From: Arce, Joshua (ECN) <joshua.arce@sfgov.org>
Sent: Monday, February 1, 2021 11:25 PM
To: Board of Supervisors, (BOS) <board.of.supervisors@sfgov.org>
Cc: Guma, Amanda (BUD) <amanda.guma@sfgov.org>; Xuereb, Cody (BUD)
<cody.l.xuereb@sfgov.org>; Goncher, Dan (BUD) <dan.goncher@sfgov.org>; Akwa-Asare, Amabel
(ECN) <amabel.akwa-asare@sfgov.org>; Pagan, Lisa (ECN) <lisa.pagan@sfgov.org>
Subject: OEWD Workforce Development Data Plan in Response to BLA Audit

Dear Clerk Calvillo and Members of the Board,

Pursuant to the Budget and Legislative Analyst's (BLA) Performance Audit of the City's
Workforce Development and Pre-Apprenticeship Programs (BLA Audit) (August 30, 2020),
OEWD hereby submits the attached OEWD Workforce Development Data Plan.

The Workforce Data Plan is responsive to BLA recommendations to present to the Board
estimates of costs and proposed enhancements to, among other things, deduplicate client
counts of workforce service recipients across City departments, integrate departmental data
systems, and implementation of newly enacted unemployment data access laws.

As such, the Workforce Data Plan addresses the above listed data priorities and outlines
investments towards the data infrastructure and staffing required to implement these
recommendations.

For further questions, please contact Amabel Akwa-Asare, Director of Strategic Initiatives at
Amabel.Akwa-Asare@sfgov.org.

Josh

***Joshua Arce,* Director of Workforce Development**
Office of Economic and Workforce Development (OEWD), Workforce Division
City and County of San Francisco

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SAN FRANCISCO
OFFICE OF ECONOMIC &
WORKFORCE DEVELOPMENT

City and County of San Francisco /
Office of Mayor London N. Breed
Economic and Workforce Development /
Joaquín Torres, Director

TO: Angela Calvillo, Clerk of the Board of Supervisors, and Members of the Board
FROM: Joshua Arce, Director of Workforce Development
           Office of Economic & Workforce Development (OEWD)
DATE: January 31, 2021
RE: OEWD Workforce Development Data Plan in Response to BLA Audit

Pursuant to the Budget and Legislative Analyst's (BLA) Performance Audit of the City's Workforce Development and Pre-Apprenticeship Programs (BLA Audit) (August 30, 2020), OEWD hereby submits the attached OEWD Workforce Development Data Plan.

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As such, the Workforce Data Plan addresses the above listed data priorities and outlines investments towards the data infrastructure and staffing required to implement these recommendations.

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Sincerely,

Joshua Arce
Director of Workforce Development

SAN FRANCISCO
OFFICE OF ECONOMIC &
WORKFORCE DEVELOPMENT

City and County of San Francisco /
Office of Mayor London N. Breed
Economic and Workforce Development /
Joaquín Torres, Director

OEWD Workforce Development Data Plan in Response to BLA Audit

On August 3, 2020, the Budget and Legislative Analyst (BLA) published the Performance Audit of the City's Workforce Development and Pre-Apprenticeship Programs (BLA Audit). The Audit focuses on programs administered by the Office of Economic and Workforce Development (OEWD) and a number of the BLA recommendations are centered on improvements for data collection and data analysis:

- The BLA invited OEWD to present to the Board of Supervisors no later than January 31, 2021 an estimate of costs and proposed enhancements of the Annual Workforce Inventory, which collects client and outcome information from all City departments with workforce development programs. The recommended enhancements are aimed at including program-level client data and allowing an unduplicated client count of workforce service recipients across City departments, thus avoiding the currently unavoidable double-counting of clients across programs and departments.
- The BLA requested a Workforce Division data integration and management plan that would identify options for integrating and/or consolidating the Department's various data systems in order to reduce the need for maintaining multiple systems and avoid having to compile and combine data from multiple sources to get a comprehensive picture of the department's work and achievements.
- The BLA encouraged OEWD to ensure it has the legal, technical, and analytical capacity to receive, analyze and report new post-program employment data available under AB 593, a recently passed State law to give local workforce boards easier access to client data collected by the State of California Employment Development Department.

This report responds to the above listed data priorities identified by the BLA and outlines investments into data infrastructure and data staffing that are needed to equip OEWD with the ability to act on these recommendations. The total cost to implement the BLA's recommendation is between $960,000 and $1,300,000.

Citywide Workforce Alignment

The BLA team reviewed the work of the Committee on Citywide Workforce Alignment (CCWA), with a particular focus on its Annual Workforce Inventory. The BLA identified several areas for improvement that pertain to data collection and data analysis. In its analysis, the BLA team acknowledges the need for additional resources.

Recommendation 1.2: Work with the CCWA Data Working Group to expand the Annual Workforce Inventory to include program-level information and actual expenditures, as well as unduplicated client counts, where possible.

Recommendation 1.3: The Director of the Office of Economic and Workforce Development should present the estimated costs and a proposed implementation plan to enhance the Annual Workforce Inventory to the Board of Supervisors no later than January 31, 2021.

The City and County of San Francisco's workforce development system (Workforce System) is comprised of nearly 300 programs across a minimum of 17 City agencies. OEWD, as the administrator of Citywide Workforce Alignment per San Francisco Administrative Code Chapter 30, is tasked with coordinating the Workforce System. As is best practice in community-based and place-based social service intervention, many City agencies contract with community-based organizations to administer these workforce development services. Those City agencies hold over 150 contracts with over 130 community-based organizations. As a result, City Agencies maintain significantly large, decentralized data sets across multiple data systems.

The Annual Workforce Inventory collects program inputs, outputs, and outcomes information for all of the aforementioned City workforce development programs in any given year. The BLA-recommended addition of program-level information and actual expenditures can be included with structural changes to the inventory format, and in fact such information was request in our January 19, 2021 Workforce Inventory survey request, therefore the need for additional resources is limited to the cost of more extensive analysis. Client deduplication, however, requires a different level of effort and investment.

Because of the fragmented nature of the Workforce System, the total clients in the Workforce Inventory are duplicated across departments, meaning that clients who accessed multiple programs are counted multiple times in the total client number. Deduplication of workforce clients across departments requires a significant investment of resources and needs to overcome a number of challenges such as privacy concerns, legal barriers, and lack of an existing unique identifier.

Deduplication of workforce client information across multiple systems may occur either post-services for research and evaluation purposes or during service delivery for client journey tracking and coordinated service delivery. The San Francisco Economic Recovery Taskforce recommendations support these efforts, recommending that OEWD "establish a comprehensive workforce development strategy, centralize the coordination of workforce development programs, and establish one point of information and entry for all of the City's workforce development programs." (Appendix E to the San Francisco Economic Recovery Taskforce Report – Recommendation 2.1.)

The latter would require a complete overhaul of the City's workforce development system akin to the coordinated entry efforts of recent years for homeless support services or, at a minimum, the development of a citywide unique identifier for every workforce system client and an integrated data collection system to capture the information. A unique identifier would be necessary because, for a variety of reasons, Social Security Numbers are not collected across all programs and thus an alternative combination of numbers and/or letters would be needed to identify individual clients. The benefit of this approach would be the ability to track every workforce system client as they apply for and receive services and use this information about client journeys to improve overall service delivery. However, the level of investment needed to accomplish this is substantial.

An example for a project of similar nature is the Shared Youth Database: a partnership with SFHSA, DCYF, JPD, DPH, and SFUSD to link client data and provide real-time case coordination alerts. This project required 15 years to plan, build partnerships, overcome legal barriers, and develop the technology solution, and its scale represents about a third of the City's total annual workforce clients and a quarter of its workforce development departments.

A more expeditious option, and the one contemplated by the BLA in its audit, is to cross-reference, match, and deduplicate client-level information obtained from city departments during the established Annual Workforce Inventory process. To achieve this, city departments would have to share personally identifiable client information – preferably a Social Security Number (where available) to allow matching of client records from different departments in order to identify which clients are represented in multiple data sets. In cases where a Social Security Number is not part of the available client data, a combination of other identifiers such as name, date of birth, and address would need to be compared by probabilistic record linkage to verify client overlap. With this approach, the City would gain an understanding of how many unique workforce clients the City and County of San Francisco serves. However, it would not grant any insights into client journeys through the workforce system and would therefore not allow any analysis and recommendation on systemwide improvements.

To lay the groundwork for any deduplication and client data coordination effort, OEWD has incorporated a request for program-level information, data elements and existing client identifier conventions into the FY 2019-20 Workforce Services Inventory. This information will give OEWD a general understanding of the client data fields collected by individual departments, as well as identify existing efficiencies and opportunities to leverage existing methodologies. Next steps include:

- Analyzing which data fields to request from departments to allow for a data match,
- Negotiating data sharing agreements with departments
- Receiving and cleaning approximately 40,000 client records, and
- Developing the scripts and methods to match these records.

Additional staffing is required to conduct this scope of work. Specifically, an additional analyst (1823 classification) would be required to conduct the analysis of program-level information collected in the inventory and, more importantly, to move ahead with a data matching project. For the more extensive unified client system approach described previously, an additional technical project manager (1052 classification) would be needed to develop the necessary specifications and guide technology vendors.

While new staff positions are being evaluated and requisitioned, a viable interim solution would be to retain a consultant to provide independent evaluator services. The evaluator will lead multi-agency customer matching across non-standardized data sets for one fiscal year. They would be tasked with using probabilistic record linkage, or other appropriate methods, to support the Committee on Citywide Workforce Alignment with analysis of data to deepen the understanding of the participation and outcomes of Citywide workforce development programs.

As part of the contract scope, the consultant would be required to facilitate data sharing agreements across all departments, document all data matching steps and protocols, and make recommendations on how to move this body of work to an OEWD staff person who would replicate the work in future years, and possibly work towards creating an integrated client tracking solution. OEWD's proposed evaluator will need the technical capacity to match customer records across multiple data systems to determine system-wide unique client counts, to conduct system-wide evaluation and outcomes analysis using predetermined elements and metrics, and, based on this exploratory process, make recommendations for an integrated customer relationship management system to serve the larger City workforce development system. This project will require probabilistic record linkage of a minimum of 40,000 customer records within one fiscal year. The contract amount is estimated at $150,000 - $300,000.

Similarly to the BLA, the Economic Recovery Task Force (ERTF) also emphasized the importance of the City's workforce alignment efforts and recommended an expansion of the work scope that is complementary to any of the above described efforts of client deduplication and client tracking.

Summary of Resource Gaps:

- 1823 Administrative Analyst: $101,036 - $122,798 pay range
- 1052 Technical Project Manager: $92,794 - $116,714 pay range
- Independent evaluator contract: $150,000 - $ 300,000 estimated contract value (for one year while 1823 hiring is under way)

Data Integration and Data Management

The BLA pointed out that OEWD operates a number of data systems to collect and store client information and encouraged OEWD to assess options for integration and streamlining.

Recommendation 2.3: Direct the Data & Performance Manager to develop a Workforce Division data integration and management plan. In order to inform this plan, the Data & Performance Manager should identify options for integrating and/or consolidating the Department's various data systems (i.e. from full integration to more flexible data sharing/exchanges), which balance upfront costs with potential resource savings/benefits from reduced use of manual workarounds and matching work.

OEWD's Data and Performance Manager inventories, assesses, and aligns the department's major client-centric data systems. Under their leadership, OEWD has seen significant progress over the last two years to review the state of existing data systems, standardize department data, and update business processes. Their review also catalogued a large variety of systems for a relatively small department, many of which are antiquated, lack interoperability, and need major upgrades. The Data and Performance Manager concluded that OEWD requires additional personnel with requisite expertise to systematically address these needs—needs which are expected to grow over time. Preliminary scoping indicates that a full-time Information Systems Administrator is required to address these large, complex, and ongoing systems needs.

OEWD's systems are largely organized to address the needs of a specific funding source or program area, with little design dedicated to alignment or interoperability between OEWD programs and systems. The Workforce Central database (WFC) serves federal Workforce Innovation and Opportunity Act (WIOA) clients, the CitySpan Grant Management System (GMS) serves Community Development Block Grant clients, and the Workforce Manager module of LCPTracker serves OEWD's CityBuild program. None of these systems is integrated with the others, and they are not currently constructed to readily produce offline data in alignment with the others. Some of these systems, like WFC, are antiquated *and* difficult to use for both OEWD staff and for OEWD service providers who enter client information into the database.

As OEWD's Data and Performance Manager completes a full data integration and management plan, they highlight the following incremental priority improvements over the next few years that can be achieved largely through existing resources:

- Develop and publish dashboards for use by internal staff and external stakeholders that present key intermediate workforce program output indicators: enrollments, increased skills, program completion, and placement in employment or post-secondary education;
- Revise and standardize GMS client intake forms to collect consistent and comparable client data;

- Standardize program activity monitoring for OWED's two primary data systems - Workforce Central and GMS;
- Identify options for storing and integrating workforce program data across OEWD's three primary data systems;
- Revise, standardize, and streamline application processes for Workforce Programs across WIOA, AAG, and General fund grants;
- Standardize all data client collection for all OEWD administered workforce programs using a single uniform electronic and paper application;
- Identify methods for collecting client data that allow for data integration and reporting across the department's three primary workforce programs data systems.

OEWD's technology needs are projected to steadily grow as the agency works to refine client data reporting, increase responsiveness to data requests from City internal and external stakeholders, deepens data analysis that illuminates racial equity efforts, and gets access to more client information under AB 593 (further described in the next section). All of these efforts need to be aligned at the outset to prevent further stress to the Agency's already fragmented systems administration.

Importantly, OEWD requires an IT Systems Administrator to shepherd the core systems and infrastructure transformations needed to refine and execute its data integration and management plan, and to make sure any preliminary improvements are coupled with the system maintenance required to avoid further system deterioration. The IT Systems Administrator will deploy their deeper set of technical skills to manage these efforts on an ongoing basis, as is done in similarly situated departments.

In fact, an examination of similarly sized or smaller city departments reveals OEWD's staffing deficiency: HSH's Data and Performance Team consists of 3-4 persons in 1822, 1823, and 1824 classifications and whose work is supported by both a Systems Administrator and IT staff of 5-7 people in 1091-1095 & 1054 classifications; DCYF, a department half the size of OEWD in terms of staffing, has 7 data analysts for evaluation and one IT manager. For comparison, OEWD has one 1824 Data and Performance Manager who oversees data systems and data evaluation for OEWS's Workforce Division; he supervises two 1822 Data Specialists whose work is focused on verifying OEWD's workforce client information and fulfilling reporting requirements vis-a-vis the State; for the Economic Development Division, the department has one 1824 Policy and Data Analyst who conducts data analysis for OEWD's policy and legislative work.

Summary of Resource Gaps:

- 1053 IT Systems Administrator: $107,406 - $135,122 pay range
- Investments into technology upgrades (hardware and software) and technology vendor contracts: $500,000 per year

AB 593

The BLA recognized OEWD's challenges to routinely obtain and analyze long-term retention data in targeted employment sectors, or wage data for program performance assessment. OEWD set out in its latest strategic plan to conduct ongoing advocacy to advance statewide local workforce boards' ability to access longitudinal data for targeted occupations to measure economic mobility and self-sufficiency.

Recommendation 2.1: Direct the Data & Performance Manager to coordinate with the California Employment Development Department to ensure OEWD has the legal, technical, and analytical capacity to receive, analyze and report new post-program employment data available under AB 593.
Passed in 2019, AB 593 (Carrillo) allows the chief elected official of local workforce areas to use confidential information obtained in Employment Development Department's (EDD) administration of the Unemployment Insurance Code, and to access any relevant quarterly wage data necessary for the evaluation and reporting of workforce program performance measures such as wage growth after program exit.

Federal and state confidentiality laws, regulations, and administrative policies classify all Employment Development Department (EDD) information provided pursuant to AB 593 as confidential. The federal and state laws prohibit disclosure of EDD's confidential information to the public and mandates its protection against loss and against unauthorized access, use, disclosure, modification, or destruction.

In order to reap the full benefits of AB 593 and be fully prepared to meet the additional security protocols required for handling the data, OEWD will need to make a number of investments into technology and staffing, most importantly hiring a privacy officer dedicated to information security and ensuring compliance with federal, state, and local privacy laws and regulations. Using existing resources, OEWD is developing and implementing administrative, management, and physical safeguards to protect EDD's confidential data in conformance with Federal and State law, and negotiation and execution of data sharing MOUs with EDD. Further, OEWD must adopt policies and procedures to ensure use of EDD's confidential information solely for purposes specifically authorized under AB 593—specifically the requirements of Title 20, Code of Federal Regulations §603.10 et al. OEWD must also take precautions to ensure that only authorized personnel are given access to physical, electronic, and online files.

In order to receive confidential information from EDD, a designated staff person must be responsible for *information protection-related* compliance oversight within the agency. This includes staff training, pre-publication reviews of studies, reviews of contracts and agreements with partners, investigating breaches, and related duties for implementing technical measures to

mitigate future breaches. Only upon safe receipt, securing, and scrubbing the wage base data in accordance with EDD guidelines, may OEWD then proceed to analysis and publication, which is a distinct but similarly un-resourced initiative.

OEWD believes that these responsibilities would be commensurate with an 1823 Senior Administrative Analyst who would focus on AB 593 implementation and would also support the entire department (inclusive of Workforce Development and Economic Development) with strategic guidance and directives on data-related security protocols and procedures.
Summary of Resource Gaps:

- 1823 Administrative Analyst: $101,036 - $122,798 pay range

Conclusion

The BLA has outlined a number or data-related recommendations. OEWD agrees with the suggestions and is interested in implementing them. However, because of OEWD's historic lack of data resource investments and staffing, the department does not have adequate staffing. OEWD is under-resourced compared to similarly situated departments charged with similar initiatives, and addressing these resource gaps will better equip OEWD to optimize data access and security, deepen data analysis, and increase responsiveness to data requests.

OEWD projects these corresponding resource needs as follows:

BLA Recommendation	Corresponding Resource Need	Projected Cost
Recommendation 1.2 & 1.3	Independent Evaluator Contract	$150,000 - $ 300,000 estimated contract value
	1823 Administrative Analyst	$101,036 - $122,798 pay range
	1052 Technical Project Manager	$92,794 - $116,714 pay range
Recommendation 2.3	1053 IT Systems Administrator	$107,406 - $135,122 pay range
	Technology Cost	$ 500,000 per year
Recommendation 2.1	1823 Administrative Analyst	$101,036 - $122,798 pay range

The total cost to implement the BLA's recommendation is between $960,000 and $1,300,000.