PAPD) (optional)], streamlined FS activities, IAPD activities, and procurement activities.

- **Preliminary Activities** includes preliminary planning and modernization brainstorming conducted by the state. This phase may also include hiring a PMO vendor – at the discretion of the state – to augment state staff by providing programmatic support and subject matter expertise (SME) throughout the modernization effort. PMO vendor tasks may include, but not be limited to, preparing the PAPD (optional), streamlined FS, IAPD, RFPs (e.g., DDI, QA, IV&V, Training, and the follow-on O&M), as well as assisting the state with preparing annual APD documentation. If a state decides to prepare and forward a PAPD[5] to OCSE for review and approval, remember to factor a 60-day period[6] into the modernization schedule for OCSE review.
- **Streamlined FS Activities** include conducting the streamlined FS, preparing the requisite documentation, and forwarding it to OCSE for review and approval. This activity also includes capturing the functional requirements specification and the state's functional requirements artifacts associated with the Status Quo system. [Remember to factor a 60-day period into the modernization schedule for OCSE review.]
- **IAPD Activities** include preparing the IAPD and supporting documentation and forwarding it to OCSE for review and prior approval. [Remember to factor a 60-day period into the modernization schedule for OCSE review.]
- **Procurement Activities** include preparing RFPs (e.g., DDI, QA, IV&V, Training, and eventually the follow-on O&M RFPs), forwarding each draft RFP (as appropriate) to OCSE for review and approval, releasing each RFP to the vendor community, receiving proposals, conducting source selection, preparing the draft contract, forwarding each draft contract (as appropriate) to OCSE for review, and subsequently awarding each contract to the winning vendor. [Remember to factor a 60-day period into the modernization schedule for OCSE to review and approve each RFP and each contract.]

- The **Development Phase** includes the state or vendor conducting the DDI effort. QA, IV&V, and Training (as appropriate) are also conducted during this phase.

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[5] *Ref: 45 CFR §95.610(a)(2)(v & vi). If a state chooses to submit a PAPD, the PAPD must contain a: (v) commitment to conduct/prepare the problem(s) needs assessment, feasibility study, alternatives analysis, cost benefit analysis, and to develop a Functional Requirements Specification and/or a General Systems Design (GSD); and (vi) commitment to define the State's functional requirements, based on the State's business needs which may be used for the purpose of evaluating the transfer of an existing system, including the transfer of another State's General System Design that the State may adapt to meet State specific requirements*.

[6] *45 CFR §95.611(d) – Prior Approval Conditions: Prompt action on requests for prior approval. The Department will promptly send to the approving Federal program offices the items specified in paragraph (b) of this section. If the Department has not provided approval, disapproval, or a request for information which is reflected in a record, within 60 days of the date of the Departmental letter acknowledging receipt of a State's request, the Department will consider the request to have provisionally met the prior approval conditions of paragraph (b) of this section.*

The warranty and system certification[7] period may either begin before – and be completed before – the official completion of the DDI contract period or immediately upon completion of the DDI contract period. Following certification, the state's new CSES enters its operational phase.

- The **Modernized CSES O&M/Enhancements Phase** includes the first three (3) years of services and support similar to what was performed on the current/legacy CSES. During this phase, the state must submit an AAPDU to OCSE to request federal financial participation (FFP) support for project funding. After 3 years of O&M – with no significant development or changes to the system – the state may elect to transition to an Operational Advance Planning Document (OAPD).
- The **Current/Legacy CSES O&M/Enhancements Phase** includes operating, maintaining, and potentially performing ongoing enhancements to the legacy CSES in parallel with the modernization effort, and continuing O&M services until the new/modernized CSES is rolled out statewide and officially operational. Typically, the legacy CSES is subsequently placed into an 'inactive' status for a defined period. During this 'inactive' status period, benefits to the state include having a fallback system in the event of an issue with the new system, as well as retaining legacy data so a state can perform error checking in the event of data corruption on the new system. Following this defined 'inactive' time period, the legacy system is typically decommissioned, retired, and permanently disabled/disassembled.

2.4 *< State's >* Streamlined Feasibility Study Methodology

The streamlined FS process is beneficial to a state that is constrained by cost and time, or has reasonable justification to limit alternatives being considered. For example, the state may want to consider only one transfer candidate, integrate their CSES into an overall agency-wide modernization plan, or simply build a new system from scratch. While this approach may appear to be somewhat subjective, the state's evaluation methodology and evaluation criteria must be derived from the statement of need, technical and business problems, constraints, desired benefits, desired objectives, and requirements. In addition, this methodology must be defensible, repeatable, and applied consistently across all candidates considered by the state. As an example, this process does not prevent the state from selecting just one transfer candidate from a pool of the most recently certified systems based on assessment of cost, benefit, risk, or the service delivery model (e.g., administrative versus judicial, state vs county administered or vendor driven program) – without having to consider other non-transfer alternatives.

To ensure the transparency of the state's methodology towards determining the viability of the selected alternative(s), does the state's methodology include information and statements that are reasonable, accurate, measurable, consistent, and repeatable (i.e., the state's methodology satisfies all five criteria)?

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[7] *Automated Systems for Child Support Enforcement: A Guide for States – Updated 2017 (AT-17-11) [A Certification Guide for the States]*

- Reasonable? Needs/capabilities/requirements statements and assumptions, constraints, risks, issues, and dependencies (ACRIDs) are appropriate to the state's IV-D mission. Resulting conclusions logically flow from data, information, and analytics, and consistently apply premises for each alternative considered.
- Accuracy? Quantitative/tangible (measurable) data and information supported by referenced sources, and qualitative/intangible (not measurable) information that is reasonable and supported by referenced sources.
- Measurable? Analysis conclusions that are based on quantitative/tangible data and standards. Further, information that has no objective standard, such as preferences, are quantified with state defined scaling or metric values.
- Consistent? Needs/capabilities/requirements, ACRIDs, referenced data/information, and analytical/mathematical constructs are applied consistently to each alternative considered.
- Repeatability? Results that can be duplicated by OCSE reviewers who examine the same premises and referenced information. Hence, as OCSE reviews the states artifacts, can we follow the state's logic and workflow to duplicate the results that the state achieved?

2.5 < *State's* > Feasibility Study Workflow

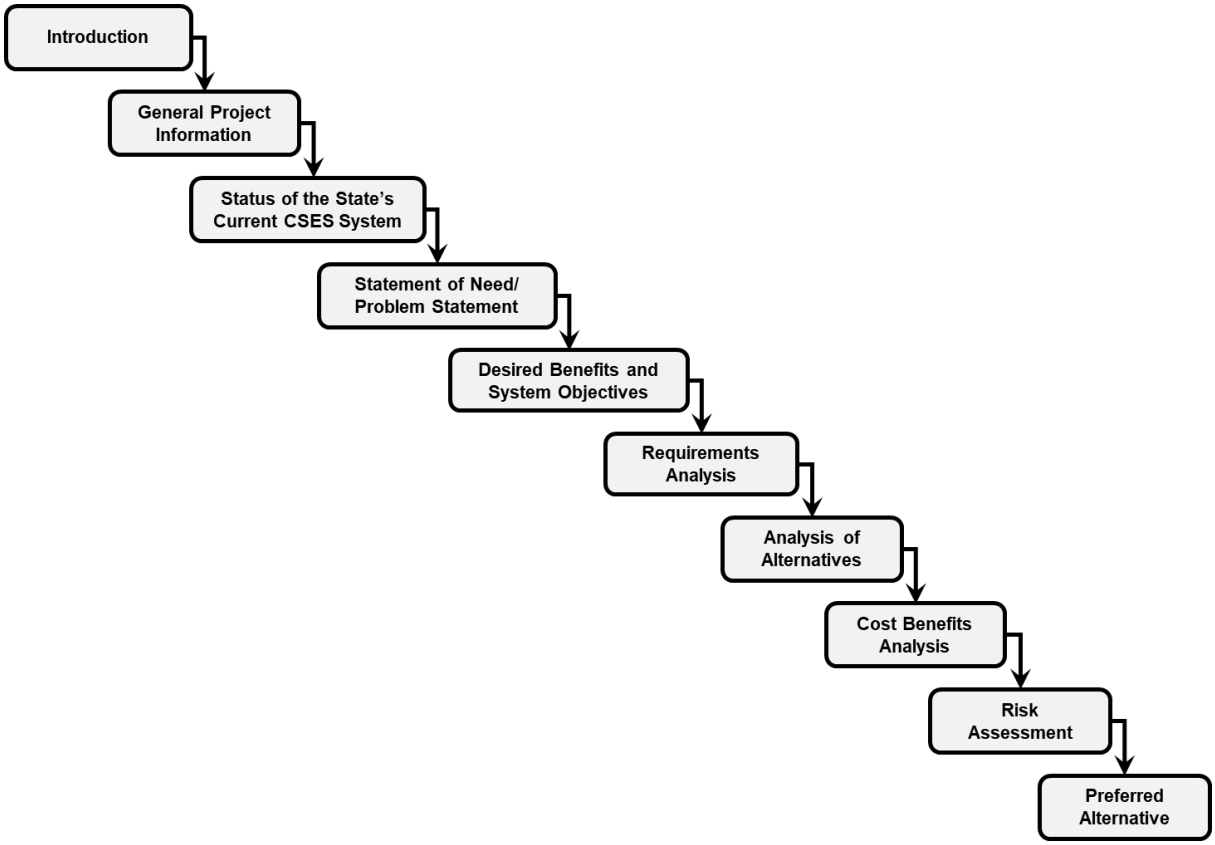

Figure 5: < *State's* > Streamlined Feasibility Study Workflow Processes

The workflow for this streamlined FS is comprised of a sequence of 10 topics where the outputs from one topic sequentially feeds the next topic, until the last topic yields the FS's underlying objective – the state's preferred alternative. Figure 5 shows an

overview of the < *State's* > streamlined FS workflow process, while Table 5 includes the < *State's* > description of each topic. Together, the workflow and activity descriptions define the < *State's* > tailored analysis methodology that will be followed throughout their FS document.

Table 5: < *State's* > Workflow Step Descriptions

Step	Description
Introduction	Provide introductory information, background, legacy CSES certification history, the state's modernization methodology, purpose of this project, scope, intended audience, and FS authors.
General Project Information	Provide programmatic information, stakeholders, organizational charts, planned modernization schedule, and the state's FS methodology and evaluation criteria that will be applied during the AoA, cost and benefits analysis, and down-select steps described in the remaining eight workflow steps below.
Status of the State's (Current CSES Acronym) System	Include basic information and data about the state's current CSES – hereafter referred to as the Status Quo system. The Status Quo system must be clearly understood and well documented. Basic information to include in the FS is the current system's architecture diagram, the service delivery model employed, case load data, staffing levels, and a list of foundational documents – such as the current system's functional requirements document (FRD), system requirements specification (SRS), system design document (SDD), use cases (UC), interface control document (ICD), and system security plan (SSP). Typically, these system development lifecycle (SDLC) artifacts are reviewed and updated at least annually.
Statement of Need/Problem Statement	To establish the CSES Statement of Need (SON), the state must first clearly define the state's current CSES – referred to as the Status Quo system. Using information and data about the current system, identify significant problems and issues with the current system. Concisely describe each problem to include gaps between the current and desired system. Provide sufficient detail to determine if each problem is tangible/quantitative (measurable) or intangible/qualitative (not measurable), as well as the seriousness of each problem. Problems may be functional — that is, the system may be incomplete, not fulfilling all the program requirements. Problems may be technical and inefficient in terms of hardware or software (e.g., the system may be too slow, sized too small, or obsolete). Problems may also relate to system cost or access, limiting the ability of personnel to use system information to full potential. This step should also include a determination of the seriousness of each problem and its effects on factors such as program clients and program financial considerations.
Desired Benefits and System Objectives	Identify desired benefits, improvements, changes, results, and/or mission outcomes. These may include requirements, capabilities, features, and/or enhancements not supported in the Status Quo system. After the current operational problems and desired benefits are identified, the state can develop specific system objectives. In defining objectives, various elements must be considered: program needs, costs, level of effort, time schedules, allowable operational changes, ease of future modification and expansion, system security, maintainability, and reliability. Whatever the element needing improvement, system objectives should be defined in a clear, specific, and measurable manner; and in terms general enough to be satisfied or met using different automation strategies. In terms of the FS, system objectives form (1) the framework for the initial system requirements, (2) are used to ascertain the acceptability of an alternative(s), and (3) form the basis for generating costs and benefits during the subsequent cost and benefits analysis step.

Step	Description
Requirements Analysis	The goal of requirements analysis is to ensure clear definition leading to a federally certified system[8] that also meets state specific functional and technical requirements (features, capabilities, and usability). This analysis builds upon the statement of need, desired system benefits, and modernization objectives. As such, a detailed analysis and documentation of the functional and technical requirements will lead to a modernized CSES that satisfies the needs of a state's IV-D mission.
Analysis of Alternatives	Tailored or Lite-Weight AoA – The state defines an AoA methodology that may be 'selective,' 'tailored,' 'light-weight,' or as 'complex and detailed' as desired – along with evaluation criteria to be applied throughout the AoA step. This methodology, which may appear to be subjective, accounts for information developed in the statement of need, desired benefits and system objectives, and requirements analysis sections of the FS. It may also include the state's preferences, such as desired technologies to be implemented, the date that a transfer system was certified, and/or the shortest time to implement a modernized solution. Using this methodology, the state conducts an analysis against the entire pool of candidate alternatives available for CSES modernization to determine which alternative(s) best meets the state's needs and requirements. Typically, the result of this type of AoA will be one to three candidate alternatives, which will be further evaluated in the cost benefit analysis and risk assessment steps – along with the Status Quo system. AoA Results in Only One Alternative – In the event that the state's 'selective,' 'tailored,' 'light-weight,' or 'complex and detailed' AoA methodology results in only one preferred or viable alternative, then complete the remaining FS steps – cost benefit analysis and risk assessment – for only this alternative, plus the Status Quo system. That is, the goal here is for the state to capture and document the costs, benefits, and risks associated with this one alternative – along with the Status Quo system – for comparison. Pre-Determined Alternative – In the event that a state has already pre-determined its desired alternative (i.e., before initiating the AoA step), then the state's AoA section of the FS is simplified to include information on two to three topics. (1) The state defines and/or describes the methodology, reasons, and justification for choosing this pre-determined alternative and how each candidate in the entire pool of alternatives is disqualified. (2) If pre-determined alternative is not the transfer of an existing system, then provide a brief explanation of why such a transfer is not feasible.[9] (3) In addition, provide a brief statement regarding why the Status Quo system is/is not a viable option for modernization. Then complete the remaining FS steps – cost benefit analysis and risk assessment – for only this alternative, plus the Status Quo system. That is, the goal here is for the state to capture and document the costs, benefits, and risks associated with this one alternative – along with the Status Quo system – for comparison.

[8] *Automated Systems for Child Support Enforcement: A Guide for States – Updated 2017 (AT-17-11) [A Certification Guide for the States].*

[9] *Per 45 CFR §95.610(b)(3), the IAPD/IAPDU shall include "A requirements analysis, feasibility study and a statement of alternative considerations including, where appropriate, the use of service-orientated architecture and a transfer of an existing system and an explanation of why such a transfer is not feasible if another alternative is identified."*

Step	Description
Cost Benefit Analysis	The cost benefit analysis provides managers, users, and designers with the information necessary to evaluate alternative system development or improvement approaches. The cost analysis provides the estimated costs to develop and maintain/operate each down-selected alternative, along with the benefits to be derived from each. Benefits need to be traceable back to and address known SON issues and limitations, desired benefits, system objectives, mission requirements, and projected costs. Therefore, cost and benefit analyses are not simply a method of determining the least costly alternative, but a means of determining the most cost effective alternative. [Note: The cost analysis includes current and projected costs for Status Quo system's O&M, enabling a comparison to the projected O&M costs for each down-selected alternative over the specified timeframe.
Risk Assessment	For the down-selected alternative(s), identify and mitigate project, technical, security, operational, business and other risks affecting planning, development, O&M, and other lifecycle activities. Focus on programmatic risks relative to the remainder of the planning phase and the entire development phase. For the development phase, these risks become the foundation for the development risk register.
Preferred Alternative	The final step in the state's streamlined feasibility study methodology is to select one alternative (which is supported by analyses performed within each preceding step), complete their FS documentation with supporting artifacts, and forward them to OCSE for review.

3 Status of the *< State's (Current CSES Acronym) >* System

The Status Quo system must be clearly understood and well documented. Basic information to include in the FS is the current system's architecture diagram, the service delivery model employed, caseload metrics, staffing levels, and a list of foundational documents – such as the Status Quo system's functional requirements specification (FRS), System Design Document (SDD), Use Cases (UC), Interface Control Document (ICD), and System Security Plan (SSP). [Note that change requests are typically captured and maintained in a 'living' system or functional requirements specification (SRS/FRS), or detailed system requirements document (SRD).]

3.1 *< State's >* Project Organizational Structure

The *< State's (new CSES Acronym) >* Modernization Project Organization Chart (Figure 6) shows key state and contractor positions/roles and their hierarchical relationships within the *< State's (new CSES Acronym) >* modernization project team. Included are the IV-D Director, State's Modernization Program Manager (Gov PM), Vendor's Modernization Program Manager (Ctr PM) position, and key state and contractor positions for each team (e.g., PMO, DDI, QA, Training, IV&V, follow-on O&M/Enhancement service teams; other teams may include security, network, and database). Where known, names are included for significant positions/roles; contractor positions/roles are highlighted with an asterisk.

< Insert Figure Here >

Figure 6: *< State's (New CSES Acronym) >* Project Organizational Structure

3.2 *< State's (Current CSES Acronym) >* System Architecture

The *< State's (current CSES Acronym) >* system – generically referred to as the current, "As-Is," legacy, or Status Quo system – has been operational since *< date >* and will continue to be maintained and enhanced (as needed) until the *< State's (new CSES Acronym) >* system is completed, certified, and approved for operations. Note that the currently operational *< (current CSES Acronym) >* system is expected to reach end of useful life on *< date. >* The *< State's (current CSES Acronym) >* system architecture diagram shown in Figure 7 is based upon *< technologies >* and *< software >……..< insert text description of the current CSES architecture. >*

Include an overview of the technologies employed, significant business and technical capabilities, features, and system performance. Briefly describe significant components, interfaces, and other features and capabilities shown in this figure. In addition, identify the skill sets required to maintain and enhance it, as well as skills that a typical caseworker, user, and client must possess to use this system. Add a statement regarding service delivery model employed; that is, how it is administered and the judicial processes that are employed.

- Judicial
- Administrative
- State-Administered
- County-Administered

- Contractor Operated and State-Administered

< Insert Figure Here >

Figure 7: *< State's (current CSES Acronym) > "As-Is" System Architecture*

3.3 *< State's (Current CSES Acronym) >* Data and Information

Table 6: *< State's (current CSES Acronym) >* Data and Information

Metric Category	Year 1	Year 2	Year 3	Year 4	Year 5
Total Caseloads for Five Consecutive Years					
Total Caseloads for Current Assistance					
Total Caseloads for Former Assistance					
Total Collections					
Paternity Established					
Number of Cases Open at End of the Fiscal Year					
Number of Cases and Caseloads					
Number of Orders Established					
Number of Caseworkers/Full Time-Staff Equivalent					
Number of Customers/Users					
Number of Children in IV-D Cases					
Program Collections					
Payments to Families					
Arrears					
Number of Help Desk Tickets					
Number of Walk-Ins for Help Desk Support					
Number of Call-Ins for Help Desk Support					
Number of O&M System Support Staff					
Number of O&M Customization/Enhancement Staff					

[State needs to refine the list of metric categories in this table…to be categories for which a state tracks and gathers information/metrics/data.]

Table 6 summarizes the *< state's (current CSES Acronym) >* general data and information for the last five (5) years. Summarize various information and data that pertains to the current CSES, including but not limited to the number of cases, caseworkers, and users/customers for last five years. Also, summarize the number of O&M resources/staff for the last five years – subdivided into two groups:

(1) Staff who maintain and patch the underlying system infrastructure, network, and servers, as well as hardware, firmware, and software (e.g., security patches to the operating system). Tasks and activities conducted by these staff have no direct impact upon the CSES application. These staff may also provide Tier I/II Help Desk support. That is, this group of individuals typically includes network engineers, database engineers, security engineers, and help desk technicians.

(2) Staff who upgrade, customize, enhance, or maintain the CSES application. These staff may also provide Tier II/III/IV issue resolution support. That is, this group of individuals typically includes an architect, requirements engineers,

software programmers, database engineers, testers, and technical document writers directly associated with the CSES application.

[Example questions that a state may wish to address include, but are not limited to, the following:

- *With this modernization project, does the state expect to realize any improvement to the above metrics?*
- *Does this modernization improve the technology stack to be more in tune with the latest technology trends?*
- *What other significant metric improvements does the state anticipate from this modernization effort?]*

3.4 *< State's (Current CSES Acronym) >* Requirements Related Artifacts

Table 7: "As-Is" Requirements Related Artifacts

Artifact	Version	Date
Status Quo Systems' FRS [*Note that the FRS is a living document that includes met, partially met, and unmet requirements, candidate enhancements, and more.*]		
System Design Document (SDD) or the General Systems Design (GSD)		
Use Cases (UC)		
Interface Control Document (ICD)		
System Security Plan (SSP)		
System Administration Guide (SAG)		
Database Administration Guide (DAG)		

Table 7 lists the *< state's (current CSES Acronym) >* "As-Is" requirements related artifacts with their most recent review/update date.

[Note: Encourage the state to include the functional requirements document, requirements specifications, and system design documents with architecture diagrams, use cases, interface control document, and system security specification. Typically, change requests are captured in a 'living' system or FRS and SRD; and include 'met,' 'partially met,' and 'unmet' requests for improvements and changes. These artifacts are stored and controlled via various techniques, such as stand-alone documents in shared or common folders, folders utilizing access control lists (ACL) to manage who can read or modify them, or via software configuration management tools (e.g., application lifecycle management (ALM) tools, employing roles and privileges to control access).]

4 Statement of Need/Problem Statement

All states now have a certified, automated CSES. Since late 1980s, states have independently developed and maintained their respective CSES via separate budgets, schedules, and timelines, with the first state system being certified in the 1990s and the last in 2019. Each system (1) uses a cross section of technologies that were available during its respective development phase, (2) addresses evolving federal and state requirements, (3) has unique graphical user interfaces (GUIs) tailored to their specific user and customer needs, and (4) is currently in the O&M phase of support, where ongoing enhancements and patching may be underway.

Some of these systems – which have been operational for 20 years or more – continue to use first generation computer technologies, such as mainframe hardware, mainframe operating systems (OS), and COBOL/Natural programming languages. In the early 2000s, states began evolving their mainframe-based systems toward service-oriented architecture (SOA) technologies, and moving to physical web servers, Windows Server/Linux OS, and Java/.Net programming languages. Current technologies being considered for the next generation of systems include virtual servers, application programming interfaces (API), migrating from dedicated data centers to the cloud, and more.

CSES deficiencies typically increase in both number and magnitude as a system ages, simultaneously and in parallel with technological advances. As state systems age, caseworkers, users, and customers' skill sets continuously evolve toward using the latest generation computers and rapidly evolving user interfaces. In addition, users desire more metadata fidelity and expect faster system response times. That is, as these systems age, users may perceive that the current system 'appears' to be less user-friendly, have slower responsive times, and may be less useable to users who have been adapting their skills to use the latest available technologies.

As disparities between user skills and the aging technologies of fielded systems increases, there is a point at which enhancements can no longer be easily or cost-effectively integrated into existing system architectures. Evidence of this is seen in the increasing numbers of 'partially met' and 'unmet' requests for improvements, users having to be trained on how to use retro or older technologies when performing routine activities, and the increasing level of effort and technical complexity required to sustain aging systems. Hence, there is a wide variety of problems, challenges, deficiencies, limitations, and issues that a state faces as its CSES ages – technical and business – resulting in various questions.

- Examples of technical problems may include the following:
    - Do we have a programmer who has the skills required for the current language or is knowledgeable with mainframe or host platform?
    - Does the current technology support timely, easily maintained, and simple to implement enhancement capability? Are they technical only?
    - Is the business satisfied with the functionality, or do larger issues exist as well?
    - Is the system slow, sized too small, or becoming obsolete and inefficient in terms of hardware or software?

  - How frequently is the enterprise-accessible database refreshed (real-time, hourly, or daily)?
  - Is the move from the mainframe or host platform due to state mandates or state cost constraints?

- Examples of business problems may include the following:
  - Does the current system support new technology that users and constituents are familiar with?
  - Is the inability to provide automated, latest-generation customer interfaces and usability causing an increased number of in-person and dial-in help desk ticket support issues or requests (e.g., in lieu of easy to use, self-service, automated password reset tools)?
  - Are user or client skills limiting ability of personnel to use system information to its full potential?
  - Do workflow or work processes need to be improved to provide greater efficiency and economy?

4.1 Technical and Business Problems

Since the purpose of the CSES modernization effort is to improve upon known business and technical limitations of the current CSES, the next step is to capture significant Status Quo system's problems, challenges, deficiencies, limitations, and issues. Each should be:

- Identified and concisely defined/described.
- Categorized as tangible/quantitative or intangible/qualitative with a corresponding quantitative or qualitative measure with which to determine success/failure as each issue is addressed in the modernized solution.
- Prioritized relative to importance and value to the state's IV-D mission, stakeholders, and the modernization timeline when a capability or feature is needed (e.g., near, mid, or long term).

Capturing known technical and business limitations forms the foundation of the statement of need (SON) section. Some examples follow:

- Status Quo system is inefficient and costly to maintain and will not resolve current challenges.
  - State agencies have experienced significant staffing reductions in the present economic environment.
  - Continuing to maintain the Status Quo system will leave the state vulnerable when state and federal mandates require modification.

- Status Quo system design is not intuitive and is frustrating for both experienced and new staff to use.
  - It is cumbersome to maintain and enhance due to its aging platform and architecture; it cannot support further automation to improve overall performance or usability.
  - As computer skills and technology evolves, the Status Quo system's limitations, risks, and associated costs with obsolete technology will be further exposed.

  - The Status Quo system relies heavily upon human intervention to sustain daily operations. This is negatively impacting customer service and employee morale, and is requiring an ever increasing level of funding in order to maintain system operations.

- System is written in COBOL/Natural language and we cannot find programmers to maintain the application.
- Staff with mainframe-based programming skills are difficult to replace.
  - COBOL and mainframe developers/programmers/network engineers possess skills that are no longer being taught in colleges and universities. People who have these skills are either approaching retirement age or redirecting their careers towards learning latest generation software and technology skills.
  - Developers with mainframe language (e.g., COBOL, NATURAL, and ADABAS) skills and wisdom are rapidly reaching retirement age.
  - Replacing and sustaining COBOL and mainframe developers, programmers, and network engineers often results in lengthy vacancy periods, which impacts technical operations and customer support.
  - Current generation developers typically:
    - Use object-oriented languages taught in schools/universities.
    - Want to upgrade their skills every 2-3 years to maintain their marketability.
    - Are reluctant to learn legacy programming languages.
- Must move from the mainframe or host platform because of a state mandate or state cost constraint.
- Umbrella agency's information technology (IT) shop is now supporting the system and they want it to be on a different platform and database in order to be consistent with underlying infrastructure and other applications' technologies.
- User interface is too clunky, making it difficult to retain staff because they are used to newer systems and technologies, and do not want to learn how to use the legacy system.
- Current system does not support new technology that constituents demand.
- Functionality is too complicated – users cannot be trained, and state is not doing well on performance.
- State has multiple issues that are both technology and business related.
- Usability
  - 'Green screen' user interfaces are obsolete; users prefer intuitive and easy to use GUI web pages.
  - Screen navigation and redundant data entry (i.e., re-entering the same data on multiple screens) is tedious and prone to errors.
- System Security
  - Complexity increases with the use of independent security controls used on periphery systems.

  - Confidentiality, integrity, availability (CIA) challenges increase with use of multiple, disparate, cross-generational technologies fielded over the last 60 years (e.g., interfaces between mainframe and web technologies).
  - Vendors retire or suspend support for upgrades and security patches of older technologies, with the caveat that the system owner is not responsible for all future upgrades and/or security patches.

- Inflexibility
  - Mainframe business processes/techniques considered state-of-the-art in the 1970s/1980s lack flexibility to provide timely reports, analyses, and metadata search results commonly desired by today's user community (batch processing performed once a day vs real-time data/file updates).
  - Seemingly minor GUI web page requirement changes may result in labor intensive coding and testing efforts when modifying the interfaces so mainframe system/languages can accommodate Java/.Net object-oriented data/information exchanges.

- Data Reliability and Reporting
  - Potential for data integrity issues when re-entering the same data on multiple screens; additional time is required to isolate data entry errors.
  - Batch processing performed once a day vs real-time database/file updates results in slow responses to user and customer needs.
  - Limited flexibility hinders creating/modifying reports, adding new metadata fields, and conducting ad hoc/random metadata searches in response to today's typical analytical queries.
  - May be challenged to meet response time/timeliness requirements expected by external systems.

- Customer Access
  - Non-real-time customer access to case management data/information.
  - Limited self-service capabilities to resolve simple transaction issues is impacting caseworker and call center staff efficiency.
    - Increased number of call center support requests
    - Longer call wait times
    - Additional walk-in clients

- Training
  - O&M resources increasingly difficult to locate – may require a tailored, in-house training program.
  - Training of 'web page savvy' caseworkers and customers to interact with 'green screen' user interfaces is challenging; typically results in longer learning curves … and frustration with redundant data entry.

4.2 Constraints

Each state has unique constraints under which it must account for during their CSES modernization effort. For a state that has budgetary challenges, cost may be the most important factor affecting decisions about viable alternatives for system modernization.

Consequently, minimizing cost is a financial constraint influencing decisions made during the analysis of alternatives, cost benefit analyses, and risk assessment steps. Specific constraints may include, but are not limited to, the following:

- State's IV-D office is limited by the amount of funding available to modernize their CSES, especially while simultaneously requiring O&M funding to maintain and operate the current/legacy CSES.
- In the effort to secure state funding, the modernization costs must be both justified and the minimum necessary, before the state legislature will approve support for the state's share of the modernizing costs.
- The cost benefit analysis must ensure benefits are maximized while simultaneously minimizing expenditures. That is, the modernization effort must focus on the most cost-effective remedies for current deficiencies.
- Due to financial limitations, the state may not want to achieve a blue-sky solution but may require a pragmatic approach to assess alternatives for the ability to increase productivity.
- Among the risks associated with modernization, delays or schedule slippage toward replacing the current system may drive up future costs and strain a state's fiscal resources that are being used to support parallel CSES programs: O&M for the current CSES and planning/development (PMO, DDI, QA, Training, and/or IV&V) for the modernization effort.
- State's current/legacy CSES will reach end of useful life by *< year. >*
- State's current/legacy CSES must be replaced with a system that employs current technologies.
- State's IV-D office may be directed to modernize using specific technologies, COTS software, open source software, open source standards, databases, and/or platforms.
- State's CSES modernization effort is part of an agency-wide modernization plan. That is, the state's IV-D office has been directed to integrate its CSES into the state's Enterprise architecture, which may also imply that the CSES must employ technologies that are either identical to those used by the Enterprise system or efficiently interface with the Enterprise system (e.g., via open source, standards based, web services).
- State's IV-D office has a time constraint, such as a modernized system must be implemented, certified, and operational within 24-36 months.

4.3 Assumptions

Each state has unique assumptions that impact their CSES modernization effort. Examples of assumptions impacting modernization are the following:

- State will secure necessary funding for system planning, design, acquisition, and implementation of the selected alternative.
- State will provide appropriate program management and technical expertise throughout planning, development, implementation, and certification. As needed, RFPs for PMO, DDI, QA, training, IV&V, and O&M services will be prepared and released to the vendor community and contracts awarded on schedule.
- State will provide appropriate program management and technical expertise for ongoing O&M of the certified legacy CSES. As needed, an RFP(s) for O&M

services will be prepared and released to the vendor community and the contract(s) will be awarded on schedule to ensure there is no gap in service.

- State will select the alternative representing the most effective and efficient solution, meeting mission requirements and programmatic needs within cost constraints.
- State will select the alternative that meets all certification requirements.[10]

[10] *Automated Systems for Child Support Enforcement: A Guide for States – Updated 2017 (AT-17-11) [A Certification Guide for the States]*

5 Desired Benefits and System Objectives

The state's desired benefits and system objectives are used to ascertain the acceptability of alternatives, form the framework for system requirements, and form the basis for generating costs and benefits during the ensuing cost benefit analysis. Benefits and objectives should be described in a clear, specific, and measurable manner, with sufficient detail to provide a basis for project accountability and in terms general enough to be met using modern technologies. For simplicity throughout the FS, a one-for-one mapping of significant or key performance metrics, outcomes, capabilities, and features that mitigate problems identified in the statement of need – listed earlier in the FS – is recommended.

5.1 Desired Benefits

Identify desired benefits, improvements, changes, results, and/or mission outcomes. These may include requirements, capabilities, features, and/or enhancements not supported in the Status Quo system. If the state has a CSES modernization plan or roadmap (e.g., technology replacement, technology evolution, technology insertion, or technology refresh plan), then include these desired capabilities in the list below. After desired benefits have been identified and described, prioritize this list and identify those benefits that are either high priority or key; that is, the modernized CSES must address high priority or key benefits in order to be a viable long-term solution for the state. This prioritized list of key benefits may then be used within the analysis of alternatives as go/no go discriminators for a candidate alternative. Examples of benefits desired in the modernized CSES include the following:

- **Tangible/Quantitative**
    - Current and arrears collections, establish paternities, and O&M costs
    - Derive cost savings from benefit(s)
- **Intangible/Qualitative**
    - Improved usability and navigation, intuitive self-paced training, and easy to learn
    - Worker satisfaction, system up-time (the nines), and useful life of the system
    - Having a system that programmers want (may be biased, relative to each new generation)
- **Compare Quantitative Factors/Metrics**
    - Estimated net benefit (benefits minus costs)
    - Ensure assumptions are applied equally to each alternative

See Table 8 definitions for tangible, intangible, quantitative, and qualitative.

Note: Costs may not always be known; however, it may be possible to 'estimate a range' of values with an associated probability of accuracy.

Table 8: Definitions – Types of Benefits and Objectives

Term	Definition
Tangible Benefit or Objective	A benefit or objective that has value and can be precisely measured. A benefit or objective that is capable of being measured, appraised, or assigned an actual or approximate value. A benefit or objective that is real or actual; it is not vague or elusive. *[Also see Quantitative Benefit or Objective]*
Quantitative Benefit or Objective	Benefits or objectives that have a reasonable valuation, measure, or metric; and may be predicted and/or projected. Benefits or objectives that can be measured in terms of cost, numbers, or other metrics. Benefits or objectives may be expressed in dollars or in other quantitative measures. *[Also see Tangible Benefit or Objective]*
Intangible Benefit or Objective	A benefit or objective that is desirable but cannot be measured. A benefit or objective that is vague and difficult to understand or value in concrete terms. A benefit or objective that is abstract or is hard to define or measure. A benefit or objective that cannot be easily defined, formulated, or grasped; it is vague. *[Also see Qualitative Benefit or Objective]*
Qualitative Benefit or Objective	Benefits or objectives that cannot reasonably be expressed in terms of dollars or in other quantitative measures or metrics. If a benefit's or objective's costs, numbers, or other metrics cannot be reasonably defended, then the it should be set forth as qualitative — sometimes called intangible — benefits. *[Also see Intangible Benefit or Objective]*

5.2 System Objectives

After the current system's operational problems and desired benefits are identified, the state can develop specific system objectives. In terms of the FS, system objectives form the framework for defining the initial system requirements, are used to ascertain the acceptability of an alternative(s), and form the basis for generating costs and benefits during the ensuing cost benefit analysis. While defining objectives, various elements must be considered, including program needs, costs, level of effort, time schedules, allowable operational changes, ease of future modification and expansion, and system security and reliability. Whatever the element needing improvement, system objectives should be defined in a clear, specific, and measurable manner and in terms general enough to be met using different automation strategies. After system objectives have been identified and described, prioritize this list and identify those benefits that are either high priority or key; that is, the modernized CSES must address high priority or key objectives in order to be a viable long-term solution for the state. This prioritized list of key objectives may then be used within the analysis of alternatives as go/no go discriminators for a candidate alternative. Examples of objectives desired in the modernized CSES include the following:

- Quantitative/Tangible examples:
    - Implement a solution that has an overall Development Phase cost not exceeding $_____; this limit includes the sum of PMO, DDI, QA, Training, IV&V, and other vendor service contract costs incurred during the Development phase.
    - Acquisition Costs

- Measurable reasons why one alternative was chosen over another.

- Qualitative/Intangible examples:
  - Develop an architecture that is easy to maintain and operate, scalable, flexible enough to accommodate new interfaces that employ open source standards, and can efficiently upgrade to use evolving GUI technologies and add/modify metadata fields or reports.
  - Implement a solution that has a life expectancy of at least 10 years.
  - Implement a solution that maximizes benefits while minimizing expenditures.

6 Requirements Analysis

During the planning phase, the state conducts a comprehensive requirements analysis that includes preparing the functional requirements document (FRD), functional requirements specification (FRS), and/or General Systems Design (GSD) for the planned CSES solution; these artifacts are delivered with the FS to OCSE for review.[11] These artifacts include functionality that is critical to system performance and requirements needed to fulfill the program's mission, as well as requirements needed to comply with state and federal policy, guidance, and regulations. Functional requirements provide the foundation on which the detailed system requirements specifications (SRS) and technical requirements (non-functional) are derived. The SRS document reflects the maturity and completeness of the desired system's functionality, performance, and capabilities; and is essential to evaluate potential solutions, such as transfer candidates and vendor demonstrations.

Integral to this step is the evaluation of current and future business processes in anticipation of implementing a new statewide CSES. This evaluation includes an assessment of the current environment ("As-Is"), where the program is expected to be after the new system is implemented ("To-Be"), and an initial gap analysis of the differences between the "As-Is" and "To-Be" solutions.

- The "**As-Is" Report** documents the current business processes that the Status Quo system follows to accomplish tasks.
- The **"To-Be" Report** documents how the state envisions the child support program to operate in the future under the new system. The format and structure of the report mirrors the "As-Is" Report, with business process models, use cases, swim lane diagrams, and description tables. While the functional areas are the same, some process models may be separated, combined, and/or eliminated in the "To-Be" Report.
- The **Gap Analysis Report** describes the differences between the "As-Is" and "To-Be" environments, identifies where the program may need to pursue changes to the business processes – or a transfer system – to realize the "To-Be" vision. At a minimum, topics in this report include the following:
    - Gap type (development, procedural, or both)
    - Estimated development effort
    - Summary of the differences between the "As-Is" and "To-Be" environments
    - High-level summary of one way the program may fill the gap
    - Tangible and intangible benefits of covering the gap

  [Note that a state may consider using the initial gap analysis to complete the requirements elaboration, which is typically included with the DDI RFP.]

[11] *PAPD: 45 CFR 95.610(a)(2)(v & vi); and IAPD: 45 CFR 95.610(b)(3 & 11)*

Although these artifacts are prepared by the state during the planning phase, it is understood that all requirements artifacts will be reviewed at the beginning of the development phase and may need to be re-baselined in order to satisfy mission requirements. Specifically, all "To-Be" CSES requirements are expected to be reviewed, refined, revised, and/or elaborated upon – with traceability back to functional requirements – early in the development phase.

Following contract award, the DDI vendor receives a copy of these artifacts – collectively referred to as business process re-engineering (BPR) documentation – to aid in preparing the modernized CSES design. For states considering a transfer system, BPR documentation will provide the DDI vendor with a comprehensive understanding of the steps for various functional processes, and areas where the modernized system may need to be modified to meet the state's needs. That is, outputs of the BPR process will identify those instances where the state would be better served by modifying a transfer system's functionality to align with the state's practices.

6.1 Notional "To-Be" System

[Example: The *< State's (CSES Acronym) >* next-generation CSES's notional architecture diagram (Figure 8) is based upon *< technologies >* and *< software >* ….]

< Insert Figure Here >

Figure 8: *< State's (new CSES Acronym) > Notional "To-Be" System Architecture*

6.2 High Level Business Impact

Outline, at a high level, the business functions/processes that may be impacted and how the project can be successfully implemented. Describe plans for addressing ongoing operations, future growth, new technologies, best practices, open source standards, and how this will be addressed and managed. Consider not only the requirements for additional hardware, software, and space, but also where financial funding for these plans will come from, additional resource requirements, staffing, training, and other expenditures. Also describe how investment performance will be measured. Identify specific performance indicators that may be used to measure investment outcomes and progress towards addressing the particular business needs.

[Example: The *< State's (CSES Acronym) >* next-generation child support enforcement system's high-level impacts include but are not limited to the following: ….]

7 Analysis of Alternatives

The streamlined FS process is particularly beneficial to states that are constrained by cost and time in planning and fielding a modernized CSES. With the streamlined FS process, a state may decide to use only selected or key information described in previous sections – instead of requiring that this methodology address all aspects of previously documented information. This approach enables a state to consider and select from the most recently modified/certified transfer systems, justify reducing the number of alternatives to a subset of the overall pool of candidates available, or limit the selection process to just one candidate from the entire pool. For example, a state may – at the outset – want to consider only one alternative: a transfer candidate; modernize via an enterprise-wide framework, agency-wide consolidation, or modernization plan; or simply build a new system from scratch. Overall, this approach potentially reduces the level of effort to conduct and document an AoA – as well as the subsequent cost benefit analysis and risk assessment – by potentially reducing the time and effort to determine the number of alternatives (via AoA down-selection) that will be further evaluated in Cost Benefit Analysis and Risk Assessment sections of the FS.

7.1 AoA Methodology

The AoA methodology may be 'selective,' 'tailored,' 'light-weight,' or as 'complex and detailed' as a state desires. As the pivot point of the state's FS, it must satisfy the following criteria:

- Build upon and be traceable to information documented in previous FS sections, including the statement of need and problem statement, desired benefits and system objectives, and the requirements analysis.[12]
- Be applied across the entire pool or universe of candidate alternatives.
- Be reasonable, accurate, measurable, consistent, and repeatable (Section 2.4).

It should be noted that the AoA methodology, which may appear to be subjective, can include, but is not limited to, a state's preferences, such as desired technologies to be implemented, the date that a transfer system was certified, and/or the shortest time to implement a modernized solution. Subsequent application of this methodology enables a state to down-select to at least two candidate(s) – one of which is the "Status Quo" or "As-Is" CSES solution.

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[12] *45 CFR 95.610(a)(2)(v): A PAPD must contain "a commitment to conduct/prepare the problem(s) needs assessment, feasibility study, alternatives analysis, cost benefit analysis, and to develop a Functional Requirements Specification and/or a General Systems Design."*

45 CFR 95.610(a)(2)(vi): A PAPD must contain "a commitment to define the state's functional requirements, based on the state's business needs which may be used for the purpose of evaluating the transfer of an existing system, including the transfer of another state's General System Design that the state may adapt to meet state specific requirements."

45 CFR 95.610(b)(3): An IAPD shall include "a requirements analysis, feasibility study and a statement of alternative considerations including, where appropriate, the use of service-orientated architecture and a transfer of an existing system and an explanation of why such a transfer is not feasible if another alternative is identified."

[Example: *< State >* has defined a 'tailored' AoA methodology, with evaluation and/or scoring criteria, to be applied during the AoA step. This methodology, which may appear – in part – to be subjective, accounts for information delineated in the statement of need, desired benefits and objectives, and requirements analysis sections of this FS. This methodology also includes *< State's >* preferences, such as *< insert preferences (e.g., desired technologies to be implemented, the date that a transfer system was certified, and/or the shortest time to implement a modernized solution). >* For a transfer candidate(s), *< State's >* preferences also include *< insert preferences (e.g., compatibility with respect to the transfer candidate's service delivery model, structure, workflow, and/or internal processes). >* Using this methodology, *< State >* conducted an analysis across a pool of candidate alternatives available for CSES modernization to determine the alternative(s) that best meets our needs, objectives, and requirements.]

7.2 Pool of Candidate Alternatives

States need to identify a pool or universe of candidate alternatives that may be considered for modernizing their CSES. Examples include but may not be limited to the following:

- **Status Quo** ("As-Is" system) (continue to use existing system).
- **New Development** (custom build from scratch or solution architecture change).
- **Commercial-Off-The-Shelf** (COTS)/**Government-Off-The-Shelf** (GOTS).
- **Transfer** (transfer a federally certified system).[13]
- **Hybrid** (combination of any of the above-mentioned alternative options).
- **Multi-State Consortium** (collaborating with another state(s) to build a system that would be shared by the partner states).
- **Enterprise-Wide System Framework** (using a statewide initiative/development effort to bring all of a state's systems under a single architecture and operating environment).

Except for the Status Quo alternative, states should anticipate that each of these alternatives will result in certification or re-certification. That is, the changes or upgrades are significant enough to require certification or re-certification. In addition, each state has the flexibility with how to develop their respective CSES, including, but not limited to, the design, architecture, hardware, application software language(s), programming tools and utilities, operating system, environments (physical vs virtual), communications, and interfaces. Each state also has flexibility in how it manages, operates, and provides lifecycle oversight for their programs following certification.

7.3 Down-Select

The down-select process evaluates each alternative against considerations of project feasibility. This may be analytical and/or judgmental, in that the result is eliminating alternatives that are not technically or operationally feasible. That is, a state may

[13] *Per 45 CFR §95.610(b)(3), the IAPD/IAPDU shall include … "a statement of alternative considerations including, where appropriate, the use of service-orientated architecture and a transfer of an existing system and an explanation of why such a transfer is not feasible if another alternative is identified."*

decide to start with a macro AoA analysis on all of the alternatives available to the state, and describe why an alternative will or will not be given further consideration. This description begins with applying the state's 'tailored' or 'light-weight' AoA methodology against the entire pool or universe of candidate alternatives, and documenting why specific alternatives are eliminated. For example, a state may decide that only transfer alternatives will be considered; hence, a description is provided on why each of the other alternatives is removed from the candidate list when the state's 'tailored' or 'light-weight' AoA methodology is applied. As noted previously, this macro analysis may appear to be subjective; however, it is up to the state to make and justify this determination. For each remaining or viable alternative, continue to apply the state's 'tailored' or 'light-weight' AoA methodology and conduct a more extensive analysis and comparison using information described in the statement of need, desired benefits and objectives, and/or requirements analysis. [Note: For simplicity and efficiency, a state may decide to use only selected or key information described in the statement of need, desired benefits and system objectives, and/or requirements analysis – instead of requiring that this methodology address all aspects of this information.] Application of this 'tailored' or 'light-weight' AoA methodology will result in the state down-selecting to at least two candidate(s) – one of which is the "Status Quo" or "As-Is" CSES solution. [Note: Sections 7.3.1 through 7.3.8 are provided as reference and example information for the FS author(s) to use during the down-selection process. At a minimum, the Status Quo (section 7.3.1) and Transfer (section 7.3.5) responses (e.g., justify a transfer system is not considered) are required. The state's pool of alternatives determines the additional subsections that will need to be included here.]

Following this down-select process, the state will perform a cost benefit analysis and risk assessment in order to determine the preferred solution(s). That is, after the state has chosen no fewer than two and no more than five viable alternatives – one of which is the Status Quo system – it may proceed with the cost benefit analysis. The Status Quo system will be used as the baseline/reference system to compare the other alternative(s).

7.3.1 Status Quo

There may be a desire to eliminate the analysis of the Status Quo. Although its analysis can be significantly reduced, it is essential to keep this option as it provides agencies with an opportunity to assess what does and does not currently work, and is a springboard toward identifying what is needed through modernization. As seen in previous sections, information captured in the statement of need/problem statement, desired benefits and objectives, and requirements analysis use the Status Quo system as their reference. Hence, selecting a few significant issues with the Status Quo system may suffice in disqualifying it a viable alternative for modernization. However, it is important to retain this option in the cost benefit analysis, because it provides the baseline to compare other alternatives' costs against – particularly O&M costs.

7.3.2 New Development

By definition, new development refers to building a new CSES from scratch, utilizing current technologies, and software development tools and methodologies. The underlying assumptions are that (1) no other alternative will satisfy a state's mission and (2) a state has a sufficient funding commitment to embark on a new development effort.

That is, building from scratch tends to be more expensive than other alternatives. However, given the number of vendors who have CSES development experience, there may not be an increased risk to choosing this approach. Risks will have to be determined on a case-by-case basis.

7.3.3 Commercial-Off-The-Shelf/Government-Off-The-Shelf

A state may determine that the optimal approach to modernization is to adapt a COTS- or GOTS-based solution. Although states have not yet fully adopted a commercial or government CSES implementation, a few states have chosen to use a COTS or GOTS application as the foundation on which to build their solution (e.g., configuring, customizing or creating unique GUIs using out-of-box capabilities and features). This approach takes advantage of proven components, features, capabilities, and functionality. Hence, reduced risk is a potential benefit associated with a new development effort. Risks will need to be determined on a case-by-case basis.

7.3.4 Transfer

A state may start with a macro analysis to reduce the pool of transfer candidates to a manageable subset of options. To start, not all federally certified systems may be suitable as transfer candidates; hence, using macro criteria enables states to narrow the pool down to a subset of transfer candidates. If a state's CSES fails any one of these criteria, it is eliminated from further consideration. Only a state's CSES that passes all of these macro criteria will be given further consideration as a transfer candidate. Examples of these type of macro criteria are as follows:

- Eliminate systems either certified before < *date* > (or not certified).
- Eliminate systems not using a service-oriented architecture.
- Eliminate systems that employ a different service delivery model.
- Eliminate systems that are not scalable to accommodate < *number* > or more cases and < *number* > or more caseworkers and users.
- Eliminate systems currently in development or undergoing significant enhancements, upgrades, and/or modernization.
- Eliminate systems currently being studied for replacement or are within < *years* > of their planned end of useful life.
- Eliminate systems for states expressing interest in pursuing system replacement in the foreseeable future.

If no transfer candidates meet this macro criteria …or… none are being considered in the remainder of this FS, then the state will need to provide an explanation.

[Example Language: The reason is that no transfer candidates are feasible, because < *…insert text….*[14] >. Then delete Sections 7.3.4.1 through 7.3.4.3.]

For example:

< *State* > has determined that it will build from scratch; that is, proceed with the New Development alternative.

[14] *Per 45 CFR §95.610(b)(3), the IAPD/IAPDU shall include … "a statement of alternative considerations including, where appropriate, the use of service-orientated architecture and a transfer of an existing system and an explanation of why such a transfer is not feasible if another alternative is identified."*

< State > has determined that it will employ a COTS product-based solution that is not currently being used by any other state.

…or…

Transfer candidates that satisfy this macro criteria are summarized in Table 9; each is further evaluated in Sections 7.3.4.1 through 7.3.4.3 below.

[Note: Travel to other states is not required to evaluate a Transfer Candidate(s). While evaluating another state's CSES as a candidate 'transfer' alternative, a state may still consider seeking an on-site visit(s) with the 'transfer' candidate state's representatives. However, an on-site visit(s) is not required for a streamlined FS. That being said, it is up to each state to determine the optimal approach towards gathering information and evaluating candidate transfer solutions. States may decide to eliminate the time commitment to schedule multiple trips and meetings, which requires considerable effort and time to plan, coordinate, conduct, and follow-up, as well as the level of effort to conduct detailed comparative analyses. In lieu of an on-site visit(s), a state may choose to evaluate a candidate transfer system's capabilities and features during demonstrations via teleconference(s) or webinar(s). A state may also choose to exchange requirements and performance information/data via email or secure file transfer, or by using other communication tools.]

Table 9: Transfer Candidates Satisfying Macro Criteria

Alternative	Macro Criteria Satisfied
Transfer *< State #1's CSES Acronym >* System	• Certified on *< date. >* • Expected end of useful life on *< date. >* • Built upon SOA (*< server type, database type, primary software type >*). • Employs *< service delivery model type. >* • Scalable to accommodate *< number >* or more cases and *< number >* or more caseworkers and users.
Transfer *< State #2's CSES Acronym >* System	• Certified on *< date. >* • Expected end of useful life on *< date. >* • Built upon SOA (*< server type, database type, primary software type >*). • Employs *< service delivery model type. >* • Scalable to accommodate *< number >* or more cases and *< number >* or more caseworkers and users.
Transfer *< State #3's CSES Acronym >* System	• Certified on *< date. >* • Expected end of useful life on *< date. >* • Built upon SOA (*< server type, database type, primary software type >*). • Employs *< service delivery model type. >* • Scalable to accommodate *< number >* or more cases and *< number >* or more caseworkers and users.

7.3.4.1 Transfer *< State #1's CSES Acronym >* System

Describe the Transfer *< State #1's CSES Acronym >* System alternative…….. If this alternative is not considered, very briefly explain why. If this alternative is considered, then provide information relative to the state's AoA methodology and evaluation/scoring criteria that qualify or disqualify it as one of the viable modernization solutions. If it is a qualified alternative, then state whether it will or will not be further evaluated in the cost benefit analysis. If it will not be further evaluated in the cost

benefit analysis, then provide justification. Briefly summarize communications, meetings, demonstrations, and trips that were conducted with this candidate transfer system's state; if none of these events occurred, then document this fact.

7.3.4.2 Transfer *< State #2's CSES Acronym >* System

Describe the Transfer *< State #2's CSES Acronym >* System alternative…….. If this alternative is not considered, very briefly explain why. If this alternative is considered, then provide information relative to the state's AoA methodology and evaluation/scoring criteria that qualify or disqualify it as one of the viable modernization solutions. If it is a qualified alternative, then state whether it will or will not be further evaluated in the cost benefit analysis. If it will not be further evaluated in the cost benefit analysis, then provide justification. Briefly summarize communications, meetings, demonstrations, and trips that were conducted with this candidate transfer system's states; if none of these events occurred, then document this fact.

7.3.4.3 Transfer *< State #3's CSES Acronym >* System

Describe the Transfer *< State #3's CSES Acronym >* System alternative…….. If this alternative is not considered, very briefly explain why. If this alternative is considered, then provide information relative to the state's AoA methodology and evaluation/scoring criteria that qualify or disqualify it as one of the viable modernization solutions. If it is a qualified alternative, then state whether it will or will not be further evaluated in the cost benefit analysis. If it will not be further evaluated in the cost benefit analysis, then provide justification. Briefly summarize communications, meetings, demonstrations, and trips that were conducted with this candidate transfer system's states; if none of these events occurred, then document this fact.

7.3.5 Hybrid

A hybrid system can be based upon any combination of components, capabilities, and features derived from the following modernization alternatives:

- **Status Quo** ("As-Is" system) (continue to use existing system).
- **Enhance Existing Solution Architecture** (Enhance the Status Quo System).
- **New Development** (Custom Build from Scratch).
- **Commercial-Off-The-Shelf** (COTS)/**Government-Off-The-Shelf** (GOTS).
- **Transfer** (Transfer a Federally Certified System).

There are a number of hybrid techniques that a state may use. A hybrid system may be developed by integrating components from multiple state systems – in lieu of transferring a single state system. A hybrid system may be derived by integrating one or more third-party COTS/GOTS components to form a state's CSES. Development costs associated with integrating different technologies into a single solution, as well as the subsequent O&M costs, will be needed to determine overall lifecycle costs. Note, however, that this option may only be viable if components are complementary and their integration costs are not higher than another alternative(s). Hence, this option may lend itself to further investigation.

7.3.6 Multi-State Consortium

Two or more states may determine that it is beneficial to merge their CSES modernization efforts into a single project. Similar to the alternatives cited above, a multi-state consortium may build from scratch (new development), utilize COTS/GOTS solutions, or integrate components currently operational in other states' systems (i.e., individual components of selected transfer systems). Benefits of this approach include states reducing their modernization costs by employing cost-sharing and development-sharing techniques, maximizing development and use of common components or technologies, and reducing the number of staff that each state provides throughout the project. While most of the functional requirements may be identical for each state – especially since states must interface and exchange data/information with other states for parents residing in different states, and with state and federal organizations (e.g., IRS) – each state typically has unique requirements, including how they implement their respective service delivery model. This suggests that, while there is expected to be an overall reduction in project costs, there will typically be state-unique aspects of this modernization effort that each state will have to fund separately. Hence, this option may lend itself to further investigation.

7.3.7 Enterprise-Wide System Framework

As technology evolves, states may determine that mission efficiencies will be realized by (1) consolidating or integrating all of a state's human services programs [e.g., IV-A, IV-D, IV-E, and Centers for Medicare and Medicaid Services (CMS)] into a single program or (2) utilizing the common technologies and standards across a state's entire enterprise or family of applications. For example, instead of having multiple, federated human services programs – each developed and maintained separately and potentially using different technologies – a state may decide to use a common technology or platform (e.g., COTS program) as the foundation for all of its human services programs. Immediate benefits may be the reduction in lifecycle costs and/or O&M staffing levels, since staff would potentially be able to apply their skills and talents across more than one human services program.

8 Cost Benefit Analysis

An effective CBA relies on a verifiable and consistent approach applied equally to each alternative, using estimated costs to compare alternatives and approximate the benefits offered by each specific alternative. This approach provides managers, users, and designers with estimated recurring and non-recurring costs to develop and operate each candidate alternative, along with quantitative and qualitative benefits derived from each alternative. Therefore, the CBA is not just a method of determining the least cost alternative, it is also a means of determining the most cost-effective alternative that fully meets the state's functional, technical, and operational requirements.

The accuracy and quality of this FS depends on how well costs are calculated and benefits are determined, especially the current state ("As-Is") – and how each alternative compares with this baseline. Therefore, both sides of the equation – the costs and benefits – are important to a solid and transparent analysis. The cost benefit analysis considers whether net marginal benefits are greater than net marginal costs. Ultimately, it is possible that the decision to proceed with a project will be based on demonstrable evidence that the benefits of the project may outweigh the costs – or vice versa.[15]

8.1 Cost Analysis

The Cost Analysis provides a summary of the modernization costs for each down-selected alternative(s); current/legacy O&M costs are included in each table so that the total annual CSES cost to the state is known. A Streamlined FS Cost Analysis Spreadsheet (template) is provided to help the state summarize recurring and non-recurring costs associated with each down-selected alternative. This template includes a framework to enable the author/analyst to capture budgetary costs from the beginning of the planning phase through the end of the development phase, plus costs associated with the first three years of an alternative's O&M phase. This template also includes projected O&M costs associated with the Status Quo system – from the beginning of the modernization planning phase through the end of the modernized system's development phase. The result is a total cost summary for each year of the modernization effort. Each of the following worksheets is described in Appendix F:

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[15] *45 CFR 307.15(12), the APD "must contain a cost benefit analysis of the proposed computerized support enforcement system and all alternatives considered that describes the proposed improvements to the IV-D program in both qualitative and quantitative terms."*

A CBA helps with predicting each alternative's benefits and costs, thereby providing quantitative (tangible) and qualitative (intangible) measures with which to compare alternatives under consideration.

Definition: A refined evaluation of the costs and benefits of selected alternatives identified during the alternatives analysis. Includes costs of current and projected operations as a baseline for (1) determining which alternative to select for automation and (2) measuring costs and benefits of the implemented and operational system over time. Costs are normally expressed in dollars, but benefits may be expressed in dollars or in other quantitative (such as time reduction) or qualitative (such as improved security) measures. Cost benefit analysis is used to determine the most cost-effective solution, not simply the least cost solution.

To determine if an alternative is sound by determining if – and/or by how much – its benefits outweigh its costs.

To provide a basis for comparing alternatives – compare the total expected cost versus the total expected benefits.

Streamlined FS Cost Analysis Spreadsheet Guide, along with how and where to populate entries.

1. State Title Page
2. Instructions - Read Me First
3. Modernization Cost Summary
4. Preliminary Activity Costs
5. Streamlined FS Activity Costs
6. IAPD Activity Costs
7. Procurement Activity Costs
8. Alternative 1 Development Costs
9. Alternative 1 O&M/Enhancement Costs
10. Status Quo O&M/Enhancement Costs

[Note: If more than one alternative is selected by the state for cost analysis, make a copy of this spreadsheet for each additional alternative and populate it with corresponding cost information for Alternative #2, Alternative #3, etc.]

[Note: Although this spreadsheet is designed to enable data entry over a 15-year time frame, only use the minimum number of years associated with your state's planning ('x' years), development ('y' years), and the first three years of the O&M phases. That is, the total number of years = x + y + 3.]

8.1.1 Cost Analysis Timeline and Schedule

In the Alternative #1 and Alternative #2 examples below, an example of a modernization project timeline is presented graphically in Figure 9, with the start and end dates delineated in Table 10.

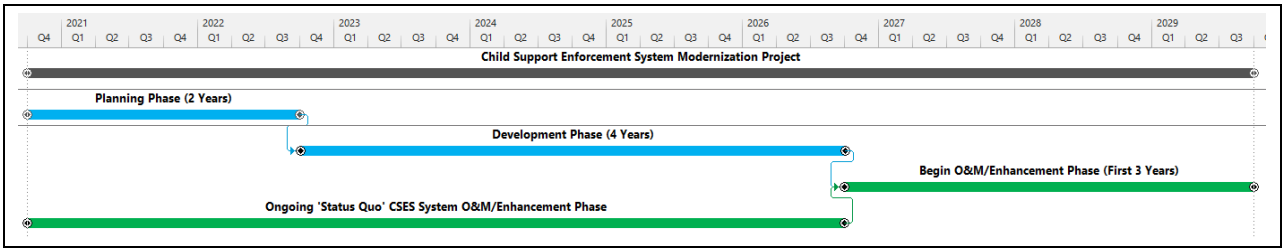


Figure 9: *< State's (new CSES Acronym) >* Modernization Project Timeline (Example)

Table 10: *< State's (new CSES Acronym) >* Modernization Project Schedule (Example)

Phase or Activity	Start and End Dates		Estimated Duration
Budget Year defined as Federal Fiscal Year (1 Oct – 30 Sep)	Q1 = 1 Oct – 31 Dec Q2 = 1 Jan – 31 Mar Q3 = 1 Apr – 30 Jun Q4 = 1 Jul – 30 Sep		12 Months
Preliminary Activities	1 Oct 2020 – 31 Mar 2021	Q1 FFY2021 – Q2 FFY2021	6 Months
Streamlined FS Activities	1 Apr 2021 – 31 Dec 2021	Q3 FFY2021 – Q1 FFY2022	9 Months
IAPD Activities	1 Nov 2021 – 31 Mar 2022	Q1 FFY2022 – Q2 FFY2022	5 Months
Procurement Activities	1 Feb 2022 – 30 Sep 2022	Q2 FFY2022 – Q4 FFY2022	8 Months

Phase or Activity	Start and End Dates		Estimated Duration
Alternative #x System's Development Phase	1 Oct 2022 – 30 Sep 2026	Q1 FFY2023 – Q4 FFY2027	4 Years
Alternative #x System's O&M Phase	1 Oct 2026 – 30 Sep 2029	Q1 FFY2026 – Q4 FFY2029	3 Years
Status Quo System's O&M Phase	1 Oct 2020 – 30 Sep 2026	Q1 FFY2021 – Q4 FFY2026	6 Years

8.1.1 Alternative #1 Cost Analysis

Provide a prose description of key aspects of the state's cost analysis for Alternative #1 shown in Table 11. Include pros and cons for these entries, as appropriate. Note that the Status Quo system's O&M costs are included in the cost summary table, so the state shows its total CSES costs for a given year.

Table 11: *< Alternative #1 >* Cost Summary (Example)

Modernization Cost Summary	FFY2021 1 Oct - 30 Sep Actual	FFY2022 1 Oct - 30 Sep Actual & Planned	FFY2023 1 Oct - 30 Sep Planned	FFY2024 1 Oct - 30 Sep Planned	FFY2025 1 Oct - 30 Sep Planned	FFY2026 1 Oct - 30 Sep Planned	FFY2027 1 Oct - 30 Sep Planned	FFY2028 1 Oct - 30 Sep Planned	FFY2029 1 Oct - 30 Sep Planned	
Planning and Development Costs										**Subtotal**
Preliminary Activity Costs	$ 350,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 350,000
BCA Activity Costs	$ 650,000	$ 200,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 850,000
IAPD Activity Costs	$ -	$ 800,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 800,000
Procurement Activity Costs	$ -	$ 1,000,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,000,000
< CSES Alternative #1 Name > Development Costs	$ -	$ -	$12,500,000	$ 13,125,000	$ 13,781,250	$ 14,470,313	$ -	$ -	$ -	$ 53,876,563
Annual Modernization Costs	$ 1,000,000	$ 2,000,000	$12,500,000	$ 13,125,000	$ 13,781,250	$ 14,470,313	$ -	$ -	$ -	$ 56,876,563
Operations and Maintenance Costs										
< CSES Alternative #1 Name > O&M/Enhancement Costs (First 3 Years Following the Development Phase)	$ -	$ -	$ -	$ -	$ -	$ -	$ 6,000,000	$ 6,300,000	$ 6,615,000	$ 18,915,000
'Status Quo' < CSES Acronym > O&M/Enhancement Costs	$ 7,400,000	$ 7,770,000	$ 8,158,500	$ 8,566,425	$ 8,994,746	$ 9,444,484	$ -	$ -	$ -	$ 50,334,155
Annual O&M Costs	$ 7,400,000	$ 7,770,000	$ 8,158,500	$ 8,566,425	$ 8,994,746	$ 9,444,484	$ 6,000,000	$ 6,300,000	$ 6,615,000	$ 69,249,155
Modernization and O&M Subtotals										
Subtotal of Planning and Development Costs	$ 1,000,000	$ 2,000,000	$12,500,000	$ 13,125,000	$ 13,781,250	$ 14,470,313	$ -	$ -	$ -	$ 56,876,563
Subtotal of 'Status Quo' and Modernized System's O&M Costs	$ 7,400,000	$ 7,770,000	$ 8,158,500	$ 8,566,425	$ 8,994,746	$ 9,444,484	$ 6,000,000	$ 6,300,000	$ 6,615,000	$ 69,249,155
Total Annual Child Support Enforcement System Costs	$ 8,400,000	$ 9,770,000	$20,658,500	$ 21,691,425	$22,775,996	$23,914,796	$ 6,000,000	$ 6,300,000	$ 6,615,000	$ 126,125,717

8.1.2 Alternative #2 Cost Analysis

Provide a prose description of key aspects of the state's cost analysis for Alternative #2 shown in Table 12. Include pros and cons for these entries, as appropriate. Note that the Status Quo system's O&M costs are included in the cost summary table, so the state shows its total CSES costs for a given year.

Table 12: *< Alternative #2 >* Cost Summary (Example)

Modernization Cost Summary	FFY2021 1 Oct - 30 Sep Actual	FFY2022 1 Oct - 30 Sep Actual & Planned	FFY2023 1 Oct - 30 Sep Planned	FFY2024 1 Oct - 30 Sep Planned	FFY2025 1 Oct - 30 Sep Planned	FFY2026 1 Oct - 30 Sep Planned	FFY2027 1 Oct - 30 Sep Planned	FFY2028 1 Oct - 30 Sep Planned	FFY2029 1 Oct - 30 Sep Planned	Subtotal
Planning and Development Costs										
Preliminary Activity Costs	$ 350,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 350,000
BCA Activity Costs	$ 650,000	$ 200,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 850,000
IAPD Activity Costs	$ -	$ 800,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 800,000
Procurement Activity Costs	$ -	$ 1,000,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,000,000
< CSES Alternative #2 Name > Development Costs	$ -	$ -	$ 29,700,000	$ 31,185,000	$ 32,744,250	$ 34,381,463	$ -	$ -	$ -	$ 128,010,713
Annual Modernization Cost Subtotals	$ 1,000,000	$ 2,000,000	$ 29,700,000	$ 31,185,000	$ 32,744,250	$ 34,381,463	$ -	$ -	$ -	$ 131,010,713
Operations and Maintenance Costs										
< CSES Alternative #2 Name > O&M/Enhancement Costs (First 3 Years Following the Development Phase)	$ -	$ -	$ -	$ -	$ -	$ -	$ 8,000,000	$ 8,400,000	$ 8,820,000	$ 25,220,000
'Status Quo' < CSES Acronym > O&M/Enhancement Costs	$ 7,400,000	$ 7,770,000	$ 8,158,500	$ 8,566,425	$ 8,994,746	$ 9,444,484	$ -	$ -	$ -	$ 50,334,155
Annual O&M Cost Subtotals	$ 7,400,000	$ 7,770,000	$ 8,158,500	$ 8,566,425	$ 8,994,746	$ 9,444,484	$ 8,000,000	$ 8,400,000	$ 8,820,000	$ 75,554,155
Modernization and O&M Subtotals										
Subtotal of Planning and Development Costs	$ 1,000,000	$ 2,000,000	$ 29,700,000	$ 31,185,000	$ 32,744,250	$ 34,381,463	$ -	$ -	$ -	$ 131,010,713
Subtotal of 'Status Quo' and Modernized System's O&M Costs	$ 7,400,000	$ 7,770,000	$ 8,158,500	$ 8,566,425	$ 8,994,746	$ 9,444,484	$ 8,000,000	$ 8,400,000	$ 8,820,000	$ 75,554,155
Total Annual Child Support Enforcement System Costs	$ 8,400,000	$ 9,770,000	$ 37,858,500	$ 39,751,425	$ 41,738,996	$ 43,825,946	$ 8,000,000	$ 8,400,000	$ 8,820,000	$ 206,564,867

8.2 Benefits Analysis

The Benefits Analysis compares the initial and ongoing expenditures to the expected quantitative and qualitative benefits for each viable alternative, as well as comparable information for the Status Quo alternative. In lieu of providing a one-to-one correlation between benefits and desired objectives, the state may present benefits that address significant and/or key objectives. That is, identify business (strategic, longer term focused) and operational (procedural, detail focused) benefits and impacts (pros/cons) that may arise from each alternative. States should also include benefits that have the greatest lifecycle cost benefit; that is, realize reduction in costs resulting from anticipated efficiencies. In addition, identify the impact magnitude (high, medium, low, or none) for each alternative using the following guidelines:

- High - indicates that the magnitude of impact is significant and stakeholder support and preparation is critical to the alternative's success
- Medium - indicates that there is a manageable impact to the stakeholder
- Low - indicates the alternative will have a minor impact to the stakeholder
- None - indicates that there will be no impact to the stakeholder

Examples of quantitative and qualitative benefits include the following:

- Business
- Technical
- Political / Organizational
- Impact on Users - Customer Satisfaction
    - Usability (ease of use)
    - Minimum training required (managers, caseworkers, customers)
- Timeframe – Planning, Modernization, plus 3 years of O&M

- Cost/Financial – Major Cost Drivers
  - Direct costs
  - Indirect costs
  - Initial costs
  - Ongoing costs
  - Capital costs
- Resources
- Security
- Sustainability (O&M)

8.2.1 *< Alternative #1 CSES Acronym's >* Benefits Analysis

Provide a description of Alternative #1's quantitative and qualitative benefits (Table 13 and Table 14, respectively), relative to objectives stated in Section 5.2.

Table 13: *< Alternative #1 >* Quantitative Benefits Summary

Quantitative Benefit	Impact	Description
Benefit #1		• • •
Benefit #2		• • •
Benefit #3		• • •

Table 14: *< Alternative #1 >* Qualitative Benefits Summary

Qualitative Benefit	Impact	Description
Benefit #1		• • •
Benefit #2		• • •
Benefit #3		• • •

8.2.2 *< Alternative #2 CSES Acronym's >* Benefits Analysis

Provide a description of Alternative #2's quantitative and qualitative benefits (Table 15 and Table 16, respectively), relative to objectives stated in Section 5.2.

Table 15: *< Alternative #2 >* Quantitative Benefits Summary

Quantitative Benefit	Impact	Description
Benefit #1		• • •
Benefit #2		• • •
Benefit #3		• • •

Table 16: *< Alternative #2 >* Qualitative Benefits Summary

Qualitative Benefit	Impact	Description
Benefit #1		• • •
Benefit #2		• • •
Benefit #3		• • •

8.2.3 *< Status Quo CSES Acronym's >* Benefits Analysis

Provide a description of the Status Quo system quantitative and qualitative benefits (Table 17 and Table 18, respectively), relative to objectives stated in Section 5.2.

Table 17: < Status Quo CSES Acronym's > Quantitative Benefits Summary

Quantitative Benefit	Impact	Description
Benefit #1		• • •
Benefit #2		• • •
Benefit #3		• • •

Table 18: *< Status Quo CSES Acronym's >* Qualitative Benefits Summary

Qualitative Benefit	Impact	Description
Benefit #1		• • •
Benefit #2		• • •
Benefit #3		• • •

9 Risk Assessment

For the down-selected alternative(s), identify and mitigate project, technical, security, operational, business and other risks affecting planning, development, O&M, and other subsequent lifecycle activities. The Risk Assessment provides a high-level understanding of the risks related to each alternative, the mitigation strategy for each risk, a well-defined process (checklist) for assessing each risk, and an approach for reporting project risks throughout this project. These risks are the foundation for each alternative's programmatic risk register for the remainder of the planning phase, throughout the development phase, and the beginning of the O&M phase. Office of Management and Budget (OMB) risk areas include: schedule, initial costs, lifecycle costs, technical obsolescence, feasibility, reliability of systems, dependencies/ interoperability, surety considerations, future procurements, project management, overall project failure, organizational/change management, business, data/information, technology, strategic, security, privacy, and project resources.

For each project risk, identify the probability of the risk occurring and the impact it may have on each alternative, using the following guidelines:

- Probability of Risk:
  - **High** indicates that the risk has a high probability of occurring.
  - **Medium** indicates that the risk will likely occur.
  - **Low** indicates that the risk is not likely occur.
- Impact of Risk:
  - **High** indicates that the risk has a significant impact to the project.
  - **Medium** indicates that the risk will impact the project.
  - **Low** indicates that the risk impact is relatively minor to the project.
  - **None** indicates that the risk will not impact the project.

Throughout the risk assessment step, consider the following questions:

- Have all general project risks been identified?
- Have all risks specific to each alternative been identified?
- For each risk, have the specifics of each alternative been taken into consideration when evaluating the probability and impact?
- Has a risk mitigation strategy been identified for acceptable versus unacceptable levels of risk?
- Have the risks related to Status Quo been identified?
- Has the state identified all of the key/significant risks, and does the state have a viable mitigation approach that will lead to implementing a successful alternative?

[Note: Determining a risk metric value (e.g., calculated by Risk = Probability x Impact) may be included, if desired.]

9.1 Alternative #1 Risks and Mitigation Strategy

For the Alternative #1, identify basic business and technical risks and issues associated with executing the project, along with the strategy to mitigate each risk shown in Table 19.

Table 19: Project Risks Associated with *< Alternative #1 CSES Acronym >*

Project Risk Assessment	Probability	Impact
Risk 1 – description of risk 1		
Risk 1 – general mitigation strategy	*specific strategy*	
Risk 2 – description of risk 2		
Risk 2 – general mitigation strategy	*specific strategy*	
Risk 3 – description of risk 3		
Risk 3 – general mitigation strategy	*specific strategy*	

9.2 Alternative #2 Risks and Mitigation Strategy

For the Alternative #2, identify basic business and technical risks and issues associated with executing the project, along with the strategy to mitigate each shown in Table 20.

Table 20: Project Risks Associated with *< Alternative #2 CSES Acronym >*

Project Risk Assessment	Probability	Impact
Risk 1 – description of risk 1		
Risk 1 – general mitigation strategy	*specific strategy*	
Risk 2 – description of risk 2		
Risk 2 – general mitigation strategy	*specific strategy*	
Risk 3 – description of risk 3		
Risk 3 – general mitigation strategy	*specific strategy*	

9.3 Status Quo Risks and Mitigation Strategy

For the Status Quo system, briefly summarize significant business and technical risks and issues associated with continuing to use the Status Quo system, along with the strategy to mitigate each risk shown in Table 21.

Table 21: Project Risks Associated with Continuing to Use the *< Status Quo CSES Acronym >* System

Project Risk Assessment	Probability	Impact
Risk 1 – description of risk 1		
Risk 1 – general mitigation strategy	*specific strategy*	
Risk 2 – description of risk 2		
Risk 2 – general mitigation strategy	*specific strategy*	
Risk 3 – description of risk 3		
Risk 3 – general mitigation strategy	*specific strategy*	

10 Preferred Alternative

The final step in the state's streamlined FS is selecting the most cost-effective, viable, and/or optimal alternative, which is supported by analyses performed within this FS. Following selection of the modernization alternative, the state will finalize this FS document and the supporting artifact(s), then forward them to OCSE for consideration.

10.1 Summary Comparison

Recap each alternative based on its Business and Operational Impact, Project Risk Assessment, and Cost Benefit Analysis. Table 22 summarizes the alternative(s) considered by the state. Based upon information, data, and analyses in this FS, Table 23 ranks this alternative(s) versus the Status Quo system.

Table 22: Summary of Alternatives Considered

Alternative	Satisfies Key Objectives	Cost Benefit Analysis	Risk Assessment
Alternative #1	• Describe overall assessment	• Describe overall assessment	• Describe overall assessment
Alternative #2	• Describe overall assessment	• Describe overall assessment	• Describe overall assessment
Status Quo	• Training Costs Increasing • Technical Staff with Mainframe and COBOL skill sets are difficult to replace.	• Cost Prohibitive to Maintain • Benefits to Users is Declining	• Significant challenges with replacing Technical Staff who have Mainframe and COBOL skill sets, which is a high risk to the current CSES.

Table 23: Ranking

Alternative	Ranking
Alternative #1	
Alternative #2	
Status Quo	Not a Viable Option. Will reach end of useful life in *< year. >*

10.2 Alternative Selected

Explicitly identify the alternative that the state selected and explain why this is the optimal solution that meets the state's requirements, missions, and customer needs.

Appendix A: Streamlined FS Approval Form

The undersigned acknowledges that each person has reviewed the ***< Modernization Project Name's >*** **Streamlined Feasibility Study (FS)** and agrees with the information presented within this document. Changes to this **Streamlined FS** will be coordinated with, and approved by, the undersigned, or their designated representatives.

Signature: _____ Date: _____

Print Name: _____

Title: _____

Organization: _____

Role: _____

Signature: _____ Date: _____

Print Name: _____

Title: _____

Organization: _____

Role: _____

Signature: _____ Date: _____

Print Name: _____

Title: _____

Organization: _____

Role: _____

Appendix B: References

Table 24 lists artifacts referenced in the Streamlined Feasibility Study (FS) guide. Note that these artifacts are listed in chronological order based upon their publication date. In addition, selected CFR requirements are included toward the end of this table.

Table 24: References (Chronological by Publication Date)

#	Reference	Date
1.	**Section 452(d) of the Social Security Act – Duties of the Secretary** https://www.ssa.gov/OP_Home/ssact/title04/0452.htm (d)(1) Except as provided in paragraph (3), the Secretary shall not approve the initial and annually updated advance automated data processing planning document, referred to in section 454(16), unless he finds that such document, when implemented, will generally carry out the objectives of the management system referred to in such subsection, and such document— (A) provides for the conduct of, and reflects the results of, requirements analysis studies, which include consideration of the program mission, functions, organization, services, constraints, and current support, of, in, or relating to, such system, (B) contains a description of the proposed management system referred to in section 454(16), including a description of information flows, input data, and output reports and uses, (C) sets forth the security and interface requirements to be employed in such management system, (D) describes the projected resource requirements for staff and other needs, and the resources available or expected to be available to meet such requirements, (E) contains an implementation plan and backup procedures to handle possible failures, (F) contains a summary of proposed improvement of such management system in terms of qualitative and quantitative benefits, and (G) provides such other information as the Secretary determines under regulation is necessary.	14 Aug 1935
2.	**Section 454(16) of the Social Security Act – State Plan for Child and Spousal Support.** https://www.ssa.gov/OP_Home/ssact/title04/0454.htm (16) provide for the establishment and operation by the state agency, in accordance with an (initial and annually updated) advance automated data processing planning document approved under section 452(d), of a statewide automated data processing and information retrieval system meeting the requirements of section 454A designed effectively and efficiently to assist management in the administration of the state plan, so as to control, account for, and monitor all the factors in the support enforcement collection and paternity determination process under such plan;	14 Aug 1935
3.	**Section 454A of the Social Security Act – Automated Data Processing.** https://www.ssa.gov/OP_Home/ssact/title04/0454A.htm Sec. 454A. [42 U.S.C. 654a] (a) In General.—In order for a state to meet the requirements of this section, the state agency administering the state program under this part shall have in operation a single statewide automated data processing and information retrieval system which has the capability to perform the tasks specified in this section with the frequency and in the manner required by or under this part. (b) Program Management.—The automated system required by this section shall perform such functions as the Secretary may specify relating to management of the state program under this part, including—	14 Aug 1935

#	Reference	Date
	(1) controlling and accounting for use of federal, state, and local funds in carrying out the program; and (2) maintaining the data necessary to meet Federal reporting requirements under this part on a timely basis. (c) Calculation of Performance Indicators.—In order to enable the Secretary to determine the incentive payments and penalty adjustments required by sections 452(g) and 458, the state agency shall— (1) use the automated system— (A) to maintain the requisite data on state performance with respect to paternity establishment and child support enforcement in the state; and (B) to calculate the paternity establishment percentage for the state for each fiscal year; and (2) have in place systems controls to ensure the completeness and reliability of, and ready access to, the data described in paragraph (1)(A), and the accuracy of the calculations described in paragraph (1)(B). (d) Information Integrity and Security.—The state agency shall have in effect safeguards on the integrity, accuracy, and completeness of, access to, and use of data in the automated system required by this section, which shall include the following (in addition to such other safeguards as the Secretary may specify in regulations): (1) Policies restricting access.—Written policies concerning access to data by state agency personnel, and sharing of data with other persons, which— (A) permit access to and use of data only to the extent necessary to carry out the state program under this part; and (B) specify the data which may be used for particular program purposes, and the personnel permitted access to such data. (2) Systems controls.—Systems controls (such as passwords or blocking of fields) to ensure strict adherence to the policies described in paragraph (1). (3) Monitoring of access.—Routine monitoring of access to and use of the automated system, through methods such as audit trails and feedback mechanisms, to guard against and promptly identify unauthorized access or use. (4) Training and information.—Procedures to ensure that all personnel (including state and local agency staff and contractors) who may have access to or be required to use confidential program data are informed of applicable requirements and penalties (including those in section 6103 of the Internal Revenue Code of 1986[239]), and are adequately trained in security procedures. (5) Penalties.—Administrative penalties (up to and including dismissal from employment) for unauthorized access to, or disclosure or use of, confidential data. (e) State Case Registry.— (1) Contents.—The automated system required by this section shall include a registry (which shall be known as the “state case registry”) that contains records with respect to— (A) each case in which services are being provided by the state agency under the state plan approved under this part; and (B) each support order established or modified in the state on or after October 1, 1998. (2) Linking of local registries.—The state case registry may be established by linking local case registries of support orders through an automated information network, subject to this section.	

#	Reference	Date
	(3) Use of standardized data elements.—Such records shall use standardized data elements for both parents (such as names, social security numbers and other uniform identification numbers, dates of birth, and case identification numbers), and contain such other information (such as on case status) as the Secretary may require. (4) Payment records.—Each case record in the state case registry with respect to which services are being provided under the state plan approved under this part and with respect to which a support order has been established shall include a record of— (A) the amount of monthly (or other periodic) support owed under the order, and other amounts (including arrearages, interest or late payment penalties, and fees) due or overdue under the order; (B) any amount described in subparagraph (A) that has been collected; (C) the distribution of such collected amounts; (D) the birth date and, beginning not later than October 1, 1999, the social security number, of any child for whom the order requires the provision of support; and (E) the amount of any lien imposed with respect to the order pursuant to section 466(a)(4). (5) Updating and monitoring.—The state agency operating the automated system required by this section shall promptly establish and update, maintain, and regularly monitor, case records in the state case registry with respect to which services are being provided under the state plan approved under this part, on the basis of— (A) information on administrative actions and administrative and judicial proceedings and orders relating to paternity and support; (B) information obtained from comparison with federal, state, or local sources of information; (C) information on support collections and distributions; and (D) any other relevant information. (f) Information Comparisons and Other Disclosures of Information.—The state shall use the automated system required by this section to extract information from (at such times, and in such standardized format or formats, as may be required by the Secretary), to share and compare information with, and to receive information from, other data bases and information necessary to enable the state agency (or the Secretary or other state or federal agencies) to carry out this part, subject to section 6103 of the Internal Revenue Code of 1986[240]. Such information comparison activities shall include the following: (1) Federal case registry of child support orders.—Furnishing to the Federal Case Registry of Child Support Orders established under section 453(h) (and update as necessary, with information including notice of expiration of orders) the minimum amount of information on child support cases recorded in the state case registry that is necessary to operate the registry (as specified by the Secretary in regulations). (2) Federal parent locator service.—Exchanging information with the Federal Parent Locator Service for the purposes specified in section 453. (3) Temporary family assistance and Medicaid agencies.—Exchanging information with state agencies (of the state and of other states) administering programs funded under part A, programs operated under a state plan approved under title XIX, and other programs designated by the Secretary, as necessary to perform state agency responsibilities under this part and under such programs.	

#	Reference	Date
	(4) Intrastate and interstate information comparisons.—Exchanging information with other agencies of the state, agencies of other states, and interstate information networks, as necessary and appropriate to carry out (or assist other states to carry out) the purposes of this part. (5) Private industry councils receiving welfare–to–work grants.—Disclosing to a private industry council (as defined in section 403(a)(5)(D)(ii)) to which funds are provided under section 403(a)(5) the names, addresses, telephone numbers, and identifying case number information in the state program funded under part A, of noncustodial parents residing in the service delivery area of the private industry council, for the purpose of identifying and contacting noncustodial parents regarding participation in the program under section 403(a)(5). (g) Collection and Distribution of Support Payments.— (1) In general.—The state shall use the automated system required by this section, to assist and facilitate the collection and disbursement of support payments through the state disbursement unit operated under section 454B, through the performance of functions, including, at a minimum— (A) transmission of orders and notices to employers (and other debtors) for the withholding of income— (i) within 2 business days after receipt of notice of, and the income source subject to, such withholding from a court, another state, an employer, the Federal Parent Locator Service, or another source recognized by the state; (ii) using uniform formats prescribed by the Secretary; and (iii) at the option of the employer, using the electronic transmission methods prescribed by the Secretary[241]; (B) ongoing monitoring to promptly identify failures to make timely payment of support; and (C) automatic use of enforcement procedures (including procedures authorized pursuant to section 466(c)) if payments are not timely made. (2) Business day defined.—As used in paragraph (1), the term "business day" means a day on which state offices are open for regular business. (h) Expedited Administrative Procedures.—The automated system required by this section shall be used, to the maximum extent feasible, to implement the expedited administrative procedures required by section 466(c). [239] See Vol. II, P.L. 83-591, §6103. [240] See Vol. II, P.L. 83-591, §6103. [241] P.L. 113–183, §306, struck "to the maximum extent feasible" in (g)(1); inserted clause (g)(1)(A)(iii). Effective October 1, 2015. Regulations See 45 CFR Part 307	
4.	Policy Clarification to Automated Child Support Systems (AT-90-11) https://www.acf.hhs.gov/css/resource/policy-clarification-relating-to-automated-child-support-enforcement	9 Oct 1990
5.	HHS/ACF Feasibility, Alternatives, and Cost Benefit Analysis Guide https://www.acf.hhs.gov/sites/default/files/ocse/feasibilty_alternatives_and_cba_g6uide.pdf	Jul 1993
6.	ACF/OCSE Companion Guide – Cost Benefit Analysis Illustrated https://www.acf.hhs.gov/sites/default/files/ocse/companion_guide_cba_illustrated_guide.pdf	Aug 1994
7.	Addendum to State Systems APD Guide for Child Support Enforcement Systems (AT-90-03) https://www.acf.hhs.gov/css/resource/distribution-of-addendum-to-state-systems-apd-guide-for-cse-systems	16 Mar 1999
8.	ACF Companion Guide 3: Cost/Benefit Analysis Illustrated for Child Support Systems	Jun 2004

#	Reference	Date
	https://www.acf.hhs.gov/sites/default/files/ocse/companion_guide_3_cba_illustrated_for_child_support.pdf	
9.	Policy Clarifications of Automated Systems in Title IV-D Child Support Enforcement Program (AT-06-03) https://www.acf.hhs.gov/css/resource/policy-clarifications-automated-systems-title-iv-d	11 Aug 2006
10.	ACF/OCSE Automated Systems for Child Support Enforcement: A Guide for States https://www.acf.hhs.gov/sites/default/files/ocse/certification_guide_2009.pdf	Updated 2009
11.	ACF and Health Care Finance Administration – State Systems APD Guide https://www.acf.hhs.gov/css/resource/state-systems-apd-guide	Oct 2010
12.	*45 CFR 307.15(b)(10): Approval of Advance Planning Documents for Computerized Support Enforcement Systems.* *The APD must contain an implementation plan and backup procedures to handle possible failures in system planning, design, development, installation or enhancement.* *(i) These backup procedures must include provision for independent validation and verification (IV&V) analysis of a state's system development effort in the case of states:* *(A) That do not have in place a statewide automated child support enforcement system that meets the requirements of the FSA of 1988;* *(B) States which fail to meet a critical milestone, as identified in their APDs;* *(C) States which fail to timely and completely submit APD updates;* *(D) States whose APD indicates the need for a total system redesign;* *(E) States developing systems under waivers pursuant to section 452(d)(3) of the Social Security Act; or,* *(F) States whose system development efforts we determine are at risk of failure, significant delay, or significant cost overrun.* *(ii) Independent validation and verification efforts must be conducted by an entity that is independent from the state (unless the state receives an exception from OCSE) and the entity selected must:* *(A) Develop a project work plan. The plan must be provided directly to OCSE at the same time it is given to the state.* *(B) Review and make recommendations on both the management of the project, both state and vendor, and the technical aspects of the project. The IV&V provider must provide the results of its analysis directly to OCSE at the same time it reports to the state.* *(C) Consult with all stakeholders and assess the user involvement and buy-in regarding system functionality and the system's ability to meet program needs.* *(D) Conduct an analysis of past project performance sufficient to identify and make recommendations for improvement. (E) Provide risk management assessment and capacity planning services.* *(F) Develop performance metrics which allow tracking project completion against milestones set by the state.* *(iii) The RFP and contract for selecting the IV&V provider (or similar documents if IV&V services are provided by other state agencies) must include the experience and skills of the key personnel proposed for the IV&V analysis and specify by name the key personnel who actually will work on the project and must be submitted to OCSE for prior approval.*	1 Oct 2010
13.	*45 CFR 95.626: Independent Verification and Validation.* *(a) An assessment for independent verification and validation (IV&V) analysis of a State's system development effort may be required in the case of APD projects that meet any of the following criteria:*	28 Oct 2010

#	Reference	Date
	(1) Are at risk of missing statutory or regulatory deadlines for automation that is intended to meet program requirements; *(2) Are at risk of failing to meet a critical milestone;* *(3) Indicate the need for a new project or total system redesign;* *(4) Are developing systems under waivers pursuant to sections 452(d)(3) or 627 of the Social Security Act;* *(5) Are at risk of failure, major delay, or cost overrun in their systems development efforts;* *(6) Fail to timely and completely submit APD updates or another required systems documentation.* *(7) State's procurement policies put the project at risk, including a pattern of failing to pursue competition to the maximum extent feasible.* *(8) State's failure to adequately involve the State program offices in the development and implementation of the project.* *(b) Independent Verification and Validation efforts must be conducted by an entity that is independent from the State (unless the State receives an exception from the Department) and the entity selected must:* *(1) Develop a project work plan. The plan must be provided directly to the Department at the same time it is given to the State.* *(2) Review and make recommendations on both the management of the project, both State and vendor, and the technical aspects of the project. The IV&V provider must give the results of its analysis directly to the federal agencies that required the IV&V at the same time it reports to the State.* *(3) Consult with all stakeholders and assess the user involvement and buy-in regarding system functionality and the system's ability to support program business needs.* *(4) Conduct an analysis of past project performance sufficient to identify and make recommendations for improvement.* *(5) Provide risk management assessment and capacity planning services.* *(6) Develop performance metrics which allow tracking project completion against milestones set by the State.* *(c) The acquisition document and contract for selecting the IV&V provider (or similar documents if IV&V services are provided by other State agencies) must include requirements regarding the experience and skills of the key personnel proposed for the IV&V analysis. The contract (or similar document if the IV&V services are provided by other State agencies) must specify by name the key personnel who actually will work on the project. The acquisition documents and contract for required IV&V services must be submitted to the Department for prior written approval.* *[75 FR 66340, Oct. 28, 2010]*	
14.	Overview of the OCSE Independent Verification and Validation Assessment http://www.acf.hhs.gov/programs/css/resource/overview-ocse-ivv-assessment	25 Apr 2012
15.	Independent Verification and Validation Options http://www.acf.hhs.gov/programs/css/resource/ivv-options	25 Apr 2012
16.	Department of Health and Human Services (HHS) Enterprise Performance Lifecycle Framework (EPLC) Overview Document https://www.hhs.gov/sites/default/files/ocio/eplc-lifecycle-framework.pdf	18 Jul 2012
17.	Cost Allocation Methodologies (CAM) Toolkit https://www.acf.hhs.gov/css/resource/cost-allocation-methodologies-cam-toolkit CAM Handbook CAM Tool User Guide CAM Tool (4 spreadsheets) CAM Help (16 files)	15 Jan 2015

#	Reference	Date
18.	Automated Systems for Child Support Enforcement: A Guide for States – Updated 2017 (AT-17-11) [Certification Guide for the States] https://www.acf.hhs.gov/css/resource/certification-guide-2017. ***B. AUTHORITY*** *The origin of the programs overseen and financed by HHS/OCSE is the Social Security Act. Included under OCSE's scope of review authority is Title IV-D, Child Support Enforcement.* • *Public Law 96-265 provided for enhanced FFP in the establishment and implementation of comprehensive, automated, statewide management information systems supporting the child support program. The Child Support Enforcement Amendments of 1984 (P.L. 98-378) extended enhanced federal funding for income withholding activities and hardware to states.* • *Authority for the requirements described in this document is codified in the Social Security Act, Sections 451-469B. In addition, specific parts of the Code of Federal Regulations (CFR) apply, in particular:* • *45 CFR Part 75, Subpart D: Establishes retention requirements and access rights for programmatic, financial, statistical, and other types of records pertinent to grants. This subpart also sets requirements for contracting that ensure fair and equitable practices and procedures with contractors and consultants.* • *45 CFR Part 95, Subpart A: Sets a two-year limit for states to claim FFP in expenditures under state plans approved for certain titles of the Social Security Act, including the child support program under Title IV-D.* • *45 CFR Part 95, Subpart E: Establishes requirements for preparation, submission, approval of -and adherence to -- state cost allocation plans for public assistance programs.* • *45 CFR Part 95, Subpart F: Specifies the conditions for FFP in the cost of acquiring (as previously approved by OCSE) data processing equipment and services under an approved state plan; sets forth the approval and reporting processes of the Advanced Planning Document (APD) and updates; provides an exemption to the capitalization and depreciation provisions of Subpart G for automated data processing (ADP) equipment; requires access by OCSE to all aspects of state systems; and sets states' responsibilities for ADP security. Authorizes the department to conduct periodic on-site surveys and reviews of state and local agency ADP methods and practices (§ 95.621).* • *45 CFR Part 95, Subpart G: Prescribes requirements concerning the computation of claims for FFP in the cost of equipment under public assistance programs and identifies requirements for the management and disposition of equipment. Applies to equipment purchased by state agencies and equipment purchased under service agreements with other state agencies and under cost-type contracts.* • *Page: Four (4) Automated Systems for Child Support Enforcement: A Guide for States Updated 2017.* • *45 CFR Parts 300 to 305: Sets forth operational procedures, reporting requirements, incentive payments process and requirements, and standards for audit for the Title IV-D program.* • *45 CFR Part 307: Sets forth the requirements for the acquisition and operation of comprehensive, statewide child support systems. This includes the programmatic conditions and functional requirements required for states*	19 Sep 2017

#	Reference	Date
	to qualify for funding of systems acquisitions. This part also sets forth OCSE's oversight responsibilities. *In addition to the statute, regulations, and this document, the following guidelines apply:* ○ *Action Transmittals (AT), Policy Interpretation Questions (PIQ), and DCLs issued by OCSE that apply to the child support program;* ○ *HHS's State Systems APD Guide; and* ○ *OCSE's Feasibility, Alternatives and Cost Benefit Analysis Guide.*	
19.	Streamlining Feasibility Studies (DCL-19-05) https://www.acf.hhs.gov/css/resource/streamlining-feasibility-studies	23 Jul 2019
20.	45 CFR Part 95: General Administration – Grant Programs https://www.ecfr.gov/cgi-bin/text-idx?SID=bdae5a7c6e7f7537c7182a096133bd12&mc=true&tpl=/ecfrbrowse/Title45/45cfr95_main_02.tpl	Current
21.	45 CFR §95. 610(b) Submission of Advance Planning Documents (APDs). https://www.ecfr.gov/cgi-bin/retrieveECFR?gp=&SID=a3e6c169f952427921e0756a70711a40&mc=true&n=sp45.1.95.f&r=SUBPART&ty=HTML#se45.1.95_1610 Advance Planning Document (APD) refers to an Initial advance automated data processing planning document or Initial APD, providing a recorded plan of action to request funding approval for a project which will require the use of ADP services or equipment, including the use of shared or purchased services in lieu of state acquired stand-alone resources. Requirements are detailed in paragraph (a), (b) and (c) of this section. • Planning APD (PAPD) [or Planning APD Update (PAPDU)]. • Implementation APD (IAPD) [or Implementation APD Update (IAPDU)]. • Advance Planning Document Update (APDU) • Annual APDU (AAPDU) • As-Needed APDU (ANAPDU) • Operational Advance Planning Document Update (OAPD) • Operational Advance Planning Document Update (OAPDU)	Current
22.	45 CFR Part 307: Computerized Support Enforcement Systems https://www.ecfr.gov/cgi-bin/text-idx?SID=bdae5a7c6e7f7537c7182a096133bd12&mc=true&node=pt45.2.307&rgn=div5	Current

Appendix C: Definitions

Table 25 includes definitions used throughout the Streamlined Feasibility Study (FS) guide. Note that these definitions are derived from 45 CFR §95.605 (Definitions), the HHS/ACF Feasibility, Alternatives, and Cost Benefit Analysis Guide (July 1993), the HHS Enterprise Performance Lifecycle Framework (EPLC) Overview Document (July 2012), Wikipedia, and other documents included in Appendix B: References.

Table 25: Definitions

Term	Definition
Acceptance Documents	A record of satisfactory completion of an approved phase of work or contract, and acceptance thereof by the state agency.
Acquisition	Acquiring ADP equipment or services from commercial sources or from state or local government resources
Acquisition Checklist	The standard Department checklist that states can submit to meet prior written approval requirements instead of submitting the actual Request for Proposal (RFP), contracts or contract amendments. The Acquisition Checklist allows states to self-certify that their acquisition documents, which include RFPs, contracts, contract amendments or similar documents, meet state and Federal procurement requirements, contain appropriate language about software ownership and licensing rights in compliance with §95.617, and provide access to documentation in compliance with §95.615.
Adjusted Costs	Costs that increase over time, tied (for example) to contractual obligations or to approved cost-of-living adjustments.
Agile Software Development	Agile software development comprises various approaches to software development under which requirements and solutions evolve through the collaborative effort of self-organizing and cross-functional teams and their customer(s)/end user(s). It advocates adaptive planning, evolutionary development, early delivery, and continual improvement, and it encourages rapid and flexible response to change.
Alternative Approach to APD Requirements	The state has developed an APD that does not meet all conditions for APD approval in §95.610, resulting in the need for a waiver under §95.627(a).
Alternatives	The different courses of action, means, or methods by which objectives may be attained.
Alternatives Analysis …or… Analysis of Alternatives	An analysis that considers the alternatives available for automation, such as transferring another state's system, enhancing an existing system, or building from scratch. Sometimes included as part of the feasibility study.
Assumptions	Judgements concerning unknown factors and the future which are made in analyzing alternative courses of action. Assumptions are made to support and reasonably limit the scope of the analysis.
Automated Data Processing Equipment or ADP Equipment or Hardware	Automatic equipment that accepts and stores data, performs calculations and other processing steps, and produces information. This includes: (a) Electronic digital computers; (b) Peripheral or auxiliary equipment used in support of electronic computers; (c) Data transmission or communications equipment, and (d) Data input equipment.
Automated Data Processing or ADP	Data processing performed by a system of electronic or electrical machines so interconnected and interacting as to minimize the need for human assistance or intervention.

Term	Definition
Automatic Data Processing Services or ADP Services	(a) Services to operate ADP equipment, either by agency, or by state or local organizations other than the state agency; and/or (b) Services provided by private sources or by employees of the state agency or by state and local organizations other than the state agency to perform such tasks as feasibility studies, system studies, system design efforts, development of system specifications, system analysis, programming, system conversion and system implementation and include, for example, the following: (1) Systems Training, (2) Systems Development, (3) Site Preparation, (4) Data Entry, and (5) Personal services related to automated systems development and operations that are specifically identified as part of a Planning ADP or Implementation ADP. As an example, a personal service would be the service of an expert individual to provide advice on the use of ADP software or hardware in developing a state automated management information system.
Base Contract	The initial contractual activity, including all option years, allowed during a defined unit of time, for example, two (2) years. The base contract includes option years but does not include amendments.
Base Year	The time period used to determine the base for dollar calculations — normally the first year of the analysis.
Baseline	A term used to describe (1) use of Status Quo costs and benefits as a basis for developing costs and benefits for alternatives during the cost/benefit analysis and, more importantly, (2) use of costs and benefits projected for the selected alternative during the cost/benefit analysis as a basis for comparing actual costs and benefits during cost/benefit measurement. When using the term "baseline," ACF normally means the selected alternative's projected costs and benefits used in cost/benefit measurement.
Benefit/Cost Ratio	An economic indicator of cost-effectiveness, computed by dividing present value benefits by present value costs. Indicates the amount of benefits returned for each dollar invested.
Benefits	Quantitative and qualitative improvements expected or resulting from a systems investment. Quantitative benefits are those for which a reasonable valuation may be predicted and projected. Qualitative benefits are linked to factors other than numbers. Break-even analysis — A procedure for evaluating alternatives to determine when cumulative benefits will equal cumulative costs. (Projected, not present value, costs are used.)
Break-Even Point	The point in time at which non-discounted, cumulative costs and non-discounted, cumulative benefits are equal.
Business Case	(*Ref: Wikipedia; https://en.wikipedia.org/wiki/Business_case*) "A business case captures the reasoning for initiating a project or task. It is often presented in a well-structured written document, but may also come in the form of a short verbal agreement or presentation. The logic of the business case is that, whenever resources such as money or effort are consumed, they should be in support of a specific business need. An example could be that a software upgrade might improve system performance, but the "business case" is that better performance would improve customer satisfaction, require less task processing time, or reduce system maintenance costs. A compelling

Term	Definition
	business case adequately captures both the quantifiable and non-quantifiable characteristics of a proposed project." "Business cases can range from comprehensive and highly structured, as required by formal project management methodologies, to informal and brief. Information included in a formal business case could be the background of the project, the expected business benefits, the options considered (with reasons for rejecting or carrying forward each option), and the expected costs of the project, a gap analysis and the expected risks. Consideration should also be given to the option of doing nothing including the costs and risks of inactivity. From this information, the justification for the project is derived. Note that it is not the job of the project manager to build the business case, this task is usually the responsibility of stakeholders and sponsors."
Commercial-Off-The-Shelf (COTS) Software and Hardware	Proprietary software and hardware products that are ready-made and available for sale to the general public at established catalog or market prices.
Comparison	A method of quantifying costs or benefits in which current costs or benefits on comparable systems are used as a baseline for the new system.
Constant Dollars	Dollars that reflect the prices of the base year of the systems life. Constant dollars do not consider the effect of inflation and are normally used in cost/benefit analysis. Constant dollars are always associated with a base year — such as, Fiscal Year 1994 constant dollars — normally the first year of the analysis. (Constant dollars are sometimes referred to as real dollars.)
Constraints	Constraints are factors that lie outside — but have a direct impact on — the system design effort. Constraints may relate to laws and regulations or technological, socio-political, financial, or operational factors.
Cost Avoidance	Benefits realized by avoiding a relatively certain future expenditure, although the projected expenditure has not been budgeted or obligated. Cost avoidance is more speculative than cost savings and requires more rigorous justification.
Cost Beneficial …and… Cost Effective	Descriptors for alternatives that effectively balance costs and benefits, delivering maximum benefits for the investment costs.
Cost Benefit Analysis	A refined evaluation of the costs and benefits of selected alternatives identified during the alternatives analysis. Includes costs of current and projected operations as a baseline for (1) determining which alternative to select for automation and (2) measuring costs and benefits of the implemented and operational system over time. Costs are normally expressed in dollars, but benefits may be expressed in dollars or in other quantitative (such as time reduction) or qualitative (such as improved security) measures. Cost Benefit Analysis is used to determine the most cost-effective solution, not simply the least cost solution. Can be included as part of the Feasibility Study or Alternatives Analysis — or stand as a separate document.
Cost Benefit Measurement	Measurement of costs and benefits of the implemented and operational system over time and comparison of actuals to those projected for the chosen alternative during the cost/benefit analysis.
Cost Savings	Benefits realized by eliminating a planned expenditure, such as a budgeted or contractual expense.
Current Dollars	Dollars that have been adjusted to reflect the effect of inflation on prices. Current dollars are normally used in budget projections. (Current dollars are sometimes referred to as nominal dollars.)

Term	Definition
Data Analytics	Qualitative and Quantitative techniques used to examine data sets in order to draw conclusions about the information they contain, often with the aid of specialized software. Generally, data is extracted and categorized to identify and analyze behavioral data and patterns. Data analytics technologies and techniques can enable organizations to make more informed decisions, improve operational efficiency, optimize customer service efforts, and respond to emerging trends.
Data Processing	The preparation of source media containing data or basic elements of information and the use of such source media according to precise rules or procedures to accomplish such operations as classifying, sorting, calculating, summarizing, recording and transmitting.
Department	The Department of Health and Human Services (HHS).
Design or System Design	A combination of narrative and diagrams describing the structure of a new or more efficient automatic data processing system. This includes the use of hardware to the extent necessary for the design phase.
Development	The definition of system requirements, detailing of system and program specifications, programming and testing. This includes the use of hardware to the extent necessary for the development phase.
Discount Factor	The multiplication factor that converts a projected cost or benefit in a future year into its present value. Discount factors are computed based on the selected discount rate. Mathematically, a discount factor is equal to $1/(1 + r)n$, where r is the discount rate and n is the number of years since the base year.
Discount Rate	A rate used to relate present and future dollars. Discount rates are expressed as a percentage and are used to reduce the value of future dollars in relation to present dollars. This equalizes varying streams of costs and benefits, so that different alternatives can be compared. Discount rates reflect the time value of money.
Discounted Costs or Benefits	Future years' costs or benefits that have been multiplied by a discount factor to convert them to their present value — also called present value costs or benefits.
Double Counting	An error that occurs when costs or benefits are counted twice.
Emergency Situation	A situation where: (a) A state can demonstrate to the Department an immediate need to acquire ADP equipment or services in order to continue the operation of one or more of the Social Security Act programs covered by Subpart F, and (b) The state can clearly document that the need could not have been anticipated or planned for and the state was prevented from following the prior approval requirements of §95.611.
Enhanced Matching Rate	The higher than regular rate of FFP authorized by Title IV-D, IV-E, and XIX of the Social Security Act for acquisition of services and equipment that conform to specific requirements designed to improve administration of the Child Support Enforcement, Supplemental Nutrition Assistance Program (SNAP), Foster Care and Adoption Assistance, and Medicaid programs.
Enhancement	Modifications which change the functions of software and hardware beyond their original purposes, not just to correct errors or deficiencies which may have been present in the software or hardware, or to improve the operational performance of the software or hardware.
Estimation	A method of quantifying costs or benefits, in which each organization involved in system development, operation, and use estimates, averages, and projects its costs. Sometimes referred to as the bottom-up method.

Term	Definition
Feasibility Study • Technical Feasibility • Operational Feasibility • Financial Feasibility	A preliminary study to determine (1) whether it is sufficiently probable that effective and efficient use of ADP equipment or systems can be made to warrant the investment of staff, time, and money being requested and (2) whether the plan is capable of being accomplished successfully. Includes consideration of alternatives with associated cost/benefits. The Feasibility Study is a critical document that defines the initial system concepts, objectives, requirements, and alternatives; it also forms the framework for the system development project and establishes a baseline for further studies. Technical feasibility refers to the capability of current technology and methods of operation in meeting user requirements. Technical feasibility should include consideration of the state of the technology — for example, is the technology "leading edge" (with commensurate risk) or is the technology "mature" (with associated industry standards and lesser risk). Operational feasibility refers to the ability of the enhanced system to fit the operational pattern and resources of the organization. Financial feasibility refers to the ability of the state to fund (with Federal Financial Participation) the costs of developing and implementing the system.
Federal Program Office	The federal program office within the Department that is authorized to approve requests for the acquisition of ADP equipment or ADP services. The federal program offices within the Administration for Children and Families (ACF) are the Children's Bureau for titles IV-B (child welfare services) and IV-E (foster care and adoption assistance), the Office of Child Support Enforcement for title IV-D (child support enforcement), and the Centers for Medicare & Medicaid Services (CMS) for titles XIX (Medicaid) and XXI (the Children's Health Insurance Program) of the Social Security Act.
Fixed Cost	Costs that do not vary over time.
Functional Requirements Specification (FRS) … also known as … Functional Requirements Document (FRD)	Functional requirements specify features and what the business product must do. They are derived from the objectives typically defined or summarized in the Project Management Plan (PMP). A functional requirement is a tangible service, or function, that the business product must provide and is a non-technical requirement. A functional requirements specification/document (FRS/FRD) is an initial definition of the proposed system, which documents the goals, objectives, user or programmatic requirements, management requirements, the operating environment, and the proposed design methodology (e.g., centralized or distributed). This document details what the new application, system, and/or hardware should do, not how it is to do it. The FRS/FRD shall be based upon a clear and accurate description of the functional requirements for the project, and shall not, in competitive procurements, lead to requirements that unduly restrict competition. The Specification document is the user's definition of the requirements the system must meet. The FRS/FRD is one of the foundation references on which the System Requirements Specification (SRS) is based. (See Non-Functional Requirements.)
General Systems Design	A combination of narrative and graphic description of the generic architecture of a system as opposed to the detailed architecture of the system. A general systems design would include a systems diagram and narrative identifying overall logic flow and systems functions; a description of equipment needed (including processing data transmission and storage requirements); a description of other resource requirements which will be necessary to operate the system; a description of system performance requirements; and a description of the physical and organizational environment in which the

Term	Definition
	system will operate including how the system will function within that environment (e.g., how workers will interface with the system).
Government-Off-The-Shelf (GOTS) Software and Hardware	Government owned software and hardware products that are ready-made and available for use on vendor contracts performing project tasks for the Government.
Grantee	An organization receiving financial assistance directly from an HHS awarding agency to carry out a project or program.
Incremental Modernization	For the purposes of a Streamlined FS, an incremental modernization is defined as a phased modernization approach of any candidate within the pool of alternatives, including: Enhance Existing Solution Architecture, New Development (Custom Build from Scratch), Commercial-Off-The-Shelf (COTS)/Government-Off-The-Shelf (GOTS), Transfer, Hybrid, Multi-State Consortium, or Enterprise-Wide System Framework.
Independent Verification and Validation (IV&V)	A well-defined standard process for examining the organizational, management, and technical aspects of a project to determine the effort's adherence to industry standards and best practices, to identify risks, and make recommendations for remediation, where appropriate. --- For federal purposes, the scope of IV&V has been expanded to include planning, management, and other programmatic activities in conformance with the term's usage in federal regulations at 45 CFR 307.15(b)(10).[16] --- [IV&V is the set of verification and validation activities performed by an agency not under the control of the organization that is developing the software. IV&V services must be provided and managed by an organization that is *technically* and *managerially independent* of the subject software development project. This independence takes two mandatory forms. **1.** First, *technical independence* requires that the IV&V vendor cannot be or have been, nor use personnel who are or were, organizationally involved in the software development or implementation effort, as well as the project's initial planning and/or subsequent design. Such technical independence helps ensure every IV&V review report is free of personal or professional bias, posturing, or gold plating. **2.** Secondly, *managerial independence* is required of the IV&V vendor to ensure that the IV&V effort is vested in an organization departmentally and hierarchically separate from the software development and program management organizations. Such managerial independence helps ensure that the IV&V vendor is able to deliver to both state and federal executive leadership and management, findings and recommendations of an IV&V review without restriction, fear of retaliation, or coercion (e.g., reports being subject to prior review or approval from the development group before release to outside entities, such as the federal government.]
Inflation	A persistent rise in the general level of prices over time.
Installation	The integrated testing of programs and subsystems, system conversion, and turnover to operation status. This includes the use of hardware to the extent necessary for the installation phase.
Intangible Benefit or Objective	A benefit or objective that is desirable, but cannot be measured. A benefit or objective that is vague and difficult to understand or value in concrete terms.

[16] *45 CFR 307.15(b)(10) is summarized in Appendix B.*

Term	Definition
	A benefit or objective that is abstract or is hard to define or measure. A benefit or objective that cannot be easily defined, formulated, or grasped; it is vague. *[Also see Qualitative Benefit or Objective]*
Investment	An expenditure of funds to acquire a new capability or capacity.
Lifecycle	The time from the beginning of the systems project to the replacement of the system. This includes the time that the system will be operational as well as the time needed to develop and implement the system.
Lifecycle Cost	The total cost of acquisition and ownership of a system over its full life, including the cost of planning, development, acquisition, operation, support, and disposal.
Net Benefit or Net Cost	The result of subtracting the total present value costs from the total present value benefits. Where benefits exceed costs, the result is a positive number, referred to as a net benefit. Where costs exceed benefits, the result is a negative number, referred to as a net cost. See also net present value.
Net Present Value	The result of subtracting the total present value costs from the total present value benefits. Also referred to as net benefit or net cost.
Nominal Dollars	A synonym for current dollars.
Noncompetitive	Solicitation of a proposal from only one source.
Non-Functional Requirements	Non-functional requirements specify the criteria that are used to judge the operation of a business product, rather than specific behaviors (in contrast to functional requirements, which describe behavior or functions). Typical non-functional requirements are reliability, scalability, accessibility, performance, availability, and cost. Other terms for non-functional requirements are “constraints”, “quality attributes”, and “quality of service requirements". Non-functional requirements also specify the laws, regulations, and standards with which the business product must comply.
Non-Recurring Costs	Costs that occur on a one-time basis — distinguished from recurring costs. Non-recurring costs are often capital expenditures.
Notional Concept or Example	A theoretical or speculative concept, presenting an idea of a thing, action, or quality.
Objectives	Goals, results, or program improvements that the decision-maker wants to attain. Objectives should be independent of the solution and stated in a manner that does not preclude alternative approaches.
Observation	A method of quantifying costs or benefits in which processes are measured and recorded to provide estimates.
Operation	The automated processing of data used in the administration of state plans for titles IV-A, IV-B, IV-D, IV-E, and XIX of the Social Security Act. Operation includes the use of supplies, software, hardware, and personnel directly associated with the functioning of the mechanized system. See 45 CFR 205.38 and 307.10 for specific requirements for titles IV-A and IV-D, and 42 CFR 433.112 and 42 CFR 433.113 for specific requirements for title XIX.
Organizational Conflict of Interest (OCI)	Federal regulations at 45 CFR Part 307.15(b)(10)(ii), which require that the IV&V effort, "... be conducted by an entity that is independent from the state (unless the state receives an exception from OCSE)." --- Federal regulations at 45 CFR §75.327(c)(2): “….Organizational conflicts of interest means that because of relationships with a parent company, affiliate, or subsidiary organization, the non-Federal entity is unable or appears to be unable to be impartial in conducting a procurement action involving a related organization.” ---

Term	Definition
	Any vendor (and vendor's subcontractors) serving in the role of IV&V vendor to the state's CSES project is prohibited from soliciting, proposing, or being awarded any project management, quality assurance, software design, development, or other manner of planning, design, development, or implementation phase activity on the subject CSES project that these IV&V services are being procured. This exclusion likewise extends to any other project within the state's department/organization that may interact with or otherwise provide services to the subject CSES project or to the department/organization during the full term of this contract. --- For purposes of clarity, OCSE has defined "the state" in the above regulatory citation as being a state's IT project, the IV-D agency, and the IV-D agency's umbrella agency or Department. The primary purpose of this exclusion is to ensure the IV&V vendor is not found to be involved with any real or perceived conflicts of interest.
Present Value	The estimated current worth of future benefits or costs — derived by discounting the future values using a selected discount rate and factor.
Project	A defined set of information technology related tasks, undertaken by the state to improve the efficiency, economy and effectiveness of administration and/or operation of one or more of its human services programs. For example, a state may undertake a comprehensive, integrated initiative in support of its Child Support, Child Welfare and Medicaid program's intake, eligibility and case management functions. A project may also be a less comprehensive activity such as office automation, enhancements to an existing system or an upgrade of computer hardware.
Qualitative Benefit or Objective	Benefits or objectives that cannot reasonably be expressed in terms of dollars or in other quantitative measures or metrics. If a benefit's or objective's costs, numbers, or other metrics cannot be reasonably defended, then the it should be set forth as *qualitative — sometimes called intangible — benefits.* *[Also see Intangible Benefit or Objective]*
Quantitative Benefit or Objective	Benefits or objectives that have a reasonable valuation, measure, or metric; and may be predicted and/or projected. Benefits or objectives that can be measured in terms of cost, numbers, or other metrics. Benefits or objectives may be expressed in dollars or in other quantitative measures. *[Also see Tangible Benefit or Objective]*
Real Dollars	A synonym for constant dollars.
Realized Benefits	A benefit that has occurred. If benefits resulted prior to the new project, they are not considered in the cost/benefit analysis. (See also Sunk Costs.) Benefits realized after new project implementation are counted during cost/benefit measurement.
Recurring Costs	Those costs which are continuing costs based on the operation of a present or proposed system. Recurring costs apply over a range of time — either months or throughout the systems life.
Refactoring Code/Software	The process of restructuring existing computer code—changing the factoring—without changing its external behavior. Refactoring is intended to improve nonfunctional attributes of the software. Advantages include improved code readability and reduced complexity; these can improve source-code maintainability and create a more expressive internal architecture or object model to improve extensibility (Ref: Wikipedia)

Term	Definition
	○ Improves code readability ○ Reduces complexity ○ Improves source-code maintainability ○ Improves extensibility • Type #1: Restructure existing computer code and stay on same platform (within same language) without changing its behavior • Type #2: Code translator or conversion tool to change software language (e.g., COBOL to Java) without changing its behavior; may change platform
Regular Matching Rate	The normal rate of FFP authorized by titles IV-A, IV-B, IV-D, IV-E, and XIX of the Social Security Act for state and local agency administration of programs authorized by those titles.
Replatforming Hardware or Operating System	The process of changing the platform or operating system that hosts a software application/existing computer code without changing the software's external behavior. Advantages include improved security patching and maintainability, improved hardening, improved system performance, and improves flexibility to embrace current technology's features and capabilities; these can improve the ability to utilize open source technologies and interfaces. • Move to different platform (e.g., mainframe to web server) or change operating system (e.g., Windows Server to Linux) • Migrate current application software into new environment • Migrate database and data into new environment
Requirements Analysis	An analysis of the information needs and the functional and technical requirements the proposed computerized system must meet. A requirements analysis usually builds upon the initial functional and technical determination of need developed during the Feasibility Study.
Root Cause	The underlying, originating reason that drives a chain of resulting effects.
Root Cause Analysis	Root Cause Analysis helps identify what, how, and why something happened, thus preventing recurrence. There is an entire methodology around root cause analysis in certain settings; here, the meaning is more general – the principle that rather than looking only at the presenting or surface issues, there may be an underlying, causal issue that should also be addressed.
Scrum Software Development	Scrum is an agile process framework for managing complex knowledge work, with an initial emphasis on software development, although it has been used in other fields and is slowly starting to be explored for other complex work, research and advanced technologies. It is designed for teams of ten or fewer members, who break their work into goals that can be completed within time boxed iterations, called sprints, no longer than one month and most commonly two weeks, then track progress and re-plan in 15-minute time-boxed daily meetings, called daily scrums.
Sensitivity Analysis	A technique of assessing the extent to which changes in assumptions or input variables will affect the ranking of alternatives.
Service Oriented Architecture (SOA) (also referred to as Service Component Based Architecture)	A means of organizing and developing Information Technology capabilities as collaborating services that interact with each other based on open standards. Agency SOA artifacts may include models, approach documents, inventories of services or other descriptive documents.
Simulation	A method of quantifying costs or benefits in which the process is analyzed and simulated to obtain costs.
Software	A set of computer programs, procedures, and associated documentation used to operate the hardware.

Term	Definition
Software Maintenance	Routine support activities that normally include corrective, adaptive, and perfective changes, without introducing additional functional capabilities. Corrective changes are tasks to correct minor errors or deficiencies in software. Adaptive changes are minor revisions to existing software to meet changing requirements. Perfective changes are minor improvements to application software so it will perform in a more efficient, economical, and/or effective manner. Software maintenance can include activities such as revising/creating new reports, making limited data element/database changes, and making minor alterations to data input and display screen designs.
State Agency	The state agency administering or supervising the administration of the state plan under titles IV or XIX of the Social Security Act.
Streamlined Feasibility Study (FS)	A Streamlined Feasibility Study (FS) – *also known as a streamlined Feasibility Study (FS), Analysis of Alternatives (AoA), and Cost Benefit Analysis (CBA) document* – provides a streamlined analytical approach; develops a high level framework for analysis; and documents preparation, and provides simplified worksheets and other supporting artifacts to enable a state to efficiently analyze and compare candidate modernization alternatives.
Sunk Costs	A non-recoverable cost expended prior to the start of the project. Because sunk costs have been irrevocably expended or committed, they are not considered in the cost/benefit analysis. (See also Realized Benefits.)
System Requirements Specification (SRS)	A system requirements specification (SRS) – typically derived from or based upon the functional requirements specification/document (FRS/FRD) – is a structured collection of information that embodies the requirements of a system; it is a description of the system or application to be developed. The SRS establishes the basis for an agreement between customers and contractors or suppliers on how the system or application should function. The SRS is a rigorous assessment of requirements before the more specific system design stages, and its goal is to reduce later redesign. [Note: It should also provide a realistic basis for estimating product costs, risks, and schedules.]
System Specifications	Information about the new ADP system—such as workload descriptions, input data, information to be maintained and processed, data processing techniques, and output data—which is required to determine the ADP equipment and software necessary to implement the system design.
System Study	The examination of existing information flow and operational procedures within an organization. The study essentially consists of three basic phases: Data gathering investigation of the present system and new information requirements; analysis of the data gathered in the investigation; and synthesis or refitting of the parts and relationships uncovered through the analysis into an efficient system.
Systems Life	The time required to plan, design, acquire, and implement the system plus its operational life.
Tangible Benefit or Objective	A benefit or objective that has value and can be precisely measured. A benefit or objective that is capable of being measured, appraised, or assigned an actual or approximate value. A benefit or objective that is real or actual; it is not vague or elusive. *[Also see Quantitative Benefit or Objective]*
Time Value of Money	A name given to the notion that the use of money costs money. A dollar today is worth more than a dollar tomorrow because of interest costs.
Total Acquisition Cost	All anticipated expenditures (including state staff costs) for planning and implementation for the project. For purposes of this regulation total acquisition cost and project cost are synonymous.

Term	Definition
Undiscounted Costs or Benefits	Future years' costs or benefits that have not been multiplied by a discount factor to convert them to their present value — in other words, projected costs or benefits.
Variable Costs	Costs that are volume sensitive: for example, charges for computer services are often volume sensitive.
Waterfall Software Development	The waterfall model is a breakdown of project activities into linear sequential phases, where each phase depends on the deliverables of the previous one and corresponds to a specialization of tasks. The approach is typical for certain areas of engineering design. In software development, it tends to be among the less iterative and flexible approaches, as progress flows in largely one direction ("downwards" like a waterfall) through the phases of conception, initiation, analysis, design, construction, testing, deployment and maintenance.

Appendix D: Acronyms

Table 26 includes a list of acronyms used throughout the Streamlined Feasibility Study (FS) guide.

Table 26: Acronyms

Acronym	Description
AAPD	Annual Advance Planning Document
AAPDU	Annual Advance Planning Document Update
ACF	Administration for Children and Families
ACL	Access Control List
ACRIDs	Assumptions, Constraints, Risks, Issues, and Dependencies
ADP	Automated Data Processing
ALM	Application Lifecycle Management (ALM) tool
ANAPD	As-Needed Advance Planning Document
ANAPDU	As-Needed Advance Planning Document Update
AoA	Analysis of Alternatives Alternatives Analysis
APD	Advance Planning Document
APDU	Advance Planning Document Update
API	Application Programming Interface
CAM	Cost Allocation Methodology
CFR	Code of Federal Regulations
CIA	Confidentiality, Integrity, Availability
CMS	Content Management System Centers for Medicare and Medicaid Services
COTS	Commercial-Off-The-Shelf
CSES	Child Support Enforcement System
Ctr or CTR	Contractor
DCL	Dear Colleague Letter
DDI	Design, Development, and Implementation
DRA	Deficit Reduction Act (2005)
DSTS	Division of State and Tribal Systems
EOL	End of Life End of Useful Life
EPLC	Enterprise Performance Lifecycle
FFP	Federal Financial Participation Firm Fixed Price
FFY	Federal Fiscal Year
FRD	Functional Requirements Document
FRS	Functional Requirements Specification
FS	Feasibility Study
FSA-88	Family Support Act of 1988
GOTS	Government-Off-The-Shelf
Gov or GOV	Government
GUI	Graphical User Interface
HHS	Department of Health and Human Services
IaaS	Infrastructure-as-a-Service

Acronym	Description
IAPD	Implementation Advance Planning Document
IAPDU	Implementation Advance Planning Document Update
ICD	Interface Control Document
IRS	Internal Revenue Service
IT	Information Technology
IV&V	Independent Verification and Validation
IV-D	Refers to Part D of Title IV of the Social Security Act
O&M	Operations and Maintenance
OAPD	Operational Advance Planning Document
OAPDU	Operational Advance Planning Document Update
OCI	Organizational Conflict of Interest
OCSE	Office of Child Support Enforcement
OMB	Office of Management and Budget
OpDiv	Operational Division
PaaS	Platform-as-a-Service
PAPD	Planning Advance Planning Document
PAPDU	Planning Advance Planning Document Update
PM	Project Manager Program Manager Program Management
PMP	Program Management Professional Program Management Plan
PRWORA	Personal Responsibility and Work Opportunity Reconciliation Act of 1996
QA	Quality Assurance
RFO	Request for Offer
RFP	Request for Proposal
RFQ	Request for Quote
RFS	Request for Service
SaaS	Software-as-a-Service
SDD	System Design Document
SDLC	Software Development Lifecycle System Development Lifecycle
SFY	State Fiscal Year
SNAP	Supplemental Nutrition Assistance Program
SOA	Service Oriented Architecture
SON	Statement of Need
SRD	System Requirements Document
SRS	System Requirements Specification
SSP	System Security Plan

Appendix E: Streamlined FS Assumptions, Constraints, Risks, Issues, and Dependencies (ACRIDs)

Table 27 through Table 31 include ACRIDs associated with preparing documents, artifacts, and spreadsheets associated with the Streamlined Feasibility Study (FS) guide.

Table 27: Assumptions

#	Assumptions
1.	State Personnel are no longer required to conduct on-site reviews with candidate transfer state representatives.
2.	The Streamlined FS analysis documentation can be prepared in fewer than six months.
3.	The Streamlined FS artifacts can be documented in 50 pages or fewer.
4.	The Streamlined FS spreadsheets can be documented in 10 worksheets or fewer.
5.	The State's CSES Modernization Project Vision Statement has been approved and signed.
6.	The State's CSES Modernization Project Charter has been approved and signed.
7.	State will secure necessary funding for system planning, design, acquisition, and implementation of the selected alternative.
8.	State will provide appropriate program management and technical expertise - throughout the planning, development, implementation, and certification. As needed, RFPs for PMO, DDI, QA, training, IV&V, and O&M services will be prepared and released to the vendor community and contracts awarded on schedule.
9.	State will provide appropriate program management and technical expertise for ongoing O&M of the certified legacy CSES. As needed, RFP(s) for O&M services will be prepared and released to the vendor community and contract(s) awarded on schedule.
10.	State will select the alternative representing the most effective and efficient solution that meets programmatic needs within cost constraints.
11.	State will select the alternative that meets all certification requirements.[17]

Table 28: Constraints

#	Constraints
1.	The current Child Support Enforcement System (CSES) [a.k.a., "As-Is," "Baseline," "Status Quo," "Heritage," or "Legacy" system] is always included as the reference alternative system throughout the Streamlined FS analysis and documentation.
2.	Per 45 CFR §95. 610(b)(3), the statement of alternatives shall include: "…a transfer of an existing system and an explanation of why such a transfer is not feasible if another alternative is identified. For the new Streamlined FS analysis process, this information will be included within the AoA discussion documentation.
3.	Enhancing the Legacy/Heritage system implementation is considered with the Streamlined FS.
4.	Transfer and Hybrid candidates must be considered.
5.	Project Charter and Vision Statement have been approved.
6.	"New Development" is the last alternative that a state considers.

[17] *Automated Systems for Child Support Enforcement: A Guide for States – Updated 2017 (AT-17-11) [A Certification Guide for the States]*

Table 29: Dependencies

#	Dependencies
1.	If a state chooses to modernize their CSES using the Refactoring/Replatforming approach, then a Streamlined FS is not required.
2.	Well-Defined "As-Is" Architecture, Workflows/Processes, and Swim Lanes have been updated within the previous 12 months.
3.	Candidate/Desired "To-Be" CSES has been proposed during the preliminary activities, such as during brainstorming meetings.
4.	Thorough Stakeholder Involvement/Support throughout Requirements Definition a. Functional (Major / Operational Capabilities) b. Specifications (Architecture Implementation Approach) c. Derivative (Features…Decomposition of Specifications
5.	Comprehensive set of Use Cases/Test Scenarios are current and have been mapped to Requirements via RTM.

Table 30: Risks

#	Risks
1.	Risk (Low): If the mainframe end-of-life (EOL) is reached prior to the new child support software implementation/deployment, then mainframe O&M issues may impact the development/implementation schedule for a state's child support software. That is, the new software development/implementation schedule may have to be accelerated. a. Mitigation: Monitor state child support software schedule to identify potential schedule slips as early as possible. b. Mitigation: Monitor the mainframe lifecycle/EOL schedule to identify potential schedule changes and determine if there is a potential impact to the state child support software schedule. c. Note: Staff with mainframe technology experience may be retiring in the near future. Staff who have grown up using latest generation technologies may not be fully trained or experienced with legacy technologies.

Table 31: Issues (Examples)

#	Issues
1.	Issue: State team's FS preparation, process, and methodology inconsistent. a. Example: Requirements changed after Transfer candidate selected – ensure requirements defined and finalized early in the FS/CBA process…before any candidate is considered. b. Example: Implementation schedule for modernization effort is more than seven years. Given Moore's law, the underlying software may be past end-of-life with respect to the underlying vendor technical support and security patches; and/or obsolete before it is determined to be operational; and/or no longer supported by the vendor. c. Example: Unclear how the state derived its final decision; that is, unable to easily follow the 'applied' process vs the 'planned/defined' process.

Appendix F: Streamlined FS Cost Analysis Spreadsheet Guide

This appendix describes how to populate and use the Streamlined Feasibility Study (FS) Cost Analysis Spreadsheet template. Each of the following worksheets is described in this appendix, along with how and where to populate entries.

1. State Title Page
2. Instructions - Read Me First
3. Modernization Cost Summary
4. Preliminary Activity Costs
5. Streamlined FS Activity Costs
6. IAPD Activity Costs
7. Procurement Activity Costs
8. Alternative 1 Development Costs
9. Alternative 1 O&M/Enhancement Costs
10. Status Quo O&M/Enhancement Costs

Notes:

- This spreadsheet is for the first alternative: Alternative #1. If more than one alternative is selected by the state for cost analysis, make a copy of this spreadsheet for each additional alternative (e.g., two additional spreadsheets for Alternative #2 and Alternative #3) and populate each with corresponding cost information.
- Text – Only modify cells with text that is enclosed within *< angled brackets and is underlined >*. The remaining worksheets will auto-populate appropriate cells using information entered by the author/analyst.
- Modernization LifeCycle Cost Data – Although 15 years of cost/budget columns are provided, the only columns that need to be populated pertain to the years encompassing the entire CSES modernization project: planning phase (preliminary activities, streamlined FS Activities, IAPD activities, and procurement activities), development phase, and the first three years of the O&M/Enhancement phase. For the Status Quo system, populate columns from the beginning of the planning phase through the last quarter/year of the development phase (i.e., through the quarter in which cutover to the new/modernized CSES occurs).
- Quarterly Cost Data Entry – Cost/budget information should be entered by quarter (cells V6-V33 through CQ6-CQ33) in the following worksheets for CSES modernization project. [In each of these worksheets, it should be noted that cost data in cells D6-D33 through R6-R33 auto-populates by summarizing quarterly cost/budget information provided by the author.]
    - Preliminary Activity Costs
    - Streamlined FS Activity Costs
    - IAPD Activity Costs
    - Procurement Activity Costs
    - Alternative 1 Development Costs
    - Alternative 1 O&M-Enhance Costs
    - Status Quo O&M-Enhance Costs

1. State Title Page

- State Logo – Insert the state's IV-D office or other preferred logo.
- State – Insert the name of the state.
- Child Support Enforcement System Name (Acronym) – Insert the name and acronym of the state's CSES. In the event that a state is changing its CSES name, enter the new/modernized CSES name and acronym here.
- Modernization Project Name (Acronym) – Insert the state's CSES modernization project name, which may be different from the CSES name.
- Date – Insert this document's date.
- State IV-D Office (Acronym) – Insert the state's IV-D office name and acronym.

2. Instructions - Read Me First

On this worksheet, only populate cells with text that is enclosed within *< angled brackets and is underlined >*. The remaining worksheets will auto-populate appropriate cells using information entered by the author/analyst.

a. [**Cells E2 – S2**] Enter the budget year type or naming convention [federal fiscal year (FFY) or state fiscal year (SFY)] and year number]. Typically, this will be State Fiscal Year #### (e.g. SFY2021) or Federal Fiscal Year #### (e.g. FFY2021). However, the author may use a different format; examples include the following:

i. FFY2021, FFY2022, FFY2022, … through FFY2035.
ii. SFY2021, SFY2022, SFY2022, … through SFY2035.
iii. Year 1, Year 2, Year 3, … through Year 15.
iv. Project Year 1, Project Year 2, Project Year 3, … through Project Year 15.

On This Worksheet, Only Populate Cells with < italicized, underlined, and angled bracketed text > *…. rows 2, 3, & 4 in the remaining worksheets will auto-populate ….*															
< FFY2021 >	*< FFY2022 >*	*< FFY2023 >*	*< FFY2024 >*	*< FFY2025 >*	*< FFY2026 >*	*< FFY2027 >*	*< FFY2028 >*	*< FFY2029 >*	*< FFY2030 >*	*< FFY2031 >*	*< FFY2032 >*	*< FFY2033 >*	*< FFY2034 >*	*< FFY2035 >*

b. [**Cell G4**] Enter the beginning and end dates associated with the state's budget or fiscal year – as reflected in the state's APD document(s) submitted to OCSE annually. Examples include the following:

i. 1 Jul - 30 Jun.
ii. 1 Oct - 30 Sep.

Define the State's Fiscal Year	Q1 thru Q4
Enter the Beginning and End Dates for the Budget Year (Cell G4)	*< 1 Oct - 30 Sep >*

c. [**Cells P4 – S4**] Enter the beginning and end dates associated with the state's budget or fiscal quarters (Q1, Q2, Q3, Q4). Examples include the following:

i. 1 Jul - 30 Sep; 1 Oct - 31 Dec; 1 Jan - 30 Mar; 1 Apr - 30 Jun.
ii. 1 Oct - 31 Dec; 1 Jan - 30 Mar; 1 Apr - 30 Jun; 1 Jul - 30 Sep.

Define the State's Fiscal Quarters	Q1	Q2	Q3	Q4
Enter the Beginning and End Dates for Each Budget Quarter (Cells P4 -S4)	*< 1 Jul - 30 Sep >*	*< 1 Oct - 31 Dec >*	*< 1 Jan - 30 Mar >*	*< 1 Apr - 30 Jun >*

d. [**Cells E5 – S5**] Enter the funding type associated with each budget year shown in cells E2-S2: *Actual, Actual & Planned, or Planned*. Note that these terms encompass all four quarters in the respective budget year.

On This Worksheet, Only Populate Cells with < italicized, underlined, and angled bracketed text > *…. rows 2, 3, & 4 in the remaining worksheets will auto-populate ….*														
< FFY2021 >	*< FFY2022 >*	*< FFY2023 >*	*< FFY2024 >*	*< FFY2025 >*	*< FFY2026 >*	*< FFY2027 >*	*< FFY2028 >*	*< FFY2029 >*	*< FFY2030 >*	*< FFY2031 >*	*< FFY2032 >*	*< FFY2033 >*	*< FFY2034 >*	*< FFY2035 >*
Define the State's Fiscal Year		Q1 thru Q4							Define the State's Fiscal Quarters		Q1	Q2	Q3	Q4
Enter the Beginning and End Dates for the Budget Year (Cell G4)		*< 1 Oct - 30 Sep >*							Enter the Beginning and End Dates for Each Budget Quarter (Cells P4 -S4)		*< 1 Jul - 30 Sep >*	*< 1 Oct - 31 Dec >*	*< 1 Jan - 30 Mar >*	*< 1 Apr - 30 Jun >*
< Actual >	*< Actual &/or Planned >*	*< Planned >*	*< Planned >*	*< Planned >*	*< Planned >*	*< Planned >*	*< Planned >*	*< Planned >*	*< Planned >*	*< Planned >*	*< Planned >*	*< Planned >*	*< Planned >*	*< Planned >*

e. [**Cells V5 – CQ5**] For each quarter of the 15-year time frame, enter the funding type associated with each quarter: *Actual or Planned*.

< FFY2021 >				< FFY2022 >				< FFY2023 >			
Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
< 1 Jul - 30 Sep >	< 1 Oct - 31 Dec >	< 1 Jan - 30 Mar >	< 1 Apr - 30 Jun >	< 1 Jul - 30 Sep >	< 1 Oct - 31 Dec >	< 1 Jan - 30 Mar >	< 1 Apr - 30 Jun >	< 1 Jul - 30 Sep >	< 1 Oct - 31 Dec >	< 1 Jan - 30 Mar >	< 1 Apr - 30 Jun >
< Actual >	*< Actual >*	*< Actual >*	*< Actual >*	*< Actual >*	*< Actual >*	*< Planned >*	*< Planned >*	*< Planned >*	*< Planned >*	*< Planned >*	*< Planned >*

f. [**Cells B10 – B16**] Enter the name of each activity of the modernization effort; examples include the following.

i. *Preliminary Activity Costs*
ii. *Streamlined FS Activity Costs*
iii. *IAPD Activity Costs*
iv. *Procurement Activity Costs*
v. *< CSES Alternative #1 Name > Development Costs*
vi. *< CSES Alternative #1 Name > O&M/Enhancement Costs [First 3 Years Following the Development Phase]*
vii. *< Status Quo CSES Acronym > O&M/Enhancement Costs*

State Defined Modernization 'Activity' and Selected 'Alternative(s)' Costing On This Worksheet, Only Populate Only Populate Cells with Text that is enclosed within *< angled brackets and is underlined >*. *[Note: Appropriate Cells in "Column B" will be auto-populated in the remaining worksheets]*
Preliminary Activity Costs
Streamlined FS Activity Costs
IAPD Activity Costs
Procurement Activity Costs
< CSES Alternative #1 Name > Development Costs
< CSES Alternative #1 Name > O&M/Enhancement Costs (First 3 Years Following the Development Phase)
< Status Quo CSES Acronym > O&M/Enhancement Costs

3. Modernization Cost Summary

Modernization Cost Summary	< FFY2021 > < 1 Oct - 30 Sep > (Actual)	< FFY2022 > < 1 Oct - 30 Sep > (Actual/Planned)	< FFY2023 > < 1 Oct - 30 Sep > (Planned)	< FFY2024 > < 1 Oct - 30 Sep > (Planned)	< FFY2025 > < 1 Oct - 30 Sep > (Planned)	< FFY2026 > < 1 Oct - 30 Sep > (Planned)	< FFY2027 > < 1 Oct - 30 Sep > (Planned)	< FFY2028 > < 1 Oct - 30 Sep > (Planned)	< FFY2029 > < 1 Oct - 30 Sep > (Planned)	< FFY2030 > < 1 Oct - 30 Sep > (Planned)	< FFY2031 > < 1 Oct - 30 Sep > (Planned)	< FFY2032 > < 1 Oct - 30 Sep > (Planned)	< FFY2033 > < 1 Oct - 30 Sep > (Planned)	< FFY2034 > < 1 Oct - 30 Sep > (Planned)	< FFY2035 > < 1 Oct - 30 Sep > (Planned)	
Planning and Development Costs																Subtotal
Preliminary Activity Costs	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Streamlined FS Activity Costs	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
IAPD Activity Costs	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Procurement Activity Costs	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
< CSES Alternative #1 Name > Development Costs	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Annual Modernization Costs	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Operations and Maintenance Costs																
< CSES Alternative #1 Name > O&M/Enhancement Costs (First 3 Years Following the Development Phase)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
< Status Quo CSES Acronym > O&M/Enhancement Costs	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Annual O&M Costs	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Modernization and O&M Subtotals																
Subtotal of Planning and Development Costs	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Subtotal of 'Status Quo' and Modernized System's O&M Costs	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total Annual Child Support Enforcements System Costs	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -

This locked/protected worksheet shows the totals for the following worksheets. This table is available to be copied/pasted into the Streamlined FS cost analysis subsection. [Note: If more than one alternative is selected by the state for cost analysis, make a copy of this spreadsheet for each additional alternative (e.g., two additional spreadsheets for Alternative #2 and Alternative #3) and populate each with corresponding cost information.]

i. *Preliminary Activity Costs*
ii. *Streamlined FS Activity Costs*
iii. *IAPD Activity Costs*
iv. *Procurement Activity Costs*
v. *< CSES Alternative #1 > Development Costs*
vi. *< CSES Alternative #1 > O&M/Enhancement Costs*
vii. *< Status Quo CSES Acronym > O&M/Enhancement Costs*

4. Preliminary Activity Costs

Cost Category
[Enter State Defined Cost Categories in Column B (Cells B6-B33) of This Worksheet] [Examples are Shown in Cells B6-B33.]
State Gov Staff/Direct Personnel
Consultant/SME Support
PMO Services & Management Support
Other/Miscellaneous Support
Travel
Training
Supplies
Overhead/Indirect Costs
Other/Miscellaneous
Travel

On this worksheet, enter the state defined cost categories. The state determines which cost categories are indented (manually). Since this worksheet is not designed to show 'subtotals,' only enter cost data for the 'lowest level/indented' for major subcategories. Cells in **Columns D – T and Row 35** are auto-populated using ***quarterly*** cost

data/information populated in **Columns V – CQ, Rows 6-33**. Only populate the following cells:

- [**Cells B6 – B33**] Enter the name of the state's cost categories associated with **Preliminary Activity Costs**.
- [**Columns V – CQ, Rows 6-33**] For the corresponding quarter, enter ***actual*** and ***planned*** costs corresponding to each respective planning category. This information will be automatically summarized by budget year and reflected in **Columns D – T.**

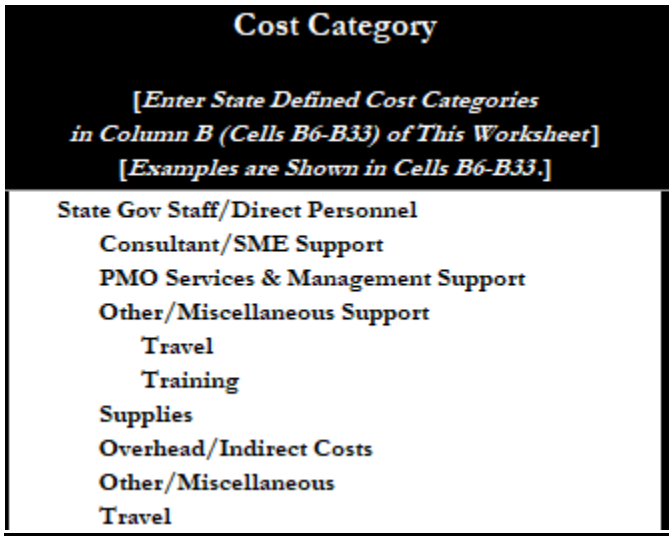
5. Streamlined FS Activity Costs

Cost Category [*Enter State Defined Cost Categories in Column B (Cells B6-B33) of This Worksheet*] [*Examples are Shown in Cells B6-B33.*]
State Gov Staff/Direct Personnel
Consultant/SME Support
PMO Services & Management Support
Other/Miscellaneous Support
Travel
Training
Supplies
Overhead/Indirect Costs
Other/Miscellaneous
Travel

On this worksheet, enter the state defined cost categories. The state determines which cost categories are indented (manually). Since this worksheet is not designed to show 'subtotals,' only enter cost data for the 'lowest level/indented' for major subcategories. Cells in **Columns D – T and Row 35** are auto-populated using ***quarterly*** cost information populated in **Columns V – CQ, Rows 6-33**. Only populate the following cells:

- [**Cells B6 – B33**] Enter the name of the state's cost categories associated with **Streamlined FS Activity Costs**.
- [**Columns V – CQ, Rows 6-33**] For the corresponding quarter, enter ***actual*** and ***planned*** costs corresponding to each respective planning category. This information will be automatically summarized by budget year and reflected in **Columns D – T.**

6. IAPD Activity Costs



Cost Category [*Enter State Defined Cost Categories in Column B (Cells B6-B33) of This Worksheet*] [*Examples are Shown in Cells B6-B33.*]
State Gov Staff/Direct Personnel
Consultant/SME Support
PMO Services & Management Support
Other/Miscellaneous Support
Travel
Training
Supplies
Overhead/Indirect Costs
Other/Miscellaneous
Travel

On this worksheet, enter the state defined cost categories. The state determines which cost categories are indented (manually). Since this worksheet is not designed to show 'subtotals,' only enter cost data for the 'lowest level/indented' for major subcategories. Cells in **Columns D – T and Row 35** are auto-populated using ***quarterly*** cost information populated in **Columns V – CQ, Rows 6-33**. Only populate the following cells:

- [**Cells B6 – B33**] Enter the name of the state's cost categories associated with **IAPD Activity Costs**.
- [**Columns V – CQ, Rows 6-33**] For the corresponding quarter, enter ***actual*** and ***planned*** costs corresponding to each respective planning category. This information will be automatically summarized by budget year and reflected in **Columns D – T.**

7. Procurement Activity Costs

Cost Category [*Enter State Defined Cost Categories in Column B (Cells B6-B33) of This Worksheet*] [*Examples are Shown in Cells B6-B33.*]
Design, Development, & Implementation Costs
Site and Facility [Data Center(s) including Site Preparation]
Utilities/Phone/Communications
Procurement
System Hardware/Equipment Lease/Maintenance
System Software Lease/Maintenance
Data Processing
Travel
Training
Supplies
Overhead/Indirect Costs
Other/Miscellaneous
State Gov Staff/Direct Personnel Costs
Consultant/SME
PMO/Management
DDI
QA
IV&V
Other/Miscellaneous
Contracts - Contractor/Vendor Services Costs
Consultant/SME
PMO/Management
DDI
QA
IV&V
Other/Miscellaneous

On this worksheet, enter the state defined cost categories. The state determines which cost categories are indented (manually). Since this worksheet is not designed to show 'subtotals,' only enter cost data for the 'lowest level/indented' for major subcategories. Cells in **Columns D – T and Row 35** are auto-populated using ***quarterly*** cost information populated in **Columns V – CQ, Rows 6-33**. Only populate the following cells:

- [**Cells B6 – B33**] Enter the name of the state's cost categories associated with **Procurement Activity Costs**.
- [**Columns V – CQ, Rows 6-33**] For the corresponding quarter, enter ***actual*** and ***planned*** costs corresponding to each respective planning category. This information will be automatically summarized by budget year and reflected in **Columns D – T.**

8. Alternative #1 Development Costs

Cost Category [*Enter State Defined Cost Categories in Column B (Cells B6-B33) of This Worksheet*] [*Examples are Shown in Cells B6-B33.*]
State Gov Staff/Direct Personnel
Consultant/SME
PMO/Management
Other/Miscellaneous
Procurement of Contractor/Vendor Services
Consultant/SME
PMO/Management
DDI
QA
IV&V
O&M
Other/Miscellaneous
Procurement
System Hardware/Equipment Lease/Maintenance
System Software Lease/Maintenance
Travel
Training
Supplies
Overhead/Indirect Costs
Other/Miscellaneous

On this worksheet, enter the state defined cost categories. The state determines which cost categories are indented (manually). Since this worksheet is not designed to show 'subtotals,' only enter cost data for the 'lowest level/indented' for major subcategories. Cells in **Columns D – T and Row 35** are auto-populated using ***quarterly*** cost information populated in **Columns V – CQ, Rows 6-33**. Only populate the following cells:

- [**Cells B6 – B33**] Enter the name of the state's cost categories associated with **Alternative #1 Development Costs**.
- [**Columns V – CQ, Rows 6-33**] For the corresponding quarter, enter ***actual*** and ***planned*** costs corresponding to each respective planning category. This information will be automatically summarized by budget year and reflected in **Columns D – T.**

9. Alternative #1 O&M/Enhancement Costs (First 3 Years Following the Development Phase)

Cost Category *[Enter State Defined Cost Categories in Column B (Cells B6-B33) of This Worksheet]* *[Examples are Shown in Cells B6-B33.]*
Maintenance and Operations Costs
Site and Facility [Data Center(s)]
Utilities/Phone/Communications
Procurement
System Hardware/Equipment Lease/Maintenance
System Software Lease/Maintenance
Data Processing
Travel
Training
Supplies
Overhead/Indirect Costs
Other/Miscellaneous
State Gov Staff/Direct Personnel Costs
Consultant/SME
PMO/Management
O&M
Other/Miscellaneous
Contracts - Contractor/Vendor Services Costs
Consultant/SME
PMO/Management
O&M
Other/Miscellaneous

On this worksheet, enter the state defined cost categories. The state determines which cost categories are indented (manually). Since this worksheet is not designed to show 'subtotals,' only enter cost data for the 'lowest level/indented' for major subcategories. Cells in **Columns D – T and Row 35** are auto-populated using ***quarterly*** cost information populated in **Columns V – CQ, Rows 6-33**. Only populate the following cells:

- [**Cells B6 – B33**] Enter the name of the state's cost categories associated with **Alternative #1 O&M/Enhancement Costs (First 3 Years Following the Development Phase)**.
- [**Columns V – CQ, Rows 6-33**] For the corresponding quarter, enter ***actual*** and ***planned*** costs corresponding to each respective planning category. This information will be automatically summarized by budget year and reflected in **Columns D – T.**

10. Status Quo O&M/Enhancement Costs

Cost Category *[Enter State Defined Cost Categories in Column B (Cells B6-B33) of This Worksheet]* *[Examples are Shown in Cells B6-B33.]*
Maintenance and Operations Costs
Site and Facility [Data Center(s)]
Utilities/Phone/Communications
Procurement
System Hardware/Equipment Lease/Maintenance
System Software Lease/Maintenance
Data Processing
Travel
Training
Supplies
Overhead/Indirect Costs
Other/Miscellaneous
State Gov Staff/Direct Personnel Costs
Consultant/SME
PMO/Management
O&M
Other/Miscellaneous
Contracts - Contractor/Vendor Services Costs
Consultant/SME
PMO/Management
O&M
Other/Miscellaneous

On this worksheet, enter the state defined cost categories. The state determines which cost categories are indented (manually). Since this worksheet is not designed to show 'subtotals,' only enter cost data for the 'lowest level/indented' for major subcategories. Cells in **Columns D – T and Row 35** are auto-populated using ***quarterly*** cost information populated in **Columns V – CQ, Rows 6-33**. Only populate the following cells:

- [**Cells B6 – B33**] Enter the name of the state's cost categories associated with **Status Quo O&M/Enhancement Costs**.
- [**Columns V – CQ, Rows 6-33**] For the corresponding quarter, enter ***actual*** and ***planned*** costs corresponding to each respective planning category. This information will be automatically summarized by budget year and reflected in **Columns D – T.**

Appendix G: Advance Planning Document Requirements (45 CFR §95.610)

Table 32 includes Advance Planning Document (APD) requirements stated in **45 CFR §95.610**, including:

a) Planning APD (PAPD) [*or Planning APD Update (PAPDU)*]
b) Implementation APD (IAPD) [*or Implementation APD Update (IAPDU)*].
c) Advance Planning Document Update (APDU):
   1) Annual APDU (AAPDU).
   2) As-Needed APDU (ANAPDU).
   3) Operational Advance Planning Document Update (OAPDU).

https://www.ecfr.gov/cgi-bin/retrieveECFR?gp=&SID=a3e6c169f952427921e0756a70711a40&mc=true&n=sp45.1.95.f&r=SUBPART&ty=HTML#se45.1.95_1610

Table 32: 45 CFR §95.610 Advance Planning Document (APD) Requirements

#	Reference
1.	**45 CFR §95.610 Advance Planning Document (APD)** refers to an "Initial advance automated data processing planning document or Initial APD, providing a recorded plan of action to request funding approval for a project which will require the use of ADP services or equipment, including the use of shared or purchased services in lieu of state acquired stand-alone resources. Requirements are detailed in paragraphs (a), (b) and (c) of this section."
2.	**45 CFR §95.610(a) Planning APD.** "(1) **A separate planning effort and Planning APD is optional**, but highly recommended, and generally applies to large statewide system developments and/or major hardware acquisitions. States with large, independent counties requesting funding at the regular match rate for county systems are strongly encouraged to engage in planning activities commensurate with the complexity of the projected ADP project and to submit a Planning APD to allow for time and to provide funding for its planning activities. Therefore, states must consider the scope and complexity of a project to determine whether to submit a Planning APD as a separate document to HHS or whether to combine the two phases of planning and implementation into one APD covering both the Planning APD and the Implementation APD requirements. (2) The **Planning APD** is a relatively **brief document**, usually not more than 6-10 pages, which must contain: (i) A **statement of the problem/need** that the existing capabilities cannot resolve, new or changed program requirements or opportunities for improved economies and efficiencies and effectiveness of program and administration and operations; (ii) A **project management plan** that addresses the planning project organization, planning activities/deliverables, state and contractor resource needs, planning project procurement activities and schedule; (iii) A **specific budget for the planning phase** of the project; (iv) An **estimated total project cost** and a prospective state and Federal cost allocation/distribution, including planning and implementation; (v) A **commitment to conduct/prepare the problem(s) needs assessment, feasibility study, alternatives analysis, cost benefit analysis, and to develop a Functional Requirements Specification and/or a General Systems Design (GSD);** (vi) A **commitment to define the state's functional requirements**, based on the state's business needs which may be used for the purpose of evaluating the transfer of an existing system, including the transfer of another state's General System Design that the state may adapt to meet state specific requirements;

#	Reference
	(vii) **Additional Planning APD content requirements**, for enhanced funding projects as contained in §307.15 (Approval of APDs for ADP Systems) and §1355.50 through 1355.57 (Title IV-E agency's CCWIS); and (viii) An **acquisition summary** for the upcoming year or development phase that provides the following information on proposed acquisitions: (A) Type and scope of contract (B) Procurement strategy (C) Estimated cost or not to exceed amount (D) Timeframe of contract (E) A statement or certification that the proposed acquisition will comply with all state and Federal requirements including the retention of software ownership rights specified in §95.617"
3.	**45 CFR §95.610(b) Implementation Advance Planning Document Update (APDU).** "The **IAPD** shall include: (1) The **results of the activities conducted under a Planning APD**, if any; (2) A **statement of problems/needs and outcomes/objectives**; (3) A **requirements analysis, feasibility study and a statement of alternative considerations** including, where appropriate, the use of service-orientated architecture and a transfer of an existing system and an explanation of why such a transfer is not feasible if another alternative is identified; (4) A **cost benefit analysis**; (5) A **personnel resource statement** indicating availability of qualified and adequate numbers of staff, including a project director to accomplish the project objectives; (6) A detailed description of the **nature and scope of the activities to be undertaken and the methods to be used** to accomplish the project; (7) The **proposed activity schedule** for the project; (8) A **proposed budget** (including an accounting of all possible Implementation APD activity costs, e.g., system conversion, vendor and state personnel, computer capacity planning, supplies, training, hardware, software and miscellaneous ADP expenses) for the project; (9) A statement indicating the **duration the state expects to use the equipment and/or system**; (10) An **estimate of the prospective cost allocation/distribution** to the various state and Federal funding sources and the proposed procedures for distributing costs; (11) A statement setting forth the **security and interface requirements** to be employed and the **system failure and disaster recovery/business continuity procedures** available or to be implemented; and (12) Additional requirements, for acquisitions for which the state is requesting enhanced funding, as contained at §307.15 and 42 CFR subchapter C, part 433 or funding for title IV-E agencies as contained at §1355.52(i) of this title."
4.	**45 CFR §95.610 (c)(1) "**The **Annual Advance Planning Document Update (AAPDU),** which is due 60 days prior to the expiration of the FFP approval, includes: (i) A **reference to the approved APD and all approved changes**; (ii) A **project activity report** which includes the status of the past year's major project tasks and milestones, addressing the degree of completion and tasks/milestones remaining to be completed, and discusses past and anticipated problems or delays in meeting target dates in the approved APD and approved changes to it and provides a risk management plan that assesses project risk and identifies risk mitigation strategies; (iii) A **report of all project deliverables** completed in the past year and degree of completion for unfinished products and tasks; (iv) An **updated project activity schedule** for the remainder of the project; (v) A **revised budget** for the entirety of the project's lifecycle, including operational and development cost categories;

#	Reference
	(vi) A **project expenditures report** that consists of a detailed accounting of all expenditures for project development over the past year and an explanation of the differences between projected expenses in the approved APD and actual expenditures for the past year; (vii) A report of any **approved or anticipated changes to the allocation basis in the APD's approved cost allocation methodology**; (viii) An **acquisition summary** for the upcoming year or development phase that provides the following information on proposed acquisitions: (A) Type and scope of contract (B) Procurement strategy (C) Estimated cost or not to exceed amount (D) Timeframe of contract (E) A statement or certification that the proposed acquisition will comply with all state and Federal requirements including the retention of software ownership rights specified in §95.617."
5.	**45 CFR §95.610 (c)(2) "**The **As-Needed APDU (ANAPDU)** is a document that requests approval for additional funding and/or authority for project continuation when significant changes are anticipated, when the project is being funded on a phased implementation basis, or to clarify project information requested as an approval condition of the Planning APD, Annual APDU, or Implementation APD. The As-Needed APDU may be submitted any time as a stand-alone funding or project continuation request, or may be submitted as part of the Annual APDU. The As-Needed APDU is submitted: (i) When the state anticipates incremental project expenditures (exceeding specified thresholds); (ii) When the state anticipates a schedule extension of more than 60 days for major milestones; (iii) When the state anticipates major changes in the scope of its project, e.g., a change in its procurement plan, procurement activities, system concept or development approach; (iv) When the state anticipates significant changes to its cost distribution methodology or distribution of costs among Federal programs; and/or, (v) When the state anticipates significant changes to its cost benefit projections. The As-Needed APDU shall provide supporting documentation to justify the need for a change to the approved budget. (vi) Changes to the acquisition summary in the following areas: (A) Type and scope of contract (B) Procurement strategy (C) Estimated cost or not to exceed amount (D) Timeframe of contract (E) A statement or certification that the proposed acquisition will comply with all state and Federal requirements including the retention of software ownership rights specified in §95.617. (F) New acquisitions not summarized in the Annual APDU."
6.	**45 CFR §95. 610 (c)(3) "**The **Operational Advance Planning Document Update (OAPDU)** is an annual submission of no more than two pages, including: (i) Summary of Activities (ii) Summary of Acquisitions (iii) Annual Budget for O&M (by project/systems receiving funding by programs covered under this Part) (iv) Cost Allocation (if applicable) [Note: Per the state APD Guide (Oct 2010) – The final rule created a new type of APD Update to be utilized for those states' systems projects that are in the operational mode. This type of OAPDU should not be used by a state that has any system development activities. An OAPDU is an annual submission, which provides basic information in three areas and should not exceed 2 pages.]"

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Appendix H: Streamlined FS Guide/Template/Spreadsheet: Evaluation, Comments, and Suggestions for Improvement Form

This Appendix contains a form to use when evaluating, commenting on, and making suggestions towards improving the Streamlined Feasibility Study (FS) guide. OCSE welcomes suggestions and recommendations for improving this guide and associated templates. For your convenience, an Evaluation, Comments, and Suggestions form is included in Table 33 (below), which includes suggested feedback questions. Please feel free to add additional comments or questions as desired. Forward this feedback form or any other written comments to:

U.S. Department of Health and Human Services
Administration for Children and Families
Office of Child Support Enforcement
Director, Division of State and Tribal Systems
330 C Street, SW
Washington, DC 20201
Email: OCSE.DSTS@acf.hhs.gov

Table 33:** Streamlined Feasibility Study (FS) **Guide and Templates – Evaluation, Comments, and Suggestions for Improvement

Questions	Excellent	Very Good	Good	Poor
How do you rate this Streamlined FS guide overall?				
How do you rate this Streamlined FS template overall?				
How do you rate this Streamlined FS Cost Analysis Spreadsheet template overall?				
In terms of clarity?				
Organization?				
Usability?				
Contents?				
Length?				
How can this guide and template be improved? < *Insert comments/suggestions/recommendations here*.>				
What should be added? < *Insert comments/suggestions/recommendations here*.>				
What should be deleted? < *Insert comments/suggestions/recommendations here*.>				
What other comments, ideas, or recommendations do you have? < *Insert comments/suggestions/recommendations here*.>				