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Information/Action

Educator Preparation Committee

Recommendations from the Public Access/Data Dashboards Task Group

Executive Summary: This agenda item provides a summary of the Task Group activities and a set of recommendations from the Public Access/Data Dashboards Task Group.

Policy Questions: Do the recommendations from the Task Group meet Commission expectations for improving candidate access to information and data on educator preparation programs? Does the Commission wish to make modifications to the proposed design and content of the Data Dashboards? Do the proposed Data Dashboards meet Commission expectations for improving transparency and providing easy data access for the public?

Recommended Action: That the Commission discuss the work accomplished to date, provide feedback on the work as requested in the item, and provide direction as appropriate for completing the remaining work.

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Strategic Plan Goal:

II. Program Quality and Accountability

- d) Track current trends and research in learning theory, educator preparation, and certification and disseminate information about high quality programs, models, and outcomes.

Recommendations from the Public Access/Data Dashboards Task Group

Introduction

This agenda item provides an update on the work of the Task Group on Public Access/Data Dashboards that was assigned the task of addressing “Transparency to the public, not only relating to institutional reports and accreditation decisions, but also providing some common quality indicators across all programs.”

Background

Current Presentation Formats for Commission Data

Currently, the Commission publishes a variety of reports containing data of interest to the public, program sponsors, local employing agencies, other state agencies, researchers, and other stakeholders. There are several state and federal mandated reports produced by the Commission (e.g., Teacher Supply Report, Teacher Misassignment Report, and Title II Reports). In addition to the mandated reports, the Commission also publishes a number of annual reports (e.g., the Examinations Passing Rate Report and the Services Credentials Report) as well as short briefs (e.g., Quick Facts, Statistic of the Month) to give a statewide perspective based on available data on different aspects of educator preparation in the state. Most of these reports are generated from the Commission’s credential data system. There are other types of data collected from educator preparation programs through biennial reports and other documentation as part of the accreditation process. Within the overall accreditation process, different sets of data are also collected during different phases of the seven year cycle.

These Commission reports contain both quantitative as well as qualitative data. Most reports include the prior year data as well as longitudinal aggregate data for the past five years. Data disaggregated by program sponsor, credential type, preparation pathway, teaching permits, and local employing agency for the prior year is generally provided within tables in the Appendices. However, the final reports are published in PDF format on the Commission’s website. As a result, the data are not easily accessed and used by potential candidates, researchers, the media, and the public. In many cases, multiple reports must be accessed to gather disaggregated longitudinal data such as the number of teaching permits issued to a specific local employing agency over a five-year period or the number of Education Specialist Interns recommended by a particular program sponsor over a five-year period. These two data request examples may be pulled from the lengthy pdf Appendices of the last five Teacher Supply Reports; however, a more comprehensive request about a program sponsor might result in accessing both multiple report years and multiple report types (e.g., Teacher Supply Report, Title II Report, Examination Passage Rates Report, and the Accreditation Report).

Moreover, the data used for these reports are not easily located within the current Commission website. An individual typically has to click through several webpages on the Commission’s

website to find what he/she is looking for. For example, to find teacher preparation program enrollment data for the most recent year, the individual needs to know that the enrollment data is published as part of the Teacher Supply Report (TSR) and Title II Report. The individual has to navigate to the “Commission Reports” webpage and search for the recent TSR. Then the individual has to open the Reports Bookmarks to look for the heading “Enrollment” and then open that particular section of the TSR to access the enrollment data. If the enrollment data can be accessed by the Data Dashboards, the extra navigation on the part of the individual looking for enrollment data can be minimized.

Table 1 provides an overview of several examples of current Commission data, including data sources (how they are collected), level of the data collected (individual or aggregate), and where they are collected (live database or web-based or static), and how they are displayed on the Commission’s website.

Table 1. Current Data Collection – Data Sources, Data Type and Data Formats

Data Sources	Level of Data	Type of Database	Type of Data	Data Format	Final Display of Data on Commission’s website
Credentials and Certification	Individual-level and aggregate level	Commission Oracle system	Live data	Data can be exported to a .csv or Excel file	-Search for an Educator (live) -Aggregate data tables in Reports (PDF)
Teacher Supply, Misassignments, Accreditation Fees	Individual-level and aggregate level	Commission databases	Web-based and Static	Data can be exported to a .csv or Excel file	Aggregate data Tables in Reports (PDF)
Title II data	Individual-level and aggregate level	Federal database	Web-based	-Raw data in Excel file -Final reports in PDF	-Data tables in reports (PDF) -Raw data in Excel files
Biennial Reports	Aggregate data	<i>Not applicable</i>	Submitted via Email	Individual reports in Word or PDF	Data can be accessed by Commission staff and accreditation teams

Currently, most aggregate data are presented in the annual reports. Some teacher preparation program level data are presented in the teacher supply reports (e.g., number of teaching credentials issued by teacher preparation program). Accreditation status of preparation programs are displayed on the Accreditation webpage. Also, a section in the Title II report requires teacher preparation programs to report their current accreditation status. As a result, accreditation information is currently available on the Commission’s webpages, but in different

places. Providing general information about a specific program (geographic location, enrollment, type of credential programs offered, and accreditation status) can be displayed in one Data Dashboard to give a complete picture of a preparation program.

Charge to the Public Access/Data Dashboards Task Group

Six different Task Groups were assigned with various aspects of Strengthening and Streamlining the Commission's Accountability System for Educator Preparation. Six members representing Institutions of Higher Education (IHE), Local Education Agencies (LEA), and employers were appointed to the Public Access/Data Dashboards Task Group. Within the institution of higher education sector, all three segments (California State University, University of California, Independent/Private Colleges and Universities) were represented.

The charge to the Public Access/Data Dashboard Task Group is to recommend ways to improve public access to information about preparation programs and institutions.

First Task Group Meeting, January 2015

The first meeting of the Public Access/Data Dashboard Task Group was held on January 15-16, 2015. At the two day meeting, the Task Group:

- Identified types of data elements to include in the dashboards
- Reviewed Data Dashboards available at different state agencies and individual teacher preparation programs
- Established guiding principles for the development of the dashboards that include:
 - Promoting the health of the profession
 - Making data informed decision for continuous improvement in policy, preparation programs, prospective teacher candidates, employers, and institutions
 - Meeting mandated accountability for State, Federal, Public and Funding sources
 - Providing transparency with ethical considerations and responsive to the public needs
 - Providing usability and functionality for visual and ease of navigation
 - Providing accessibility of data
 - Streamlining accreditation processes

Second Task Group Meeting, March 2015

The second meeting of the Public Access/Data Dashboard Task Group was held on March 16-17, 2015. At the two day meeting, the Task Group:

- Discussed and reviewed Commission data elements planned to be rolled out in three distinct phases. The phases are described below:
 - *Phase I –Data requests for currently available data via the data dashboard*
Commission staff receives a number of data requests, mostly for the number of various credentials and certificates issued by the Commission each year. All teaching credentials data are published in the Teacher Supply Report (April) and all non-teaching credential data are published in the Services Credentials Report (June). Data that are validated and published in the reports are readily available

for use on the dashboards. These data could be formatted for various data dashboards without a lot of additional work.

- Phase II – *Identifying data elements to be collected in the near future and publishing these data via the data dashboards*

Staff would identify the data elements to be collected in the near future. For example, four different program completers' surveys were piloted last summer. As part of the Survey Outcomes Task Group, these four surveys were streamlined and shortened to increase response rates. All four revised surveys will be administered this summer. Therefore, aggregate data from the surveys will be available late summer/early fall. Survey results could be rolled up at the domain level, and composite scores by individual teacher preparation programs could be published during Phase II.

- Phase III – *Identifying, collecting, and adding additional data elements*

In addition to the currently collected data elements, teacher preparation programs may be required to submit more data elements. For instance, the proposed Title II regulations went through the public hearing process in winter 2014. In early spring 2015, teacher preparation programs were asked to provide feedback on the proposed regulations. Currently, the Office of Business and Management is in the process of reviewing more than 4,000 public comments received about the new proposed regulations. When the final regulations are implemented, there may be new data elements that need to be collected from the teacher preparation programs. In addition, there may be other sources of data requested by the Commission over time, in particular, other outcomes data that is not readily available at this point in time. The addition of these data sources, when available, and incorporated into the data warehouse will enhance the accreditation system.

Once those data elements are available, they could be published via the data dashboards as part of Phase III.

- Reviewed an Excel dashboard prototype using Commission data
- Discussed and identified concerns from other Task Groups regarding types of data that would be displayed and would be available on the dashboards

Third Task Group Meeting, May 2015

The third meeting of the Public Access/Data Dashboard Task Group was held on May 6-7, 2015. At the two day meeting, the Task Group:

- Provided feedback on a draft graphic representation of the data warehouse and types of data elements for populating each dashboard page
- Identified potential issues that may occur with the presentation of data (e.g., providing data at the aggregate level versus at the individual program level)

- Made recommendations for business requirements to develop a Request For Proposal (RFP) to select a potential vendor and software that will guide the development of the Data Dashboards

By the end of the third Task Group meeting, a common understanding of the concepts of “Data Warehouse” and “Data Dashboards” were developed. The main focus would be how to organize the existing aggregate data, how to collect new data, and to publish data that will be meaningful to the public.

Development of a Data Warehouse and Data Dashboards

During the Task Group meetings and feedback from other Task Groups, the concept of a Data Warehouse was discussed. As indicated in Table 1, different types of data in different formats and at different times are reported by preparation programs to the Commission or to the U.S. Department of Education. A Data Warehouse is proposed to be a repository of all data currently collected and reported by the Commission. The larger data set collected in the Data Warehouse could be organized, validated, and published across various Data Dashboards.

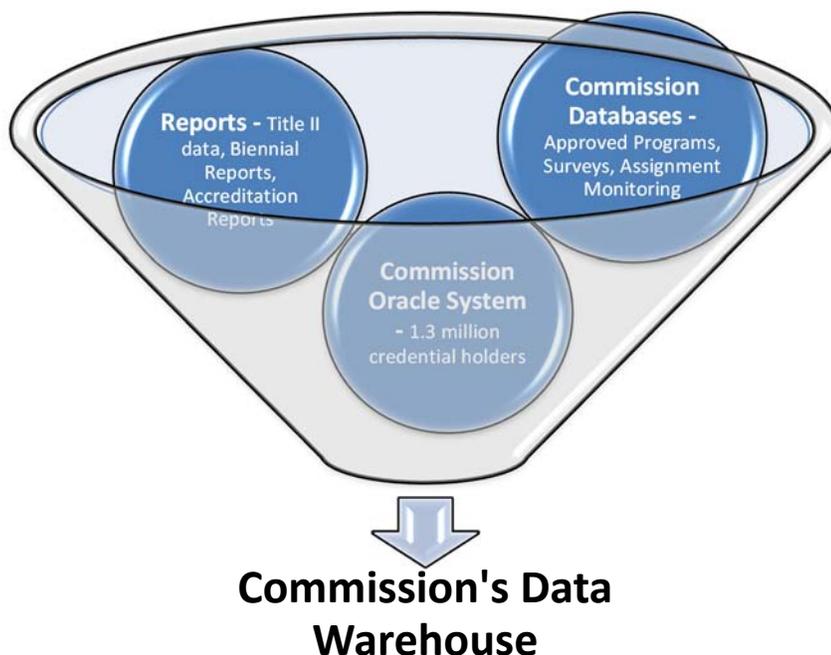
Once all aggregate data are stored in a potential Data Warehouse, the data could be analyzed and displayed via various Data Dashboards. Data Dashboards could give a statewide profile, a teacher preparation program profile as well as program profile (once the data becomes available at the program level). Data that are collected at the district level as well as school site level could be published in a county profile. Dashboard pages provide both information and data that may be manipulated to provide the answer to a specific question by selecting or deselecting different data elements such as year, credential type, program, and institution. Once the individual has identified all data elements the dashboard would potentially be able to display the data set in both a Table and graphic representation that could be printed, emailed, or exported from the Dashboard page. Dashboard pages would also allow for a comparison of similar data elements at the aggregate state level and the individual program level.

Currently, most aggregate data are published on the Commission’s website. However, there is no “drillable function” available, if a potential candidate is looking for information relative to a specific teacher preparation program. The Data Dashboards would publish aggregate data with the ability to drill down at the individual program level. Data Dashboards could also provide data to show trend analysis for the past five years. Data Dashboards could display different sets of data from different data sources. For example, teacher preparation program enrollment, number of program completers, and number of credentials issued to give a full picture of a specific teacher preparation program. Also, Data Dashboards could be used to compare program data to statewide data. (*see Appendix A: Public Access Data Dashboard Piktochart*)

This Data Warehouse could also serve for future data collection to enhance the accreditation system. For example, teacher preparation programs submit biennial reports as part of their accreditation process. Currently, the programs are given the flexibility to select 4-6 assessments of their choice within the parameters of candidate competence, candidate competence in fieldwork, and program effectiveness. Preparation programs submit quantitative data on their key assessments, analyze their data and discuss their findings and how they are using the data

for their continuous improvement. However, the biennial reports are submitted in Microsoft Word or PDF format, thus making the data not readily available for analysis. By providing a standardized template and data portal for submitting the data with built-in validation or web-based database with key data elements that would be common for all teacher preparation programs, data could be collected in a more uniform a manner. Furthermore, the data would be readily available for analysis at the individual program level, cohort level and state level. Thus, all data reported by the teacher preparation programs (e.g., certification data, Title II data, biennial report data) could be stored in one place. This would make the data readily accessible for Commission staff as well as for teacher preparation program staff, and the accreditation team.

Figure 1. Concept of a Commission Data Warehouse



Access and Availability of Data Stored in Data Warehouse

Currently, the teacher preparation programs submit data with different level of access in different databases. For Title II data reporting, the programs have full access to their data at the federal (Westat) web-based database, with password “password protected secure login”. Similarly, each program sponsor has a “password protected secure login” to update its own program information on the statewide (Commission’s) web-based program sponsor database.

Potential levels of access to the Commission’s data was also discussed in terms of public vs. private access. The public would potentially have access to all aggregate data. In order for teacher preparation programs to access their own data, a “password protected secure login” dashboard page would be developed and implemented. This “password protected secure login” will function

similarly to Title II and program sponsor databases. This access to submitting and reviewing data in the Data Warehouse will enable programs to have all state and federal-mandated data in one place as well. For example, searches could be performed that would provide data from their biennial reports and Title II when programs are preparing for accreditation site visits. When programs are writing their biennial reports, general information such as enrollment data could be accessed from the Title II data.

Data could be organized in standardized tables that could be common for the Commission as well as teacher preparation programs (e.g., excel). That way, the data would be not only readily available but also easily accessible for all. In addition, there would be functions that will enable teacher preparation programs to access their data and statewide data via download, print and save option to perform their own analyses.

Proposed Timeframe for Implementation of Data Dashboards

Assuming that the governor's budget will be funded for the Public Access/Data Dashboard project, the project will start in the fiscal year 2015-16. Once the funding is available, a Request for Proposal (RFP) will be released to find a potential vendor. The Commission's information technology staff anticipate that releasing the RFP, selecting the vendor, finalizing the type of system/software will happen in the 2015-16 fiscal year.

Task Force Recommendations

- Develop a Data Warehouse that could be used to gather all validated individual and aggregate data collected and reported by the Commission
- Organize all validated Commission data in the Data Warehouse for easy access by staff to populate both password-secure and public Data Dashboard pages and respond to additional data requests as needed
- Display aggregate data on Data Dashboards to provide easy access and transparency to the public
- Display state and federal program data as well as accreditation data on password-secured Data Dashboards for each Institution for the purpose of streamlining accreditation

Staff Recommendation:

Staff recommends that the Commission discuss the work accomplished to date, provide feedback on the work as requested in the item, and provide direction as appropriate for completing the remaining work.

Next Steps

By organizing and providing data in various Data Dashboards, Commission staff believes that the data would not only be transparent to the public but also easily accessible. In order to move this concept forward, staff would need to take the following steps:

- Prepare data elements that can be validated and loaded into the Data Warehouse
- Organize the current validated data into broad categories (e.g., Enrollment, Program Completers, Certification, Outcomes, etc.)

- Identify topics based on popular data requests from the public and publish those data elements on the Data Dashboards
- Assist the Commission's technical team with the business requirements that will be required during the development of the Data Dashboards
- Participate in testing the new Data Dashboards prior to implementation
- Work with the technical staff to establish a Data Warehouse to store data elements
- Establish a process and timeline for the collection of data, the analysis of these data, and for the publication of the Data Dashboards for individual programs
- Determine whether and how the components of the data system and the Data Dashboard inform accreditation activities
- Redesign the Commission's website to allow the public greater accessibility to specified information about preparation programs, accreditation, and available program quality information

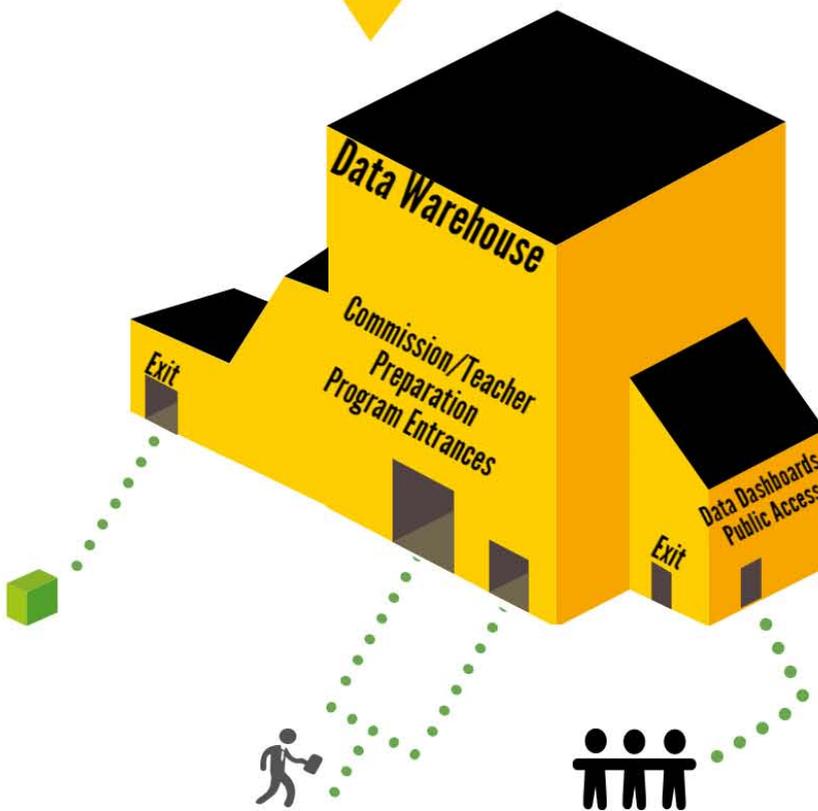


California Commission on Teacher Credentialing

Public Access Data Dashboards

Teacher Preparation Programs can use the warehouse for...

- Uploading reports
- Working with higher education partners
- Studying other higher education programs



WHAT CAN Data Dashboards BE USED FOR?

- To attract inbound teacher candidate traffic
- To allow teacher candidates to compare institutions
- To ensure easy access and use of data to allow for transparency and data informed decisions by the Commission, employing agencies, program sponsors, potential candidates, and other stakeholders

DATA

What types of data will be available on the Data Dashboards?

Teacher Preparation Program Data

- Admission Requirements
- Teacher Preparation Program candidate demographics
- Program Availability
- Number of candidates credentialed

Distribution of Credentials by Type



■ Intern (57%)
 ■ Traditional (30%)
 ■ Teachers Prepared Outside o... (13%)

- ▲ % of intern credentials issued
- ▲ % of traditional credentials issued
- ▲ % of Teachers Prepared Outside of CA credentials issued

