



KIM JOHNSON
DIRECTOR

STATE OF CALIFORNIA—HEALTH AND HUMAN SERVICES AGENCY
DEPARTMENT OF SOCIAL SERVICES
744 P Street • Sacramento, CA 95814 • www.cdss.ca.gov



GAVIN NEWSOM
GOVERNOR

June 29, 2020

CalSAWS, Technical & Operations Director
12440 Imperial Hwy, 3rd Floor
Norwalk, CA 90650

SUBJECT: MOU-19-6025 A-1

Dear Contractor:

Please complete the following checked item(s) and return to my attention at:

GRANTMOUINTAKE@dss.ca.gov

Attn: CQ Yee-Bridges

Please note in the enclosed Agreement that the General Terms and Conditions are available upon request. If you do not have Internet capabilities, please call me for a hard copy of the document

- ☐ Std. 213 with attached Exhibits. **Print and sign two copies of the Std. 213.** Please use blue ink if available.
- ☐ Std. CCC, Contractor Certification Clauses. It is available on the above referenced Internet site. Please sign and return page one. Failure to do so will prohibit the State of California from doing business with your company. CDSS will be keeping the signed Std. CCC on file for three (3) years.
- ☐ A copy of your **insurance certification**, in accordance with Exhibit E, which includes the State of California, its officers, agents, and employees as additionally insured.
- ☐ Resolution from the Board of Supervisors (or appropriate governing body) authorizing the designated official to enter into and sign this Agreement.
- ☐ The CDSS will request the form be signed and submitted during execution of new, renewal or amendment agreements.
- ☐ Std. 204, Payee Data Record. No payment can be made unless this form is completed and returned.
- ☐ Voluntary Statistical Data Reporting Form. The completion of this form is strictly voluntary.
- ☒ The enclosed Agreement is signed on behalf of CDSS and is being returned to you for further processing. Once completed send agreement to the CDSS Contracts and Purchasing Bureau at the above address.
- ☐ The enclosed fully executed Agreement is for your records.

This Agreement cannot be considered binding on either party until approved by appropriate authorized State agencies. No services should be provided prior to approval, as the State is not obligated to make any payments on any agreement prior to final approval. Expedient handling of this Agreement is appreciated. *No alteration of these documents will be accepted without prior State approval.* If you need further information, please call me at (916) 651-3507.

C. Queta Yee-Bridges
CQ Yee-Bridges, Manager
Contracts and Purchasing Bureau

Enclosure(s)



KIM JOHNSON
DIRECTOR

STATE OF CALIFORNIA—HEALTH AND HUMAN SERVICES AGENCY
DEPARTMENT OF SOCIAL SERVICES
744 P Street • Sacramento, CA 95814 • www.cdss.ca.gov



GAVIN NEWSOM
GOVERNOR

June 18, 2020

AGREEMENT TO USE ELECTRONIC SIGNATURE

CalSAWS, a Joint Powers Authority in the State of California, has consented to use and accept digital signatures for the purpose of executing documents with the California Department of Social Services. Said parties confirm the following:

- We acknowledge and intend to sign the indicated document(s)
- We have consented to conduct this business electronically
- The digital signature technology (DocuSign) meets the requirements of the ESIGN Act
- The executed documents will be retained and available for reference by all parties

This agreement to use DocuSign can itself be signed using DocuSign and by DocuSigning this agreement, signatories acknowledge and agree to the above.

**California Department of Social
Services**

CALSAWS CONSORTIUM

Authorized Signature

Simone Dumas, Contracts & Purchasing Bureau Chief

6/29/20

Signature Date

Michael Sylvester, Board Chair

Kronick Moskowitz Tiedemann & Girard, Legal Counsel

John Boule, Executive Director

Execution Date

**MEMORANDUM OF UNDERSTANDING
BETWEEN
CALIFORNIA STATEWIDE AUTOMATED WELFARE SYSTEMS AND
CALIFORNIA DEPARTMENT OF SOCIAL SERVICES**

This Memorandum of Understanding (MOU) is entered into by and between the State of California Department of Social Services (CDSS) and the California Statewide Automated Welfare Systems (CalSAWS) Consortium as of July 1, 2020. The CDSS and CalSAWS may be referred to herein as “Party” and collectively as “Parties”.

I. PURPOSE

The purpose of this MOU is to set forth the terms and conditions for CalSAWS to provide to the CDSS the necessary and relevant California Work Opportunity and Responsibility to Kids (CalWORKs) and CalFresh confidential client data retained by the counties of Monterey, Napa, and Stanislaus (herein referred to as “Pilot Counties”) contained in the the Consortium-IV (C-IV) SystemCalSAWS Consortium. The data provided to the CDSS will be transmitted to the (CWDB) for use by the Cross-system Analytics and Assessment for Learning and Skills Attainment (CAAL-Skills) project herein after referred to as the “Project”. The purpose of the Project is to establish a data repository and analytics platform that will systematically link and pool participant level data currently residing in separate programs. The Project will collectively display performance outcomes by program, region, demography, and industry using common metrics. The Project will also update and report workforce metrics pursuant to Unemployment Insurance Code section 14013, subdivision (i). The CDSS has entered into an interagency agreement (Agreement 20-2008) with CWDB to provide CalWORKs and CalFresh confidential client data for use by the Project.

II. BACKGROUND AND AUTHORITY

- A. The CDSS is the state agency responsible for the oversight and overall administration of the CalWORKs and CalFresh programs.
- B. The CalWORKs and CalFresh programs are administered by the county welfare departments (CWDs).
- C. The CalSAWS Consortium establishes itself as a Joint Powers Authority (JPA) by agreement with the 58 CWDs that provide a single legal entity for purposes of managing the C-IV, CalWIN and LRS Systems that maintain the client data of the applicable counties. The client data may include CalWORKs and CalFresh client data. The client data is confidential data as specified in Welfare and Institutions Code section 10850 and is required to be protected from unauthorized access in accordance with state and federal laws.
- D. Welfare and Institutions Code section 10850 specifically authorizes any CWD in the state to provide “... lists of applicants for, or recipients of, public social services, to any other county welfare department or the State Department of Social Services, and these lists or any other records shall be released when requested by ...the State Department of Social Services.

These...records shall only be used for purposes directly connected with the administration of public social services," which applies to the use of the data for the Project.

- E. The CWDB is required per statutory requirements found in California Unemployment Insurance Code section 14013, subdivision (i), to develop a workforce metrics dashboard (data repository) using existing data sources currently collected by and accessible to state organizations.
- F. The CDSS has agreed to share CalWORKs and CalFresh client data with CWDB through Agreement number 20-2008 (Revised Exhibit A) for the sole purpose of the Project.
- G. In order for CWDB to fulfill the requirements of the Project, CWDB will need specific CalWORKs and CalFresh client data held by the counties within the CalSAWS Consortium as identified in the CAAL-Skills Data Exchange Specification Requirements, County Welfare Directors Association of California (CWDA) Version (Exhibit B).

III. SCOPE OF WORK

The CalSAWS Consortium agrees to provide to the CDSS available CalWORKs and CalFresh confidential client data identified in Exhibit B. CalWORKs and CalFresh confidential client data retained by the counties and held within the CalSAWS Consortium will be provided to the CDSS as specified in Exhibit B. The CDSS shall only use the provided files from CalSAWS to transmit to CWDB for the purposes of fulfilling the requirements specified under Revised Exhibit A.

IV. CalSAWS RESPONSIBILITIES

- A. The CalSAWS Consortium agrees to use its reasonable best efforts to extract and send to the CDSS the CalWORKs and CalFresh confidential client data specified in Exhibit B.
- B. The CalSAWS Consortium agrees to use secure file transfer protocols and encryption that meet or exceed the standards described in Exhibit C, CDSS Confidentiality and Information Security Requirements.

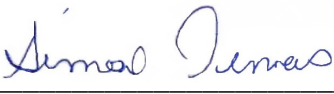
3. Where it is determined that action or inaction by both Parties contributed to any Liabilities, principles of comparative fault will be followed and each Party shall bear the proportionate cost of any damage attributable to the fault of that Party, its officers, directors, agents, employees, or contractors.

X. AUTHORIZED REPRESENTATIVES

By signing below, the individual certifies that it is acting as the representative of the Party named below and possesses the authority to enter into this MOU on behalf of that Party and that the Party possesses the legal authority to enter into this MOU.

For CALIFORNIA DEPARTMENT OF SOCIAL SERVICES

Simone Dumas, Bureau Chief, Contracts and
Purchasing Bureau
California Department of Social Services
744 P Street, MS 9-6-747
Sacramento, CA 95814
(916) 654-1871
Simone.Dumas@dss.ca.gov

Signature: 

Date: 6/29/20

Simone Dumas, Bureau Chief, Contracts and Purchasing
Bureau

For the CalSAWS Consortium

Michael J. Sylvester II, Assistant Director, Bureau of Special Operations (BSO)
County of Los Angeles,
Department of Public Social Services
12860 Crossroads Parkway South
Floor: Main Office/Room: M-258
City of Industry, CA 91746
(562) 908-8644 - Office
(562) 207-8753 - Mobile
MichaelSylvester@dpss.lacounty.gov

John Boule, Executive Director
11290 Pyrites Way, Suite 150
Rancho Cordova, CA 95670
(916) 851-3201
BouleJ@calsaws.org

M. Akhtar Khan, Chief
Research Services Branch
California Department of Social Services
744 P St. MS 9-13-42
Sacramento, CA 95814

(916) 653-1800
Akhtar.Khan@dss.ca.gov

- B. The following CDSS representative will serve as the point of contact for communication between the CDSS and the CalSAWS Consortium:

Dionne Evans-Dean, Chief
Analytics Studies and Research Contracts Section
California Department of Social Services
744 P St. MS 9-13-56
Sacramento, CA 95814
(916) 653-1430
Dionne.Evans-Dean@dss.ca.gov

- C. The following representative of the CalSAWS Consortium is authorized to implement the terms and conditions of the MOU and will be responsible for the oversight and supervision of the security and confidentiality of the transmission of client data sent by the CalSAWS Consortium to the CDSS:

Laura Chavez
CalSAWS, Technical & Operations Director
12440 Imperial Hwy, 3rd Floor
Norwalk, CA 90650
(562) 484-7812
ChavezL@CalSAWS.org

- D. Either Party may make changes to the contacts for this MOU within five (5) days advance written notice to the other. Said changes shall not require an amendment to this MOU.

IX. GENERAL PROVISIONS

- A. **AMENDMENTS.** This MOU may be amended in writing at any time by written mutual consent of the Parties.
- B. **TERMINATION.**
1. Termination without cause: This MOU may be terminated by either Party without cause upon thirty (30) days' written notice.

STATE OF CALIFORNIA - DEPARTMENT OF GENERAL SERVICES

STANDARD AGREEMENT

STD 213 (Rev. 03/2019)

AGREEMENT NUMBER

20-2008

PURCHASING AUTHORITY NUMBER (If Applicable)

1. This Agreement is entered into between the Contracting Agency and the Contractor named below:

CONTRACTING AGENCY NAME

California Department of Social Services

CONTRACTOR NAME

California Workforce Development Board

2. The term of this Agreement is:

START DATE

07/01/2020

THROUGH END DATE

Until terminated by either party

3. The maximum amount of this Agreement is:

\$0.00 Zero Dollars and 00/100

4. The parties agree to comply with the terms and conditions of the following exhibits, which are by this reference made a part of the Agreement.

Exhibits	Title	Pages
Exhibit A	Scope of Work	2
Exhibit A - Attachment 1	Specifications	3
Exhibit A - Attachment 2	CAAL-Skills Data Exchange Specification Requirements, Version DSS	51
+ Exhibit A - Attachment 3	CAAL-Skills Data Exchange Specification Requirements, Version CWDA	66
+ Exhibit A - Attachment 4	CAAL-Skills Data Exchange Specification Requirements, Version 3.00	56
+ Exhibit B	Budget Detail and Payment Provisions	2
+ Exhibit C *	General Terms and Conditions - GIA 610	
+ Exhibit D	Special Terms and Conditions	2
+ Exhibit E	Additional Provisions	1
+ Exhibit E - Attachment 1	CDSS Confidentiality and Information Security Requirements	8

Items shown with an asterisk (*), are hereby incorporated by reference and made part of this agreement as if attached hereto.

These documents can be viewed at <https://www.dgs.ca.gov/OLS/Resources>

STATE OF CALIFORNIA - DEPARTMENT OF GENERAL SERVICES

STANDARD AGREEMENT

STD 213 (Rev. 03/2019)

AGREEMENT NUMBER

20-2008

PURCHASING AUTHORITY NUMBER (If Applicable)

*IN WITNESS WHEREOF, THIS AGREEMENT HAS BEEN EXECUTED BY THE PARTIES HERETO.***CONTRACTOR**

CONTRACTOR NAME (if other than an individual, state whether a corporation, partnership, etc.)

California Workforce Development Board

CONTRACTOR BUSINESS ADDRESS

800 Capitol Mall, Suite 1022

CITY

Sacramento

STATE

CA

ZIP

95814

PRINTED NAME OF PERSON SIGNING


Curtis Notsinn

TITLE

Chief Deputy Director

CONTRACTOR AUTHORIZED SIGNATURE

CNotsinn

 Digitally signed by CNotsinn
Date: 2020.06.22 18:02:35 -07'00'

DATE SIGNED

06/22/2020

STATE OF CALIFORNIA

CONTRACTING AGENCY NAME

California Department of Social Services

CONTRACTING AGENCY ADDRESS

744 P Street, MS 9-6-747

CITY

Sacramento

STATE

CA

ZIP

95814

PRINTED NAME OF PERSON SIGNING


Alyssa Lawson

TITLE

SSMI, Contracts & Purchasing Bureau

CONTRACTING AGENCY AUTHORIZED SIGNATURE

Alyssa Lawson

 Digitally signed by Alyssa Lawson
Date: 2020.06.27 11:46:09 -07'00'

DATE SIGNED

6/27/2020

CALIFORNIA DEPARTMENT OF GENERAL SERVICES APPROVAL

EXEMPTION (If Applicable)

SCM Vol. 1, 4.04 (A)(2)

EXHIBIT A (Interagency Agreement)

SCOPE OF WORK

This Agreement is entered into by and between the California Workforce Development Board, hereinafter referred to as "CWDB" or Contractor, and the California Department of Social Services, hereinafter referred to as "CDSS." It sets forth the terms and conditions for the release and use of CDSS Confidential, Sensitive, and/or Personal (CSP) Information (hereinafter referred to as "CDSS CSP") in compliance with state and federal statutes, rules, and regulations.

A. PURPOSE

The CDSS agrees to provide confidential California Work Opportunity and Responsibility to Kids (CalWORKs) and CalFresh client information to the CWDB. CWDB agrees to use the CDSS CSP provided by CDSS for the purpose of:

1. Establishing a data repository and analytics platform (the Cross-System Analytics and Assessment for Learning and Skills Attainment Program, hereinafter referred to as CAAL-Skills) that will systematically link and pool participant level data currently residing in separate programs;
2. Collectively displaying performance outcomes by program, region, demography, and industry using common metrics; and,
3. Updating and reporting workforce metrics pursuant to Unemployment Insurance Code (UIC) section 14013, subdivision (i).

B. LEGAL AUTHORITY

CWDB is required per statutory requirements found in UIC section 14013, subdivision (i), to develop a workforce metrics dashboard (data repository) using existing data resources currently collected by and accessible to state organizations. The CWDB shall use the CDSS CSP provided by CDSS regarding CalWORKs and CalFresh clients for the sole purpose stated above.

The CDSS is generally prohibited from disclosing confidential client information relating to the provision of public social services pursuant to Welfare and Institutions Code section 10850. Nevertheless, subdivisions (c) and (d) of section 10850 allows CDSS to provide any governmental entity that is authorized by law to conduct an audit or similar activity in connection with the administration of public social services with access to any public social services applications or records.

C. PROJECT REPRESENTATIVES

1. The CWDB contact persons are:

Contract Negotiations and Administration

Patrick Getz, PMP

CAAL-Skills Project Manager

800 Capitol Mall, Suite 1022

Sacramento, CA 95814

patrick.getz@cwdb.ca.gov

(916) 309-3700

EXHIBIT A
(Interagency Agreement)

CAAL-SKILLS Technical Assistance

Susan Chen

CAAL-Skills Lead Technical Analyst

800 Capitol Mall, Suite 1022

Sacramento, CA 95814

susan.chen@cwdb.ca.gov

(916) 309-3701

Fax: (916) 657-1337

Fiscal

Emily Sunahara

Finance and Business Services Manager

800 Capitol Mall, Suite 1022

Sacramento, CA 95814

emily.sunahara@cwdb.ca.gov

(916) 654-9231

2. The CDSS contact persons are:

Contract Negotiations and Administration

Sadie Webb

Analyst, CalWORKs Engagement Bureau

744 P Street, M.S. 8-8-33

Sacramento, CA 95814

sadie.webb@dss.ca.gov

(916) 651-0640

Program Support

Damien Ladd

Chief, CalWORKs Engagement Bureau

744 P Street, M.S. 8-8-33

Sacramento, CA 95814

damien.ladd@dss.ca.gov

(916) 654-1451

Data Technical Assistance

Brittney Gossard, Research Manager

CalWORKs & CalFresh Estimates Bureau

744 P Street, M.S. 8-10-100

Sacramento, CA 95814

brittney.gossard@dss.ca.gov

(916) 654-1208

Either Party may make changes to the Project Representatives information above by giving written notice to the other Party. Said changes shall not require an amendment to this Agreement.

SPECIFICATIONS

A. METHODOLOGY

Please see Exhibit A – Attachment 2 – CAAL-Skills Data Exchange Specification Requirements, version DSS; Exhibit A – Attachment 3 – CAAL-Skills Data Exchange Specification Requirements, version CWDA (County Welfare Directors Association); and Exhibit A – Attachment 4 – CAAL-Skills Data Exchange Specification Requirements, version 3.00 for information regarding data specifications and transfer protocols.

B. CONTRACTOR RESPONSIBILITIES

1. The CWDB agrees to:
 - a. Provide Project sponsorship.
 - b. Engage a Technical Project Manager to guide Project activities.
 - c. Establish a Project Management Office (PMO) to:
 - 1) Set the tactical direction of the Project based on Steering Committee decisions;
 - 2) Build the proof of concept infrastructure and technical environment;
 - 3) Coordinate Project activities with data sharing partners;
 - 4) Facilitate completion of required and agreed-upon Project activities; and
 - 5) Complete key Project documentation for technical systems, such as those required by the California Department of Technology:
 - a) Project Approval Life-cycle, Stage 1 Business Analysis
 - b) Project Approval Life-cycle, Stage 2 Alternatives Analysis
 - c) Project Management Plan and associated sub-plans.
 - d. Complete other Project-related tasks and activities as required.
 - e. Protect the information provided by CDSS as CDSS CSP and comply with the security and confidentiality provisions in Exhibit E – Attachment 1, CDSS Confidentiality and Information Security Requirements, attached hereto and made part of the Agreement.
 - f. Limit its request for information from CDSS to only those state fiscal years mutually agreed upon by the parties.
 - g. Provide CDSS access to the aggregated, de-identified data to be used in CWDB.
 - h. Provide CDSS access to any reports CWDB generates from the aggregate, de-identified output data.

- i. Respond within seven (7) business days to CDSS written requests for information regarding this Agreement and the development of the CAAL-Skills Data Exchange.

C. CDSS RESPONSIBILITIES

1. CDSS agrees to:

- a. Adhere to the latest Exhibit A – Attachment 2, CAAL-Skills Data Exchange Specification Requirements, version DSS, attached hereto.
- b. Generate data files in accordance with Exhibit A – Attachment 2, CAAL-Skills Data Exchange Specification Requirements, version DSS, attached hereto.
- c. Transfer data files on mutually agreed upon schedule beginning no sooner than two (2) weeks after the effective date of this Agreement.
- d. Implement modifications to the data files if requested by the CWDB.
- e. Generate and transfer the final data files for use in the CAAL-Skills data repository.
- f. Review the CWDB's aggregated, de-identified output data and reports that use the data to ensure that they do not contain any confidential information of CDSS clients.
- g. Identify to CWDB any factual errors or substantive concerns pertaining to the output data or reports.
- h. Establish a Memorandum of Understanding (MOU) with the California Statewide Automated Welfare System (CalSAWS) Consortium, which allows for the transfer of file data which meets the Exhibit A – Attachment 3, CAAL-Skills Data Exchange Specifications Requirements, version CWDA, attached hereto. Upon establishment of this MOU and receipt of subsequent data, CDSS shall:
 - 1) Generate data files in accordance with Exhibit A – Attachment 3, CAAL-Skills Data Exchange Specification Requirements, version CWDA, attached hereto.
 - 2) Transfer data files beginning no later than six (6) weeks after the effective date of the above-mentioned MOU between CDSS and CalSAWS Consortium.
 - 3) Work cooperatively with CalSAWS Consortium, if needed, in providing clarification or modification of the CalWORKs and CalFresh confidential client data transferred to CDSS, if clarification or modification is requested by CWDB.
 - 4) Generate and transfer final data files for use in the CAAL-Skills Data repository.
 - 5) Review the CWDB's aggregated, de-identified output data and reports that use the data to ensure that they do not contain any confidential information of CDSS clients.
 - 6) Identify to CWDB any factual errors or substantive concerns pertaining to the output data or reports.

D. JOINT CWDB AND CDSS RESPONSIBILITIES

1. Each Party shall continuously and cooperatively interact and engage in joint decision making with the other Party for the successful completion of Project activities.
2. Each Party shall consult with the other Party in addressing issues related to the Project.
3. To ensure clear communication for the duration of the Project, each Party shall memorialize (for example, through email) the agreed upon obligations it owns, including details related to manner of fulfillment, expectations for end product, and completion deadlines.

E. TERMINATION CLAUSE

This Agreement may be terminated by either Party by giving written notice thirty (30) days prior to the effective date of such termination to the other Party's Project Representative identified in Exhibit A, Section C.

CAAL-Skills

Data Exchange Specification Requirements

Pilot Project Documentation





Change Log

Version	Date	Author	Change
1.00	7/27/17	E. Holm P. Banas	DSS Version
1.01	9/14/17	P. Banas	Removed DED # 051 Date of Program Entry and DED # 053 Date of Program Exit
1.02	9/14/17	P. Banas	Added DED # 065 First Date of Service or Activity and DED # 066 Last Date of Service or Activity
2.00	1/18/18	E. Holm	Removed DED # 031 Exhausting TANF within 2 Years and replaced with DED # 091 Data Exhausted TANF. Added CDSS value description to DED # 002. Changed Unknown / Not Applicable date values to “.”
2.01	2/8/18	E. Holm	Made revision to section 5.1 based on CDSS Legal Office feedback



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1. Overview

1.1. Project

Federal and state law required the development of a “State Plan” to address workforce development, training and related challenges. Under the direction of the California Labor and Workforce Development Agency (LWDA) the plan was developed by the California Workforce Development Board (CWDB).

Implementation of the State Plan includes the development of a comprehensive, integrated, interoperable data system that measures and assesses program outcomes in a systematic and efficient manner. The data system’s primary objective will be helping the CWDB and State Plan Partners meet statutorily mandated performance reporting requirements while also developing the State’s capacity to evaluate and assess program success.

This will enable the CWDB and its partners to develop policies which facilitate the movement of people into jobs “providing economic security or job placement in an entry-level job that has a well-articulated career pathway or career ladder to a job providing economic security.”[1] State law defines these jobs as those that provide, “a wage sufficient to support a family adequately, and, over time, to save for emergency expenses and adequate retirement income, based on factors such as household size, the cost of living in the worker’s community, and other factors that may vary by region.”

Workforce development, training, and related education programs provide job-specific training, basic skills education, and related support services to help individuals participate in civic life and the labor market. California spends over \$6 Billion annually on workforce development, training, and related education programs. Over three million people access one or more of California’s workforce development, training, and related education programs annually.

These programs and the data relevant to them are administered by the following organizations:

1. Labor & Workforce Agency
 - a. Employment Development Department – Workforce Services Division
 - b. Employment Development Department – Labor Market Information Division
 - c. Employment Development Department – Tax Branch
 - d. Employment Training Panel
 - e. Department of Industrial Relations, Division of Apprenticeship Standards
 - f. Workforce Development Board
2. Public School System - Department of Education, Career and College Transition Division (includes Career Technical Education and Adult Education)
3. Community College Chancellor’s Office - Technology, Research and Information Systems (TRIS) Division
4. Health & Human Services Agency
 - a. Department of Social Services – CalFresh
 - b. Department of Social Services - CalWORKs
 - c. Department of Rehabilitation



5. County Welfare Directors Association of California

Workforce development, training, and related education providers are required to report information about their program, program participants, and the participant outcomes. Currently, the outcome measurements and data reported varies from program to program though efforts are underway to align program performance measures. Historically, data collection has been used almost exclusively for oversight and compliance monitoring, yet program and outcome information is essential for effective decision-making. For example:

- State leadership, including the Governor and Legislature, require workforce training and education information that will enable them to develop evidence-based statutes and regulations to facilitate the effective allocation of scarce resources.
- Policy Makers require information regarding significant barriers to employment, such as a significant disability, that may require intensive job preparation.
- Workforce development, training, and related education administrators require information enabling them to evaluate program effectiveness, shape policies, and develop linkages among institutions.
- Teachers and guidance counselors require information to develop curricula, assess and guide students, and create learning plans.
- Workforce professionals require information to identify the remedial needs of students, provide market-informed career counseling, and help clients find jobs.
- Students, parents, and job seekers require information to make informed education, training, and career decisions.

The purpose of the CAAL-Skills project is to develop a comprehensive, integrated, interoperable data system that measures and assesses program outcomes in a systematic and efficient manner. The data system's overarching purpose will be helping the CWDB (and its State Plan partners) meet statutorily mandated performance reporting requirements and align with Workforce Innovation and Opportunity Act (WIOA) of 2014 and AB 1336 requirements. WIOA is a publicly-funded workforce system that is a national network of organizations which provide a range of employment, education, training, and related services and supports - to help jobseekers secure good jobs while providing businesses with the skilled workers they need to compete in the global economy.

The CAAL-Skills project objectives include providing automated functionality that will improve the State's capacity to evaluate and assess Workforce Development programs' success. This will enable the CWDB and its partners to develop policies which facilitate the movement of people into jobs providing economic security or job placement in jobs with a well-articulated career pathway or career ladder to a job providing economic security.



1.2. Objectives

The information required to facilitate effective decision-making as specified in the project overview must:

- Include complete program and participant information;
- Facilitate the tracking of individuals across institutions, through programs and into the labor market;
- Consistently evaluate program measurements and other information and variables across time and between programs;
- Be updated on a regular basis;
- Allow for the analysis of individual and aggregated information;
- Be accessible to State leadership; state and local workforce planning, education administrators and others; and,
- Be secure - the solution, including any data sharing, will comply with applicable state and federal privacy and data security requirements and best practices.

1.3. Metrics

A repository of Cross-System Analytics and Assessment for Learning Skills attainment (CAAL-Skills) will be created in a pilot environment to meet the above objectives. The primary metrics of the pilot will be the following:

1.3.1. Aggregation and Reporting Environment

The target reporting environment includes the collection, consolidation and reporting of workforce development, training and related education information from key workforce data partners.

1.3.2. Cross System Tracking

A method will be developed to link individuals across programs even when one or more of the source systems does not include an individual's social security number.

1.3.3. Program History

The targeted environment includes consolidated reporting of an individual's workforce development, training and related education program involvement history..

1.3.4. Employer Needs and Economic Trends

The target environment includes reporting on regional employer needs in comparison to current and planned workforce development, training and related education offerings.

1.3.5. Commonality, Consistency, Compliance

The target system will:

- a. Apply common measures and consistent data-element definitions across programs;
- b. Apply a unique participant identifier that can be used to link an individual appearing in two or more systems;



- c. Invoke a consistent understanding and approach for protecting the personally identifiable information (PII) of program participants;
- d. Simplify the exchange of data; and,
- e. Comply with federal laws, state laws, state regulations and best industry practices for information security and privacy.

1.3.6. Summary

The CAAL-Skills Pilot project will create a central repository to host data collected by the project Data Sharing Partners. The data will be utilized to generate information and metrics required by California Unemployment Insurance Code Section 14013, as well as provide a mineable warehouse for further analytics.

1.4. Scope

The scope of the CAAL-Skills Pilot Project includes receiving data from state and local workforce partners as defined in Data Sharing Agreements.

1.4.1. Partners

This project involves the agencies from across the Workforce services spectrum including education, training, and supportive services. The breadth of participation ensures the data necessary to meet the project requirements and provide a rich data repository. The Data Sharing Partners for the pilot portion of the CAAL-Skills project include:

- California Community Colleges Chancellor's Office (CCCCO)
- California Department of Education (CDE)
- California Department of Social Services (CDSS)
- California Department of Industrial Relations (DIR)
- California Department of Rehabilitation (DOR)
- California Employment Development Department – Central Office Workforce Services Division (EDD-COWSD)
- California Employment Development Department – Labor Market Information Division (EDD-LMID)
- California Employment Development Department – Tax Branch (EDD-TAX)
- Employment Training Panel (ETP)

1.4.2. Timeframe

The fiscal years 2013 – 2014 through 2016 – 2017 will be used in the baseline. For clarity, the fiscal years include the following data ranges:

Fiscal Year 2013-2014 (FY13-14) = July 1, 2013 through June 30, 2014



Fiscal Year 2014-2015 (FY14-15) = July 1, 2014 through June 30, 2015

Fiscal Year 2015-2016 (FY15-16) = July 1, 2015 through June 30, 2016

Fiscal Year 2016-2017 (FY16-17) = July 1, 2016 through June 30, 2017

If data elements are not available within that timeframe, the partner will be asked to submit the available elements. A method will be developed to link individuals across programs even when one or more of the source systems does not include an individual's social security number.

1.4.3. Core Entities and Attributes

The core entities and attributes present an overview of the data to be gathered and modeled. The higher level in this hierarchy are the core entities – groupings of attributes and/or distinctly separate objects. The lower level in this hierarchy are the attributes – or characteristics of the core entities. *Note: These are concepts not concrete definitions. Some core entities and attributes may not apply to specific Data Sharing Partners.*

- Fund Source – Funds used to pay for participant services (e.g. WIOA Title 1 Adult)
- Partner – Data Sharing Partner and/or Administrative Agency (e.g. EDD-COWSD)
- Enrollment Organization – Organization who determines participant eligibility and/or enrolls in service. May be the same as the Partner. (e.g. Local Workforce Board)
- Provider – Organization who offers services to participant. May be the same as the Enrollment Organization or may be contracted by Enrollment Organization. (e.g. Onestop)
- Participant
 - Identification
 - Demographic
 - Employment Barriers
- Services
 - Education and Training Services – Occupational or general education (e.g. Adult Basic Education, Career Technical Education)
 - Career Services – Employment related services (e.g. Resume writing workshop, career counseling)
 - Supportive Services – Services to support participation in Education, Training, and Career Services (e.g. CalFresh or CalWORKS benefits)
- Service Outcomes



- Certificate/Skill/Degree Attained
- Start Date
- Completion/Withdraw Date
- Employment Outcomes
 - Employment Attained
 - Wages (Participant income from Tax branch records)
 - 2nd Quarter
 - 4th Quarter

Further details regarding the exact data elements included as attributes and their relationships will be provided in the specification section of this document.

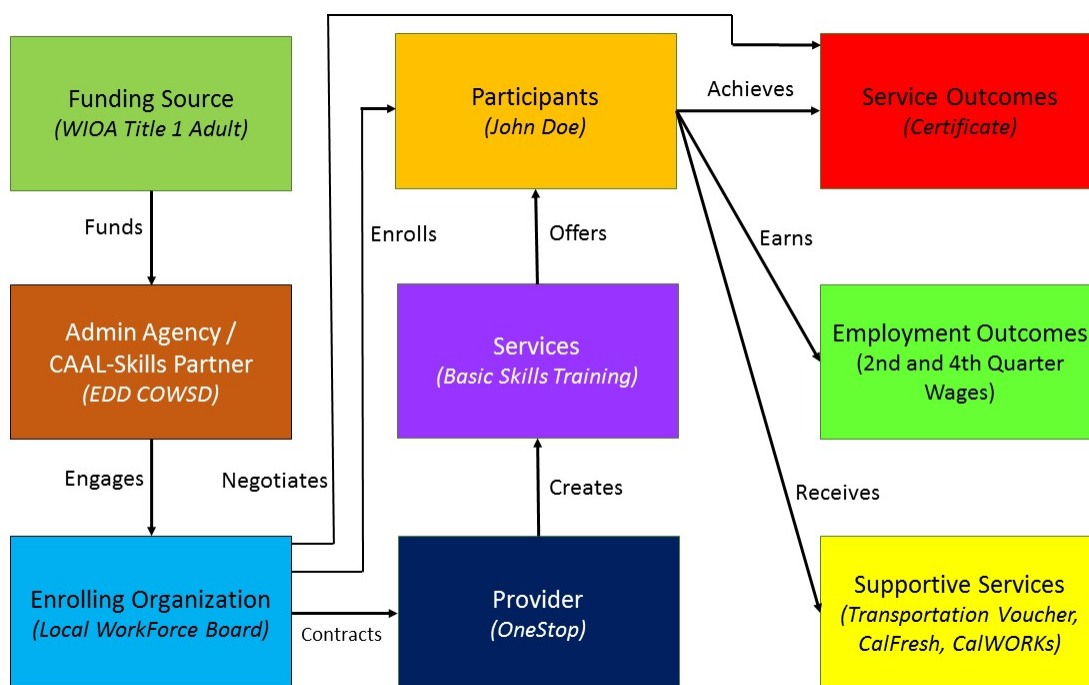


2. Data Diagrams

2.1. Conceptual Data Model

A conceptual data model is a map of concepts and their relationships used for databases. This describes the semantics of an organization and represents a series of assertions about its nature. Specifically, it describes the things of significance to an organization (entity classes), about which it is inclined to collect information, and characteristics of (attributes) and associations between pairs of those things of significance (relationships).

Because a conceptual schema represents the semantics of an organization, and not a database design, it exists on various levels of abstraction. The conceptual data model for the CAAL-Skills project is below. It is offered to assist in an overall understanding of the types of data to be collected and their relationships.



Each of the above entities (blocks) in the conceptual model may be represented in the data extracted from the CAAL-Skills partner's source systems and transferred to the CAAL-Skills Pilot project team for integration into the central workforce and outcomes repository. Not all partners will offer all entities or data elements, just those related to their services and/or benefits.



3. Data Elements

3.1. Data Types

A data type or simply “type” is a classification of data which tells the database, application, compiler, interpreter, or alternative data store how the programmer or administrator intends to use the data. Modern programming languages and data stores support various types of data (i.e. real, integer, or Boolean). A data type provides a set of values from which an expression (i.e. variable, function) may take its values. The type defines the operations that can be done on the data, the meaning of the data, and the way values of that type can be stored.

The CAAL-Skills Pilot Project will utilize a limited subset of available data types to reduce complexity and simplify the formatting process for moving data from the source system to the secure data transfer device. Below are the four basic data types and their formats:

- Variable Character (VCHAR) – For storing variable length alpha-numeric data. (e.g. Last Name)
- Integer (INT) – For storing numeric values not requiring fixed precision or scale. (e.g. Postal Code)
- Numeric (NUM) – For storing numeric values requiring fixed precision and scale. (e.g. \$1,432.10)
Note: Precision is the number of digits in a number. Scale is the number of digits to the right of the decimal point in a number. For example, the number 123.45 has a precision of 5 and a scale of 2.
- Date (DATE) – For storing month, day, and year. (e.g. January 18, 2015)

3.1.1. Maximum Lengths

The maximum length of a given data element will be specified within the data element dictionary section for VARCHAR, INT, NUM data types. All elements will be considered variable length and will not require left or right padding utilizing spaces, special characters, or zero-filled positions. Data which exceed the maximum length should be truncated to meet the requirements of that particular data element. An example of each data type is listed below:

- Variable Character (VCHAR)
 - Data Element: Last Name
 - Maximum Length: 40 characters
 - Format: VCHAR (40)
 - Examples: SMITH, JOHNSON-KEENER
- Integer (INT)
 - Data Element: Postal Code
 - Maximum Length: 9 positions
 - Format: INT
 - Examples: 94518, 10027, 85602-1023



- Numeric (NUM)
 - Data Element: 2nd Quarter Earnings
 - Maximum Length: 9 precision, 2 scale
 - Format: NUM (9,2)
 - Examples: \$1437.99 , \$7,210.33

3.1.2. Null Values

Data elements included in the specification for which values do not exist in the source system or cannot be translated using the data element cross reference should be left blank as noted in the CSV file format of: "DataElement1" || "DataElement3". Do not include spaces, double quotes without enclosed values, zeroes, or other special characters. The presence of the field separators without data will be sufficient for the target system in CAAL-Skills to determine the lack of a value for a given data element.

3.1.3. Currency

Currency values should be treated as numeric (NUM) with precision and scale. Do not include currency symbols in the field.

3.1.4. Case

All alphabetic characters should be rendered in the upper or majuscule case. Do not provide lower or mixed case in VCHAR elements.

3.1.5. Date Format

The DATE data type should include only month, day, and year. It should not include timestamps. The format for DATE data types is: MMDDYYYY. The only exception to zero filling/padding of fields occurs in this format. Single digit months (January – September) should be left zero padded as should single digit days (1-9).

3.1.6. Binary Values

The data specification requirement defines binary values such as Veteran Status (Vet/Not a Vet). A value of 1 will be used to signify a positive response and a value of 0 will be used to signify a negative response. To provide the most flexibility for future program data, these data elements will utilize an INT data type.

3.1.7. Unknown/Not Applicable/Other Values

For "Unknown" values will utilize "99" to clearly note that response. For "Not Applicable" values will utilize "98". "Other" values, that is values outside of the list provided, will utilize "97". Note: These values are appropriate for INT and VCHAR data types.

3.1.8. Field Formatting

Formatting of special use numeric and dates is not to be performed. Social Security Numbers should just utilize the integers not the typical format: XXX-XX-XXXX. Phone numbers should not include spaces, parentheses, and dashes: (XXX) XXX-XXXX. Dates should not include positional



separators: MM-DD-YYYY. Unless specified in the Data Extraction Requirements all fields should contain the numeric or alpha characters only.

3.1.9. Reference Codes

Due to the multiple source data systems for the CAAL-Skills repository, we will request reference or translation codes for some data elements to standardize responses and quickly assimilate source data into the repository. Those reference codes will be noted in each element. In some cases, multiple source data elements will map to a single CAAL-Skills reference code.

CAAL Skills values (as noted in the data dictionary) will be assigned to each data element. These values are recommended be used and collected for the CAAL Skills data repository. By establishing universal values, and cleansing the data to record those values, the data can be linked amongst the programs.

The values recommended identify the available options for the data element, including if the data element is not applicable or unknown to the Partner. The recommended values take into account the current values used by the Partners and provides for the least amount of data cleansing.

3.2. Identifiers and Definitions

Each data element in the data dictionary section will include a CAAL-Skills data element unique identifier, descriptive name, and full description of the element. These are provided for discussion and reference purposes only. This information should not be included in the data provided to the CAAL-Skills Pilot Project Team.

3.3. Data Element Name

Each data element in the data dictionary section will include a unique, concatenated CAAL-Skills data element name which is to be used in the header row of each file to identify the data associated with that element. As noted in the section above describing the CSV file format, the header row should contain a list of all data elements included in the file, in the order of appearance on the row line, and separated by a pipe (|) character.

3.4. Date Range

The scope of the data requested from the Data Sharing Partners will be specific for each partner and each data element. Please refer to the matrix at the beginning of the Data Element Dictionary. If the data is unavailable for a portion of the requested time frames, please provide only the available time frames in the data files sent to the CAAL-Skills project team. Inserting blank rows for incomplete or missing calendars years is not required.

3.5. Data Relationships

3.5.1. Primary and Foreign Keys

In order to capture and maintain the relationship between core entities, the Data Sharing Partners will be asked to include their internal identifier for data elements (noted as Primary or Foreign keys) to generate unique and consistent identifiers for those elements. The identifiers may be



numeric or alphanumeric. We will also request the original identifier for some data elements, but those will be considered distinctly separate data elements.

3.5.1.1. Participant Example

The example below assumes a participant, John Doe, with a unique source system identifier of K109-0563 was enrolled in Career Technical Education at Sacramento City College in the September 1, 2015. Further, the participant completed this education by the end of December 30, 2015.

Elements and Values

Participant: John Doe, ID #K109-0563 (Unique Participant ID* from source system)

Service: Career Technical Education - 9/1/15 (Training Program Code # 123456)

Location: Sacramento Community College (Location # 489)

Service Outcome: Certificate Attained - 12/30/15

In the above example, the Data Sharing Partner could use the Source System ID within all three entities to identify John Doe.

Participant Entity: John Doe, K109-0563, 3835 Freeport Blvd, Sacramento, CA

Services Entity: K109-0563, RW013, 489, 9/01/2015

Services Outcome Entity: K109-0563, RW013, 489, 12/31/2015

**The unique Participant ID may be the original source system identifier or a unique identifier created during the extraction process and maintained throughout the course of the data file creation.*

3.6. Participant Individual Record Layout (PIRL)

Within the Data Element dictionary there is a comparison of the CAAL Skills data element and the related Department of Labor's (DOL) data element, as identified in Version 25 of the Participant Record Layout (PIRL). This comparison includes:

- A. The related DOL PIRL data element:
 - i. Number
 - ii. Name
 - iii. Type and Field Length
 - iv. Definition / Instructions; and
 - v. Code Values; and
- B. The Comparative Analysis.



4. Data Extraction

4.1. File Format

The pilot project will leverage the lowest-common-denominator in file formats to receive data from the Partners. Formats that use delimiter-separated values (DSV) store two-dimensional arrays of data by separating the values in each row with specific delimiter characters. Most database and data store programs are able to read or save data in a delimited format. Due to their wide support, DSV files can be used in data exchange among many applications and systems.

A delimited text file is a text file used to store data, in which each line represents a single row or record, and each line has fields separated by the delimiter. Compared to the type of flat file that uses spaces to force every field to the same width, a delimited file has the advantage of allowing field values of any length.

Any character may be used to separate the values, but the most common delimiters are the comma, tab, and colon. The vertical bar (also referred to as pipe) and space may also be used. In a comma-separated values (CSV) file the data items are separated using commas as a delimiter, while in a tab-separated values (TSV) file, the data items are separated using tabs as a delimiter. Column headers are sometimes included as the first line, and each subsequent line is a row of data. The lines are separated by newlines or carriage returns (CR/LF)

This project will reference the Internet Engineering Task Force (IETF) standard identified by the Request for Comment document RFC 4180. A Request for Comments (RFC) is a formal document from the IETF that is the result of committee drafting and subsequent review by interested parties. Some RFCs are informational in nature. Of those that are intended to become Internet standards, the final version of the RFC becomes the standard and no further comments or changes are permitted. Change can occur, however, through subsequent RFCs that supersede or elaborate on all or parts of previous RFCs. The full specification is documented here: <https://tools.ietf.org/html/rfc4180>

This project will deviate slightly from the standards published in RFC 4180 by replacing the comma used as a field separator with a pipe (|) character. This modification will accommodate commas within the fields. The full specification for the file is listed in the next section.

4.2. File Specification

4.2.1. Character Encoding

The character encoding scheme for the files to be exchanged will be UTF-8. It is a character encoding scheme capable of encoding all possible Unicode code points. The encoding is defined by the Unicode standard with the full standard listed here:

<http://www.unicode.org/versions/Unicode6.0.0>

The encoding is variable-length and uses 8-bit code units. It was designed for backward compatibility with ASCII and to avoid the complications of endianness and byte order marks in the alternative UTF-16 and UTF-32 encodings.



4.2.2. Character Case

All alphabetic characters are to be generated in upper case also referred to as majuscule. Mixed case and lower case within the source data should be converted to upper case for the extract files.

4.2.3. Implementation of Delimited Separated Values

The specifications for implementing delimited separated values are as follows:

1. Each field (data element) is to be separated by a pipe (|) character. Unicode UTF-8 standards refer to this character as the “vertical line”. It is officially the 0x7C hex character also represented as U+007c. For example:

```
aaa | bbb | ccc
```

Note: Spaces between the data values and the delimiter are not necessary and should not be included – the spaces in the example above are for clarity’s sake only.

2. Each record is located on a separate line, delimited by a line break (CRLF). For example:

```
aaa | bbb | ccc CRLF  
zzz | yyy | xxx CRLF
```

3. The last record in the file should not have an ending line break. For example:

```
aaa | bbb | ccc CRLF  
zzz | yyy | xxx
```

4. There should be a header line appearing as the first line of the file with the same format as normal record lines. This header will contain names corresponding to the fields in the data specification (column titled “CAAL-Skills Field”) and should contain the same number of fields as the records in the rest of the file. For example:

```
field_name1 | field_name2 | field_name3 CRLF  
aaa | bbb | ccc CRLF  
zzz | yyy | xxx CRLF
```

5. Within the header and each record, there may be one or more fields, separated by commas. Each line should contain the same number of fields throughout the file. Spaces are considered part of a field and should not be ignored. The last field in the record must not be followed by a comma. For example:

```
aaa | bbb | ccc
```



6. Each field should not be enclosed in double quotes unless the field contains the delimiter as valid data within that field. If fields are not enclosed with double quotes, then double quotes may not appear inside the fields. For example:

```
"aaa|" | "|bbb" | "c|cc" CRLF
zzz | yy | xxx
```

7. Fields containing line breaks (CRLF), double quotes, and pipes should be enclosed in double-quotes. For example:

```
"aa""a" | "b CRLF bb" | "c|cc" CRLF
Zzz | yy | xxx
```

8. If double-quotes are used to enclose fields, then a double-quote appearing inside a field must be escaped by preceding it with another double quote. For example:

```
aaa | "b""bb" | ccc
```

9. The Augmented Backus-Naur Form (ABNF) grammar appears as follows:

- file = [header CRLF] record *(CRLF record) [CRLF]
- header = name *(PIPE name)
- record = field *(PIPE field)
- name = field
- field = (escaped / non-escaped)
- escaped = DQUOTE *(TEXTDATA / PIPE / CR / LF / 2DQUOTE) DQUOTE
- non-escaped = *TEXTDATA
- PIPE = 0x7C
- CR = %x0D

10. Security considerations: DSV files contain passive text data that should not pose any risks. However, it is possible in theory that malicious binary data may be included in order to exploit potential buffer overruns in the program processing DSV data. All DSV files received by the pilot program will undergo CRC, virus, malware, and malicious code detection and quarantine (if necessary) prior to extracting.

4.2.4. File Encryption

The devices utilized to copy and/or extract the source data files at the partner facilities, host those files in transit, and load the file contents into the CAAL-Skills pilot project central repository will be encrypted with full-disk AES 256-bit hardware-based encryption. More details on the devices will be offered in a following section. Due to the use of hardware-based encryption the data files will not require additional encryption.



4.2.5. File Organization

Each entity identified in the Conceptual Data Model will be represented by one or more files. The contents of each file will be the elements (fields) listed in the Data Element section. The entities are as follows:

1. Funding Source
2. Administrative Agency / Partner
3. Enrolling Organization
4. Provider
5. Services
6. Participants
7. Supportive Services
8. Services Outcomes
9. Employment Outcomes

Data Sharing Partners will generate only the files applicable to their organizations. The actual elements for each file will be determined by the “File” classification field for each data element. For example:

Data Element: Participant First Name

File: Participants

Data Element: Provider Postal Code

File: Providers

4.2.6. File Sizing

The encrypted data transfer devices will have a 64 GB capacity which will be sufficient to host and transport the requested information. Maximum file sizes are indicated as a matter of ease of handling and importation by the CAAL-Skills pilot project data integration system. Data Sharing Partners are encouraged to utilize file sizes which accommodate their source systems and data extraction processes – that is to say, if smaller files are more easily generated and managed then the Data Sharing Partners may further reduce these recommended sizes as needed. Minimum file sizes are listed below to ensure files are concatenated to improve efficiency in the data sharing processes.

ID	Entity / File Classification	Maximum Size	Minimum Size
1	Funding Source	250MB	1KB
2	Admin Agency / Partner	250MB	1KB
3	Enrolling Organization	250MB	1KB
4	Provider	250MB	1KB
5	Services	250MB	1KB
6	Participants	250MB	1KB
7	Supportive Services	250MB	1KB



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8	Services Outcomes	250MB	1KB
9	Employment Outcomes	250MB	1KB

4.2.7. File Naming and Sequencing

The file naming and sequencing conventions for the pilot project will assist in identifying the files both at the source as they are created and placed on the encrypted transfer device and when they are received by the CAAL-Skills Pilot Project Team.

File Naming will identify the following characteristics of each file transmitted. Again, not every Data Sharing Partner will generate every file type listed. Within the Naming Format the etymology reference is: “X” = alpha character (A-Z only), ‘N’ = numeric (integer), and MMDDYYYY = date. A number (1-10) following the alpha character or “X” in the naming format indicates a fixed length. Multi-positional numeric or integers should be left zero filled (e.g. 001, 013). All file characteristics will be separated by a single underscore (_). All file names should be in upper case or majuscule.

Position	File Characteristic	Naming Format	Default Value
1	CAAL-Skills Project	XXN	CS1
2	Date of File Creation	MMDDYYYY	N/A
2	Entity or File Classification*	XXXX	N/A
3	Sequence of Entity or File Classification (for multiple files)	NNN	001
4	CAAL-Skills Request ID	XNN	R01
5	File Extension	XXX	CSV
6	Data Sharing Partner – <i>this is not included as the data transfer device will indicate the partner</i>		
*	<i>For naming refer to the chart below</i>		

ID	Entity / File Classification Naming	File Characteristic
1	Funding Source	FUND
2	Administrative Agency / Partner	AAPA
3	Enrolling Organization	ENRO
4	Provider	PROV
5	Services (training and education)	SERV
6	Supportive Services	SUPP
7	Participants	PART



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8	Service Outcomes	OUTC
9	Employment Outcomes	WAGE

Examples of file naming are listed below to assist in clarifying the requirements:

File Information: Participant Data, Created on July 10, 2017, File #1

File Name: CS1_07102017_PART_001_R01.CSV

File Information: Participant Data, Created on July 10, 2017, File #2

File Name: CS1_07102017_PART_002_R01.CSV

File Information: Benefits Data, Created on June 24, 2017, File #1

File Name: CS1_06242017_BENE_001_R01.CSV

4.2.8. Folder Structure

The data sharing device will be provided with an intact and project specific folder structure. There will be a top-level folder containing documentation or help files from the CAAL-Skills Pilot Project Team. Those folders will be created as Read-Only. The other top-level folder will be target location for the files generated by the Data Sharing Partners. This folder will be Read-Write). All files should be placed with the Partners folder without utilizing additional, supplemental, or sub-tier folders – that is, no folders should be added to the existing folder hierarchy.

CAAL-Skills Folder (read only): \CAAL-Skills

Partner Source Data Folder (read-write): \Data

4.3. Data Transfer

4.3.1. Introduction

The CAAL-Skills pilot project will facilitate data transfer from the source systems (Data Sharing Partner) to the target system (CAAL-Skills repository) utilizing project staff to physically distribute, collect, and secure the data transfer media. Future implementations of the data exchange process may involve electronic means. The data transfer media devices will be high capacity, encrypted Universal Serial Bus (USB) version 2.0 and 3.1 compatible, portable drives. The drives will include a physical encryption key which will encrypt the entire contents of the drive. The key will be unique for each data sharing partner – known only to the receiving staff and the CAAL-Skills pilot project architect and project manager. The devices will be secured on-site at the project office.



4.3.2. Device

The project will purchase and distribute to the Data Sharing Partners the Kingston DataTraveler 2000 USB drive also known as the DDT2000 for data transfer from the source system to the target system. The drive will have a capacity of 64GB. It is designed to be secure, with an alphanumeric keypad that locks the drive with a word or number combination, for easy-to-use PIN protection. Each Data Sharing Partner will have a unique PIN associated with their device. The DT2000 auto-lock feature is activated when the drive is removed from a device and it deletes the encryption key after 10 failed intrusion attempts. DT2000 features hardware-based, full disk AES 256-bit data encryption in XTS mode (see diagram below). Encryption is accomplished on the drive, not on the host computer system, and no trace of the PIN is left on the host system. DataTraveler 2000 is operating system independent and can be used on any device with a USB 2.0 or USB 3.1 Gen1 (USB 3.0) port. It's compatible with Windows®, Mac® OS, Linux, Chrome OS, and Android. The drive requires no additional software or drivers. It is FIPS 197 certified, to meet the most stringent IT security requirements for data encryption and transfer. The DT2000 enclosure is a durable design which protects the drive from everyday elements such as water and dust.



Complete specifications for the device are listed here:

- Interface: USB 3.1 Gen 1 (USB 3.0)
- Capacities: 16GB, 32GB & 64GB
- Speed: USB 3.1: 16GB: 120MB/s read, 20MB/s write 32GB: 135MB/s read, 40MB/s write 64GB: 135MB/s read, 40MB/s write
 - USB 2.0: 16GB: 30MB/s read, 20MB/s write 32GB: 30MB/s read, 20MB/s write 64GB: 30MB/s read, 20MB/s write
- Dimensions (drive with sleeve): 80mm x 20mm x 10.5mm
- Dimensions (drive without sleeve): 78mm x 18mm x 8mm
- Waterproof/Dustproof Certified: to IP57 rating
- Compatibility: USB 3.0 compliant and 2.0 compatible
- Operating Temperature: 0°C to 40°C
- Storage Temperature: -20°C to 60°C
- Minimum System Requirements: USB 3.0 compliant and 2.0 compatible
- Compatible with: Windows® 10, Windows 8.1, 8, 7 (SP1), Vista® (SP2), Mac OS X v. 10.9.x+, Linux v. 2.6.x+, Chrome OSTM, Android3



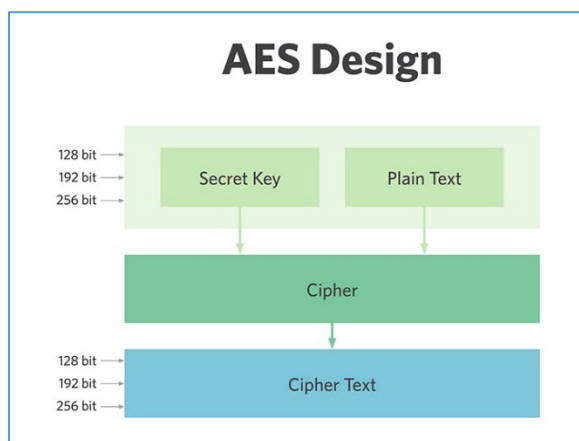
4.3.3. Advanced Encryption Standard (AES)

The Advanced Encryption Standard (AES), also known by its original name Rijndael is a specification for the encryption of electronic data established by the U.S. National Institute of Standards and Technology (NIST) in 2001.

AES has been adopted by the U.S. government and is now used worldwide. It supersedes the Data Encryption Standard (DES), which was published in 1977. The algorithm described by AES is a symmetric-key algorithm, meaning the same key is used for both encrypting and decrypting the data.

In the United States, AES was announced by the NIST as U.S. FIPS PUB 197 (FIPS 197) on November 26, 2001. This announcement followed a five-year standardization process in which fifteen competing designs were presented and evaluated, before the Rijndael cipher was selected as the most suitable. AES became effective as a federal government standard on May 26, 2002, after approval by the Secretary of Commerce. AES is included in the ISO/IEC 18033-3 standard.

The Kingston Data Traveler DT2000 features hardware-based, full disk AES 256-bit data encryption in XTS mode. Encryption is done on the drive and no trace of the PIN is left on the system.



4.3.4. Federal Information Processing Standards Certification

The Federal Information Processing Standards (FIPS) are U.S. government standards for information technology and computer security. The FIPS program is run by the National Institute of Standards (NIST). NIST FIPS 140 is the cryptography standard program required by the US federal government for protection of sensitive data. All products using cryptography in use by civilian and military US federal agencies must comply with FIPS 140. The current FIPS version is 140-2.



Obtaining FIPS 140 validation requires a rigorous testing process by an accredited testing laboratory. The results are then reviewed by the National Institute of Standards and Technology (NIST) which issues a FIPS 140 validation certificate. The certificates and policies for the DT2000 generation 1 and 2 devices are listed below:

Product Name	DT2000 Gen2	DT2000 Gen1
Firmware Version	3.05	3.05
FIPS certificate	#2307	#2371
Security Policy	#2307	#2371
FIPS AES certificate	#2838	#2838
FIPS SHS certificate	#2379	#2379
FIPS RSA certificate	#1480	#1480
FIPS DRBG certificate	#494	#494
FIPS RNG certificate		
FIPS HMAC certificate	#1779	#1779

4.3.5. Hardware Encryption

Hardware-based encryption as built into the device indicated above is notably transparent to the user. The symmetric encryption key is maintained independently from the CPU, thus removing computer memory as a potential attack vector. The drive except for boot-up authentication operates just like any drive with no degradation in performance. There is no complication or performance overhead, unlike disk encryption software, since all the encryption is invisible to the operating system and the host computers processor.

Hardware based encryption offers these benefits:

- Uses a dedicated processor physically located on the encrypted drive
- Processor contains a random number generator to generate an encryption key, which the user's password will unlock
- Increased performance by off-loading encryption from the host system
- Safeguard keys and critical security parameters within crypto-hardware
- Authentication takes place on the hardware
- Encryption is tied to a specific device, so encryption is "always on"
- Does not require any type of driver installation or software installation on host PC



- Protects against the most common attacks, such as cold boot attacks, malicious code, brute force attack

4.3.6. Device Format

The Kingston Data Traveler 2000 USB encrypted drive will be formatted in a Windows NTFS 5.0 or later file system. This system is compatible with Windows 7, 8, 10, Windows Server editions, as well as Ubuntu and Red Hat Linux 6.x. The file system will not be encrypted (encryption will be applied at the hardware level) and will not be compressed. The file system should not be altered nor the device re-formatted by the Data Sharing Partners. NTFS 5 was chosen over FAT32 and FAT16 due to the improved file handling capabilities and capacities as noted below:

Criteria	NTFS5	FAT32	FAT16
Operating System Capability	Windows 2000 Windows XP Windows 2003/5/8/12/16 Server Windows Vista Windows 7 Windows 8 Windows 10	DOS v7 and higher Windows 98 Windows ME Windows 2000 Windows XP Windows 2003 Server Windows Vista Windows 7	DOS All versions of Microsoft Windows
Max Volume Size	2^{64} clusters – 1 cluster	32GB for all OS. 2TB for some OS	2GB for all OS. 4GB for some OS
Max Files on Volume	4,294,967,295 $2^{32} - 1$	4194304	65536
Max File Size	2^{64} bytes (16 ExaBytes) minus 1KB	4GB minus 2 Bytes	2GB (Limit Only by Volume Size)
Max Clusters Number	2^{64} clusters – 1 cluster	4177918	65520
Max File Name Length	Up to 255	Up to 255	Standard - 8.3 Extended - up to 255
Unicode File Names	Unicode Character Set	System Character Set	System Character Set



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System Records Mirror	MFT Mirror File	Second Copy of FAT	Second Copy of FAT
Boot Sector Location	First and Last Sectors	First Sector and Copy in Sector #6	First Sector
File Attributes	Standard and Custom	Standard Set	Standard Set
Alternate Streams	Yes	No	No
Compression	Yes	No	No
Encryption	Yes	No	No
Object Permissions	Yes	No	No
Disk Quotas	Yes	No	No
Sparse Files	Yes	No	No
Reparse Points	Yes	No	No
Volume Mount Points	Yes	No	No
Built-In Security	Yes	No	No
Recoverability	Yes	No	No
Performance	Low on small volumes High on Large	High on small volumes Low on large	Highest on small volumes Low on large
Disk Space Economy	Max	Average	Minimal on large volumes
Fault Tolerance	Max	Minimal	Average



4.3.7. Device Identification

Each Kingston Data Traveler DT2000 will be serialized with the serial number appearing in a 24 character, 2D bar-code readable element on the case. The serial numbers will be unique and correspond to each Data Sharing Partner. Also, the drive will include a folder titled “\CAAL-Skills” containing the name of the Data Sharing Partner. The CAAL-Skills project team will maintain an inventory of the devices, serial numbers, assignments (to Data Sharing Partners) and a complete and current log of the chain of custody. Finally, the devices will be stored in a locked, fireproof safe in the CWDB facilities.

4.3.8. Device Loading

The actual steps for placing the CAAL-Skills formatted files on the device from the source system are a combination of steps and processes from the Data Sharing Partner’s Information Technology (DSP-IT) transfer standards and the CAAL-Skills pilot project. In the steps below, those where the owner/responsible party are identified as “*DSP-IT proprietary*” are recommendations only and should conform to the DSP-IT data transfer standards, policies, and procedures.

1. Remove the protective cover from the Kingston Data Traveler 2000 USB encrypted drive.
2. Enter the assigned PIN (unique to each Data Sharing Partner and noted on the chain of custody form) via the keypad on the Kingston Data Traveler 2000 encrypted drive to unlock the drive and decrypt the contents
3. Insert the Kingston Data Traveler 2000 drive into a desktop or server with access to the CAAL-Skills formatted files.
4. Copy all requested files into the \Data folder on the Kingston Data Traveler 2000 drive. *DSP-IT proprietary.*
5. Using the operating system appropriate procedures eject the device from the USB port to ensure the files are written and properly closed. *DSP-IT proprietary.*
6. Upon removal, press the “Lock” button on the Kingston Data Traveler 2000 drive to encrypt the contents.
7. Insert the Kingston Data Traveler 2000 encrypted drive into the sleeve and follow the Chain of Custody process.

4.3.9. Device Chain of Custody

Chain of custody defines the processes, procedures, and forms to manage, track, and document the transfer of the CAAL-Skills pilot project requested information from the Data Sharing Partners. The chain includes: the initial transfer of the encrypted data device from CAAL-Skills to the partner, the return of the device with the requested data, and the receipt of the device and internal secured storage of the device within the CAAL-Skills project team. The standard for this project will be based on the United States Department of Commerce’s National Institute of Standards and Technology (NIST) “Computer Security Handling Guide” Special Publication 801-



61 Revision 2. Specifically, this document will reference the section “Coordination and Information Sharing” and the NIST Chain of Custody Tracking Form. As shown below:

Data Transfer Device #:

CAAL-Skills Pilot Project
DATA DEVICE CHAIN OF CUSTODY TRACKING FORM

Data Sharing Partner (agency): _____
Location of Device (address): _____
Primary Contact Name: _____
Primary Contact Phone: _____
Primary Email Address: _____
Alternate Contact Name: _____
Alternate Contact Phone: _____
Alternate Email Address: _____

Description of Device		
Item #	Quantity	Description of Item (Model, Serial #, External Condition)

Chain of Custody				
Item #	Date/Time	Released by Data Sharing Partner (Print and Sign)	Received by CAAL-Skills Staff (Print and Sign#)	Comments/Location

APD_Form_#PE003_v.1 (12/2013)Page 1 of 2 pages

Technical Working Group on Information Technology Evidence Preservation: *Best Practices for Data Exchange Partners*. U.S. Department of Commerce, National Institute of Standards and Technology. 2013.



DATA DEVICE CHAIN-OF-CUSTODY TRACKING FORM
(Continued)

Chain of Custody				
Item #	Date/Time	Released by Data Sharing Partner (Print and Sign)	Received by CAAL-Skills (Print and Sign#)	Comments/Location

Final Disposal Authority

Authorization for Disposal
 Item(s) #: _____ on this document pertaining to (suspect): _____
 is/are no longer needed for information transfer and is/are authorized for disposal by (check appropriate disposal method)

☐ Return to Owner ☐ Auction/Destroy/Divert
 Name of Authorizing Owner: _____ Signature: _____ Date: _____

Witness to Destruction of Evidence
 Item(s) #: _____ on this document were destroyed by Evidence Custodian _____
 in my presence on (date) _____.
 Witness to destruction: _____ Signature: _____ Date: _____

This Evidence Chain-of-Custody form is to be retained as a permanent record by the CAAL-Skills project and California Workforce Development Board staff.

APD_Form_#PED03_v.1 (12/2013)
Page 2 of 2 pages

Essentially, whenever the data device changes ownership, that change should be reflected in the above form.

5. Other Project Agreements

5.1. Data Sharing Agreements

Each Data Sharing Partner will be party to a Data Sharing Agreement which includes the terms, scope, costs, a description of the data in the source data extracts, and timing of source data extracts to be provided to the CAAL-Skills pilot project. While the details of those individual agreements are being addressed, the project will work directly with the Partner's assigned information technology staff to design and test the source data extraction processes. Once the agreements have been signed by all parties, the source data will be officially requested.



6. Partner Response

6.1. High Level Tasks and Key Dates

The following table is to be completed by the Data Sharing Partner to assist the CAAL-Skills project team in determining overall project timelines for receiving and transforming the data.

ID	Task	Duration	Start Date	End Date	Notes
1	Identify Data Extraction Resources				
2	Quantify Cost / Time for Data Extraction				
3	Engage Resources for Data Extraction				
4	Generate and Transfer Test Data Files				
5	Implement Modifications (if necessary)				
6	Generate and Transfer Final Data Files				

6.2. High Level Tasks and Costs

The following table is to be completed by the Data Sharing Partner to assist the CAAL-Skills project team in determining costs for each partner to design systems and generate the required data files for use by the CAAL-Skills team.

ID	Task	Costs	Notes
1	Identify Data Extraction Resources		
2	Quantify Cost / Time for Data Extraction		
3	Engage Resources for Data Extraction		
4	Generate and Transfer Test Data Files		
5	Implement Modifications (if necessary)		
6	Generate and Transfer Final Data Files		

6.3. Response Timeframe

The CAAL-Skills Pilot Project team is requesting a response from the Partners within two weeks of reviewing this document with the CAAL-Skills team. The response should include estimated dates and costs for key tasks as well as primary and alternate contact information (see next section). The response should be emailed to the CAAL-Skills Pilot Project Manager, Patrick Getz, patrick.getz@cwdb.ca.gov



7. Contact Information

7.1. CAAL-Skills Project – Chief Technical Architect

Paul Banas
California Workforce Development Board
800 Capitol Mall, Ste, 1022
Sacramento, CA 95814
(916) 657-1483 desk
(916) 657-1381 fax
(616) 206-0727 mobile
paul.banas@cwdb.ca.gov

7.2. Primary Technical Contact

Name: _____
Title: _____
Agency/Department: _____
Address: _____

Desk phone: _____
Cell phone: _____
Email address: _____

7.3. Alternate Technical Contact

Name: _____
Title: _____
Agency/Department: _____
Address: _____

Desk phone: _____
Cell phone: _____
Email address: _____



8. Data Element Dictionary

8.1. Introduction

Each data element will be presented on a separate page with the following attributes:

1. DED# - Project unique Data Element Dictionary number
2. Data Element Name – Descriptive name of data element
3. Format – the element’s data type, length, precision, and scale
4. Definition – the full definition of the element
5. CAAL-Skills Field Name – the field to be inserted in the header row of the data exchange file
6. CAAL-Skills Values – the expected values for the element. In some cases, there will be a translation or cross reference table listed, others will note the “actual source value” in which case the source system’s fully qualified value should be inserted. Note: fully qualified = the full descriptive name rather than the source system code. *For example: a valid value for Ethnicity/Race would be “Hispanic / Latino”, not the internal code or representation “001”.*
7. CAAL-Skills File Type – the name of the File grouping identified in section 4.2.7.
8. Collection Dates – The date range the element should be collected and provided to CAAL-Skills

DED#	Data Element Name	Format
005	Social Security Number	INT
Definition		
The social security number assigned to the participant.		
CAAL Skills Field Name		
SSN		
CAAL Skills Values		
Actual source value		
97 = Other		
98 = Not Applicable		
99 = Unknown		
File		
Participants		
Collection Dates		
7/1/13 – 6/30/17		



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Partner Identification

DED#	Data Element Name	Format
000	Partner ID	INT
Definition		
The internally assigned two-digit code for each Data Sharing Partner / Administrative Agency.		
CAAL Skills Field Name		
AAID		
CAAL Skills Values		
1 - California Department of Education 2 - California Department of Rehabilitation 3 - California Department of Industrial Relations 4 - California Community Colleges Chancellor's Office 5 - California Department of Social Services 6 - Employment Training Panel 7 - California Employment Development Department – Central Office Workforce Services Division 8 - California Employment Development Department – Labor Market Information Division 9 - California Employment Development Department – Tax Branch 10 - CWDA County 1 11 - CWDA County 2 12 - CWDA County 3 97 = Other 98 = Not Applicable 99 = Unknown		
File		
Administrative Agency / Partner		
Collection Dates		
7/1/13 – 6/30/17		



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Enrolling Organization

DED#	Data Element Name	Format
002	Enrollment Organization Name	VCHAR(40)
Definition		
The name of the organization where the participant was determined eligible for the program and was enrolled to receive their first service financially assisted by the program.		
CAAL Skills Field Name		
EONM		
CAAL Skills Values		
For ETP, this value will be "ETP" For CCCCOC, this value will be the name of the community college For EDD Workforce Services Division, this value will be the name of the local workforce board For CDSS, this would be the name of the county For all others, the value will be the actual source system name (enrollment organization name) 99 = Unknown		
File		
Enrolling Organization		
Collection Dates		
7/1/13 – 6/30/17		



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DED#	Data Element Name	Format
003	Enrollment Organization ID	VCHAR(40)
Definition		
The identifier assigned to the organization where the participant was determined eligible for the program and was enrolled to receive their first service financially assisted by the program.		
CAAL Skills Field Name		
EOID		
CAAL Skills Values		
Actual source system ID 99 = Unknown		
File		
Enrolling Organization		
Collection Dates		
7/1/13 – 6/30/17		



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Funding Source

DED#	Data Element Name	Format
004	Fund Source	INT
Definition		
The funding source used to pay for the services received by the participant.		
CAAL Skills Field Name		
FSRC		
CAAL Skills Values		
1 = WIOA Title I (Adult) 2 = WIOA Title I (Dislocated Worker) 3 = WIOA Title I (Youth) 4 = WIOA Title II 5 = WIOA Title III 6 = WIOA Title IV 7 = CalWORKs 8 = CalFresh 9 = TAA 97 = Other 98 = Not Applicable 99 = Unknown		
File		
Services		
Collection Dates		
7/1/13 – 6/30/17		



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Participant Identification

DED#	Data Element Name	Format
005	Social Security Number	INT
Definition		
The social security number assigned to the participant.		
CAAL Skills Field Name		
SSN		
CAAL Skills Values		
Actual source value 97 = Other 98 = Not Applicable 99 = Unknown		
File		
Participants		
Collection Dates		
7/1/13 – 6/30/17		



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DED#	Data Element Name	Format
006	Participant First Name	VCHAR(40)
Definition		
The first name of the participant.		
CAAL Skills Field Name		
PFNM		
CAAL Skills Values		
Actual source value 98 = Not Applicable 99 = Unknown		
File		
Participants		
Collection Dates		
7/1/16 – 6/30/17		



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DED#	Data Element Name	Format
008	Participant Last Name	VCHAR(40)
Definition		
The last name of the participant.		
CAAL Skills Field Name		
PLNM		
CAAL Skills Values		
Actual source value 98 = Not Applicable 99 = Unknown		
File		
Participants		
Collection Dates		
7/1/16 – 6/30/17		



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DED#	Data Element Name	Format
010	Participant City	VCHAR(50)
Definition		
The city associated to the physical, mailing, or billing address of the participant.		
CAAL Skills Field Name		
PCITY		
CAAL Skills Values		
Actual source value 98 = Not Applicable 99 = Unknown		
File		
Participants		
Collection Dates		
7/1/16 – 6/30/17		



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DED#	Data Element Name	Format
011	Participant Postal Code	VCHAR(9)
Definition		
The postal code associated to the physical, mailing, or billing address of the participant. For US Zip Codes, include “+4” numeric digits if available. Exclude the “+” notation.		
CAAL Skills Field Name		
PPOST		
CAAL Skills Values		
Actual source value 98 = Not Applicable 99 = Unknown		
File		
Participants		
Collection Dates		
7/1/16 – 6/30/17		



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DED#	Data Element Name	Format
012	Participant State Code	VCHAR(2)
Definition		
The two letter state code associated to the physical, mailing, or billing address of the participant for US addresses. See Skills Values for all other addresses.		
CAAL Skills Field Name		
PST		
CAAL Skills Values		
Actual source value CN = Canada MX = Mexico 97 = All other countries 98 = Not Applicable 99 = Unknown AE = (ZIPs 09xxx) Armed Forces Europe including Canada, Middle East, and Africa AP = (ZIPs 962xx - 966xx) for Armed Forces Pacific AA (ZIPs 340xx) for Armed Forces (Central and South) Americas		
File		
Participants		
Collection Dates		
7/1/16 – 6/30/17		



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DED#	Data Element Name	Format
013	Participant Date of Birth	DATE
Definition		
The month, day, and year the participant was born.		
CAAL Skills Field Name		
DOB		
CAAL Skills Values		
Actual source value . = Unknown		
File		
Participants		
Collection Dates		
7/1/13 – 6/30/17		



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DED#	Data Element Name	Format
014	Participant Sex / Gender	VCHAR(2)
Definition		
The sex the participant identifies as.		
CAAL Skills Field Name		
SEX		
CAAL Skills Values		
M = Male F = Female 99 = Unknown or not provided		
File		
Participants		
Collection Dates		
7/1/13 – 6/30/17		



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DED#	Data Element Name	Format
015	Participant Unique Individual Identifier	VCHAR(20)
Definition		
The unique identifier assigned to the participant, by an organization, to distinguish the participant from other participants. This value may be the internal system identifier, a surrogate key assigned at time of data extract, or a concatenated natural key. The value must be consistent for all extracts to ensure proper identification.		
CAAL Skills Field Name		
PUID		
CAAL Skills Values		
Actual source value 99 = Unknown		
File		
Participants		
Collection Dates		
7/1/13 – 6/30/17		



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Participant Demographics

DED#	Data Element Name	Format
017	Participant Ethnicity / Race	VCHAR(25)
Definition		
The ethnicity and/or race the participant identifies as.		
CAAL Skills Field Name		
ETHRC		
CAAL Skills Values		
Actual source values, i.e. not internal system codes or numeric representations. Please use the fully qualified value.		
File		
Participants		
Collection Dates		
7/1/13 – 6/30/17		



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DED#	Data Element Name	Format
027	Temporary / Permanent Disability	INT
Definition		
If the participant identifies as, or was determined by authorized personnel as, having a disability.		
CAAL Skills Field Name		
DISA		
CAAL Skills Values		
1 = Yes, Disabled 2 = Yes, Temporarily Disabled 0 = No 98 = Not Applicable 99 = Unknown		
File		
Participants		
Collection Dates		
7/1/13 – 6/30/17		



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DED#	Data Element Name	Format
091	Date Exhausted TANF	DATE
Definition		
The month, day, and year the participant exhausted Temporary Assistance for Needy Families (TANF).		
CAAL Skills Field Name		
DEXTNF		
CAAL Skills Values		
MMDDYYYY . = Not Applicable or Unknown		
File		
Participants		
Collection Dates		
7/1/13 – 6/30/17		



Supportive Services

DED#	Data Element Name	Format
065	First Date of Service or Activity	DATE
Definition		
The month, day, and year the participant began receiving a specified service or activity.		
CAAL Skills Field Name		
FDSA		
CAAL Skills Values		
Actual source value . = Unknown		
File		
Services		
Collection Dates		
7/1/13 – 6/30/17		



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DED#	Data Element Name	Format
066	Last Date of Service or Activity	DATE
Definition		
The month, day, and year the participant stopped receiving a specified service or activity.		
CAAL Skills Field Name		
LDSA		
CAAL Skills Values		
Actual source value . = Unknown		
File		
Services		
Collection Dates		
7/1/13 – 6/30/17		

CAAL-Skills

Data Exchange Specification Requirements

Pilot Project Documentation



Change Log

Version	Date	Author	Change
1.00	8/21/17	E. Holm P. Banas	CWDA Version
1.10	9/26/17	E. Holm P. Banas	<p>Updated based on review with CWDA teams:</p> <ul style="list-style-type: none"> • Revised DED #002 Enrollment Organization Name to reference the County Name • Revised DED #003 Enrollment Organization ID to reference the County Code • Revised DED #015 Participant Unique Individual Identifier to reference the CIN or Client Identification Number • Revised DED #017 Participant Ethnicity/Race to Participant Ethnicity VCHAR(100) changed definition and field name • Added DED #017-1 Participant Race • Revised DED #020 to "Homeless Individual" (removing "Runaway Youth designation) • Removed DED #024 Participant English Language Learner • Revised DED #027 Temporary / Permanent Disability to include County Code crosswalk • Revised DED #029 Single Parent to include expanded description • Removed DED #030 Long Term Unemployed • Revised DED 035, 036, 064 to include CalFRESH and CalWORKs activities and services
1.20	4/17/18	P. Getz	Added FY 17/18 to the Timeframe Section.

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1. Overview

1.1. Project

Federal and state law required the development of a “State Plan” to address workforce development, training and related challenges. Under the direction of the California Labor and Workforce Development Agency (LWDA) the plan was developed by the California Workforce Development Board (CWDB).

Implementation of the State Plan includes the development of a comprehensive, integrated, interoperable data system that measures and assesses program outcomes in a systematic and efficient manner. The data system’s primary objective will be helping the CWDB and State Plan Partners meet statutorily mandated performance reporting requirements while also developing the State’s capacity to evaluate and assess program success.

This will enable the CWDB and its partners to develop policies which facilitate the movement of people into jobs “providing economic security or job placement in an entry-level job that has a well-articulated career pathway or career ladder to a job providing economic security.”[1] State law defines these jobs as those that provide, “a wage sufficient to support a family adequately, and, over time, to save for emergency expenses and adequate retirement income, based on factors such as household size, the cost of living in the worker’s community, and other factors that may vary by region.”

Workforce development, training, and related education programs provide job-specific training, basic skills education, and related support services to help individuals participate in civic life and the labor market. California spends over \$6 Billion annually on workforce development, training, and related education programs. Over three million people access one or more of California’s workforce development, training, and related education programs annually.

These programs and the data relevant to them are administered by the following organizations:

1. Labor & Workforce Agency
 - a. Employment Development Department – Workforce Services Division
 - b. Employment Development Department – Labor Market Information Division
 - c. Employment Development Department – Tax Branch
 - d. Employment Training Panel
 - e. Department of Industrial Relations, Division of Apprenticeship Standards
 - f. Workforce Development Board
2. Public School System - Department of Education, Career and College Transition Division (includes Career Technical Education and Adult Education)
3. Community College Chancellor’s Office - Technology, Research and Information Systems (TRIS) Division
4. Health & Human Services Agency
 - a. Department of Social Services – CalFresh
 - b. Department of Social Services - CalWORKs
 - c. Department of Rehabilitation
5. County Welfare Directors Association of California

Workforce development, training, and related education providers are required to report information about their program, program participants, and the participant outcomes. Currently, the outcome

measurements and data reported varies from program to program though efforts are underway to align program performance measures. Historically, data collection has been used almost exclusively for oversight and compliance monitoring, yet program and outcome information is essential for effective decision-making. For example:

- State leadership, including the Governor and Legislature, require workforce training and education information that will enable them to develop evidence-based statutes and regulations to facilitate the effective allocation of scarce resources.
- Policy Makers require information regarding significant barriers to employment, such as a significant disability, that may require intensive job preparation.
- Workforce development, training, and related education administrators require information enabling them to evaluate program effectiveness, shape policies, and develop linkages among institutions.
- Teachers and guidance counselors require information to develop curricula, assess and guide students, and create learning plans.
- Workforce professionals require information to identify the remedial needs of students, provide market-informed career counseling, and help clients find jobs.
- Students, parents, and job seekers require information to make informed education, training, and career decisions.

The purpose of the CAAL-Skills project is to develop a comprehensive, integrated, interoperable data system that measures and assesses program outcomes in a systematic and efficient manner. The data system's overarching purpose will be helping the CWDB (and its State Plan partners) meet statutorily mandated performance reporting requirements and align with Workforce Innovation and Opportunity Act (WIOA) of 2014 and AB 1336 requirements. WIOA is a publicly-funded workforce system that is a national network of organizations which provide a range of employment, education, training, and related services and supports - to help jobseekers secure good jobs while providing businesses with the skilled workers they need to compete in the global economy.

The CAAL-Skills project objectives include providing automated functionality that will improve the State's capacity to evaluate and assess Workforce Development programs' success. This will enable the CWDB and its partners to develop policies which facilitate the movement of people into jobs providing economic security or job placement in jobs with a well-articulated career pathway or career ladder to a job providing economic security.

1.2. Objectives

The information required to facilitate effective decision-making as specified in the project overview must:

- Include complete program and participant information;

- Facilitate the tracking of individuals across institutions, through programs and into the labor market;
- Consistently evaluate program measurements and other information and variables across time and between programs;
- Be updated on a regular basis;
- Allow for the analysis of individual and aggregated information;
- Be accessible to State leadership; state and local workforce planning, education administrators and others; and,
- Be secure - the solution, including any data sharing, will comply with applicable state and federal privacy and data security requirements and best practices.

1.3. Metrics

A repository of Cross-System Analytics and Assessment for Learning Skills attainment (CAAL-Skills) will be created in a pilot environment to meet the above objectives. The primary metrics of the pilot will be the following:

1.3.1. Aggregation and Reporting Environment

The target reporting environment includes the collection, consolidation and reporting of workforce development, training and related education information from key workforce data partners.

1.3.2. Cross System Tracking

A method will be developed to link individuals across programs even when one or more of the source systems does not include an individual's social security number.

1.3.3. Program History

The targeted environment includes consolidated reporting of an individual's workforce development, training and related education program involvement history..

1.3.4. Employer Needs and Economic Trends

The target environment includes reporting on regional employer needs in comparison to current and planned workforce development, training and related education offerings.

1.3.5. Commonality, Consistency, Compliance

The target system will:

- a. Apply common measures and consistent data-element definitions across programs;
- b. Apply a unique participant identifier that can be used to link an individual appearing in two or more systems;
- c. Invoke a consistent understanding and approach for protecting the personally identifiable information (PII) of program participants;
- d. Simplify the exchange of data; and,
- e. Comply with federal laws, state laws, state regulations and best industry practices for information security and privacy.

1.3.6. Summary

The CAAL-Skills Pilot project will create a central repository to host data collected by the project Data Sharing Partners. The data will be utilized to generate information and metrics required by California Unemployment Insurance Code Section 14013, as well as provide a mineable warehouse for further analytics.

1.4. Scope

The scope of the CAAL-Skills Pilot Project includes receiving data from state and local workforce partners as defined in Data Sharing Agreements.

1.4.1. Partners

This project involves the agencies from across the Workforce services spectrum including education, training, and supportive services. The breadth of participation ensures the data necessary to meet the project requirements and provide a rich data repository. The Data Sharing Partners for the pilot portion of the CAAL-Skills project include:

- California Community Colleges Chancellor's Office (CCCCO)
- California Department of Education (CDE)
- California Department of Social Services (CDSS)
- California Department of Industrial Relations (DIR)
- California Department of Rehabilitation (DOR)
- California Employment Development Department – Central Office Workforce Services Division (EDD-COWSD)
- California Employment Development Department – Labor Market Information Division (EDD-LMID)
- California Employment Development Department – Tax Branch (EDD-TAX)
- Employment Training Panel (ETP)

1.4.2. Timeframe

The fiscal years 2013 – 2014 through 2017 – 2018 will be used in the baseline. For clarity, the fiscal years include the following data ranges:

Fiscal Year 2013-2014 (FY13-14) = July 1, 2013 through June 30, 2014

Fiscal Year 2014-2015 (FY14-15) = July 1, 2014 through June 30, 2015

Fiscal Year 2015-2016 (FY15-16) = July 1, 2015 through June 30, 2016

Fiscal Year 2016-2017 (FY16-17) = July 1, 2016 through June 30, 2017

Fiscal Year 2017-2018 (FY17-18) = July 1, 2017 through June 30, 2018

If data elements are not available within that timeframe, the partner will be asked to submit the available elements. A method will be developed to link individuals across programs even when one or more of the source systems does not include an individual's social security number.

1.4.3. Core Entities and Attributes

The core entities and attributes present an overview of the data to be gathered and modeled. The higher level in this hierarchy are the core entities – groupings of attributes and/or distinctly separate objects. The lower level in this hierarchy are the attributes – or characteristics of the core entities. *Note: These are concepts not concrete definitions. Some core entities and attributes may not apply to specific Data Sharing Partners.*

- Fund Source – Funds used to pay for participant services (e.g. WIOA Title 1 Adult)
- Partner – Data Sharing Partner and/or Administrative Agency (e.g. EDD-COWSD)
- Enrollment Organization – Organization who determines participant eligibility and/or enrolls in service. May be the same as the Partner. (e.g. Local Workforce Board)
- Provider – Organization who offers services to participant. May be the same as the Enrollment Organization or may be contracted by Enrollment Organization. (e.g. Onestop)
- Participant
 - Identification
 - Demographic
 - Employment Barriers
- Services
 - Education and Training Services – Occupational or general education (e.g. Adult Basic Education, Career Technical Education)
 - Career Services – Employment related services (e.g. Resume writing workshop, career counseling)
 - Supportive Services – Services to support participation in Education, Training, and Career Services (e.g. CalFresh or CalWORKS benefits)
- Service Outcomes
 - Certificate/Skill/Degree Attained
 - Start Date
 - Completion/Withdraw Date

- Employment Outcomes
 - Employment Attained
 - Wages (Participant income from Tax branch records)
 - 2nd Quarter
 - 4th Quarter

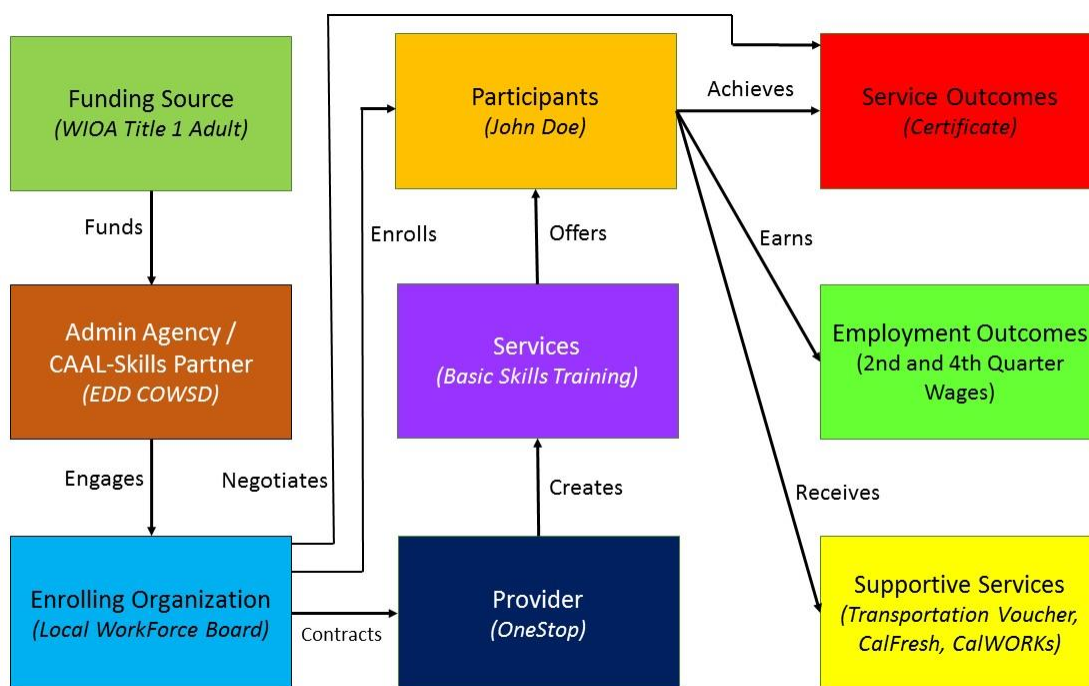
Further details regarding the exact data elements included as attributes and their relationships will be provided in the specification section of this document.

2. Data Diagrams

2.1. Conceptual Data Model

A conceptual data model is a map of concepts and their relationships used for databases. This describes the semantics of an organization and represents a series of assertions about its nature. Specifically, it describes the things of significance to an organization (entity classes), about which it is inclined to collect information, and characteristics of (attributes) and associations between pairs of those things of significance (relationships).

Because a conceptual schema represents the semantics of an organization, and not a database design, it exists on various levels of abstraction. The conceptual data model for the CAAL-Skills project is below. It is offered to assist in an overall understanding of the types of data to be collected and their relationships.



Each of the above entities (blocks) in the conceptual model may be represented in the data extracted from the CAAL-Skills partner's source systems and transferred to the CAAL-Skills Pilot project team for integration into the central workforce and outcomes repository. Not all partners will offer all entities or data elements, just those related to their services and/or benefits.

3. Data Elements

3.1. Data Types

A data type or simply “type” is a classification of data which tells the database, application, compiler, interpreter, or alternative data store how the programmer or administrator intends to use the data. Modern programming languages and data stores support various types of data (i.e. real, integer, or Boolean). A data type provides a set of values from which an expression (i.e. variable, function) may take its values. The type defines the operations that can be done on the data, the meaning of the data, and the way values of that type can be stored.

The CAAL-Skills Pilot Project will utilize a limited subset of available data types to reduce complexity and simplify the formatting process for moving data from the source system to the secure data transfer device. Below are the four basic data types and their formats:

- Variable Character (VCHAR) – For storing variable length alpha-numeric data. (e.g. Last Name)
- Integer (INT) – For storing numeric values not requiring fixed precision or scale. (e.g. Postal Code)
- Numeric (NUM) – For storing numeric values requiring fixed precision and scale. (e.g. \$1,432.10)
Note: Precision is the number of digits in a number. Scale is the number of digits to the right of the decimal point in a number. For example, the number 123.45 has a precision of 5 and a scale of 2.
- Date (DATE) – For storing month, day, and year. (e.g. January 18, 2015)

3.1.1. Maximum Lengths

The maximum length of a given data element will be specified within the data element dictionary section for VARCHAR, INT, NUM data types. All elements will be considered variable length and will not require left or right padding utilizing spaces, special characters, or zero-filled positions. Data which exceed the maximum length should be truncated to meet the requirements of that particular data element. An example of each data type is listed below:

- Variable Character (VCHAR)
 - Data Element: Last Name
 - Maximum Length: 40 characters
 - Format: VCHAR (40)
 - Examples: SMITH, JOHNSON-KEENER
- Integer (INT)
 - Data Element: Postal Code
 - Maximum Length: 9 positions
 - Format: INT
 - Examples: 94518, 10027, 85602-1023

- Numeric (NUM)
 - Data Element: 2nd Quarter Earnings
 - Maximum Length: 9 precision, 2 scale
 - Format: NUM (9,2)
 - Examples: \$1437.99 , \$7,210.33

3.1.2. Null Values

Data elements included in the specification for which values do not exist in the source system or cannot be translated using the data element cross reference should be left blank as noted in the CSV file format of: "DataElement1" || "DataElement3". Do not include spaces, double quotes without enclosed values, zeroes, or other special characters. The presence of the field separators without data will be sufficient for the target system in CAAL-Skills to determine the lack of a value for a given data element.

3.1.3. Currency

Currency values should be treated as numeric (NUM) with precision and scale. Do not include currency symbols in the field.

3.1.4. Case

All alphabetic characters should be rendered in the upper or majuscule case. Do not provide lower or mixed case in VCHAR elements.

3.1.5. Date Format

The DATE data type should include only month, day, and year. It should not include timestamps. The format for DATE data types is: MMDDYYYY. The only exception to zero filling/padding of fields occurs in this format. Single digit months (January – September) should be left zero padded as should single digit days (1-9).

3.1.6. Binary Values

The data specification requirement defines binary values such as Veteran Status (Vet/Not a Vet). A value of 1 will be used to signify a positive response and a value of 0 will be used to signify a negative response. To provide the most flexibility for future program data, these data elements will utilize an INT data type.

3.1.7. Unknown/Not Applicable/Other Values

For "Unknown" values will utilize "99" to clearly note that response. For "Not Applicable" values will utilize "98". "Other" values, that is values outside of the list provided, will utilize "97". Note: These values are appropriate for INT and VCHAR data types.

3.1.8. Field Formatting

Formatting of special use numeric and dates is not to be performed. Social Security Numbers should just utilize the integers not the typical format: XXX-XX-XXXX. Phone numbers should not include spaces, parentheses, and dashes: (XXX) XXX-XXXX. Dates should not include positional

separators: MM-DD-YYYY. Unless specified in the Data Extraction Requirements all fields should contain the numeric or alpha characters only.

3.1.9. Reference Codes

Due to the multiple source data systems for the CAAL-Skills repository, we will request reference or translation codes for some data elements to standardize responses and quickly assimilate source data into the repository. Those reference codes will be noted in each element. In some cases, multiple source data elements will map to a single CAAL-Skills reference code.

CAAL Skills values (as noted in the data dictionary) will be assigned to each data element. These values are recommended be used and collected for the CAAL Skills data repository. By establishing universal values, and cleansing the data to record those values, the data can be linked amongst the programs.

The values recommended identify the available options for the data element, including if the data element is not applicable or unknown to the Partner. The recommended values take into account the current values used by the Partners and provides for the least amount of data cleansing.

3.2. Identifiers and Definitions

Each data element in the data dictionary section will include a CAAL-Skills data element unique identifier, descriptive name, and full description of the element. These are provided for discussion and reference purposes only. This information should not be included in the data provided to the CAAL-Skills Pilot Project Team.

3.3. Data Element Name

Each data element in the data dictionary section will include a unique, concatenated CAAL-Skills data element name which is to be used in the header row of each file to identify the data associated with that element. As noted in the section above describing the CSV file format, the header row should contain a list of all data elements included in the file, in the order of appearance on the row line, and separated by a pipe (|) character.

3.4. Date Range

The scope of the data requested from the Data Sharing Partners will be specific for each partner and each data element. Please refer to the matrix at the beginning of the Data Element Dictionary. If the data is unavailable for a portion of the requested time frames, please provide only the available time frames in the data files sent to the CAAL-Skills project team. Inserting blank rows for incomplete or missing calendars years is not required.

3.5. Data Relationships

3.5.1. Primary and Foreign Keys

In order to capture and maintain the relationship between core entities, the Data Sharing Partners will be asked to include their internal identifier for data elements (noted as Primary or Foreign keys) to generate unique and consistent identifiers for those elements. The identifiers may be numeric or alphanumeric. We will also request the original identifier for some data elements, but those will be considered distinctly separate data elements.

3.5.1.1. Participant Example

The example below assumes a participant, John Doe, with a unique source system identifier of K109-0563 was enrolled in Career Technical Education at Sacramento City College in the September 1, 2015. Further, the participant completed this education by the end of December 30, 2015.

Elements and Values

Participant: John Doe, ID #K109-0563 (Unique Participant ID* from source system)

Service: Career Technical Education - 9/1/15 (Training Program Code # 123456)

Location: Sacramento Community College (Location # 489)

Service Outcome: Certificate Attained - 12/30/15

In the above example, the Data Sharing Partner could use the Source System ID within all three entities to identify John Doe.

Participant Entity: John Doe, K109-0563, 3835 Freeport Blvd, Sacramento, CA

Services Entity: K109-0563, RW013, 489, 9/01/2015

Services Outcome Entity: K109-0563, RW013, 489, 12/31/2015

**The unique Participant ID may be the original source system identifier or a unique identifier created during the extraction process and maintained throughout the course of the data file creation.*

3.6. Participant Individual Record Layout (PIRL)

Within the Data Element dictionary there is a comparison of the CAAL Skills data element and the related Department of Labor's (DOL) data element, as identified in Version 25 of the Participant Record Layout (PIRL). This comparison includes:

- A. The related DOL PIRL data element:
 - i. Number
 - ii. Name
 - iii. Type and Field Length
 - iv. Definition / Instructions; and
 - v. Code Values; and
- B. The Comparative Analysis.

4. Data Extraction

4.1. File Format

The pilot project will leverage the lowest-common-denominator in file formats to receive data from the Partners. Formats that use delimiter-separated values (DSV) store two-dimensional arrays of data by separating the values in each row with specific delimiter characters. Most database and data store programs are able to read or save data in a delimited format. Due to their wide support, DSV files can be used in data exchange among many applications and systems.

A delimited text file is a text file used to store data, in which each line represents a single row or record, and each line has fields separated by the delimiter. Compared to the type of flat file that uses spaces to force every field to the same width, a delimited file has the advantage of allowing field values of any length.

Any character may be used to separate the values, but the most common delimiters are the comma, tab, and colon. The vertical bar (also referred to as pipe) and space may also be used. In a comma-separated values (CSV) file the data items are separated using commas as a delimiter, while in a tab-separated values (TSV) file, the data items are separated using tabs as a delimiter. Column headers are sometimes included as the first line, and each subsequent line is a row of data. The lines are separated by newlines or carriage returns (CR/LF)

This project will reference the Internet Engineering Task Force (IETF) standard identified by the Request for Comment document RFC 4180. A Request for Comments (RFC) is a formal document from the IETF that is the result of committee drafting and subsequent review by interested parties. Some RFCs are informational in nature. Of those that are intended to become Internet standards, the final version of the RFC becomes the standard and no further comments or changes are permitted. Change can occur, however, through subsequent RFCs that supersede or elaborate on all or parts of previous RFCs. The full specification is documented here: <https://tools.ietf.org/html/rfc4180>

This project will deviate slightly from the standards published in RFC 4180 by replacing the comma used as a field separator with a pipe (|) character. This modification will accommodate commas within the fields. The full specification for the file is listed in the next section.

4.2. File Specification

4.2.1. Character Encoding

The character encoding scheme for the files to be exchanged will be UTF-8. It is a character encoding scheme capable of encoding all possible Unicode code points. The encoding is defined by the Unicode standard with the full standard listed here:

<http://www.unicode.org/versions/Unicode6.0.0>

The encoding is variable-length and uses 8-bit code units. It was designed for backward compatibility with ASCII and to avoid the complications of endianness and byte order marks in the alternative UTF-16 and UTF-32 encodings.

4.2.2. Character Case

All alphabetic characters are to be generated in upper case also referred to as majuscule. Mixed case and lower case within the source data should be converted to upper case for the extract files.

4.2.3. Implementation of Delimited Separated Values

The specifications for implementing delimited separated values are as follows:

1. Each field (data element) is to be separated by a pipe (|) character. Unicode UTF-8 standards refer to this character as the “vertical line”. It is officially the 0x7C hex character also represented as U+007c. For example:

```
aaa | bbb | ccc
```

Note: Spaces between the data values and the delimiter are not necessary and should not be included – the spaces in the example above are for clarity’s sake only.

2. Each record is located on a separate line, delimited by a line break (CRLF). For example:

```
aaa | bbb | ccc CRLF  
zzz | yyy | xxx CRLF
```

3. The last record in the file should not have an ending line break. For example:

```
aaa | bbb | ccc CRLF  
zzz | yyy | xxx
```

4. There should be a header line appearing as the first line of the file with the same format as normal record lines. This header will contain names corresponding to the fields in the data specification (column titled “CAAL-Skills Field”) and should contain the same number of fields as the records in the rest of the file. For example:

```
field_name1 | field_name2 | field_name3 CRLF  
aaa | bbb | ccc CRLF  
zzz | yyy | xxx CRLF
```

5. Within the header and each record, there may be one or more fields, separated by commas. Each line should contain the same number of fields throughout the file. Spaces are considered part of a field and should not be ignored. The last field in the record must not be followed by a comma. For example:

```
aaa | bbb | ccc
```

6. Each field should not be enclosed in double quotes unless the field contains the delimiter as valid data within that field. If fields are not enclosed with double quotes, then double quotes may not appear inside the fields. For example:

```
"aaa|" | "|bbb" | "c|cc" CRLF  
zzz | yyy | xxx
```

7. Fields containing line breaks (CRLF), double quotes, and pipes should be enclosed in double-quotes. For example:

```
"aa""a" | "b CRLF bb" | "c|cc" CRLF  
Zzz | yy | xxx
```

8. If double-quotes are used to enclose fields, then a double-quote appearing inside a field must be escaped by preceding it with another double quote. For example:

```
aaa | "b""bb" | ccc
```

9. The Augmented Backus-Naur Form (ABNF) grammar appears as follows:

- file = [header CRLF] record *(CRLF record) [CRLF]
- header = name *(PIPE name)
- record = field *(PIPE field)
- name = field
- field = (escaped / non-escaped)
- escaped = DQUOTE *(TEXTDATA / PIPE / CR / LF / 2DQUOTE) DQUOTE
- non-escaped = *TEXTDATA
- PIPE = 0x7C
- CR = %x0D

10. Security considerations: DSV files contain passive text data that should not pose any risks. However, it is possible in theory that malicious binary data may be included in order to exploit potential buffer overruns in the program processing DSV data. All DSV files received by the pilot program will undergo CRC, virus, malware, and malicious code detection and quarantine (if necessary) prior to extracting.

4.2.4. File Encryption

The devices utilized to copy and/or extract the source data files at the partner facilities, host those files in transit, and load the file contents into the CAAL-Skills pilot project central repository will be encrypted with full-disk AES 256-bit hardware-based encryption. More details on the devices will be offered in a following section. Due to the use of hardware-based encryption the data files will not require additional encryption.

4.2.5. File Organization

Each entity identified in the Conceptual Data Model will be represented by one or more files. The contents of each file will be the elements (fields) listed in the Data Element section. The entities are as follows:

1. Funding Source
2. Administrative Agency / Partner
3. Enrolling Organization
4. Provider

5. Services
6. Participants
7. Supportive Services
8. Services Outcomes
9. Employment Outcomes

Data Sharing Partners will generate only the files applicable to their organizations. The actual elements for each file will be determined by the “File” classification field for each data element. For example:

Data Element: Participant First Name
File: Participants

Data Element: Provider Postal Code
File: Providers

4.2.6. File Sizing

The encrypted data transfer devices will have a 64 GB capacity which will be sufficient to host and transport the requested information. Maximum file sizes are indicated as a matter of ease of handling and importation by the CAAL-Skills pilot project data integration system. Data Sharing Partners are encouraged to utilize file sizes which accommodate their source systems and data extraction processes – that is to say, if smaller files are more easily generated and managed then the Data Sharing Partners may further reduce these recommended sizes as needed. Minimum file sizes are listed below to ensure files are concatenated to improve efficiency in the data sharing processes.

ID	Entity / File Classification	Maximum Size	Minimum Size
1	Funding Source	250MB	1KB
2	Admin Agency / Partner	250MB	1KB
3	Enrolling Organization	250MB	1KB
4	Provider	250MB	1KB
5	Services	250MB	1KB
6	Participants	250MB	1KB
7	Supportive Services	250MB	1KB
8	Services Outcomes	250MB	1KB
9	Employment Outcomes	250MB	1KB

4.2.7. File Naming and Sequencing

The file naming and sequencing conventions for the pilot project will assist in identifying the files both at the source as they are created and placed on the encrypted transfer device and when they are received by the CAAL-Skills Pilot Project Team.

File Naming will identify the following characteristics of each file transmitted. Again, not every Data Sharing Partner will generate every file type listed. Within the Naming Format the etymology reference is: "X" = alpha character (A-Z only), "N" = numeric (integer), and MMDDYYYY = date. A number (1-10) following the alpha character or "X" in the naming format indicates a fixed length. Multi-positional numeric or integers should be left zero filled (e.g. 001, 013). All file characteristics will be separated by a single underscore (_). All file names should be in upper case or majuscule.

Position	File Characteristic	Naming Format	Default Value
1	CAAL-Skills Project	XXN	CS1
2	Date of File Creation	MMDDYYYY	N/A
2	Entity or File Classification*	XXXX	N/A
3	Sequence of Entity or File Classification (for multiple files)	NNN	001
4	CAAL-Skills Request ID	XNN	R01
5	File Extension	XXX	CSV
6	Data Sharing Partner – <i>this is not included as the data transfer device will indicate the partner</i>		
*	<i>For naming refer to the chart below</i>		

ID	Entity / File Classification Naming	File Characteristic
1	Funding Source	FUND
2	Administrative Agency / Partner	AAPA
3	Enrolling Organization	ENRO
4	Provider	PROV
5	Services (training and education)	SERV
6	Supportive Services	SUPP
7	Participants	PART
8	Service Outcomes	OUTC
9	Employment Outcomes	WAGE

Examples of file naming are listed below to assist in clarifying the requirements:

File Information: Participant Data, Created on July 10, 2017, File #1

File Name: CS1_07102017_PART_001_R01.CSV

File Information: Participant Data, Created on July 10, 2017, File #2

File Name: CS1_07102017_PART_002_R01.CSV

File Information: Benefits Data, Created on June 24, 2017, File #1

File Name: CS1_06242017_BENE_001_R01.CSV

4.2.8. Folder Structure

The data sharing device will be provided with an intact and project specific folder structure. There will be a top-level folder containing documentation or help files from the CAAL-Skills Pilot Project Team. Those folders will be created as Read-Only. The other top-level folder will be target location for the files generated by the Data Sharing Partners. This folder will be Read-Write). All files should be placed with the Partners folder without utilizing additional, supplemental, or sub-tier folders – that is, no folders should be added to the existing folder hierarchy.

CAAL-Skills Folder (read only): \CAAL-Skills

Partner Source Data Folder (read-write): \Data

4.3. Data Transfer

4.3.1. Introduction

The CAAL-Skills pilot project will facilitate data transfer from the source systems (Data Sharing Partner) to the target system (CAAL-Skills repository) utilizing project staff to physically distribute, collect, and secure the data transfer media. Future implementations of the data exchange process may involve electronic means. The data transfer media devices will be high capacity, encrypted Universal Serial Bus (USB) version 2.0 and 3.1 compatible, portable drives. The drives will include a physical encryption key which will encrypt the entire contents of the drive. The key will be unique for each data sharing partner – known only to the receiving staff and the CAAL-Skills pilot project architect and project manager. The devices will be secured on-site at the project office.

4.3.2. Device

The project will purchase and distribute to the Data Sharing Partners the Kingston DataTraveler 2000 USB drive also known as the DDT2000 for data transfer from the source system to the target system. The drive will have a capacity of 64GB. It is designed to be secure, with an alphanumeric keypad that locks the drive with a word or number combination, for easy-to-use PIN protection. Each Data Sharing Partner will have a unique PIN associated with their device. The DT2000 auto-lock feature is activated when the drive is removed from a device and it deletes the encryption key after 10 failed intrusion attempts. DT2000 features hardware-based, full disk AES 256-bit data encryption in XTS mode (see diagram below). Encryption is accomplished on the drive, not on the host computer system, and no trace of the PIN is left on the host system. DataTraveler 2000 is operating system independent and can be used on any device with a USB 2.0 or USB 3.1 Gen1 (USB 3.0) port. It's compatible with Windows®, Mac® OS, Linux, Chrome OS, and Android. The drive requires no additional software or drivers. It is FIPS 197 certified, to meet the most stringent IT security requirements for data encryption and transfer. The DT2000 enclosure is a durable design which protects the drive from everyday elements such as water and dust.



Complete specifications for the device are listed here:

- Interface: USB 3.1 Gen 1 (USB 3.0)
- Capacities: 16GB, 32GB & 64GB
- Speed: USB 3.1: 16GB: 120MB/s read, 20MB/s write 32GB: 135MB/s read, 40MB/s write 64GB: 135MB/s read, 40MB/s write

- USB 2.0: 16GB: 30MB/s read, 20MB/s write 32GB: 30MB/s read, 20MB/s write
64GB: 30MB/s read, 20MB/s write
- Dimensions (drive with sleeve): 80mm x 20mm x 10.5mm
- Dimensions (drive without sleeve): 78mm x 18mm x 8mm
- Waterproof/Dustproof Certified: to IP57 rating
- Compatibility: USB 3.0 compliant and 2.0 compatible
- Operating Temperature: 0°C to 40°C
- Storage Temperature: -20°C to 60°C
- Minimum System Requirements: USB 3.0 compliant and 2.0 compatible
- Compatible with: Windows® 10, Windows 8.1, 8, 7 (SP1), Vista® (SP2), Mac OS X v. 10.9.x+, Linux v. 2.6.x+, Chrome OSTM, Android3

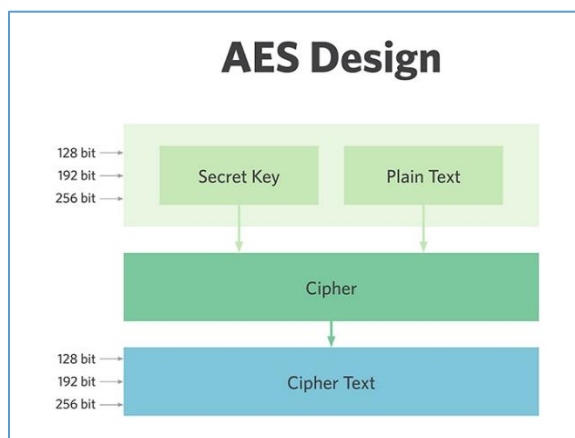
4.3.3. Advanced Encryption Standard (AES)

The Advanced Encryption Standard (AES), also known by its original name Rijndael is a specification for the encryption of electronic data established by the U.S. National Institute of Standards and Technology (NIST) in 2001.

AES has been adopted by the U.S. government and is now used worldwide. It supersedes the Data Encryption Standard (DES), which was published in 1977. The algorithm described by AES is a symmetric-key algorithm, meaning the same key is used for both encrypting and decrypting the data.

In the United States, AES was announced by the NIST as U.S. FIPS PUB 197 (FIPS 197) on November 26, 2001. This announcement followed a five-year standardization process in which fifteen competing designs were presented and evaluated, before the Rijndael cipher was selected as the most suitable. AES became effective as a federal government standard on May 26, 2002, after approval by the Secretary of Commerce. AES is included in the ISO/IEC 18033-3 standard.

The Kingston Data Traveler DT2000 features hardware-based, full disk AES 256-bit data encryption in XTS mode. Encryption is done on the drive and no trace of the PIN is left on the system.



4.3.4. Federal Information Processing Standards Certification

The Federal Information Processing Standards (FIPS) are U.S. government standards for information technology and computer security. The FIPS program is run by the National Institute of Standards (NIST). NIST FIPS 140 is the cryptography standard program required by the US federal government for protection of sensitive data. All products using cryptography in use by civilian and military US federal agencies must comply with FIPS 140. The current FIPS version is 140-2.

Obtaining FIPS 140 validation requires a rigorous testing process by an accredited testing laboratory. The results are then reviewed by the National Institute of Standards and Technology (NIST) which issues a FIPS 140 validation certificate. The certificates and policies for the DT2000 generation 1 and 2 devices are listed below:

Product Name	DT2000 Gen2	DT2000 Gen1
Firmware Version	3.05	3.05
FIPS certificate	#2307	#2371
Security Policy	#2307	#2371
FIPS AES certificate	#2838	#2838
FIPS SHS certificate	#2379	#2379
FIPS RSA certificate	#1480	#1480
FIPS DRBG certificate	#494	#494
FIPS RNG certificate		
FIPS HMAC certificate	#1779	#1779

4.3.5. Hardware Encryption

Hardware-based encryption as built into the device indicated above is notably transparent to the user. The symmetric encryption key is maintained independently from the CPU, thus removing computer memory as a potential attack vector. The drive except for boot-up authentication operates just like any drive with no degradation in performance. There is no complication or performance overhead, unlike disk encryption software, since all the encryption is invisible to the operating system and the host computers processor.

Hardware based encryption offers these benefits:

- Uses a dedicated processor physically located on the encrypted drive
- Processor contains a random number generator to generate an encryption key, which the user's password will unlock
- Increased performance by off-loading encryption from the host system

- Safeguard keys and critical security parameters within crypto-hardware
- Authentication takes place on the hardware
- Encryption is tied to a specific device, so encryption is “always on”
- Does not require any type of driver installation or software installation on host PC
- Protects against the most common attacks, such as cold boot attacks, malicious code, brute force attack

4.3.6. Device Format

The Kingston Data Traveler 2000 USB encrypted drive will be formatted in a Windows NTFS 5.0 or later file system. This system is compatible with Windows 7, 8, 10, Windows Server editions, as well as Ubuntu and Red Hat Linux 6.x. The file system will not be encrypted (encryption will be applied at the hardware level) and will not be compressed. The file system should not be altered nor the device re-formatted by the Data Sharing Partners. NTFS 5 was chosen over FAT32 and FAT16 due to the improved file handling capabilities and capacities as noted below:

Criteria	NTFS5	FAT32	FAT16
Operating System Capability	Windows 2000 Windows XP Windows 2003/5/8/12/16 Server Windows Vista Windows 7 Windows 8 Windows 10	DOS v7 and higher Windows 98 Windows ME Windows 2000 Windows XP Windows 2003 Server Windows Vista Windows 7	DOS All versions of Microsoft Windows
Max Volume Size	2^{64} clusters – 1 cluster	32GB for all OS. 2TB for some OS	2GB for all OS. 4GB for some OS
Max Files on Volume	4,294,967,295 $2^{32} - 1$	4194304	65536
Max File Size	2^{64} bytes (16 ExaBytes) minus 1KB	4GB minus 2 Bytes	2GB (Limit Only by Volume Size)
Max Clusters Number	2^{64} clusters – 1 cluster	4177918	65520
Max File Name Length	Up to 255	Up to 255	Standard - 8.3 Extended - up to 255

Unicode File Names	Unicode Character Set	System Character Set	System Character Set
System Records Mirror	MFT Mirror File	Second Copy of FAT	Second Copy of FAT
Boot Sector Location	First and Last Sectors	First Sector and Copy in Sector #6	First Sector
File Attributes	Standard and Custom	Standard Set	Standard Set
Alternate Streams	Yes	No	No
Compression	Yes	No	No
Encryption	Yes	No	No
Object Permissions	Yes	No	No
Disk Quotas	Yes	No	No
Sparse Files	Yes	No	No
Reparse Points	Yes	No	No
Volume Mount Points	Yes	No	No
Built-In Security	Yes	No	No
Recoverability	Yes	No	No
Performance	Low on small volumes High on Large	High on small volumes Low on large	Highest on small volumes Low on large
Disk Space Economy	Max	Average	Minimal on large volumes
Fault Tolerance	Max	Minimal	Average

4.3.7. Device Identification

Each Kingston Data Traveler DT2000 will be serialized with the serial number appearing in a 24 character, 2D bar-code readable element on the case. The serial numbers will be unique and correspond to each Data Sharing Partner. Also, the drive will include a folder titled “\CAAL-Skills” containing the name of the Data Sharing Partner. The CAAL-Skills project team will maintain an inventory of the devices, serial numbers, assignments (to Data Sharing Partners) and a complete and current log of the chain of custody. Finally, the devices will be stored in a locked, fireproof safe in the CWDB facilities.

4.3.8. Device Loading

The actual steps for placing the CAAL-Skills formatted files on the device from the source system are a combination of steps and processes from the Data Sharing Partner’s Information Technology (DSP-IT) transfer standards and the CAAL-Skills pilot project. In the steps below, those where the owner/responsible party are identified as “*DSP-IT proprietary*” are recommendations only and should conform to the DSP-IT data transfer standards, policies, and procedures.

1. Remove the protective cover from the Kingston Data Traveler 2000 USB encrypted drive.
2. Enter the assigned PIN (unique to each Data Sharing Partner and noted on the chain of custody form) via the keypad on the Kingston Data Traveler 2000 encrypted drive to unlock the drive and decrypt the contents
3. Insert the Kingston Data Traveler 2000 drive into a desktop or server with access to the CAAL-Skills formatted files.
4. Copy all requested files into the \Data folder on the Kingston Data Traveler 2000 drive. *DSP-IT proprietary*.
5. Using the operating system appropriate procedures eject the device from the USB port to ensure the files are written and properly closed. *DSP-IT proprietary*.
6. Upon removal, press the “Lock” button on the Kingston Data Traveler 2000 drive to encrypt the contents.
7. Insert the Kingston Data Traveler 2000 encrypted drive into the sleeve and follow the Chain of Custody process.

4.3.9. Device Chain of Custody

Chain of custody defines the processes, procedures, and forms to manage, track, and document the transfer of the CAAL-Skills pilot project requested information from the Data Sharing Partners. The chain includes: the initial transfer of the encrypted data device from CAAL-Skills to the partner, the return of the device with the requested data, and the receipt of the device and internal secured storage of the device within the CAAL-Skills project team. The standard for this project will be based on the United States Department of Commerce’s National Institute of Standards and Technology (NIST) “Computer Security Handling Guide” Special Publication 801-

61 Revision 2. Specifically, this document will reference the section “Coordination and Information Sharing” and the NIST Chain of Custody Tracking Form. As shown below:

Data Transfer Device #:

CAAL-Skills Pilot Project

DATA DEVICE CHAIN OF CUSTODY TRACKING FORM

Data Sharing Partner (agency): _____

Location of Device (address): _____

Primary Contact Name: _____

Primary Contact Phone: _____

Primary Email Address: _____

Alternate Contact Name: _____

Alternate Contact Phone: _____

Alternate Email Address: _____

Description of Device		
Item #	Quantity	Description of Item (Model, Serial #, External Condition)

Chain of Custody				
Item #	Date/Time	Released by Data Sharing Partner (Print and Sign)	Received by CAAL-Skills Staff (Print and Sign#)	Comments/Location

APD_Form_#PE003_v.1 (12/2013)
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Technical Working Group on Information Technology Evidence Preservation: *Best Practices for Data Exchange Partners*. U.S. Department of Commerce, National Institute of Standards and Technology. 2013.

DATA DEVICE CHAIN-OF-CUSTODY TRACKING FORM
(Continued)

Chain of Custody				
Item #	Date/Time	Released by Data Sharing Partner (Print and Sign)	Received by CAAL-Skills (Print and Sign#)	Comments/Location

Final Disposal Authority

Authorization for Disposal
Item(s) #: _____ on this document pertaining to (suspect): _____
is/are no longer needed for information transfer and is/are authorized for disposal by (check appropriate disposal method)
☐ Return to Owner ☐ Auction/Destroy/Divert
Name of Authorizing Owner: _____ Signature: _____ Date: _____

Witness to Destruction of Evidence
Item(s) #: _____ on this document were destroyed by Evidence Custodian _____
in my presence on (date) _____
Witness to destruction: _____ Signature: _____ Date: _____

This Evidence Chain-of-Custody form is to be retained as a permanent record by the CAAL-Skills project and California Workforce Development Board staff.

APD_Form_#PE003_v.1 (12/2013)
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Essentially, whenever the data device changes ownership, that change should be reflected in the above form.

5. Other Project Agreements

5.1. Data Sharing Agreements

Each Data Sharing Partner will be party to a Data Sharing Agreement which outlines the terms, scope, costs, and timing of source data extracts to be provided to the CAAL-Skills pilot project. While the details of those individual agreements are being addressed, the project will work directly with the Partner's assigned information technology staff to design and test the source data extraction processes. Once the agreements have been signed by all parties, the source data will be officially requested.

6. Partner Response

6.1. High Level Tasks and Key Dates

The following table is to be completed by the Data Sharing Partner to assist the CAAL-Skills project team in determining overall project timelines for receiving and transforming the data.

ID	Task	Duration	Start Date	End Date	Notes
1	Identify Data Extraction Resources				
2	Quantify Cost / Time for Data Extraction				
3	Engage Resources for Data Extraction				
4	Generate and Transfer Test Data Files				
5	Implement Modifications (if necessary)				
6	Generate and Transfer Final Data Files				

6.2. High Level Tasks and Costs

The following table is to be completed by the Data Sharing Partner to assist the CAAL-Skills project team in determining costs for each partner to design systems and generate the required data files for use by the CAAL-Skills team.

ID	Task	Costs	Notes
1	Identify Data Extraction Resources		
2	Quantify Cost / Time for Data Extraction		
3	Engage Resources for Data Extraction		
4	Generate and Transfer Test Data Files		
5	Implement Modifications (if necessary)		
6	Generate and Transfer Final Data Files		

6.3. Response Timeframe

The CAAL-Skills Pilot Project team is requesting a response from the Partners within two weeks of reviewing this document with the CAAL-Skills team. The response should include estimated dates and costs for key tasks as well as primary and alternate contact information (see next section). The response should be emailed to the CAAL-Skills Pilot Project Manager, Patrick Getz, patrick.getz@cwdb.ca.gov

7. Contact Information

7.1. CAAL-Skills Project – Chief Technical Architect

Paul Banas
California Workforce Development Board
800 Capitol Mall, Ste, 1022
Sacramento, CA 95814
(916) 657-1483 desk
(916) 657-1381 fax
(616) 206-0727 mobile
paul.banas@cwddb.ca.gov

7.2. Primary Technical Contact

Name: _____
Title: _____
Agency/Department: _____
Address: _____

Desk phone: _____
Cell phone: _____
Email address: _____

7.3. Alternate Technical Contact

Name: _____
Title: _____
Agency/Department: _____
Address: _____

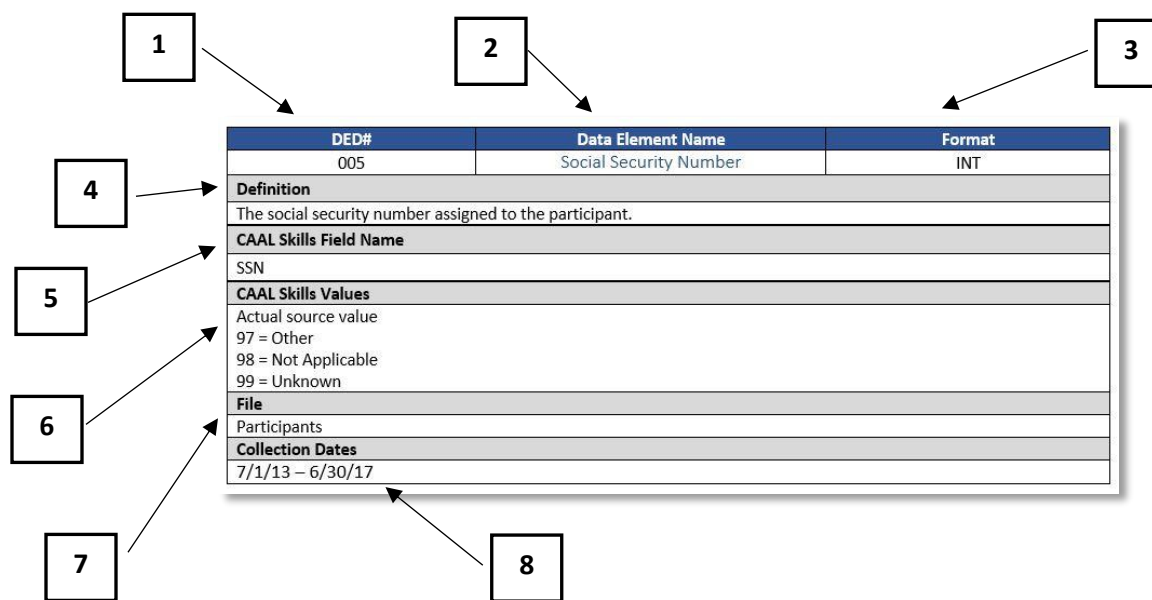
Desk phone: _____
Cell phone: _____
Email address: _____

8. Data Element Dictionary

8.1. Introduction

Each data element will be presented on a separate page with the following attributes:

1. DED# - Project unique Data Element Dictionary number
2. Data Element Name – Descriptive name of data element
3. Format – the element’s data type, length, precision, and scale
4. Definition – the full definition of the element
5. CAAL-Skills Field Name – the field to be inserted in the header row of the data exchange file
6. CAAL-Skills Values – the expected values for the element. In some cases, there will be a translation or cross reference table listed, others will note the “actual source value” in which case the source system’s fully qualified value should be inserted. Note: fully qualified = the full descriptive name rather than the source system code. *For example: a valid value for Ethnicity/Race would be “Hispanic / Latino”, not the internal code or representation “001”.*
7. CAAL-Skills File Type – the name of the File grouping identified in section 4.2.7.
8. Collection Dates – The date range the element should be collected and provided to CAAL-Skills



DED#	Data Element Name	Format
005	Social Security Number	INT
Definition		
The social security number assigned to the participant.		
CAAL Skills Field Name		
SSN		
CAAL Skills Values		
Actual source value		
97 = Other		
98 = Not Applicable		
99 = Unknown		
File		
Participants		
Collection Dates		
7/1/13 – 6/30/17		

Partner Identification

DED#	Data Element Name	Format
000	Partner ID	INT
Definition		
The internally assigned two-digit code for each Data Sharing Partner / Administrative Agency.		
CAAL Skills Field Name		
AAID		
CAAL Skills Values		
1 - California Department of Education 2 - California Department of Rehabilitation 3 - California Department of Industrial Relations 4 - California Community Colleges Chancellor's Office 5 - California Department of Social Services 6 - Employment Training Panel 7 - California Employment Development Department – Central Office Workforce Services Division 8 - California Employment Development Department – Labor Market Information Division 9 - California Employment Development Department – Tax Branch 10 - CWDA Napa County 11 - CWDA Monterey County 12 - CWDA Stanislaus County 97 = Other 98 = Not Applicable 99 = Unknown		
File		
Administrative Agency / Partner		
Collection Dates		
7/1/13 – 6/30/17		

Enrolling Organization

DED#	Data Element Name	Format
002	Enrollment Organization Name	VCHAR(40)
Definition		
The name of the organization where the participant was determined eligible for the program and was enrolled to receive their first service financially assisted by the program.		
CAAL Skills Field Name		
EONM		
CAAL Skills Values		
For ETP, this value will be "ETP" For CCCCCO, this value will be the name of the community college For EDD Workforce Services Division, this value will be the name of the local workforce board For CWDA-Counties, this value will be the county name For all others, the value will be the actual source system name (enrollment organization name) 99 = Unknown		
File		
Enrolling Organization		
Collection Dates		
7/1/13 – 6/30/17		

DED#	Data Element Name	Format
003	Enrollment Organization ID	VCHAR(40)
Definition		
The identifier assigned to the organization where the participant was determined eligible for the program and was enrolled to receive their first service financially assisted by the program.		
CAAL Skills Field Name		
EOID		
CAAL Skills Values		
For CWDA-Counties, this value will be the county code (e.g. Napa = 28, Monterey = 27, Stanislaus = 50) For all others, actual source system ID 99 = Unknown		
File		
Enrolling Organization		
Collection Dates		
7/1/13 – 6/30/17		

Funding Source

DED#	Data Element Name	Format
004	Fund Source	INT
Definition		
The funding source used to pay for the services received by the participant.		
CAAL Skills Field Name		
FSRC		
CAAL Skills Values		
1 = WIOA Title I (Adult) 2 = WIOA Title I (Dislocated Worker) 3 = WIOA Title I (Youth) 4 = WIOA Title II 5 = WIOA Title III 6 = WIOA Title IV 7 = CalWORKs 8 = CalFresh 9 = TAA 97 = Other 98 = Not Applicable 99 = Unknown		
File		
Services		
Collection Dates		
7/1/13 – 6/30/17		

Participant Identification

DED#	Data Element Name	Format
005	Social Security Number	INT
Definition		
The social security number assigned to the participant.		
CAAL Skills Field Name		
SSN		
CAAL Skills Values		
Actual source value 98 = Not Applicable 99 = Unknown		
File		
Participants		
Collection Dates		
7/1/13 – 6/30/17		

DED#	Data Element Name	Format
006	Participant First Name	VCHAR(40)
Definition		
The first name of the participant.		
CAAL Skills Field Name		
PFNM		
CAAL Skills Values		
Actual source value 98 = Not Applicable 99 = Unknown		
File		
Participants		
Collection Dates		
7/1/13 – 6/30/17		

DED#	Data Element Name	Format
007	Participant Middle Name	VCHAR(40)
Definition		
The middle name or initial of the participant.		
CAAL Skills Field Name		
PMNM		
CAAL Skills Values		
Actual source value 98 = Not Applicable 99 = Unknown		
File		
Participants		
Collection Dates		
7/1/13 – 6/30/17		

DED#	Data Element Name	Format
008	Participant Last Name	VCHAR(40)
Definition		
The last name of the participant.		
CAAL Skills Field Name		
PLNM		
CAAL Skills Values		
Actual source value 98 = Not Applicable 99 = Unknown		
File		
Participants		
Collection Dates		
7/1/13 – 6/30/17		

DED#	Data Element Name	Format
010	Participant City	VCHAR(50)
Definition		
The city associated to the physical, mailing, or billing address of the participant.		
CAAL Skills Field Name		
PCITY		
CAAL Skills Values		
Actual source value 98 = Not Applicable 99 = Unknown		
File		
Participants		
Collection Dates		
7/1/13 – 6/30/17		

DED#	Data Element Name	Format
011	Participant Postal Code	VCHAR(9)
Definition		
The postal code associated to the physical, mailing, or billing address of the participant. For US Zip Codes, include "+4" numeric digits if available. Exclude the "+" notation.		
CAAL Skills Field Name		
PPOST		
CAAL Skills Values		
Actual source value 98 = Not Applicable 99 = Unknown		
File		
Participants		
Collection Dates		
7/1/13 – 6/30/17		

DED#	Data Element Name	Format
012	Participant State Code	VCHAR(2)
Definition		
The two letter state code associated to the physical, mailing, or billing address of the participant for US addresses. See Skills Values for all other addresses.		
CAAL Skills Field Name		
PST		
CAAL Skills Values		
Actual source value CN = Canada MX = Mexico 97 = All other countries 98 = Not Applicable 99 = Unknown AE = (ZIPs 09xxx) Armed Forces Europe including Canada, Middle East, and Africa AP = (ZIPs 962xx - 966xx) for Armed Forces Pacific AA (ZIPs 340xx) for Armed Forces (Central and South) Americas		
File		
Participants		
Collection Dates		
7/1/13 – 6/30/17		

DED#	Data Element Name	Format
013	Participant Date of Birth	DATE
Definition		
The month, day, and year the participant was born.		
CAAL Skills Field Name		
DOB		
CAAL Skills Values		
Actual source value 99 = Unknown		
File		
Participants		
Collection Dates		
7/1/13 – 6/30/17		

DED#	Data Element Name	Format
014	Participant Sex / Gender	VCHAR(2)
Definition		
The sex the participant identifies as.		
CAAL Skills Field Name		
SEX		
CAAL Skills Values		
M = Male F = Female 97 = Other 99 = Unknown or not provided		
File		
Participants		
Collection Dates		
7/1/13 – 6/30/17		

DED#	Data Element Name	Format
015	Participant Unique Individual Identifier	VCHAR(20)
Definition		
The unique identifier assigned to the participant, by an organization, to distinguish the participant from other participants. This value may be the internal system identifier, a surrogate key assigned at time of data extract, or a concatenated natural key. The value must be consistent for all extracts to ensure proper identification.		
CAAL Skills Field Name		
PUID		
CAAL Skills Values		
For CWDA-Counties, this value will be the Client Identification Number or CIN For all others, actual source value 99 = Unknown		
File		
Participants		
Collection Dates		
7/1/13 – 6/30/17		

Participant Demographics

DED#	Data Element Name	Format
017	Participant Ethnicity	VCHAR(100)
Definition		
The ethnicity the participant identifies as.		
CAAL Skills Field Name		
ETHN		
CAAL Skills Values		
Actual source values, i.e. not internal system codes or numeric representations. Please use the fully qualified value. For multiple values, use comma separation.		
File		
Participants		
Collection Dates		
7/1/13 – 6/30/17		

DED#	Data Element Name	Format
017-1	Participant Race	VCHAR(100)
Definition		
The race the participant identifies as.		
CAAL Skills Field Name		
RACE		
CAAL Skills Values		
Actual source values, i.e. not internal system codes or numeric representations. Please use the fully qualified value. For multiple values, use comma separation.		
File		
Participants		
Collection Dates		
7/1/13 – 6/30/17		

DED#	Data Element Name	Format
018	Participant Veteran Status	INT
Definition		
If the participant identifies as a veteran of the armed forces.		
CAAL Skills Field Name		
VET		
CAAL Skills Values		
1 = Yes 0 = No 98 = Not Applicable 99 = Unknown		
File		
Participants		
Collection Dates		
7/1/13 – 6/30/17		

DED#	Data Element Name	Format
020	Homeless Individual	INT
Definition		
If the participant identifies as a homeless individual at program entry.		
CAAL Skills Field Name		
HMLS		
CAAL Skills Values		
1 = Yes 0 = No 98 = Not Applicable 99 = Unknown		
File		
Participants		
Collection Dates		
7/1/13 – 6/30/17		

DED#	Data Element Name	Format
023	Participant Foster Care Youth	INT
Definition		
If the participant identifies as a current / former foster care youth.		
CAAL Skills Field Name		
FSTRC		
CAAL Skills Values		
1 = Yes 0 = No 98 = Not Applicable 99 = Unknown		
File		
Participants		
Collection Dates		
7/1/13 – 6/30/17		

DED#	Data Element Name	Format
027	Temporary / Permanent Disability	INT
Definition		
If the participant identifies as, or was determined by authorized personnel as, having a disability.		
CAAL Skills Field Name		
DISA		
CAAL Skills Values		
1 = Yes, Disabled (For CWDA-Counties, Exemption Code 600) 2 = Yes, Temporarily Disabled (For CWDA-Counties, Exemption Code 302) 0 = No 98 = Not Applicable 99 = Unknown (For CWDA-Counties, No Exemption Code or Codes other than 600 and 302)		
File		
Participants		
Collection Dates		
7/1/13 – 6/30/17		

DED#	Data Element Name	Format
028	Migrant / Seasonal Farmworker	INT
Definition		
If the participant identifies as a migrant / seasonal farmworker or a child of a migrant / seasonal farmworker.		
CAAL Skills Field Name		
FARM		
CAAL Skills Values		
1 = Yes 0 = No 98 = Not Applicable 99 = Unknown		
File		
Participants		
Collection Dates		
7/1/13 – 6/30/17		

DED#	Data Element Name	Format
029	Participant Single Parent	INT
Definition		
If the participant identifies as a single parent. For CWDA-Counties the definition is expanded: "Single parent may include an individual who is the sole parent of an individual who is the sole provider in a family, as their spouse/partner is disabled."		
CAAL Skills Field Name		
SPAR		
CAAL Skills Values		
1 = Yes 0 = No 98 = Not Applicable 99 = Unknown		
File		
Participants		
Collection Dates		
7/1/13 – 6/30/17		

Workforce Training and Related Education

DED#	Data Element Name	Format
035	Type of Career Service	INT
Definition		
The type of career service assigned to and/or received by the participant.		
CAAL Skills Field Name		
TCS		
CAAL Skills Values		
1 - Basic Career Service (Staff Assisted) 2 - Individualized Career Service 3 - Information Only Career Service 4 - Follow up Career Service 5 - Basic Career Service (Self-Service) 6 - Vocational Rehabilitation Service 97 = Other 98 = Not Applicable 99 = Unknown *Actual source values collected for CCCCCO, CWDA County Partners, and DOR. ** CWDA County Partner Examples: 1) CalWORKS Activity – Appraisal 2) CalWORKS Activity – Assessment 3) CalWORKS Activity – Reappraisal 4) CalWORKS Activity – Job search & job readiness assistance 5) CalWORKS Activity - Unsubsidized employment 6) CalWORKS Activity - Self-employment 7) CalWORKS Activity - Subsidized private sector employment 8) CalWORKS Activity - Subsidized public sector employment 9) CalWORKS Activity - On-the-job training (OJT) 10) CalWORKS Activity - Grant-based on-the-job training (OJT) 11) CalWORKS Activity - Work-study 12) CalWORKS Activity - Supported work or transitional employment 13) CalWORKS Activity - Work experience 14) CalWORKS Activity - Community service 15) CalWORKS Activity - Job skills training directly related to employment 16) CalWORKS Activity - Vocational education and training 17) CalWORKS Activity - Education directly related to employment 18) CalWORKS Activity - Adult basic education 19) CalWORKS Activity - Satisfactory progress in a secondary school 20) CalWORKS Activity - Other activities 21) CalWORKS Activity - Providing childcare to community services participants 22) CalWORKS Activity - Mental health services		

23) CalWORKS Activity - Domestic abuse services 24) CalWORKS Activity - Post-employment/job retention services 25) CalWORKS Activity - Post CalWORKs 48-month service 26) CalWORKS Service – Transportation 27) CalWORKS Service – Ancillary 28) CalWORKS Service – Childcare 1) CalFresh Activity - Job search 2) CalFresh Activity - Job search training 3) CalFresh Activity - Workfare 4) CalFresh Activity - Work experience 5) CalFresh Activity - Education 6) CalFresh Activity - Self-employment training 7) CalFresh Activity - WIOA Activities 8) CalFresh Service - Transportation/ancillary 9) CalFresh Service - Dependent care	
File	
Services	
Collection Dates	
7/1/13 – 6/30/17	

DED#	Data Element Name	Format
038	Employment and Training Service Related to Supplemental Nutritional Assistance Program (SNAP E&T) or Welfare to Work	INT
Definition		
If the participant received employment and training services from the Supplemental Nutritional Assistance Program (SNAP) or the Welfare to Work Program.		
CAAL Skills Field Name		
ETSR		
CAAL Skills Values		
1 = Yes, SNAP E&T 2 = Yes, Welfare to Work 3 = No Leave Blank = Unknown Note: if a participant is eligible to receive services under both programs then the Data Element Format will be VCHAR(5) with a comma separated list of values.		
File		
Services		
Collection Dates		
7/1/13 – 6/30/17		

DED#	Data Element Name	Format
036	Type of Training Service	INT
Definition		
The type of training service assigned to and/or received by the participant.		
CAAL Skills Field Name		
TTS		
CAAL Skills Values *		
0 = No Training Service 1 = On the Job Training 2 = Skill Upgrading 3 = Entrepreneurial Training 4 = ABE or ESL in conjunction with Training (non-TAA funded) 5 = Customized Training 6 = Other Occupational Skills Training 7 = Remedial Training (ABE/ESL – TAA only) 8 = Prerequisite Training 9 = Apprenticeship Training 10 = Other Basic Skills Training (WIA Youth) 11 = Occupational Skills Training (Youth) 12 = Other Non-Occupational-Skills Training 13 - Unspecified Training 97 = Other 98 = Not Applicable 99 = Unknown		
*Actual source value for DOR and CWDA County Partners		
** CWDA County Partner Examples: <ol style="list-style-type: none"> 1) CalWORKS Activity – Appraisal 2) CalWORKS Activity – Assessment 3) CalWORKS Activity – Reappraisal 4) CalWORKS Activity – Job search & job readiness assistance 5) CalWORKS Activity - Unsubsidized employment 6) CalWORKS Activity - Self-employment 7) CalWORKS Activity - Subsidized private sector employment 8) CalWORKS Activity - Subsidized public sector employment 9) CalWORKS Activity - On-the-job training (OJT) 10) CalWORKS Activity - Grant-based on-the-job training (OJT) 11) CalWORKS Activity - Work-study 12) CalWORKS Activity - Supported work or transitional employment 13) CalWORKS Activity - Work experience 14) CalWORKS Activity - Community service 15) CalWORKS Activity - Job skills training directly related to employment 16) CalWORKS Activity - Vocational education and training 		

17) CalWORKS Activity - Education directly related to employment 18) CalWORKS Activity - Adult basic education 19) CalWORKS Activity - Satisfactory progress in a secondary school 20) CalWORKS Activity - Other activities 21) CalWORKS Activity - Providing childcare to community services participants 22) CalWORKS Activity - Mental health services 23) CalWORKS Activity - Domestic abuse services 24) CalWORKS Activity - Post-employment/job retention services 25) CalWORKS Activity - Post CalWORKs 48-month service 26) CalWORKS Service – Transportation 27) CalWORKS Service – Ancillary 28) CalWORKS Service – Childcare 1) CalFresh Activity - Job search 2) CalFresh Activity - Job search training 3) CalFresh Activity - Workfare 4) CalFresh Activity - Work experience 5) CalFresh Activity - Education 6) CalFresh Activity - Self-employment training 7) CalFresh Activity - WIOA Activities 8) CalFresh Service - Transportation/ancillary 9) CalFresh Service - Dependent care
File
Services
Collection Dates
7/1/13 – 6/30/17

Supportive Services

DED#	Data Element Name	Format
064	Type of Supportive Service or Activity	VCHAR(80) Comma Separated List
Definition		
The type of supportive service or activity assigned to and/or received by the participant.		
CAAL Skills Field Name		
TOSS		
CAAL Skills Values *		
Actual source values including "CalWORKs" and "CalFRESH" prefix **		
97 = Other		
99 = Unknown		
*Actual source values collected for CWDA County Partners and DOR.		
** CWDA County Partner Examples:		
1) CalWORKS Activity – Appraisal		
2) CalWORKS Activity – Assessment		
3) CalWORKS Activity – Reappraisal		
4) CalWORKS Activity – Job search & job readiness assistance		
5) CalWORKS Activity - Unsubsidized employment		
6) CalWORKS Activity - Self-employment		
7) CalWORKS Activity - Subsidized private sector employment		
8) CalWORKS Activity - Subsidized public sector employment		
9) CalWORKS Activity - On-the-job training (OJT)		
10) CalWORKS Activity - Grant-based on-the-job training (OJT)		
11) CalWORKS Activity - Work-study		
12) CalWORKS Activity - Supported work or transitional employment		
13) CalWORKS Activity - Work experience		
14) CalWORKS Activity - Community service		
15) CalWORKS Activity - Job skills training directly related to employment		
16) CalWORKS Activity - Vocational education and training		
17) CalWORKS Activity - Education directly related to employment		
18) CalWORKS Activity - Adult basic education		
19) CalWORKS Activity - Satisfactory progress in a secondary school		
20) CalWORKS Activity - Other activities		
21) CalWORKS Activity - Providing childcare to community services participants		
22) CalWORKS Activity - Mental health services		
23) CalWORKS Activity - Domestic abuse services		
24) CalWORKS Activity - Post-employment/job retention services		
25) CalWORKS Activity - Post CalWORKs 48-month service		
26) CalWORKS Service – Transportation		
27) CalWORKS Service – Ancillary		
28) CalWORKS Service – Childcare		

- 1) CalFresh Activity - Job search
- 2) CalFresh Activity - Job search training
- 3) CalFresh Activity - Workfare
- 4) CalFresh Activity - Work experience
- 5) CalFresh Activity - Education
- 6) CalFresh Activity - Self-employment training
- 7) CalFresh Activity - WIOA Activities
- 8) CalFresh Service - Transportation/ancillary
- 9) CalFresh Service - Dependent care

File
Supportive Services
Collection Dates
7/1/13 – 6/30/17

DED#	Data Element Name	Format
065	First Date of Service or Activity	DATE
Definition		
The month, day, and year the participant began receiving a specified service or activity.		
CAAL Skills Field Name		
FDSS		
CAAL Skills Values		
Actual source values		
File		
Supportive Services		
Collection Dates		
7/1/13 – 6/30/17		

DED#	Data Element Name	Format
066	Last Date of Service or Activity	DATE
Definition		
The month, day, and year the participant stopped receiving a specified service or activity.		
CAAL Skills Field Name		
LDSS		
CAAL Skills Values		
Actual source values		
File		
Supportive Services		
Collection Dates		
7/1/13 – 6/30/17		



Data Exchange Specification Requirements

Change Log

Version #	Date	Author	Key Differences
1.0	7/27/17	P. Banas E. Holm	<ul style="list-style-type: none"> CDSS Version
1.01	9/14/17	P. Banas	<ul style="list-style-type: none"> Removed DED # 051 and 053
1.02	9/14/17	P. Banas	<ul style="list-style-type: none"> Added DED # 065 and 066
2.00	1/18/18	E. Holm	<ul style="list-style-type: none"> Removed DED # 031 and replaced with DED # 091 Added CDSS value description to DED # 002. Changed Unknown / Not Applicable date values to “.”
2.01	2/8/18	E. Holm	<ul style="list-style-type: none"> Made revision to Section 5.1 based on CDSS Legal Office feedback
3.00	2/22/19	E. Holm	<ul style="list-style-type: none"> Revised document format based on CAAL-Skills Style Guide Updated overview to reflect the CAAL-Skills program and the second round of data collection Changed DATE format to MM-DD-YYYY Added CDSS participant definition and instructions Added DED# 001, 021, 031, 051, 053, and 135 Updated definition for DED# 065 and 066 Updated format for DED# 004, 005, and 017 Updated code values for DED# 000, 002, 003, 013, 014, 017, 065, and 066 Updated data element name for DED# 065 and 066 Updated field name for DED# 065 and 066 Updated file type for DED# 065 and 066 Changed collection dates to FY 16/17 and 17/18 Add CDSS primary and secondary contact information.
			<ul style="list-style-type: none">
			<ul style="list-style-type: none">

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1. Overview

1.1. Program

Federal and state law required the development of a “State Plan” to address workforce development, training and related challenges. Under the direction of the California Labor and Workforce Development Agency (LWDA) the plan was developed by the California Workforce Development Board (CWDB).

Implementation of the State Plan includes the development of a comprehensive, integrated, interoperable data system that measures and assesses program outcomes in a systematic and efficient manner. The data system’s primary objective will be helping the CWDB and State Plan Partners meet statutorily mandated performance reporting requirements while also developing the State’s capacity to evaluate and assess program success.

This will enable the CWDB and its partners to develop policies which facilitate the movement of people into jobs “providing economic security or job placement in an entry-level job that has a well-articulated career pathway or career ladder to a job providing economic security.”[1] State law defines these jobs as those that provide, “a wage sufficient to support a family adequately, and, over time, to save for emergency expenses and adequate retirement income, based on factors such as household size, the cost of living in the worker’s community, and other factors that may vary by region.”

Workforce development, training, and related education programs provide job-specific training, basic skills education, and related support services to help individuals participate in civic life and the labor market. California spends over \$6 Billion annually on workforce development, training, and related education programs. Over three million people access one or more of California’s workforce development, training, and related education programs annually.

These programs and the data relevant to them are administered by the following organizations:

1. Labor & Workforce Agency
 - a. Employment Development Department – Workforce Services Division
 - b. Employment Development Department – Labor Market Information Division
 - c. Employment Development Department – Tax Branch
 - d. Employment Training Panel
 - e. Department of Industrial Relations, Division of Apprenticeship Standards
 - f. Workforce Development Board
2. Public School System - Department of Education, Career and College Transition Division (includes Career Technical Education and Adult Education)
3. Community College Chancellor’s Office - Technology, Research and Information Systems (TRIS) Division
4. Health & Human Services Agency
 - a. Department of Social Services – CalFresh
 - b. Department of Social Services - CalWORKs
 - c. Department of Rehabilitation
5. County Welfare Directors Association of California
6. California Department of Corrections and Rehabilitation

Workforce development, training, and related education providers are required to report information about their program, program participants, and the participant outcomes. Currently, the outcome measurements and data reported varies from program to program though efforts are underway to align program performance measures. Historically, data collection has been used almost exclusively for oversight and compliance monitoring, yet program and outcome information is essential for effective decision-making. For example:

- State leadership, including the Governor and Legislature, require workforce training and education information that will enable them to develop evidence-based statutes and regulations to facilitate the effective allocation of scarce resources.
- Policy Makers require information regarding significant barriers to employment, such as a significant disability, that may require intensive job preparation.
- Workforce development, training, and related education administrators require information enabling them to evaluate program effectiveness, shape policies, and develop linkages among institutions.
- Teachers and guidance counselors require information to develop curricula, assess and guide students, and create learning plans.
- Workforce professionals require information to identify the remedial needs of students, provide market-informed career counseling, and help clients find jobs.
- Students, parents, and job seekers require information to make informed education, training, and career decisions.

The purpose of the CAAL-Skills program is to develop a comprehensive, integrated, interoperable data system that measures and assesses program outcomes in a systematic and efficient manner. The data system's overarching purpose will be helping the CWDB (and its State Plan partners) meet statutorily mandated performance reporting requirements and align with Workforce Innovation and Opportunity Act (WIOA) of 2014 and AB 1336 requirements. WIOA is a publicly-funded workforce system that is a national network of organizations which provide a range of employment, education, training, and related services and supports - to help jobseekers secure good jobs while providing businesses with the skilled workers they need to compete in the global economy.

The CAAL-Skills program objectives include providing automated functionality that will improve the State's capacity to evaluate and assess Workforce Development programs' success. This will enable the CWDB and its partners to develop policies which facilitate the movement of people into jobs providing economic security or job placement in jobs with a well-articulated career pathway or career ladder to a job providing economic security.

1.2. Objectives

The information required to facilitate effective decision-making as specified in the program overview must:

- Include complete program and participant information;
- Facilitate the tracking of individuals across institutions, through programs and into the labor market;
- Consistently evaluate program measurements and other information and variables across time and between programs;

- Be updated on a regular basis;
- Allow for the analysis of individual and aggregated information;
- Be accessible to State leadership; state and local workforce planning, education administrators and others; and,
- Be secure - the solution, including any data sharing, will comply with applicable state and federal privacy and data security requirements and best practices.

1.3. Metrics

A repository of Cross-System Analytics and Assessment for Learning Skills attainment (CAAL-Skills) data will be created in an environment to meet the above objectives. The primary metrics will be the following:

1.3.1. Aggregation and Reporting Environment

The target reporting environment includes the collection, consolidation and reporting of workforce development, training and related education information from key workforce data partners.

1.3.2. Cross System Tracking

A method will be developed to link individuals across programs even when one or more of the source systems does not include an individual's social security number.

1.3.3. Program History

The targeted environment includes consolidated reporting of an individual's workforce development, training and related education program involvement history.

1.3.4. Employer Needs and Economic Trends

The target environment includes reporting on regional employer needs in comparison to current and planned workforce development, training and related education offerings.

1.3.5. Commonality, Consistency, Compliance

The target system will:

- a. Apply common measures and consistent data-element definitions across programs;
- b. Apply a unique participant identifier that can be used to link an individual appearing in two or more systems;
- c. Invoke a consistent understanding and approach for protecting the personally identifiable information (PII) of program participants;
- d. Simplify the exchange of data; and,
- e. Comply with federal laws, state laws, state regulations and best industry practices for information security and privacy.

1.3.6. Summary

The CAAL-Skills program will create a central repository to host data collected by the program Data Sharing Partners. The data will be utilized to generate information and metrics required by California Unemployment Insurance Code Section 14013, as well as provide a mineable warehouse for further analytics.

1.4. Scope

The scope of the CAAL-Skills program includes receiving data from state and local workforce partners as defined in Data Sharing Agreements.

1.4.1. Partners

This program involves the agencies from across the Workforce services spectrum including education, training, and supportive services. The breadth of participation ensures the data necessary to meet the program requirements and provide a rich data repository. The Data Sharing Partners for the CAAL-Skills program include:

- California Community Colleges Chancellor's Office (CCCCO)
- California Department of Corrections and Rehabilitation (CDCR)
- California Department of Education (CDE)
- California Department of Social Services (CDSS)
- California Department of Industrial Relations (DIR)
- California Department of Rehabilitation (DOR)
- California Employment Development Department – Central Office Workforce Services Division (EDD-COWSD)
- California Employment Development Department – Labor Market Information Division (EDD-LMID)
- California Employment Development Department – Tax Branch (EDD-TAX)
- Employment Training Panel (ETP)

1.4.2. Timeframe

The fiscal years 2013 – 2014 through 2016 – 2017 will be used in the baseline. For clarity, the fiscal years include the following data ranges:

Fiscal Year 2013-2014 (FY13-14) = July 1, 2013 through June 30, 2014

Fiscal Year 2014-2015 (FY14-15) = July 1, 2014 through June 30, 2015

Fiscal Year 2015-2016 (FY15-16) = July 1, 2015 through June 30, 2016

Fiscal Year 2016-2017 (FY16-17) = July 1, 2016 through June 30, 2017

In the second round of data collection, fiscal years 2016 – 2017 and 2017- 2018 will be used to expand the existing dataset. For clarity, the fiscal years include the following data ranges:

Fiscal Year 2016-2017 (FY16-17) = July 1, 2016 through June 30, 2017

Fiscal Year 2017-2018 (FY17-18) = July 1, 2017 through June 30, 2018

If data elements are not available within that timeframe, the partner will be asked to submit the available elements. A method will be developed to link individuals across programs even when one or more of the source systems does not include an individual's social security number.

1.4.3. Core Entities and Attributes

The core entities and attributes present an overview of the data to be gathered and modeled. The higher level in this hierarchy are the core entities – groupings of attributes and/or distinctly separate objects. The lower level in this hierarchy are the attributes – or characteristics of the core entities. *Note: These are concepts not concrete definitions. Some core entities and attributes may not apply to specific Data Sharing Partners.*

- **Fund Source** – Funds used to pay for participant services (e.g. WIOA Title 1 Adult)
- **Partner** – Data Sharing Partner and/or Administrative Agency (e.g. EDD COWSD)
- **Enrollment Organization** – Organization who determines participant eligibility and/or enrollment. May be the same as the Partner. (e.g. Local Workforce Board)
- **Provider** – Organization who offers services to participants. May be the same as the Enrollment Organization or its contractor. (e.g. Onestop)
- **Participant** – Individual who is provided program services. Information includes:
 - Identification
 - Demographics
 - Employment Barriers
- **Services** – Types of services provided to participants.
 - Education and Training Services – Occupational or general education (E.g. Adult Basic Education, Career Technical Education)
 - Career Services – Employment related services (E.g. Resume writing workshop, career counseling)
 - Supportive Services – Services to support program participation (E.g. CalFresh and CalWORKS benefits, transportation, child care)
- **Service Outcomes** – Dates and outcomes of services.
 - Start Date
 - Completion/Withdraw Date
 - Certificate/Skill/Degree Attainment
- **Employment Outcomes** – Labor market outcomes.
 - Employment Attainment
 - Quarterly Wages (Participant income from Tax branch records)

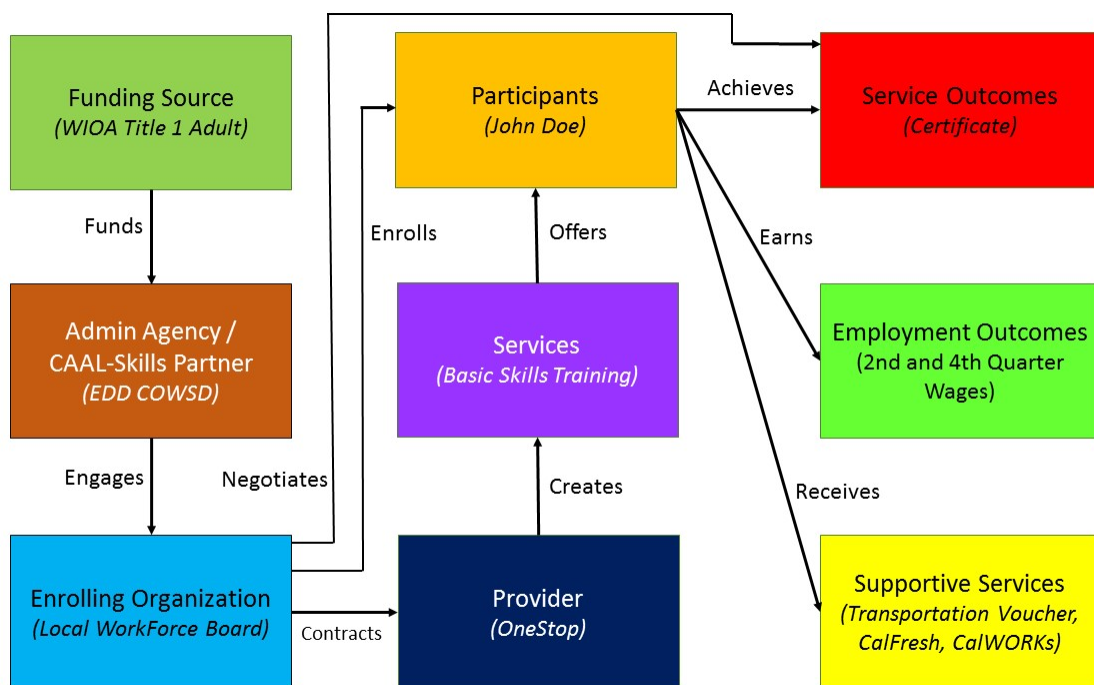
Further details regarding the exact data elements included as attributes and their relationships will be provided in the specification section of this document.

2. Data Diagrams

2.1. Conceptual Data Model

A conceptual data model is a map of concepts and their relationships used for databases. This describes the semantics of an organization and represents a series of assertions about its nature. Specifically, it describes the things of significance to an organization (entity classes), about which it is inclined to collect information, and characteristics of (attributes) and associations between pairs of those things of significance (relationships).

Because a conceptual schema represents the semantics of an organization, and not a database design, it exists on various levels of abstraction. The conceptual data model for the CAAL-Skills program is below. It is offered to assist in an overall understanding of the types of data to be collected and their relationships.



Each of the above entities (blocks) in the conceptual model may be represented in the data extracted from the CAAL-Skills partner's source systems and transferred to the CAAL-Skills Program Management Team for integration into the central workforce and outcomes repository. Not all partners will offer all entities or data elements, just those related to their services and/or benefits.

3. Data Elements

3.1. Data Types

A data type or simply “type” is a classification of data which tells the database, application, compiler, interpreter, or alternative data store how the programmer or administrator intends to use the data. Modern programming languages and data stores support various types of data (i.e. real, integer, or Boolean). A data type provides a set of values from which an expression (i.e. variable, function) may take its values. The type defines the operations that can be done on the data, the meaning of the data, and the way values of that type can be stored.

The CAAL-Skills program will utilize a limited subset of available data types to reduce complexity and simplify the formatting process for moving data from the source system to the secure data transfer device. Below are the four basic data types and their formats:

- **Variable Character (VCHAR)** – For storing variable length alpha-numeric data.
(E.g. Last Name)
- **Integer (INT)** – For storing numeric values not requiring fixed precision or scale.
(E.g. Postal Code)
- **Numeric (NUM)** – For storing numeric values requiring fixed precision and scale.
(E.g. \$1,432.10)
Note: Precision is the number of digits in a number. Scale is the number of digits to the right of the decimal point in a number. For example, the number 123.45 has a precision of 5 and a scale of 2.
- **Date (DATE)** – For storing month, day, and year.
(E.g. 01-18-2015)

3.1.1. Maximum Lengths

The maximum length of a given data element will be specified within Section 8, Data Element Dictionary, for VARCHAR, INT, NUM data types. All elements will be considered variable length and will not require left or right padding utilizing spaces, special characters, or zero-filled positions.

Data which exceed the maximum length should be truncated to meet the requirements of that particular data element. An example of each data type is listed below:

- Variable Character (VCHAR)
 - Data Element: Last Name
 - Maximum Length: 40 characters
 - Format: VCHAR (40)
 - Examples: SMITH, JOHNSON-KEENER
- Integer (INT)
 - Data Element: Postal Code
 - Maximum Length: 9 positions
 - Format: INT
 - Examples: 94518, 10027, 85602-1023

- Numeric (NUM)
 - Data Element: 2nd Quarter Earnings
 - Maximum Length: 9 precision, 2 scale
 - Format: NUM (9,2)
 - Examples: \$1437.99 , \$7,210.33

3.1.2. Null Values

Data elements included in the specification for which values do not exist in the source system or cannot be translated using the data element cross reference should be left blank as noted in the CSV file format of: "DataElement1" || "DataElement3". Do not include spaces, double quotes without enclosed values, zeroes, or other special characters. The presence of the field separators without data will be sufficient for the target system in CAAL-Skills to determine the lack of a value for a given data element.

3.1.3. Currency

Currency values should be treated as numeric (NUM) with precision and scale. Do not include currency symbols in the field.

3.1.4. Case

All alphabetic characters should be rendered in the upper or majuscule case. Do not provide lower or mixed case in VCHAR elements.

3.1.5. Date Format

The DATE data type should include only month, day, and year. It should not include timestamps. The format for DATE data types is: MM-DD-YYYY. The only exception to zero filling/padding of fields occurs in this format. Single digit months (January – September) should be left zero padded as should single digit days (1-9). For example "01-15-2018".

3.1.6. Binary Values

The data specification requirement defines binary values such as Veteran Status (Vet/Not a Vet). A value of 1 will be used to signify a positive response and a value of 0 will be used to signify a negative response. To provide the most flexibility for future program data, these data elements will utilize an INT data type.

3.1.7. Unknown/Not Applicable/Other Values

For "Unknown" values will utilize "99" to clearly note that response. For "Not Applicable" values will utilize "98". "Other" values, that is values outside of the list provided, will utilize "97". Note: These values are appropriate for INT and VCHAR data types.

3.1.8. Field Formatting

Formatting of special use numeric and dates should only be performed if specified. Social Security Numbers should just utilize the integers not the typical format: XXX-XX-XXXX. Phone numbers should not include spaces, parentheses, and dashes: (XXX) XXX-XXXX. All fields should contain the numeric or alpha characters only, unless otherwise specified.

3.1.9. Reference Codes

Due to the multiple source data systems for the CAAL-Skills repository, we will request reference or translation codes for some data elements to standardize responses and quickly assimilate source data into the repository. Those reference codes will be noted in each element. In some cases, multiple source data elements will map to a single CAAL-Skills reference code.

CAAL Skills values (as noted in the data dictionary) will be assigned to each data element. These values are recommended be used and collected for the CAAL Skills data repository. By establishing universal values, and cleansing the data to record those values, the data can be linked amongst the programs.

The values recommended identify the available options for the data element, including if the data element is not applicable or unknown to the Partner. The recommended values take into account the current values used by the Partners and provides for the least amount of data cleansing.

3.2. Identifiers and Definitions

Each data element in Section 8, Data Element Dictionary, will include a CAAL-Skills data element unique identifier, descriptive name, and full description of the element. These are provided for discussion and reference purposes only. This information should not be included in the data provided to the CAAL-Skills Program Management Team.

3.3. Data Element Name

Each data element in Section 8, Data Element Dictionary, will include a unique, concatenated CAAL-Skills data element name which is to be used in the header row of each file to identify the data associated with that element. As noted in the section above describing the CSV file format, the header row should contain a list of all data elements included in the file, in the order of appearance on the row line, and separated by a pipe (|) character.

3.4. Date Range

The scope of the data requested from the Data Sharing Partners will be specific for each partner and each data element. Please refer to the matrix at the beginning of Section 8, Data Element Dictionary. If the data is unavailable for a portion of the requested time frames, please provide only the available time frames in the data files sent to the CAAL-Skills Program Management Team. Inserting blank rows for incomplete or missing calendars years is not required.

3.5. Data Relationships

3.5.1. Primary and Foreign Keys

In order to capture and maintain the relationship between core entities, the Data Sharing Partners will be asked to include their internal identifier for data elements (noted as Primary or Foreign keys) to generate unique and consistent identifiers for those elements. The identifiers may be numeric or alphanumeric. We will also request the original identifier for some data elements, but those will be considered distinctly separate data elements.

3.5.1.1. Participant Example

The example below assumes a participant, John Doe, with a unique source system identifier of K109-0563 was enrolled in Career Technical Education at Sacramento City College in the

September 1, 2015. Further, the participant completed this education by the end of December 30, 2015.

Participant: John Doe, ID #K109-0563 (Unique Participant ID* from source system)

Service: Career Technical Education - 9/1/15 (Training Program Code # 123456)

Location: Sacramento Community College (Location # 489)

Service Outcome: Certificate Attained - 12/30/15

In the above example, the Data Sharing Partner could use the Source System ID within all three entities to identify John Doe.

Participant Entity: John Doe, K109-0563, 3835 Freeport Blvd, Sacramento, CA

Services Entity: K109-0563, RW013, 489, 9/01/2015

Services Outcome Entity: K109-0563, RW013, 489, 12/31/2015

**The unique Participant ID may be the original source system identifier or a unique identifier created during the extraction process and maintained throughout the course of the data file creation.*

4. Data Extraction

4.1. File Format

The program will leverage the lowest-common-denominator in file formats to receive data from the Partners. Formats that use delimiter-separated values (DSV) store two-dimensional arrays of data by separating the values in each row with specific delimiter characters. Most database and data store programs are able to read or save data in a delimited format. Due to their wide support, DSV files can be used in data exchange among many applications and systems.

A delimited text file is a text file used to store data, in which each line represents a single row or record, and each line has fields separated by the delimiter. Compared to the type of flat file that uses spaces to force every field to the same width, a delimited file has the advantage of allowing field values of any length.

Any character may be used to separate the values, but the most common delimiters are the comma, tab, and colon. The vertical bar (also referred to as pipe) and space may also be used. In a comma-separated values (CSV) file the data items are separated using commas as a delimiter, while in a tab-separated values (TSV) file, the data items are separated using tabs as a delimiter. Column headers are sometimes included as the first line, and each subsequent line is a row of data. The lines are separated by newlines or carriage returns (CR/LF)

This program will reference the Internet Engineering Task Force (IETF) standard identified by the Request for Comment document RFC 4180. A Request for Comments (RFC) is a formal document from the IETF that is the result of committee drafting and subsequent review by interested parties. Some RFCs are informational in nature. Of those that are intended to become Internet standards, the final version of the RFC becomes the standard and no further comments or changes are permitted. Change can occur, however, through subsequent RFCs that supersede or elaborate on all or parts of previous RFCs. The full specification is documented here: <https://tools.ietf.org/html/rfc4180>

This program will deviate slightly from the standards published in RFC 4180 by replacing the comma used as a field separator with a pipe (|) character. This modification will accommodate commas within the fields. The full specification for the file is listed in the next section.

4.2. File Specification

4.2.1. Character Encoding

The character encoding scheme for the files to be exchanged will be UTF-8. It is a character encoding scheme capable of encoding all possible Unicode code points. The encoding is defined by the Unicode standard with the full standard listed here:

<http://www.unicode.org/versions/Unicode6.0.0>

The encoding is variable-length and uses 8-bit code units. It was designed for backward compatibility with ASCII and to avoid the complications of endianness and byte order marks in the alternative UTF-16 and UTF-32 encodings.

4.2.2. Character Case

All alphabetic characters are to be generated in upper case also referred to as majuscule. Mixed case and lower case within the source data should be converted to upper case for the extract files.

4.2.3. Implementation of Delimited Separated Values

The specifications for implementing delimited separated values are as follows:

1. Each field (data element) is to be separated by a pipe (|) character. Unicode UTF-8 standards refer to this character as the “vertical line”. It is officially the 0x7C hex character also represented as U+007c. For example:

```
aaa | bbb | ccc
```

Note: Spaces between the data values and the delimiter are not necessary and should not be included – the spaces in the example above are for clarity’s sake only.

2. Each record is located on a separate line, delimited by a line break (CRLF). For example:

```
aaa | bbb | ccc CRLF  
zzz | yyy | xxx CRLF
```

3. The last record in the file should not have an ending line break. For example:

```
aaa | bbb | ccc CRLF  
zzz | yyy | xxx
```

4. There should be a header line appearing as the first line of the file with the same format as normal record lines. This header will contain names corresponding to the fields in the data specification (column titled “Field Name”) and should contain the same number of fields as the records in the rest of the file. For example:

```
field_name1 | field_name2 | field_name3 CRLF  
aaa | bbb | ccc CRLF  
zzz | yyy | xxx CRLF
```

5. Within the header and each record, there may be one or more fields, separated by commas. Each line should contain the same number of fields throughout the file. Spaces are considered part of a field and should not be ignored. The last field in the record must not be followed by a comma. For example:

```
aaa | bbb | ccc
```

6. Each field should not be enclosed in double quotes unless the field contains the delimiter as valid data within that field. If fields are not enclosed with double quotes, then double quotes may not appear inside the fields. For example:

```
"aaa|" | "|bbb" | "c|cc" CRLF  
zzz | yy | xxx
```

7. Fields containing line breaks (CRLF), double quotes, and pipes should be enclosed in double-quotes. For example:

```
"aa""a" | "b CRLF bb" | "c|cc" CRLF  
Zzz | yy | xxx
```

8. If double-quotes are used to enclose fields, then a double-quote appearing inside a field must be escaped by preceding it with another double quote. For example:

```
aaa | "b""bb" | ccc
```

9. The Augmented Backus-Naur Form (ABNF) grammar appears as follows:

- file = [header CRLF] record *(CRLF record) [CRLF]
- header = name *(PIPE name)
- record = field *(PIPE field)
- name = field
- field = (escaped / non-escaped)
- escaped = DQUOTE *(TEXTDATA / PIPE / CR / LF / 2DQUOTE) DQUOTE
- non-escaped = *TEXTDATA
- PIPE = 0x7C
- CR = %x0D

10. Security considerations: DSV files contain passive text data that should not pose any risks. However, it is possible in theory that malicious binary data may be included in order to exploit potential buffer overruns in the program processing DSV data. All DSV files received by the program will undergo CRC, virus, malware, and malicious code detection and quarantine (if necessary) prior to extracting.

4.2.4. File Encryption

The devices utilized to copy and/or extract the source data files at the partner facilities, host those files in transit, and load the file contents into the CAAL-Skills central repository will be encrypted with full-disk AES 256-bit hardware-based encryption. More details on the devices will be offered in a following section. Due to the use of hardware-based encryption the data files will not require additional encryption.

4.2.5. File Organization

Each entity identified in the Conceptual Data Model will be represented by one or more files. The contents of each file will be the elements (fields) listed in Section 8, Data Element Dictionary. The entities are as follows:

1. Funding Source
2. Administrative Agency / Partner
3. Enrolling Organization
4. Provider
5. Services
6. Participants
7. Supportive Services
8. Services Outcomes
9. Employment Outcomes

Data Sharing Partners will generate only the files applicable to their organizations. The actual elements for each file will be determined by the “File” classification field for each data element. For example:

Data Element: Participant First Name

File: Participants

Data Element: Provider Postal Code

File: Providers

4.2.6. File Sizing

The encrypted data transfer devices will have a 64 GB capacity which will be sufficient to host and transport the requested information. Maximum file sizes are indicated as a matter of ease of handling and importation by the CAAL-Skills data integration system. Data Sharing Partners are encouraged to utilize file sizes which accommodate their source systems and data extraction processes – that is to say, if smaller files are more easily generated and managed then the Data Sharing Partners may further reduce these recommended sizes as needed. Minimum file sizes are listed below to ensure files are concatenated to improve efficiency in the data sharing processes.

ID	Entity / File Classification	Maximum Size	Minimum Size
1	Funding Source	250MB	1KB
2	Admin Agency / Partner	250MB	1KB
3	Enrolling Organization	250MB	1KB
4	Provider	250MB	1KB
5	Services	250MB	1KB
6	Participants	250MB	1KB
7	Supportive Services	250MB	1KB
8	Services Outcomes	250MB	1KB
9	Employment Outcomes	250MB	1KB

4.2.7. File Naming and Sequencing

The file naming and sequencing conventions for the program will assist in identifying the files both at the source as they are created and placed on the encrypted transfer device and when they are received by the CAAL-Skills Program Management Team.

File Naming will identify the following characteristics of each file transmitted. Again, not every Data Sharing Partner will generate every file type listed. Within the Naming Format the etymology reference is: "X" = alpha character (A-Z only), 'N' = numeric (integer), and MM-DD-YYYY = date. A number (1-10) following the alpha character or "X" in the naming format indicates a fixed length. Multi-positional numeric or integers should be left zero filled (e.g. 001, 013). All file characteristics will be separated by a single underscore (_). All file names should be in upper case or majuscule.

Position	File Characteristic	Naming Format	Default Value
1	CAAL-Skills Program	XXN	CS1
2	Date of File Creation	MM-DD-YYYY	N/A
2	Entity or File Classification*	XXXX	N/A
3	Sequence of Entity or File Classification (for multiple files)	NNN	001
4	CAAL-Skills Request ID	XNN	R01
5	File Extension	XXX	CSV
6	Data Sharing Partner – <i>this is not included as the data transfer device will indicate the partner</i>		
*	For naming refer to the chart below		

ID	Entity / File Classification Naming	File Characteristic
1	Funding Source	FUND
2	Administrative Agency / Partner	AAPA
3	Enrolling Organization	ENRO
4	Provider	PROV
5	Services (training and education)	SERV
6	Supportive Services	SUPP
7	Participants	PART
8	Service Outcomes	OUTC
9	Employment Outcomes	WAGE

Examples of file naming are listed below to assist in clarifying the requirements:

File Information: Participant Data, Created on July 10, 2017, File #1

File Name: CS1_07-10-2017_PART_001_R01.CSV

File Information: Participant Data, Created on July 10, 2017, File #2

File Name: CS1_07-10-2017_PART_002_R01.CSV

File Information: Benefits Data, Created on June 24, 2017, File #1

File Name: CS1_06-24-2017_BENE_001_R01.CSV

4.2.8. Folder Structure

The data sharing device will be provided with an intact and program specific folder structure. There will be a top-level folder containing documentation or help files from the CAAL-Skills Program Management Team. Those folders will be created as Read-Only. The other top-level folder will be target location for the files generated by the Data Sharing Partners. This folder will be Read-Write). All files should be placed with the Partners folder without utilizing additional, supplemental, or sub-tier folders – that is, no folders should be added to the existing folder hierarchy.

CAAL-Skills Folder (read only): \CAAL-Skills Partner Source Data Folder (read-write): \Data

4.3. Data Transfer

4.3.1. Introduction

The CAAL-Skills program will facilitate data transfer from the source systems (Data Sharing Partner) to the target system (CAAL-Skills repository) utilizing program staff to physically distribute, collect, and secure the data transfer media. Future implementations of the data exchange process may involve electronic means. The data transfer media devices will be high capacity, encrypted Universal Serial Bus (USB) version 2.0 and 3.1 compatible, portable drives. The drives will include a physical encryption key which will encrypt the entire contents of the drive. The key will be unique for each data sharing partner – known only to the receiving staff and the CAAL-Skills Technical Architect and Program Manager. The devices will be secured on-site at the program office.

4.3.2. Device

The program will purchase and distribute to the Data Sharing Partners the Kingston DataTraveler 2000 USB drive also known as the DDT2000 for data transfer from the source system to the target system. The drive will have a capacity of 64GB. It is designed to be secure, with an alphanumeric keypad that locks the drive with a word or number combination, for easy-to-use PIN protection. Each Data Sharing Partner will have a unique PIN associated with their device. The DT2000 auto- lock feature is activated when the drive is removed from a device and it deletes the encryption key after 10 failed intrusion attempts. DT2000 features hardware-based, full disk AES 256-bit data encryption in XTS mode (see diagram below). Encryption is accomplished on the drive, not on the host computer system, and no trace of the PIN is left on the host system. DataTraveler 2000 is operating system independent and can be used on any device with a USB 2.0 or USB 3.1 Gen1 (USB 3.0) port. It's compatible with Windows®, Mac® OS, Linux, Chrome OS, and Android. The drive requires no additional software or drivers. It is FIPS 197 certified, to meet the most stringent IT security requirements for

data encryption and transfer. The DT2000 enclosure is a durable design which protects the drive from everyday elements such as water and dust.



Complete specifications for the device are listed here:

- Interface: USB 3.1 Gen 1 (USB 3.0)
- Capacities: 16GB, 32GB & 64GB
- Speed: USB 3.1: 16GB: 120MB/s read, 20MB/s write 32GB: 135MB/s read, 40MB/s write 64GB: 135MB/s read, 40MB/s write
 - USB 2.0: 16GB: 30MB/s read, 20MB/s write 32GB: 30MB/s read, 20MB/s write 64GB: 30MB/s read, 20MB/s write
- Dimensions (drive with sleeve): 80mm x 20mm x 10.5mm
- Dimensions (drive without sleeve): 78mm x 18mm x 8mm
- Waterproof/Dustproof Certified: to IP57 rating
- Compatibility: USB 3.0 compliant and 2.0 compatible
- Operating Temperature: 0°C to 40°C
- Storage Temperature: -20°C to 60°C
- Minimum System Requirements: USB 3.0 compliant and 2.0 compatible
- Compatible with: Windows® 10, Windows 8.1, 8, 7 (SP1), Vista® (SP2), Mac OS X v. 10.9.x+, Linux v. 2.6.x+, Chrome OSTM, Android3

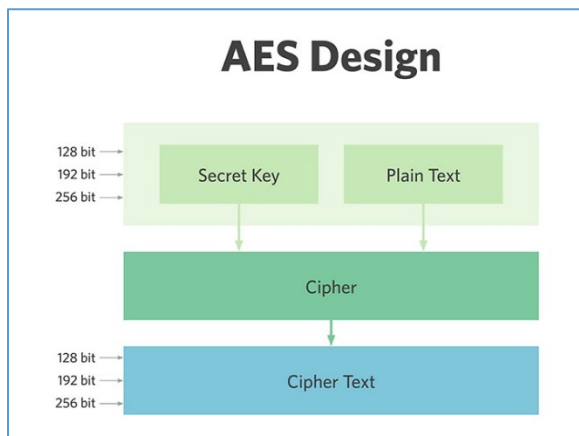
4.3.3. Advanced Encryption Standard (AES)

The Advanced Encryption Standard (AES), also known by its original name Rijndael is a specification for the encryption of electronic data established by the U.S. National Institute of Standards and Technology (NIST) in 2001.

AES has been adopted by the U.S. government and is now used worldwide. It supersedes the Data Encryption Standard (DES), which was published in 1977. The algorithm described by AES is a symmetric-key algorithm, meaning the same key is used for both encrypting and decrypting the data.

In the United States, AES was announced by the NIST as U.S. FIPS PUB 197 (FIPS 197) on November 26, 2001. This announcement followed a five-year standardization process in which fifteen competing designs were presented and evaluated, before the Rijndael cipher was selected as the most suitable. AES became effective as a federal government standard on May 26, 2002, after approval by the Secretary of Commerce. AES is included in the ISO/IEC 18033-3 standard.

The Kingston Data Traveler DT2000 features hardware-based, full disk AES 256-bit data encryption in XTS mode. Encryption is done on the drive and no trace of the PIN is left on the system.



4.3.4. Federal Information Processing Standards Certification

The Federal Information Processing Standards (FIPS) are U.S. government standards for information technology and computer security. The FIPS program is run by the National Institute of Standards (NIST). NIST FIPS 140 is the cryptography standard program required by the US federal government for protection of sensitive data. All products using cryptography in use by civilian and military US federal agencies must comply with FIPS 140. The current FIPS version is 140-2.

Obtaining FIPS 140 validation requires a rigorous testing process by an accredited testing laboratory. The results are then reviewed by the National Institute of Standards and Technology (NIST) which issues a FIPS 140 validation certificate. The certificates and policies for the DT2000 generation 1 and 2 devices are listed below:

Product Name	DT2000 Gen2	DT2000 Gen1
Firmware Version	3.05	3.05
FIPS certificate	#2307	#2371
Security Policy	#2307	#2371
FIPS AES certificate	#2838	#2838
FIPS SHS certificate	#2379	#2379
FIPS RSA certificate	#1480	#1480
FIPS DRBG certificate	#494	#494
FIPS RNG certificate		
FIPS HMAC certificate	#1779	#1779

4.3.5. Hardware Encryption

Hardware-based encryption as built into the device indicated above is notably transparent to the user. The symmetric encryption key is maintained independently from the CPU, thus removing computer memory as a potential attack vector. The drive except for boot-up authentication operates just like any drive with no degradation in performance. There is no complication or performance overhead, unlike disk encryption software, since all the encryption is invisible to the operating system and the host computers processor.

Hardware based encryption offers these benefits:

- Uses a dedicated processor physically located on the encrypted drive
- Processor contains a random number generator to generate an encryption key, which the user's password will unlock
- Increased performance by off-loading encryption from the host system
- Safeguard keys and critical security parameters within crypto-hardware
- Authentication takes place on the hardware
- Encryption is tied to a specific device, so encryption is "always on"
- Does not require any type of driver installation or software installation on host PC
- Protects against the most common attacks, such as cold boot attacks, malicious code, brute force attack

4.3.6. Device Format

The Kingston Data Traveler 2000 USB encrypted drive will be formatted in a Windows NTFS 5.0 or later file system. This system is compatible with Windows 7, 8, 10, Windows Server editions, as well as Ubuntu and Red Hat Linux 6.x. The file system will not be encrypted (encryption will be applied at the hardware level) and will not be compressed. The file system should not be altered nor the device re-formatted by the Data Sharing Partners.

NTFS 5 was chosen over FAT32 and FAT16 due to the improved file handling capabilities and capacities as noted below:

Criteria	NTFS5	FAT32	FAT16
Operating System Capability	Windows 2000 Windows XP Windows 2003/5/8/12/16 Server Windows Vista Windows 7 Windows 8 Windows 10	DOS v7 and higher Windows 98 Windows ME Windows 2000 Windows XP Windows 2003 Server Windows Vista Windows 7	DOS All versions of Microsoft Windows
Max Volume Size	2^{64} clusters – 1 cluster	32GB for all OS. 2TB for some OS	2GB for all OS. 4GB for some OS
Max Files on Volume	4,294,967,295 $2^{32} - 1$	4194304	65536

Max File Size	2 ^ 64 bytes (16 ExaBytes) minus 1KB	4GB minus 2 Bytes	2GB (Limit Only by Volume Size)
Max Clusters Number	2 ^ 64 clusters – 1 cluster	4177918	65520
Max File Name Length	Up to 255	Up to 255	Standard - 8.3 Extended - up to 255
Unicode File Names	Unicode Character Set	System Character Set	System Character Set
System Records Mirror	MFT Mirror File	Second Copy of FAT	Second Copy of FAT
Boot Sector Location	First and Last Sectors	First Sector and Copy in Sector #6	First Sector
File Attributes	Standard and Custom	Standard Set	Standard Set
Alternate Streams	Yes	No	No
Compression	Yes	No	No
Encryption	Yes	No	No
Object Permissions	Yes	No	No
Disk Quotas	Yes	No	No
Sparse Files	Yes	No	No
Reparse Points	Yes	No	No
Volume Mount Points	Yes	No	No
Built-In Security	Yes	No	No
Recoverability	Yes	No	No
Performance	Low on small volumes High on Large	High on small volumes Low on large	Highest on small volumes Low on large
Disk Space Economy	Max	Average	Minimal on large volumes
Fault Tolerance	Max	Minimal	Average

4.3.7. Device Identification

Each Kingston Data Traveler DT2000 will be serialized with the serial number appearing in a 24 character, 2D bar-code readable element on the case. The serial numbers will be unique and correspond to each Data Sharing Partner. Also, the drive will include a folder titled “\CAAL-Skills” containing the name of the Data Sharing Partner. The CAAL-Skills Program Management Team will maintain an inventory of the devices, serial numbers, assignments (to Data Sharing Partners) and a complete and current log of the chain of custody. Finally, the devices will be stored in a locked, fireproof safe in the CWDB facilities.

4.3.8. Device Loading

The actual steps for placing the CAAL-Skills formatted files on the device from the source system are a combination of steps and processes from the Data Sharing Partner’s Information Technology (DSP-IT) transfer standards and the CAAL-Skills program. In the steps below, those where the owner/responsible party are identified as “*DSP-IT proprietary*” are recommendations only and should conform to the DSP-IT data transfer standards, policies, and procedures.

1. Remove the protective cover from the Kingston Data Traveler 2000 USB encrypted drive.
2. Enter the assigned PIN (unique to each Data Sharing Partner and noted on the chain of custody form) via the keypad on the Kingston Data Traveler 2000 encrypted drive to unlock the drive and decrypt the contents
3. Insert the Kingston Data Traveler 2000 drive into a desktop or server with access to the CAAL-Skills formatted files.
4. Copy all requested files into the \Data folder on the Kingston Data Traveler 2000 drive. *DSP-IT proprietary.*
5. Using the operating system appropriate procedures eject the device from the USB port to ensure the files are written and properly closed. *DSP-IT proprietary.*
6. Upon removal, press the “Lock” button on the Kingston Data Traveler 2000 drive to encrypt the contents.
7. Insert the Kingston Data Traveler 2000 encrypted drive into the sleeve and follow the Chain of Custody process.

4.3.9. Device Chain of Custody

Chain of custody defines the processes, procedures, and forms to manage, track, and document the transfer of the CAAL-Skills program requested information from the Data Sharing Partners. The chain includes: the initial transfer of the encrypted data device from CAAL-Skills to the partner, the return of the device with the requested data, and the receipt of the device and internal secured storage of the device within the CAAL-Skills Program Management Team.

The standard for this program will be based on the United States Department of Commerce’s National Institute of Standards and Technology (NIST) “Computer Security Handling Guide” Special Publication 801-61 Revision 2. Specifically, this document will reference the section “Coordination and Information Sharing” and the NIST Chain of Custody Tracking Form. As shown on the next page: :

Data Transfer Device #: _____

CAAL-Skills Pilot Project
DATA DEVICE CHAIN OF CUSTODY TRACKING FORM

Data Sharing Partner (agency): _____
Location of Device (address): _____
Primary Contact Name: _____
Primary Contact Phone: _____
Primary Email Address: _____
Alternate Contact Name: _____
Alternate Contact Phone: _____
Alternate Email Address: _____

Description of Device		
Item #	Quantity	Description of Item (Model, Serial #, External Condition)

Chain of Custody				
Item #	Date/Time	Released by Data Sharing Partner (Print and Sign)	Received by CAAL-Skills Staff (Print and Sign#)	Comments/Location

DATA DEVICE CHAIN-OF-CUSTODY TRACKING FORM (Continued)

Chain of Custody				
Item #	Date/Time	Released by Data Sharing Partner (Print and Sign)	Received by CAAL-Skills (Print and Sign#)	Comments/Location



Final Disposal Authority

Authorization for Disposal

Item(s) #: _____ on this document pertaining to (suspect): _____
is/are no longer needed for information transfer and is/are authorized for disposal by (check appropriate disposal method)

☐ Return to Owner ☐ Auction/Destroy/Divert

Name of Authorizing Owner: _____ Signature: _____ Date: _____

Witness to Destruction of Evidence

Item(s) #: _____ on this document were destroyed by Evidence Custodian _____
in my presence on (date) _____

Witness to destruction: _____ Signature: _____ Date: _____

This Evidence Chain-of-Custody form is to be retained as a permanent record by the CAAL-Skills project and
California Workforce Development Board staff.

Essentially, whenever the data device changes ownership, that change should be reflected in the above form.

5. Other Program Agreements

5.1. Data Sharing & Preparation Agreements

Each Data Sharing Partner will be party to a Data Sharing Agreement and a Data Preparation Agreement, which outline the terms, scope, costs, and timing of source data extracts for the CAAL-Skills system. The CAAL-Skills Program Management Team will work directly with the Partner's assigned information technology staff to prepare the source data extracts. Once the agreements have been signed / agreed to by all parties, the source data will be officially requested from the partner.

6. Partner Response

6.1. High Level Tasks

The following tasks are to be completed by the Data Sharing Partner within two weeks of executing a Data Sharing Agreement and a Data Preparation Agreement with the CWDB.

ID	Task
1	Engage Resources for Data Extraction
2	Generate and Transfer Final Data Files

7. Contact Information

7.1. CAAL-Skills Program – Chief Technical Architect

Paul Banas
California Workforce Development Board
800 Capitol Mall, Suite 1022
Sacramento, CA 95814
(916) 657-1483 desk
(916) 657-1381 fax
(616) 206-0727 mobile
paul.banas@cwdb.ca.gov

7.2. CDSS - Primary Technical Contact

Brittney Gossard
Research Data Specialist II
CDSS – Administration Division / Fiscal Forecasting & Policy Branch
916-654-1208 (desk)
916-248-0255 (mobile)
Brittney.Gossard@dss.ca.gov

7.3. CDSS - Alternate Contact (Program Policy)

Damien Ladd
CalWORKs Employment Bureau Chief
CDSS – Family Engagement & Empowerment Division
(916) 654-1451 (desk)
Damien.Ladd@dss.ca.gov

8. Data Element Dictionary

8.1. Introduction

Each data element will be presented on a separate page with the following attributes:

1. **DED#** - The unique Data Element Dictionary number
2. **Data Element Name** – The descriptive name of data element
3. **Format** – The element’s data type, length, precision, and scale
4. **Definition** – The full definition of the data element
5. **Field Name** – The field to be inserted in the header row of the data exchange file
6. **Code Values** – The expected values for the data element

Note: In some cases, there will be a translation or cross reference table listed, others will note the “actual source value” in which case the source system’s fully qualified value should be inserted.

Fully qualified = the full descriptive name rather than the source system code.

For example: a valid value for Ethnicity/Race would be “Hispanic / Latino”, not the internal code or representation “001”.

7. **File Type** – The name of the file grouping identified in Section 4.2.7.
8. **Collection Dates** – The date range to be provided for the data element

1		2	3
	DED#	Data Element Name	Format
	005	Social Security Number	INT
4	Definition		
	The social security number assigned to the participant.		
5	Field Name		
	SSN		
6	Code Values		
	Actual source value 97 = Other 98 = Not Applicable 99 = Unknown		
7	File Type		
	Participants		
8	Collection Dates		
	7/1/16 – 6/30/18		

Partner / Program Identification

Adult participant data is requested for the following CDSS programs: CalFresh, CalWORKS, Welfare to Work, and SNAP E&T. An adult participant is an individual, who (1) is eligible to receive career, training, or supportive services from one or more of these programs and (2) was 18 years of age or older at the first date of service (eligibility start date / date of program entry).

Please include adult participant records only. Please do not include data on individuals who (1) are ineligible for these programs or (2) were younger than 18 years of age at the first date of service (eligibility start date).

Please provide one data file for CDSS for each Fiscal Year, with all required data elements indicated for each program.

DED#	Data Element Name	Format
000	Partner ID	INT
Definition		
The internally assigned two-digit code for each Data Sharing Partner / Administrative Agency.		
Field Name		
AAID		
Code Values		
1 = California Department of Education 2 = California Department of Rehabilitation 3 = California Department of Industrial Relations 4 = California Community Colleges Chancellor's Office 5 = California Department of Social Services 6 = Employment Training Panel 7 = California Employment Development Department – Central Office Workforce Services Division 8 = California Employment Development Department – Labor Market Information Division 9 = California Employment Development Department – Tax Branch 10 = County Welfare Director's Association of California (CWDA) - Napa County 11 = County Welfare Director's Association of California (CWDA) - Monterey County 12 = County Welfare Director's Association of California (CWDA) - Stanislaus County 13 = California Department of Corrections and Rehabilitation (CDCR) 97 = Other 98 = Not Applicable 99 = Unknown		
File Type		
Administrative Agency / Partner		
Collection Dates		
7/1/16 – 6/30/18		

DED#	Data Element Name	Format
001	Program ID	VCHAR(10) Comma Separated List
Definition		
The internally assigned code for each program.		
Field Name		
PGID		
Code Values		
1 = WIOA Title I (Adult) 2 = WIOA Title I (Dislocated Worker) 3 = WIOA Title I (Youth) 4 = WIOA Title II 5 = WIOA Title III 6 = WIOA Title IV 7 = Trade Adjustment Assistance 8 = Career Technical Education 9 = Apprenticeship 10 = CalFresh 11 = CalWORKs 12 = Incumbent Worker Training 13 = Welfare to Work 14 = SNAP E&T 15 = Inmate Jobs 16 = Inmate Industry 17 = Inmate Education 18 = Inmate Self-Help 19 = Inmate Informal 97 = Other 98 = Not Applicable 99 = Unknown		
<p><i>Note: For the CDSS, this data will need to be derived using the Fund Source data element and the MEDS file, If the participant is in the MEDS file AND the Fund Source is recorded as:</i></p> <ul style="list-style-type: none"> ○ Value 1 (WIOA Title I (Adult)), record value 1 (WIOA Title I (A)) ○ Value 2 (WIOA Title I (Dislocated Worker)), record value 2 (WIOA Title I (DW)) ○ Value 3 (WIOA Title I (Youth)), record value 3 (WIOA Title I (Y)) ○ Value 4 (WIOA Title II), record value 4 (WIOA Title II) ○ Value 5 (WIOA Title III), record value 5 (WIOA Title III) ○ Value 6 (WIOA Title IV), record value 6 (WIOA Title IV) ○ Value 7 (CalWORKS), record value 11 (CalWORKS) ○ Value 7 (CalWORKS) AND the participant is in the WDTIP file, record value 13 (Welfare to Work) ○ Value 8 (CalFresh), record value 10 (CalFresh) ○ Value 8 (CalFresh) AND the participant is in the SNAP E&T file, record value 14 (SNAP E&T) ○ Value 9 (TAA), record value 7 (TAA) ○ Value 97 (Other), record value 97 (Other) 		

<ul style="list-style-type: none">○ <i>Value 98 (Not Applicable), record value 98 (Not Applicable)</i>○ <i>Value 99 (Unknown), record value 99 (Unknown)</i>
File Type
Funding Source
Collection Dates
7/1/16 – 6/30/18

DED#	Data Element Name	Format
002	Enrollment Organization Name	VCHAR(40)
Definition		
The name of the organization where the participant was determined eligible for the program and was enrolled to receive their first service financially assisted by the program.		
Field Name		
EONM		
Code Values		
Actual Source Value 99 = Unknown <i>Note: For CDSS, this value is the name of the County.</i>		
File Type		
Enrolling Organization		
Collection Dates		
7/1/16 – 6/30/18		

DED#	Data Element Name	Format
003	Enrollment Organization ID	VCHAR(40)
Definition		
The identifier assigned to the organization where the participant was determined eligible for the program and was enrolled to receive their first service financially assisted by the program.		
Field Name		
EOID		
Code Values		
Actual Source Value 99 = Unknown <i>Note: For CDSS and CWDA-Counties, this is the county code.</i>		
File Type		
Enrolling Organization		
Collection Dates		
7/1/16 – 6/30/18		

Funding Source

DED#	Data Element Name	Format
004	Fund Source	VCHAR(20) Comma Separated List
Definition		
The funding source used to pay for the services received by the participant.		
Field Name		
FSRC		
Code Values		
1 = WIOA Title I (Adult) 2 = WIOA Title I (Dislocated Worker) 3 = WIOA Title I (Youth) 4 = WIOA Title II 5 = WIOA Title III 6 = WIOA Title IV 7 = CalWORKs 8 = CalFresh 9 = TAA 97 = Other 98 = Not Applicable 99 = Unknown		
File Type		
Services		
Collection Dates		
7/1/16 – 6/30/18		

Participant Identification

DED#	Data Element Name	Format
005	Social Security Number	VCHAR(9) Left Zero Padded
Definition		
The social security number assigned to the participant.		
Field Name		
SSN		
Code Values		
Actual Source Value 97 = Other 98 = Not Applicable 99 = Unknown		
File Type		
Participants		
Collection Dates		
7/1/16 – 6/30/18		

DED#	Data Element Name	Format
006	Participant First Name	VCHAR(40)
Definition		
The first name of the participant.		
Field Name		
PFNM		
Code Values		
Actual Source Value 98 = Not Applicable 99 = Unknown		
File Type		
Participants		
Collection Dates		
7/1/16 – 6/30/18		

DED#	Data Element Name	Format
008	Participant Last Name	VCHAR(40)
Definition		
The last name of the participant.		
Field Name		
PLNM		
Code Values		
Actual Source Value 98 = Not Applicable 99 = Unknown		
File Type		
Participants		
Collection Dates		
7/1/16 – 6/30/18		

DED#	Data Element Name	Format
010	Participant City	VCHAR(50)
Definition		
The city associated to the physical, mailing, or billing address of the participant.		
Field Name		
PCITY		
Code Values		
Actual Source Value 98 = Not Applicable 99 = Unknown		
File Type		
Participants		
Collection Dates		
7/1/16 – 6/30/18		

DED#	Data Element Name	Format
011	Participant Postal Code	VCHAR(9)
Definition		
The postal code associated to the physical, mailing, or billing address of the participant. <i>Note: For US Postal Codes, include “+4” numeric digits if available. Exclude the “+” notation.</i>		
Field Name		
PPOST		
Code Values		
Actual Source Value 98 = Not Applicable 99 = Unknown		
File Type		
Participants		
Collection Dates		
7/1/16 – 6/30/18		

DED#	Data Element Name	Format
012	Participant State Code	VCHAR(2)
Definition		
The two letter state code associated to the physical, mailing, or billing address of the participant for US addresses. <i>Note: See the code values for all other addresses.</i>		
Field Name		
PST		
Code Values		
Actual Source Value CN = Canada MX = Mexico 97 = All other countries 98 = Not Applicable 99 = Unknown AE = (ZIPs 09xxx) Armed Forces Europe including Canada, Middle East, and Africa AP = (ZIPs 962xx - 966xx) for Armed Forces Pacific AA = (ZIPs 340xx) for Armed Forces (Central and South) Americas		
File Type		
Participants		
Collection Dates		
7/1/16 – 6/30/18		

DED#	Data Element Name	Format
013	Participant Date of Birth	DATE
Definition		
The month, day, and year the participant was born.		
Field Name		
DOB		
Code Values		
MM-DD-YYYY . = Unknown		
File Type		
Participants		
Collection Dates		
7/1/16 – 6/30/18		

DED#	Data Element Name	Format
014	Participant Sex / Gender	VCHAR(2)
Definition		
The sex the participant identifies as.		
Field Name		
SEX		
Code Values		
M = Male F = Female N = Nonbinary 99 = Unknown or Not Provided		
File Type		
Participants		
Collection Dates		
7/1/16 – 6/30/18		

DED#	Data Element Name	Format
015	Participant Unique Individual Identifier	VCHAR(20)
Definition		
<p>The unique identifier assigned to the participant, by an organization, to distinguish the participant from other participants.</p> <p><i>Note: This value may be the internal system identifier, a surrogate key assigned at time of data extract, or a concatenated natural key. The value must be consistent for all extracts to ensure proper identification.</i></p>		
Field Name		
PUID		
Code Values		
<p>Actual Source Value</p> <p>99 = Unknown</p>		
File Type		
Participants		
Collection Dates		
7/1/16 – 6/30/18		

Participant Demographics

DED#	Data Element Name	Format
017	Participant Ethnicity / Race	VCHAR(200) Comma Separated List
Definition		
The ethnicity and/or race the participant identifies as.		
Field Name		
ETHRC		
Code Values		
Actual Source Value (i.e. not internal system codes or numeric representations) Leave Blank = Unknown <i>Note: Use the fully qualified value. This data may be provided as a separate data file if needed.</i>		
File Type		
Participants		
Collection Dates		
7/1/16 – 6/30/18		

DED#	Data Element Name	Format
021	Participant Low Income	INT
Definition		
If the participant identifies as a low income individual.		
Field Name		
LOWI		
Code Values		
1 = Yes 0 = No 98 = Not Applicable 99 = Unknown <i>Note: For the CDSS, this data will need to be derived using the Fund Source data element. If the Fund Source data element (DED# 004) is recorded as:</i> <ul style="list-style-type: none"> ○ Value 7 (CalWORKS) or 8 (CalFresh), record value 1 (Yes) ○ Any other value, record value 99 (Not Applicable) 		
File Type		
Participants		
Collection Dates		
7/1/16 – 6/30/18		

DED#	Data Element Name	Format
027	Temporary / Permanent Disability	INT
Definition		
If the participant identifies as, or was determined by authorized personnel as, having a disability.		
Field Name		
DISA		
Code Values		
1 = Yes, Disabled 2 = Yes, Temporarily Disabled 0 = No 98 = Not Applicable 99 = Unknown		
File Type		
Participants		
Collection Dates		
7/1/16 – 6/30/18		

DED#	Data Element Name	Format
031	Exhausting TANF within 2 Years	INT
Definition		
If the participant is within 2 years of exhausting Temporary Assistance for Needy Families (TANF).		
Field Name		
EXTNF		
Code Values		
<p>1 = Yes, Participant is within 2 years of exhausting TANF 0 = No, Participant has more than 2 years of TANF left 98 = Not Applicable / Participant has already exhausted TANF 99 = Unknown</p> <p><i>Note: For the CDSS, this data will need to be derived using the Date Exhausted TANF data element (DED# 091). If the Date Exhausted TANF data element (DED# 091) is recorded as:</i></p> <ul style="list-style-type: none"> ○ A date, record value 98 (Not Applicable / Participant has already exhausted TANF) ○ A ".", record value 99 (Unknown) 		
File Type		
Participants		
Collection Dates		
7/1/16 – 6/30/18		

DED#	Data Element Name	Format
091	Date Exhausted TANF	DATE
Definition		
The month, day, and year the participant exhausted Temporary Assistance for Needy Families (TANF).		
Field Name		
DEXTNF		
Code Values		
MM-DD-YYYY . = Unknown / Not Applicable		
File Type		
Participants		
Collection Dates		
7/1/16 – 6/30/18		

Workforce Training & Related Education

DED#	Data Element Name	Format
051	Date of Program Entry	VCHAR(20)
Definition		
The month, day, and year an individual began receiving services, or was determined eligible to receive services, as a participant of a program. <i>Note: Format for month, day, year = MM-DD-YYYY.</i>		
Field Name		
DPE		
Code Values		
MM-DD-YYYY Leave Blank = Unknown / Not Applicable <i>Note: For the CDSS, this data will need to be derived using the First Date of Supportive Service or Activity data element. If the First Date of Supportive Service or Activity data element (DED# 065) is recorded as:</i> <ul style="list-style-type: none"> o A date, record the date in the field o A "." or blank field, leave the field blank 		
File Type		
Services		
Collection Dates		
7/1/16 – 6/30/18		

DED#	Data Element Name	Format
053	Date of Program Exit	VCHAR(20)
Definition		
The month, day, and year the participant stopped receiving services. <i>Note: Format for month, day, year = MM-DD-YYYY.</i>		
Field Name		
DPX		
Code Values		
MM-DD-YYYY Leave Blank = Unknown / Not Applicable <i>Note: For the CDSS, this data will need to be derived using the Last Date of Supportive Service or Activity data element. If the Last Date of Supportive Service or Activity data element (DED# 066) is recorded as:</i> <ul style="list-style-type: none"> o A date, record the date in the field o A "." or blank field, leave the field blank 		
File Type		
Services		
Collection Dates		
7/1/16 – 6/30/18		

DED#	Data Element Name	Format
135	Welfare to Work Status	INT
Definition		
If the participant was not exempt from the Welfare to Work program for three consecutive months during the qualifying participation spell.		
Field Name		
W2W		
Code Values		
1 = Yes 0 = No Leave Blank = Unknown / Not Applicable		
File Type		
Services		
Collection Dates		
7/1/16 – 6/30/18		

Supportive Services

DED#	Data Element Name	Format
065	First Date of Supportive Service or Activity	DATE
Definition		
The month, day, and year the participant began receiving a specified supportive service or activity.		
Field Name		
FDSS		
Code Values		
MM-DD-YYYY . = Unknown		
File Type		
Supportive Services		
Collection Dates		
7/1/16 – 6/30/18		

DED#	Data Element Name	Format
066	Last Date of Supportive Service or Activity	DATE
Definition		
The month, day, and year the participant stopped receiving a specified supportive service or activity.		
Field Name		
LDSS		
Code Values		
MM-DD-YYYY . = Unknown		
File Type		
Supportive Services		
Collection Dates		
7/1/16 – 6/30/18		

EXHIBIT B
(Interagency Agreement)

BUDGET DETAIL AND PAYMENT PROVISIONS

A. Invoicing and Payment

1. The maximum amount payable under this Agreement shall not exceed \$0.00.
2. For services satisfactorily rendered, and upon receipt and approval of the invoice(s), the California Department of Social Services agrees to pay the Contractor for said services in accordance with the rates specified herein.
3. Reimbursement for necessary travel expenses and per diem shall be made from funds within this Agreement and shall be set in accordance with the rates of the California Department of Human Resources for comparable classes. Travel expenses must be itemized and submitted, along with supporting receipts and expense documentation, in a format approved by CDSS. The Program Contract Manager agrees to certify and maintain the documents substantiating travel and per diem for a period of three years after final payment of this Agreement. No travel outside the State of California by Contractor shall be reimbursed unless there is prior written authorization from CDSS.
4. Invoices shall include Agreement Number 20-2008 and shall be submitted in arrears to:

California Department of Social Services
CalWORKs Engagement Bureau
744 P Street, MS 8-8-33
Sacramento, CA 95814
Attention: Sadie Webb

Any invoices submitted without the above referenced information may be returned to the Contractor for further re-processing.

B. State Budget Contingency Clause

1. It is mutually agreed that if the Budget Act of the current year and/or any subsequent years covered under this Agreement does not appropriate sufficient funds for the program, this Agreement shall be of no further force and effect. In this event, CDSS shall have no liability to pay any funds whatsoever to Contractor or to furnish any other considerations under this Agreement and Contractor shall not be obligated to perform any provisions of this Agreement.
2. If funding for any fiscal year is reduced or deleted by the Budget Act for purposes of this program, CDSS shall have the option to either cancel this Agreement with no liability occurring to the State or offer an agreement amendment to Contractor to reflect the reduced amount.

C. For Contract with Federal Funds

1. It is mutually understood between the parties that this Agreement may have been written before ascertaining the availability of Congressional appropriation of funds, for the mutual benefit of both parties, in order to avoid program and fiscal delays which would occur if the Agreement were executed after that determination was made.

**EXHIBIT B
(Interagency Agreement)**

2. This Agreement is valid and enforceable only if sufficient funds are made available to the State by the United States Government for the term of this Agreement for the purposes of this program. In addition, this Agreement is subject to any additional restrictions, limitations, or conditions enacted by the Congress or any statute enacted by the Congress which may affect the provisions, terms, or funding of this Agreement in any manner.
3. It is mutually agreed that if the Congress does not appropriate sufficient funds for the program, this Agreement shall be amended to reflect any reduction in funds.
4. CDSS has the option to invalidate the Agreement under the 30-day cancellation clause or to amend the Agreement to reflect any reduction of funds.

D. Prompt Payment Clause

Payment will be made in accordance with, and within the time specified in, Government Code Chapter 4.5, commencing with Section 927.

E. Non-Payment of Invoices – Fund Transaction Request

Upon execution of this Agreement, Contractor may email FARBContract504@dss.ca.gov to obtain appropriation information. If payment has not been received for a non-disputed invoice within 60 days of the invoice date, the Contractor, in accordance with Government Code section 11255, will provide the department with a 30-day notification via the Non-Payment email mail box at FARBContract504@dss.ca.gov of its intent to initiate a Transaction Request with the State Controller's Office to transfer funds from the department to the Contractor.

No funds will be authorized for transfer without a 30-day notification to FARBContract504@dss.ca.gov per GIA 610.

F. Review

Each Party reserves the right to review service levels and billing procedures as they impact charges against this Agreement.

G. Final Billing

Invoices for services must be received by CDSS within 90 days following each state fiscal year, or 90 days following the end of the Agreement term, whichever comes first. The final invoice must include the statement "Final Billing."

EXHIBIT D
(Interagency Agreement)

SPECIAL TERMS AND CONDITIONS

A. Termination Without Cause

This Agreement may be terminated without cause by either party upon 30 days written notice to the other party.

B. Debarment and Suspension

For federally funded Agreements, **Contractor certifies** that to the best of his/her knowledge and belief that he/she and their principals or affiliates or any sub-contractor utilized under this Agreement, are not debarred or suspended from federal financial assistance programs and activities nor proposed for debarment, declared ineligible, or voluntarily excluded from participation in covered transactions by any federal department or agency. The Contractor also certifies that it or any of its sub-contractors are not listed with any active exclusions on the System for Award Management (<http://www.sam.gov>) (Executive Order 12549, 2 CFR Parts 180, 376, 417 and 2336).

C. Certification Regarding Lobbying

Applicable to Grants, Subgrants, Cooperative Agreements and Contracts Exceeding \$100,000 in Federal Funds.

1. For Agreements with Contractors who are State entities not under the authority of the Governor, or cities, private firms or agencies which are receiving in excess of \$100,000 in federal funds from CDSS to perform services. By signing this Agreement the Contractor certifies that to the best of his or her knowledge and belief, that:
 - a. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of a Federal Agreement, the making of a Federal grant, the making of a Federal loan, the entering into of a cooperative Agreement, and the extension, continuation, renewal, amendment, or modification of a Federal contract, grant, loan, or cooperative Agreement.
 - b. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a member of Congress, an officer or employee of Congress, or an employee of a member of Congress in connection with this Federal Grant or Agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying", in accordance with its instructions.
 - c. The Contractor shall require that the language of this certification be included in the award documents for all covered subawards exceeding \$100,000 in Federal funds at all appropriate tiers and that all subrecipients shall certify and disclose accordingly.

EXHIBIT D
(Interagency Agreement)

2. This certification is a prerequisite for making or entering into this transaction and is imposed by Section 1352, Title 31, U. S. Code. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Any person who fails to file the required certification shall be subject to a civil penalty of no less than \$10,000 and not more than \$100,000 for each such failure.

D. OMB Audit

Pursuant to Office of Management and Budget (OMB) audit requirement regulations (2 C.F.R. § 200.501), non-federal entities that expend \$750,000 or more in a year in Federal awards from all sources combined shall have a single or program-specific audit conducted for that year in accordance with the provisions of 2 C.F.R. § 200.514 (previously OMB Circular A-133). All OMB audit reports shall meet the report submission requirements established in 2 C.F.R. § 200.512 and a copy shall be forwarded to CDSS.

E. Indirect Costs/Administrative Overhead

For Agreements with other governmental entities and public universities, indirect costs are expenses incurred for administrative services such as, but not limited to, accounting; personnel and payroll administration; accounts payable services; general and specialized insurance coverage; compliance and regulatory monitoring; independent audit services; and legal services. Indirect costs are applied to personnel, operating expenses, supplies, equipment, and travel expenses. Per State Contracting Manual, Section 3.06.B, agencies shall assure that all administrative fees are reasonable considering the services being provided. Agencies may only pay overhead charges on the first \$25,000 of each subcontract. Any subcontractor receiving \$25,000 or more must be clearly identified in the budget display and excluded when the total indirect costs are calculated.

EXHIBIT E
(Interagency Agreement)

ADDITIONAL PROVISIONS

A. Confidentiality Requirements

Contractor and its employees agree to comply with CDSS Confidentiality and Information Security Requirements as described in Exhibit E – Attachment 1.

1. Output data provided by the CWDB under this Agreement shall be classified as confidential information until it has been reviewed and approved by the Data Providers. All results derived from participant level data shall be presented at an aggregate level to preclude the disclosure of any personal information contained in the data. No disaggregated data identifying individuals shall be released to outside Parties or to the public, unless explicitly authorized in this Agreement or by the Data Providers. All reports developed by the CWDB shall contain no confidential or personal information. The minimum data cell size or derivation there of shall be ten (10) participants for any data table released to outside parties or the public. Any personal identifiers in these data shall be removed.

**The California Department of Social Services
Confidentiality and Information Security Requirements
State Agency/Entity - v 2019 01**

This Confidentiality and Information Security Requirements Exhibit (hereinafter referred to as “this Exhibit”) sets forth the information security and privacy requirements the State Agency/Entity as defined by the State Administrative Manual (SAM) Section 4819.2 (hereinafter referred to as “State Entity”) is obligated to follow with respect to all confidential and sensitive information (as defined herein) disclosed to or collected by State Entity, pursuant to State Entity’s Agreement (the “Agreement”) with the California Department of Social Services (hereinafter “CDSS”) in which this Exhibit is incorporated. The CDSS and State Entity desire to protect the privacy and provide for the security of CDSS Confidential, Sensitive, and/or Personal (CSP) Information (hereinafter referred to as “CDSS CSP”) in compliance with state and federal statutes, rules and regulations.

- I. Order of Precedence.** With respect to information security and privacy requirements for all CDSS CSP, unless specifically exempted, the terms and conditions of this Exhibit shall take precedence over any conflicting terms or conditions set forth in any other part of the Agreement between State Entity and CDSS.

II. Confidentiality of Information.

- a. DEFINITIONS.** The following definitions apply to this Exhibit and relate to CDSS Confidential, Sensitive, and/or Personal Information.

- i. “Confidential Information” is information maintained by the CDSS that is exempt from disclosure under the provisions of the California Public Records Act (Government Codes Sections 6250 et seq.) or has restrictions on disclosure in accordance with other applicable state or federal laws.
- ii. “Sensitive Information” is information maintained by the CDSS, which is not confidential by definition, but requires special precautions to protect it from unauthorized access and/or modification (i.e., financial or operational information). Sensitive information is information in which the disclosure would jeopardize the integrity of the CDSS (i.e., CDSS’ fiscal resources and operations).
- iii. “Personal Information” is information, in any medium (paper, electronic, or oral) that identifies or describes an individual (i.e., name, social security number, driver’s license, home/mailling address, telephone number, financial matters with security codes, medical insurance policy number, Protected Health Information (PHI), etc.) and must be protected from inappropriate access, use or disclosure and must be made accessible to information subjects upon request. It can also be information in the possession of the Department in which the disclosure is limited by law or contractual Agreement (i.e., proprietary information, etc.).
- iv. “Breach” is
 1. the unauthorized acquisition, access, use, or disclosure of CDSS CSP in a manner which compromises the security, confidentiality or integrity of the information; or
 2. the same as the definition of "breach of the security of the system" set forth in California Civil Code section 1798.29(f).

- v. "Information Security Incident" is
 - 1. unauthorized access or disclosure, modification or destruction of, or interference with, CDSS CSP that actually or potentially jeopardizes the confidentiality, integrity, or availability of an information system or the information the system processes, stores, or transmits or that constitutes a violation or imminent threat of violation of any state or federal law or in a manner not permitted under the Agreement between State Entity and CDSS, including this Exhibit.
- b. CDSS CSP which may become available to State Entity as a result of the implementation of the Agreement shall be protected by State Entity from unauthorized access, use, and disclosure as described in this Exhibit.
- c. State Entity is notified that unauthorized disclosure of CDSS CSP may be subject to civil and/or criminal penalties under state and federal law, including but not limited to:
 - California Welfare and Institutions Code section 10850
 - Information Practices Act - California Civil Code section 1798 et seq.
 - Public Records Act - California Government Code section 6250 et seq.
 - California Penal Code Section 502, 11140-11144, 13301-13303
 - Health Insurance Portability and Accountability Act of 1996 ("HIPAA") - 45 CFR Parts 160 and 164
 - Safeguarding Information for the Financial Assistance Programs - 45 CFR Part 205.50
 - Unemployment Insurance Code section 14013
- d. **EXCLUSIONS.** "Confidential Information", "Sensitive Information", and "Personal Information" (CDSS CSP) does not include information that
 - i. is or becomes generally known or available to the public other than because of a breach by State Entity of these confidentiality provisions;
 - ii. already known to State Entity before receipt from CDSS without an obligation of confidentiality owed to CDSS;
 - iii. provided to State Entity from a third party except where State Entity knows, or reasonably should know, that the disclosure constitutes a breach of confidentiality or a wrongful or tortious act; or
 - iv. independently developed by State Entity without reference to the CDSS CSP.

III. State Entity Responsibilities.

- a. **Training.** State Entity shall instruct all employees, agents, and subcontractors with access to the CDSS CSP regarding:
 - i. The confidential nature of the information;

- ii. The civil and criminal sanctions against unauthorized access, use, or disclosure found in the California Civil Code Section 1798.55, Penal Code Section 502 and other state and federal laws; and
 - iii. CDSS procedures for reporting actual or suspected information security incidents in Paragraph IV - Information Security Incidents and/or Breaches.
- b. **Use Restrictions.** State Entity shall take the appropriate steps to ensure that their employees, agents, and subcontractors will not intentionally seek out, read, use, or disclose the CDSS CSP other than for the purposes described in the Agreement and to meet its obligations under the Agreement.
- c. **Disclosure of CDSS CSP.** State Entity shall not disclose any individually identifiable CDSS CSP to any person other than for the purposes described in the Agreement and to meet its obligations under the Agreement.
- d. **Subpoena.** If State Entity receives a subpoena or other validly issued administrative or judicial notice requesting the disclosure of CDSS CSP, State Entity will immediately notify the CDSS Program Contract Manager and the CDSS Information Security and Privacy Officer. In no event should notification to CDSS occur more than three (3) business days after receipt by State Entity's responsible unit for handling subpoenas and court orders.
- e. **Information Security Officer.** State Entity shall designate an Information Security Officer to oversee its compliance with this Exhibit and to communicate with CDSS on matters concerning this Exhibit.
- f. **Requests for CDSS CSP by Third Parties.** State Entity shall promptly transmit to the CDSS Program Contract Manager all requests for disclosure of any CDSS CSP, including Public Record Act (PRA) requests, (except from an Individual for an accounting of disclosures of the individual's personal information pursuant to applicable state or federal law), unless prohibited from doing so by applicable state or federal law.
- g. **Documentation of Disclosures for Requests for Accounting.** State Entity shall maintain an accurate accounting of all requests for disclosure of CDSS CSP Information and the information necessary to respond to a request for an accounting of disclosures of personal information as required by Civil Code section 1798.25, or any applicable state or federal law.
- h. **Return or Destruction of CDSS CSP on Expiration or Termination.** Upon expiration or termination of the Agreement between State Entity and CDSS, or upon a date mutually agreed upon by the Parties following expiration or termination, State Entity shall return or destroy the CDSS CSP. If return or destruction is not feasible, State Entity shall provide a written explanation to the CDSS Program Contract Manager and the CDSS Information Security and Privacy Officer, using the contact information in this Agreement. CDSS, in its sole discretion, will make a determination of the acceptability of the explanation and, if retention is permitted, shall inform State Entity in writing of any additional terms and conditions applicable to the retention of the CDSS CSP.
- i. **Retention Required by Law.** If required by state or federal law, State Entity may retain, after expiration or termination, CDSS CSP for the time specified as necessary to comply with the law.

- j. **Obligations Continue Until Return or Destruction.** State Entity's obligations regarding the confidentiality of CDSS CSP set forth in this Agreement, including but not limited to obligations related to responding to Public Records Act requests and subpoenas shall continue until State Entity returns or destroys the CDSS CSP or returns the CDSS CSP to CDSS; provided however, that on expiration or termination of the Agreement between State Entity and CDSS, State Entity shall not further use or disclose the CDSS CSP except as required by state or federal law.
- k. **Notification of Election to Destroy CDSS CSP.** If State Entity elects to destroy the CDSS CSP, State Entity shall certify in writing, to the CDSS Program Contract Manager and the CDSS Information Security and Privacy Officer, using the contact information, that the CDSS CSP has been destroyed.
- l. **Personnel Management.** Before a member of State Entity's workforce may access CDSS CSP, State Entity agrees to implement personnel practices in compliance with SAM Section 5305.4 Personnel Management.
- m. **Confidentiality Acknowledgement.** By executing this Agreement and signing Paragraph IX, CDSS Confidentiality and Security Compliance Statement, State Entity acknowledges that the information resources maintained by CDSS and provided to State Entity may be confidential, sensitive, and/or personal and requires special precautions to protect it from wrongful access, use, disclosure, modification, and destruction.
- n. **Confidentiality Safeguards.** State Entity shall implement administrative, physical, and technical safeguards that reasonably and appropriately protect the confidentiality, integrity, and availability of the CDSS CSP that it creates, receives, maintains, uses, or transmits pursuant to the Agreement and SAM Section 5300. Including at a minimum the following safeguards:
 - i. **Data Encryption.** All State Entity-owned or managed laptops, tablets, smart phones, and similar devices that process and/or store CDSS CSP must be encrypted per SAM Section 5350.1 and using a FIPS 140-2 certified algorithm which is 128 bit or higher, such as Advanced Encryption Standard (AES). It is also recommended to encrypt other computing devices such as workstations or desktops.
 - ii. **Data Transmission Encryption.** All data transmissions of CDSS CSP outside the secure internal network must be encrypted using a FIPS 140-2 certified algorithm, such as Advanced Encryption Standard (AES), with a 128 bit key or higher.
 - iii. **Server Security.** Servers containing unencrypted CDSS CSP must have sufficient administrative, physical, and technical controls in place to protect that data, based upon a risk assessment/system security review.
 - iv. **Removable Media Devices.** All electronic files that contain the CDSS CSP must be encrypted when stored on any removable media or portable device. Encryption must be a FIPS 140-2 certified algorithm which is 128 bit or higher, such as AES.
 - v. **Minimum Necessary.** Only the minimum necessary amount of the CDSS CSP required to perform necessary business functions may be copied, downloaded, or exported.

- vi. **Antivirus Software.** All State Entity-owned or managed workstations, laptops, tablets, and similar devices that process and/or store CDSS CSP must install and actively use comprehensive anti-virus software solution.
- vii. **Patch Management.** To correct known security vulnerabilities, State Entity shall install security patches and updates in a timely manner on all State Entity-owned or managed workstations, laptops, tablets, smart phones, and similar devices that process and/or store CDSS CSP as appropriate based on State Entity's risk assessment of such patches and updates, the technical requirements of State Entity's systems, and the vendor's written recommendations. If patches and updates cannot be applied in a timely manner due to hardware or software constraints, mitigating controls will be implemented based upon the results of a risk assessment.
- viii. **Information Security Monitoring and Auditable Events.** For monitoring of its networks and other information assets, State Entity must comply with SAM Sections 5335 Information Security Monitoring and 5335.2 Auditable Events.
- ix. **Paper Document Controls.** State Entity shall safeguard CDSS CSP in accordance with SAM Section 5365.2 Media Protection.
- x. **Confidential Destruction.** CDSS CSP must be disposed of through confidential means, such as cross cut shredding and/or pulverizing.

IV. Information Security Incidents and/or Breaches of CDSS CSP

- a. **CDSS CSP Information Security Incidents and/or Breaches Response Responsibility.** State Entity shall be responsible for facilitating the Information Security Incident and/or Breach response process as described in California Civil Code 1798.29(e) and SAM Section 5340, Information Security Incident Management, including, but not limited to, taking:
 - i. Prompt corrective action to mitigate the risks or damages involved with the Information Security Incident and/or Breach and to protect the operating environment; and
 - ii. Any action pertaining to such unauthorized disclosure required by applicable Federal and State laws and regulations.
- b. **Discovery and Notification of Information Security Incidents and/or Breaches of CDSS CSP.** State Entity shall notify the CDSS Program Contract Manager and the CDSS Information Security and Privacy Officer of an Information Security Incident and/or Breach as expeditiously as practicable and without unreasonable delay, taking into account the time necessary to allow State Entity to determine the scope of the Information Security Incident and/or Breach, but no later than three (3) calendar days after the discovery of an Information Security Incident and/or Breach. Notification is to be made by telephone call and email.

- c. Investigation of Information Security Incidents and/or Breaches.** State Entity shall promptly investigate such Information Security Incidents and/or Breaches of CDSS CSP. CDSS shall have the right to participate in the investigation of such Information Security Incidents and/or Breaches. CDSS shall also have the right to conduct its own independent investigation, and State Entity shall cooperate fully in such investigations. State Entity is not required to disclose their un-redacted confidential, proprietary, or privileged information. State Entity will keep CDSS fully informed of the results of any such investigation.
- d. Updates on Investigation.** State Entity shall provide regular (at least once a week) email updates on the progress of the Information Security Incident and/or Breach investigation of CDSS CSP to the CDSS Program Contract Manager and the CDSS Information Security and Privacy Officer until the updates are no longer needed, as mutually agreed upon between State Entity and the CDSS Information Security and Privacy Officer. State Entity is not required to disclose their un-redacted confidential, proprietary, or privileged information.
- e. Written Report.** State Entity shall provide a written report of the investigation to the CDSS Program Contract Manager and the CDSS Information Security and Privacy Officer within thirty (30) business days of the discovery of the Information Security Incident and/or Breach of CDSS CSP. State Entity is not required to disclose their un-redacted confidential, proprietary, or privileged information. The report shall include, but not be limited to, if known, the following:

 - i. State Entity point of contact information;
 - ii. A description of what happened, including the date of the Information Security Incident and/or Breach of CDSS CSP and the date of the discovery of the Information Security Incident and/or Breach, if known;
 - iii. A description of the types of CDSS CSP that were involved and the extent of the information involved in the Information Security Incident and/or Breach;
 - iv. A description of the unauthorized persons known or reasonably believed to have improperly used or disclosed CDSS CSP;
 - v. A description of where the CDSS CSP is believed to have been improperly transmitted, sent, or utilized;
 - vi. A description of the probable causes of the improper use or disclosure;
 - vii. Whether Civil Code sections 1798.29 or 1798.82 or any other federal or state laws requiring individual notifications of breaches are triggered; and
 - viii. A full, detailed corrective action plan, including information on measures that were taken to halt and/or contain the Incident and/or Breach of CDSS CSP.

- f. **Cost of Investigation and Remediation.** Per SAM Section 5305.8, State Entity shall be responsible for all direct and reasonable costs incurred by CDSS due to Information Security Incidents and/or Breaches of CDSS CSP resulting from State Entity's failure to perform or from negligent acts of its personnel, and resulting in the unauthorized disclosure, release, access, review, or destruction; or loss, theft or misuse of an information asset. These costs include, but are not limited to, notice and credit monitoring for twelve (12) months for impacted individuals, CDSS staff time, material costs, postage, media announcements, and other identifiable costs associated with the Information Security Incident, Breach and/or loss of data.
- V. **Contact Information.** To direct communications to the above referenced CDSS staff, State Entity shall initiate contact as indicated herein. CDSS reserves the right to make changes to the contact information below by giving written notice to State Entity. Said changes shall not require an amendment to this Exhibit or the Agreement to which it is incorporated.

CDSS Program Contract Manager	CDSS Information Security & Privacy Officer
See the Scope of Work exhibit for Program Contract Manager information	California Department of Social Services Information Security & Privacy Officer 744 P Street, MS 9-9-70 Sacramento, CA 95814 Email: iso@dss.ca.gov Telephone: (916) 651-5558

- VI. **Plan of Action and Milestones (POAM).** The parties acknowledge that State Entity may have identified information security weaknesses or deficiencies where State Entity is not currently in full compliance with SAM and/or other applicable standards and/or requirements and, correspondingly, related provisions within this Exhibit. To the extent that those weaknesses or deficiencies have been identified and addressed by State Entity through the development of a POAM pursuant to SAM Section 5305.1, the development of the POAM and the progress towards remediation of weaknesses or deficiencies on the POAM shall be deemed to be compliance with the terms of this Exhibit.
- VII. **Amendment.** The parties acknowledge that federal and state laws regarding information security and privacy rapidly evolves and that amendment of this Exhibit may be required to provide for procedures to ensure compliance with such laws. The parties specifically agree to take such action as is necessary to implement new standards and requirements imposed by regulations and other applicable laws relating to the security or privacy of CDSS CSP.
- VIII. **Interpretation.** The terms and conditions in this Exhibit shall be interpreted as broadly as necessary to implement and comply with regulations and applicable State laws. The parties agree that any ambiguity in the terms and conditions of this Exhibit shall be resolved in favor of a meaning that complies and is consistent with federal and state laws and regulations.

IX. CDSS Confidentiality and Security Compliance Statement

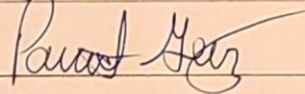
**CALIFORNIA DEPARTMENT of SOCIAL SERVICES
CONFIDENTIALITY AND SECURITY COMPLIANCE STATEMENT v 2019 01**

Information resources maintained by the California Department of Social Services (CDSS) and provided to your entity may be confidential, sensitive, and/or personal and requires special precautions to protect it from wrongful access, use, disclosure, modification, and destruction.

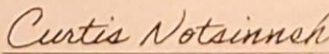
We hereby acknowledge that the confidential and/or sensitive records of the CDSS are subject to strict confidentiality requirements imposed by state and federal law, which may include, but are not limited to, the following; the California Welfare and Institutions Code §10850, Information Practices Act - California Civil Code §1798 et seq., Public Records Act - California Government Code §6250 et seq., California Penal Code §502, 11140-11144, 13301-13303, Health Insurance Portability and Accountability Act of 1996 ("HIPAA") - 45 CFR Parts 160 and 164, and Safeguarding Information for the Financial Assistance Programs - 45 CFR Part 205.50. State Entity agrees to comply with the laws applicable to the CDSS CSP received.

This Confidentiality and Security Compliance Statement must be signed and returned with the Contract.

Project Representative

Name (Printed): Patrick Getz
Title: CAAL Skills Program Manager
State Entity Name: California Workforce Development Board
Email Address: Patrick.getz@cwdb.ca.gov
Phone: (916) 812-4880
Signature: 
Date Signed: 6-23-2020

READ and ACKNOWLEDGED: Information Security Officer (or designee)

Name (Printed): Curtis Notsinneh
Title: Chief Deputy Director
State Entity Name: California Workforce Development Board
Email Address: curtis.notsinneh@cwdb.ca.gov
Phone: 916.657.1440
Signature: 
Date Signed: 06/22/2020