

Client

North Carolina State Board of Education (SBE)

Project

SBE Strategic Plan Dashboards

Project Description

DataWorks Partners subcontracting with HelioCampus (together referred to as "Partners" in this proposal) will develop a set of dashboards to support the SBE strategic planning and other key stakeholder needs. Partners will also provide a road map for subsequent development of additional dashboards and for overall sustainability of the new information resources.

Purpose

Provide data tools to decision makers (SBE, Legislature, DPI, LEA leadership) for monitoring progress against strategic goals and identifying potential opportunities for improvement.

- The dashboard should be a sustainable, flexible, and transparent reporting and visualization framework. Specifically, this means that the product delivered minimizes maintenance effort and simplifies and establishes a foundation for future enhancements.
- The dashboard should be accessible and informative to lay users.

Scope of Work

In summary, the project entails building a set of dashboards from 12 of the State Board's strategic plan measures. Framing the dashboards within the Board's website and providing transparency and strong documentation, the project will create a foundation for future expansion (additional metrics, supporting data). In addition to delivering the above-described dashboards, the project deliverables will include a plan for that subsequent expansion.

(A project timeline is summarized in Exhibit 1, below. Note that the timeline was developed in early August with the expectation that the project start date would be during the month of August. Because the start date has extended into mid-September, the subsequent meeting dates and and delivery of prototype, drafts, etc. will be adjusted accordingly to accommodate the shorter overall project time frame.)



Project activities will include:

- Framing session(s) This will involve a lot of Q&A between Partners and the steering committee, and likely it will require some additional conversation with DPI and/or DIT. It is critical that we know exactly what the final product will look like and that the data sources, definitions, and computations are agreed upon.
- 2. Partners and SBE staff will work with DPI and DIT to take advantage of the Tableau infrastructure and licenses available to state agencies.
- 3. Determine the data needed and process for storing and integrating those data in a single repository. Work with SBE and DPI staff to understand any caveats, nuances, etc. that would be important to document.
- 4. Establish a data import and transformation process and a resulting database or repository containing the dashboard data.
 - Ensure that the data sources and computations are transparent to current and future stakeholders. Understand and communicate the lineage.
- 5. Document all data sources and transformations resulting in the reporting dataset.
- 6. Build a set of dashboards.
 - The metrics are defined by the Objectives falling under the three SBE strategic plan goals, found on the SBE's <u>Strategic Plan</u> web pages. Of the 24 objectives and components in all, 12 will be included and operationalized as performance metrics for the dashboards. (Those 12 are listed in Exhibit 2, below.)
 - The data supporting these 12 metrics are to be pulled from existing, public sources (reports, downloadable datasets), primarily on the DPI website. Datasets will require some degree of filtering, transposing, and other actions.
 - The time frame of data incorporated into these dashboards will recognize the first year of the strategic plan (2019) and provide historical data of up to five years, depending on availability, and the dashboards will be built to accommodate subsequent years of data being added over time.
 - Building is expected to include:
 - Prototype to ensure that the full product will meet expectations.
 - Draft the full suite for review by the steering committee and other stakeholders.
 - Steering committee review, testing, and feedback. This will be sought at each step: confirming metric definitions, creation of prototype, and full set of draft dashboards.
 - Refine the draft into final products.





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- 7. Integrate the dashboards with the SBE's broader Strategic Plan website.
 - This will include planning sessions with the steering committee to provide guidance on the website aesthetics. It will also require collaboration with the SBE website developer, who will be responsible for incorporating the Tableau link into the website.
- 8. Identify and document (road map) a plan for expanding the dashboards. I.e., articulate a Phase II plan.

Deliverables

- 1. Design and implement an interactive data dashboard for reporting and monitoring, aligned with the Board's Statewide Strategic Plan Life Cycle framework.
- 2. Present dashboard(s) showcasing the 12 prioritized Strategic Plan metrics during the SBE's January 6-7 meeting.
- 3. Document data sources, processes for data access and transformation, validation sources, and significant methodological or visualization decisions.
- 4. Deliver a plan for expansion of the dashboards to incorporate the other strategic plan metrics and, potentially, other relevant data. Include any recommendations to continue ensuring quality, sustainability, and adoption/engagement after the dashboard is complete. This plan should be delivered at the same time as the initial dashboards.
- 5. Through the end of FY21, support post-implementation presentation(s) of the dashboard to the State Board of Education and/or other stakeholder groups.



Exhibit 1: Project timeline

Pre-release demo of Phase I dashboard to steering November 20: Complete draft of all Phase I dashboards October 23:

Feedback/confirmation committee

Refinement if appropriate December 2-3:

Deliver draft of Phase II plan to steering committee Present "preview" to SBE

Steering committee feedback/confirmation

Build prototype with subset of Phasel

metrics

sources; also timeline Wireframe dashboard

Confirm data, definitions, and End of August

September 25:

December 21:

Presentation of Phase I product and next steps

to SBE

January 6-7:

January-April, 2021: DataWorks Partners availability for post-project education

Ready to go live!

References in the Project Proposal to "documentation" refer to writing out in both technical and plain language the decisions, methods, etc. involved in each of these steps. At every step, developers will look for opportunities to simplify and automate the process to support sustainability.

will also be documented, intended as background materials for contractors and SBE staff. For institutional memory, decisions regarding data sources, definitions, presentation, etc.

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Exhibit 2: List of Metrics Included in the Project

The metrics included in this project constitute half of the total Objectives and Components listed in the SBE's strategic plan. All of these fall under Goals I and II of that plan.

Notes: Each of the following metrics will be provided at the district and state level in addition to allowing for some interactivity and filtering by grade and subgroup where available and appropriate to the particular metric. School-level data may be included, where appropriate.

Partners will follow FERPA (privacy) requirements per DPI policy.

- 1.1: Suspensions and expulsions by district and subgroup **directional target**Based on Strategic Plan Goal 1, Objective 1-Decrease the number of exclusionary discipline practices by subgroup (suspensions and expulsions)
- 1.3: Percentage of 4-year olds enrolled in state pre-K program **specific target**Goal 1, Objective 3-Increase percentage of 4-year old children enrolled in state Pre-K from 22% to 34% (above the current national average)
- 1.4: High school [cohort?] dropout rate, by district and subgroup **directional target**Based on Goal 1, Objective 4-Decrease the high school dropout rate for each subgroup
- 1.4.1: Average ACT composite score by district and subgroup **directional target**Based on Goal 1, Objective 4, Component 1- Increase average composite score on state-mandated college entrance exam
- 1.4.2: Percentage of high school students enrolled in and passing AP, IB, CTE... courses directional target

Based on Goal 1, Objective 4, Component 2-Increase access, readiness, and attainment of early postsecondary opportunities (EPSOs), such as AP, IB, CTE, dual credit/enrollment, work-based learning, apprenticeships

1.7: Demographic percentages of charter schools in comparison to same percentages in LEA - specific target

Based on Goal 1, Objective 7-Increase the number of charter schools providing equitable access to economically disadvantaged students or reflecting the LEA in which they are located



2.2: Percentage of test scores meeting ESSA benchmark by grade, subject area, and subgroup within districts - **directional target**

Based on Goal 2, Objective 2-Increase the percentage of grades 3-8 math and ELA EOG subgroup test scores meeting the ESSA Yearly Measures of Interim Progress

- 2.3: Percentage of students proficient in math, by district and subgroup **directional target** Based on Goal 2, Objective 3-Increase the percentage of students proficient in math by subgroup
- 2.4: Percentage of 3rd grade students "proficient" in reading, by district and subgroup directional target

Based on Goal 2, Objective 4-Increase the percentage of students proficient in reading by the end of 3rd grade

2.5: Percentage of high school reading tests meeting ESSA benchmark, by district and subgroup- directional target

Based on Goal 2, Objective 5-Increase the percentage of high school reading subgroup test scores meeting the ESSA Yearly Measures of Interim Progress

- 2.6: Percentage of students proficient in science, by district and subgroup **directional target** Based on Goal 2, Objective 6-Increase the percentage of students proficient in science by subgroup
- 2.7: Percentage of schools meeting/exceeding growth measure, by district and subgroup directional target

Based on Goal 2, Objective 7-Increase number of schools meeting or exceeding growth measure by subgroup