



Introduction

Senate Bill 10-191, passed in 2010, restructured the way all licensed personnel in schools are supported and evaluated in Colorado. The ultimate goal is ensuring college and career readiness for all students, which is greatly impacted by the effectiveness of the educators in schools. To support this effort, the Colorado Department of Education (CDE) developed several model systems as an option for districts to use in implementing the new evaluation requirements for educators.

The Colorado State Model Evaluation System was developed to provide consistent and relevant feedback to all educators throughout Colorado. Model systems of evaluation are currently in place for teachers, principals and educators known collectively as specialized service professionals (SSPs). Currently, there are nine categories of specialized service professionals which use specific rubrics for their annual evaluations:

- Audiologists
- Occupational therapists
- Physical therapists
- School counselors
- School nurses
- School orientation and mobility specialists
- School psychologists
- School social workers
- Speech language pathologists

The Colorado State Model Evaluation System aligns with all requirements set forth in Senate Bill 10-191. By providing a new statewide model of evaluation for all licensed educators, SSPs are able to receive consistent, timely and actionable feedback to improve their professional practices. This report provides insight on the implementation of the Colorado State Model Evaluation System and initial evaluation scores reported by SSPs and is intended to complement the teacher and principal pilot reports developed by CDE. For more information on teacher and principal pilot reports, please visit:

www.cde.state.co.us/educatoreffectiveness/smes-pilot

This report provides several analyses related to the evaluation of audiologists in Colorado. The two major areas pertain to audiologists' perceptions of their former systems of evaluation compared to the Colorado State Model Evaluation System, and the professional practice ratings resulting from the use of the Colorado State Model Evaluation System. Professional practice ratings contribute to 50 percent of an SSP's overall evaluation rating. Measures of student outcomes comprise the remaining 50 percent, as established by SB 10-191.

This report provides an *initial* look at the use of the Colorado State Model Evaluation System by audiologists and caution should be exercised when interpreting the results. Specifically, audiologists represent a much smaller population than that of teachers and principals. Generalizing results to the entire audiologist population based on the results of this small sample of audiologists is not advisable both because of the small sample size as well as it being the first

Key Findings

Many of the audiologists had **positive perceptions** of the Colorado State Model Evaluation System and noted that the system set high standards for their role.

All audiologists were deemed proficient or higher on their overall professional practice rating, representing the three areas of proficiency on the five-point scale (basic, partially proficient, proficient, accomplished and exemplary).

Audiologists performed the best on **Standard 1** (Professional Expertise) and **Standard 4** (Reflect on Practice). **Standard 3** (High Quality Delivery), had the most audiologists below the level of proficient.

There is evidence that the standards are **reliable measurements** of audiologists' practice. The standards are **strongly correlated** with one another and the overall professional practice rating, suggesting that the rubric captures multiple related measures of effectiveness.



year of implementation. These systems take time to adjust to and implement with fidelity. Additionally, the implementation of the Colorado State Model Evaluation System may have been conducted differently across districts and Boards of Cooperative Educational Services (BOCES) sites. Thus, audiologists may have been evaluated very differently during the initial implementation, depending on where they were located and how they were employed.

Specialized Service Professionals, Audiologists, and SB 10-191

SSPs are educational professionals who ensure that diverse student populations have equitable access to academic instruction and participation in school-related activities. In the 2013-14 academic year, 5,295 SSPs were employed in Colorado. In accordance with the requirements set forth in SB 10-191, all educators should receive sufficient feedback, support and opportunities for professional growth, to ensure each child has access to great educators.

In their recommendations to implement Senate Bill 10-191, the State Council for Educator Effectiveness identified the nine categories of specialized service professionals, and with help from nine working groups of these professionals, outlined high quality standards and elements that guided the creation of the Colorado State Model Evaluation System. All nine groups of SSPs work from a common set of standards and elements approved by the State Board of Education, but each category has unique professional practices outlining the specific role and duties of each professional group. Recommendations from the State Council for Educator Effectiveness on the evaluation of SSPs can be found in the following report: www.cde.state.co.us/educatoreffectiveness/sceesspreportmay2013

Audiologists provide direct services to students by administering diagnostic tests and providing diagnostic tests and recommendations for hearing improvement services. They may also serve in a consultative role to districts by advising on how to improve the classroom environment for students with special audiology needs. Audiologists are often hired by a district or multiple districts and are evaluated by someone such as a Director of Special Education or Director of Health Services. There are approximately 77 audiologists in the state and about 10 percent work in multiple districts and/or schools. This report contains professional practice ratings from 13 audiologists.

The following definition is intended to give an overview of what an effective audiologist does to meet the Colorado educator quality standards and their related elements. Definitions for all SSPs have been drawn from the Colorado State Model Educator Evaluation System User's Guide: www.cde.state.co.us/educatoreffectiveness/usersguide

Definition of an Effective Audiologist

Effective audiologists are vital members of the education team. They are properly credentialed and have the knowledge and skills necessary to facilitate equitable access and participation in school-related activities. Effective audiologists strive to support growth and development in the least restrictive environment, close achievement gaps and prepare diverse student populations for postsecondary and workforce success. Effective audiologists manage hearing assistance technology for students and educators and utilize evidence-based strategies to remove barriers to learning. They identify hearing loss and other auditory difficulties and they monitor, interpret and communicate the impact of hearing on listening, learning and academic growth. Effective audiologists provide services that are comprehensive and designed to address each student's individual academic, communication and psychosocial needs. They have a deep understanding of the interconnectedness of the home, school and community and collaborate with all members of the education team to strengthen those connections. Through reflection, advocacy and leadership, they enhance the academic achievement and personal/social development of their students.



Analyses Background

The research presented in this report uses two datasets to produce the overall findings. The first dataset consists of responses to baseline and feedback surveys issued to the pilot districts and BOCES that were in the process of transitioning to the Colorado State Model Evaluation System. The second dataset consists of 13 finalized professional practice ratings from the 2013-14 academic year.

Baseline and Feedback Surveys

Nineteen districts piloted the SSP Colorado State Model Evaluation System. From these 19 districts, seven piloted the SSP rubric for audiologists. Audiologists at these districts were sent an e-mail containing a link to complete the perception surveys. Many of the questions were likert style and asked to what degree the respondent agreed with statements pertaining to their previous and current evaluation systems. Other questions consisted of multiple choice and open ended responses.

The baseline survey data was collected between October 2013 and January 2014. The follow-up feedback survey data was collected between May 2014 and June 2014. All data was collected via online survey. The surveys asked the respondents questions pertaining to their perceptions of their former evaluation system and their initial impressions of the Colorado State Model Evaluation System. The survey was issued anonymously; perception data cannot be linked to district information, any type of demographic feature, or the professional practice ratings.

Professional Practices

This dataset consists of finalized professional practices data from the 2013-14 academic year. Thirteen audiologists from seven district sites provided final professional practice ratings. Each was evaluated according to a specific audiologist rubric and a professional practice rating was developed. The primary goal of these analyses was to draw out overall, standard, and element level professional practice ratings and to describe the reliability and correlations associated with each.

Percent of Positive Responses Given by SSPs in Baseline and Feedback Surveys

Before reviewing audiologist-specific perceptions, this report introduces a brief analysis of the overall perceptions of all SSPs. Figure 1 displays aggregated SSP perception data. This table displays the percent of positive responses on each survey item. The percent positive responses on each item is higher on the feedback survey than the baseline survey, suggesting that the Colorado State Model Evaluation System is perceived as an improved tool to guide professional growth and improve performance (note that responses of “agree” and “strongly agree” are coded as positive responses; in contrast to “neutral”, “disagree”, and “strongly disagree”).

Across all SSPs, the area with the largest gain between the baseline and feedback surveys pertained to the evaluation system’s use of student outcomes to inform the final rating. This is highlighted as many of the former SSP evaluation systems did not formally consider student outcomes in the evaluation process. The feedback survey item with the most positive responses was regarding the evaluation system’s ability to identify areas of strength. The areas with the least positive responses pertain to the confidence that development of the Colorado State Model Evaluation System was based on current scientifically sound research and the ability of the new system to provide an accurate assessment of performance. However, these areas still had more positive responses on the feedback survey than on the baseline survey.

In the overall population of SSPs, the survey item with the greatest variance in the amount of change of positive responses pertained to the fairness of the evaluation system (standard deviation = 0.27), suggesting that this item had the largest range in perceptions across the nine different types of SSPs.



It is important to note the distinct differences associated with the specific groups of SSPs and what their unique perceptions are of their former and current evaluation systems. The specifics regarding these differences can be found in each individual SSP report at www.cde.state.co.us/educatoreffectiveness/smes-pilot. The unique differences between groups of SSPs can be identified in each of these reports.

When comparing audiologists to the larger group of SSPs, several differences are apparent. For example, the percent of positive responses from SSPs as a whole did not decrease between the baseline and feedback surveys on any items. However, as seen in figure 2, there were five areas in which the percent of positive responses declined between surveys. In addition, on the baseline survey, there were some items which audiologists provided zero positive responses. Additional information specific to audiologists' perceptions are found on the following page.

Figure 1. SSP perceptions of their former evaluation system and the Colorado State Model Evaluation System

Survey Question	Baseline Fall 2013 (N = 268) The former evaluation system...	Feedback Spring 2014 (N = 202) The State Model Evaluation System...	Change in Percent Positive Response
Identifies areas that need improvement.	55.5%	78.7%	+23.2%
Identifies areas of strength.	67.3%	79.6%	+12.3%
Designed to guide professional growth.	46.3%	77.7%	+31.4%
Sets high standards for the person being evaluated.	34.1%	69.7%	+35.6%
Serves as a basis for improving service delivery and planning.	27.3%	60.4%	+33.1%
Provides actionable feedback to the person being evaluated.	31.8%	57.4%	+25.6%
Documents changes in professional practice over time.	16.8%	55.9%	+39.1%
Supports the improvement of service delivery and program development.	27.0%	57.9%	+31.0%
Is based on current scientifically sound research.	10.9%	34.3%	+23.5%
Results in improved student outcomes.	20.4%	40.1%	+19.7%
Provides an accurate assessment of my performance.	31.8%	37.3%	+5.5%
Encompassed all aspects of quality service delivery.	21.7%	40.1%	+18.4%
Provided a fair assessment of professional practices.	30.6%	45.3%	+14.7%
Provided timely feedback to the person being evaluated.	36.3%	51.5%	+15.2%
Used student outcomes to inform my final rating.	11.9%	55.2%	+43.3%
Was useful to me in making decisions about service delivery.	25.0%	50.7%	+25.7%
Influenced my practice as a specialized service professional.	32.5%	63.7%	+31.2%
I understand what information was used in my evaluation.	58.6%	65.8%	+7.3%

Note. The heavy black line in the middle of the table is provided to distinguish items that appear in the 2012-13 Teacher System Pilot Report—Baseline and Feedback Survey Data. The items above this line can also be found on the teacher survey data report (for reference), while those below the line will not be found on that report, but are important to the SSP population. The 2012-13 Teacher System Pilot Report—Baseline and Feedback Survey Data can be found here: www.cde.state.co.us/educatoreffectiveness/teacherpilotsurveydata12-13



Audiologist

There are approximately 77 audiologists in the Colorado K-12 system. Since only seven districts and school sites participated in the evaluation system for audiologists, the sample size is rather small. Five audiologists responded to the baseline survey and six responded to the feedback survey. As such, broader generalizations about the perceptions of audiologists should be avoided.

The areas with the greatest differences in the percent of positive responses pertain to the Colorado State Model Evaluation System’s establishment of high standards of the evaluatee (a 60 percent increase between surveys) and use of student outcomes to inform final evaluation ratings (a 50 percent increase). However, five areas showed a decline in the rate of positive responses: the Colorado State Model Evaluation System’s ability to guide professional growth, support the improvement of service delivery and program development, result in improved student outcomes, provide an accurate assessment of the audiologist’s performance, and whether or not the audiologist understands what information was used in the evaluation.

Figure 2. Audiologists’ perceptions of their former evaluation system and the Colorado State Model Evaluation System

Survey Question	Baseline Fall 2013 (N = 5) The former evaluation system...	Feedback Spring 2014 (N = 6) The State Model Evaluation System...	Change in Percent Positive Response
Identifies areas that need improvement.	40.0%	83.3%	+43.3%
Identifies areas of strength.	60.0%	83.3%	+23.3%
Designed to guide professional growth.	60.0%	50.0%	-10.0%
Sets high standards for the person being evaluated.	40.0%	100.0%	+60.0%
Serves as a basis for improving service delivery and planning.	20.0%	66.7%	+46.7%
Provides actionable feedback to the person being evaluated.	0.0%	33.3%	+33.3%
Documents changes in professional practice over time.	20.0%	50.0%	+30.0%
Supports the improvement of service delivery and program development.	40.0%	33.3%	-6.7%
Is based on current scientifically sound research.	0.0%	20.0%	+20.0%
Results in improved student outcomes.	20.0%	16.7%	-3.3%
Provides an accurate assessment of my performance.	40.0%	33.3%	-6.7%
Encompassed all aspects of quality service delivery.	20.0%	33.3%	+13.3%
Provided a fair assessment of professional practices.	20.0%	50.0%	+30.0%
Provided timely feedback to the person being evaluated.	20.0%	50.0%	+30.0%
Used student outcomes to inform my final rating.	0.0%	50.0%	+50.0%
Was useful to me in making decisions about service delivery.	0.0%	33.3%	+33.3%
Influenced my practice as a specialized service professional.	20.0%	50.0%	+30.0%
I understand what information was used in my evaluation.	60.0%	50.0%	-10.0%



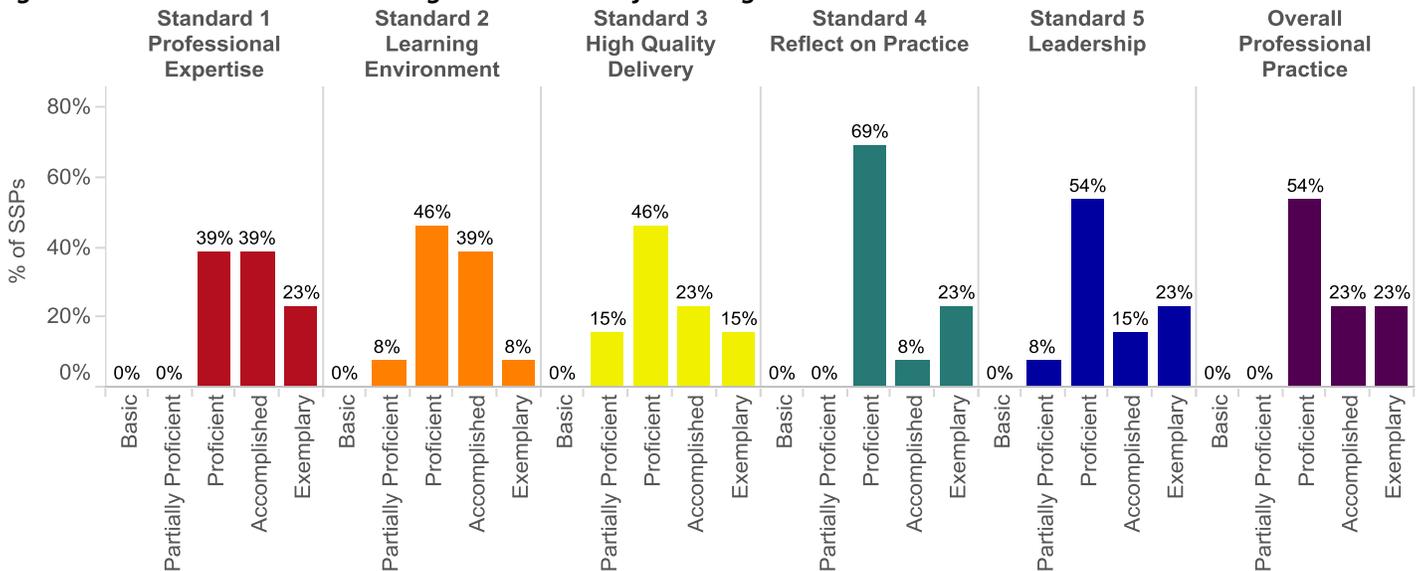
Professional Practices Distributions of Audiologists

Of the 13 audiologists in the seven districts that provided professional practice rating information, 100 percent were evaluated as proficient or higher for the overall professional practice rating. Figure 3 depicts the professional practice ratings of audiologists on each of the standards. Standard 1 (Professional Expertise) and Standard 4 (Reflect on Practice) both had all audiologists evaluated as proficient or higher. On Standard 3 (High Quality Delivery), however, 15 percent of audiologists did not achieve proficiency.

The following sections will also include descriptions of the correlations¹ and internal consistency² between and within the standards. A correlation is a measurement of how two variables, such as standards, change together. Internal consistency, on the other hand, is a measurement that describes how well multiple measures of related constructs score together. These two concepts, correlations and internal consistency, are important to this analysis since the Colorado State Model Evaluation System has been designed to measure related, but unique, aspects of educator effectiveness.

All standards are strongly correlated with one another ($0.53 < \rho < 0.81$) as well as with the overall proficiency rating ($0.67 < \rho < 0.90$). The reliability of the standard level scores was high (Cronbach's $\alpha = 0.92$), and the ratings within each standard range between an acceptable to high degree of internal consistency ($0.63 < \alpha < 0.88$).

Figure 3. Standard and overall ratings distributions of audiologists



Note. Percentages may not add to 100 percent due to rounding.

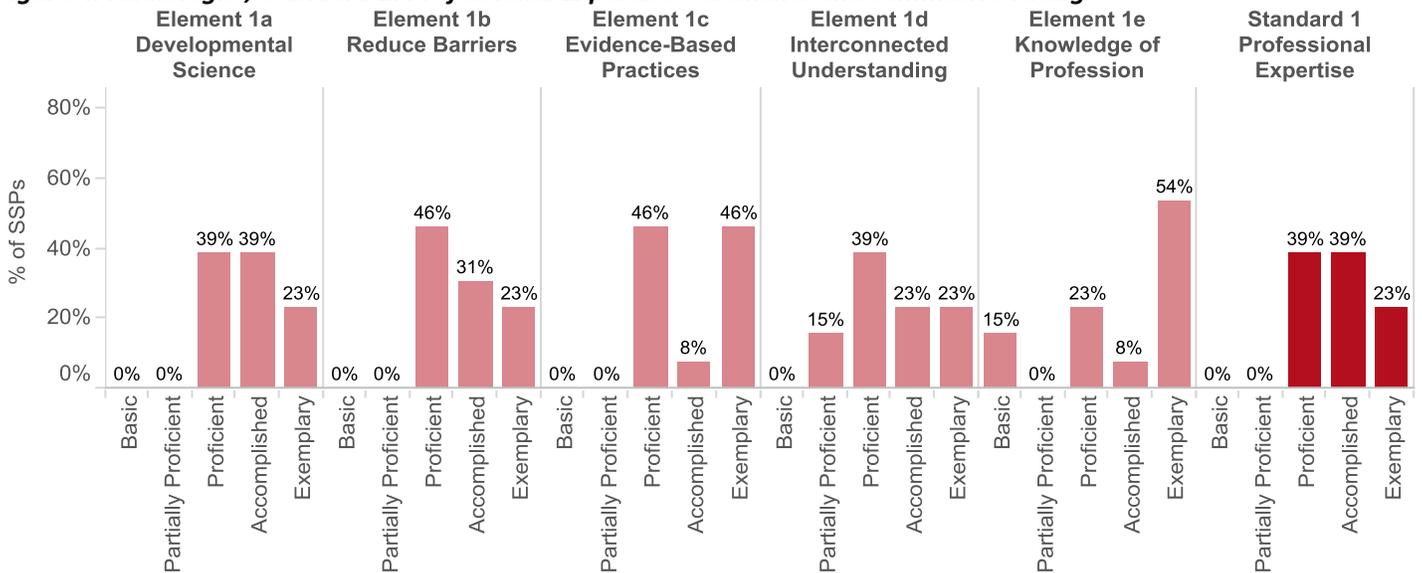
¹ Correlations indicate the strength of the relationship between two measures; a value of 0 indicates no relationship and a value of 1 indicates a perfect positive relationship (a value of -1 indicates a perfect negative relationship). General guidelines for interpreting this value are: a correlation under 0.30 indicates a weak relationship, 0.30-0.49 indicates a moderate relationship, and a 0.50 and above indicates a strong relationship.

² Internal consistency is a measure of reliability. This report uses Cronbach's alpha (α) as a measurement of internal consistency for professional practice ratings. Typically, an item with an α score less than 0.50 is considered to have poor internal consistency, an item with an α between 0.50 and 0.69 is said to be acceptably reliable, and an item with an α of 0.70 and above has a high degree of internal consistency.



When drilling down to Standard 1 (Professional Expertise), audiologists in the pilot displayed a high degree of internal consistency (Cronbach’s $\alpha = 0.74$). The correlation between elements in Standard 1 ranged between weak and strong ($0.02 < \rho < 0.84$), while the elements were each strongly correlated with the overall standard ($0.52 < \rho < 0.84$).

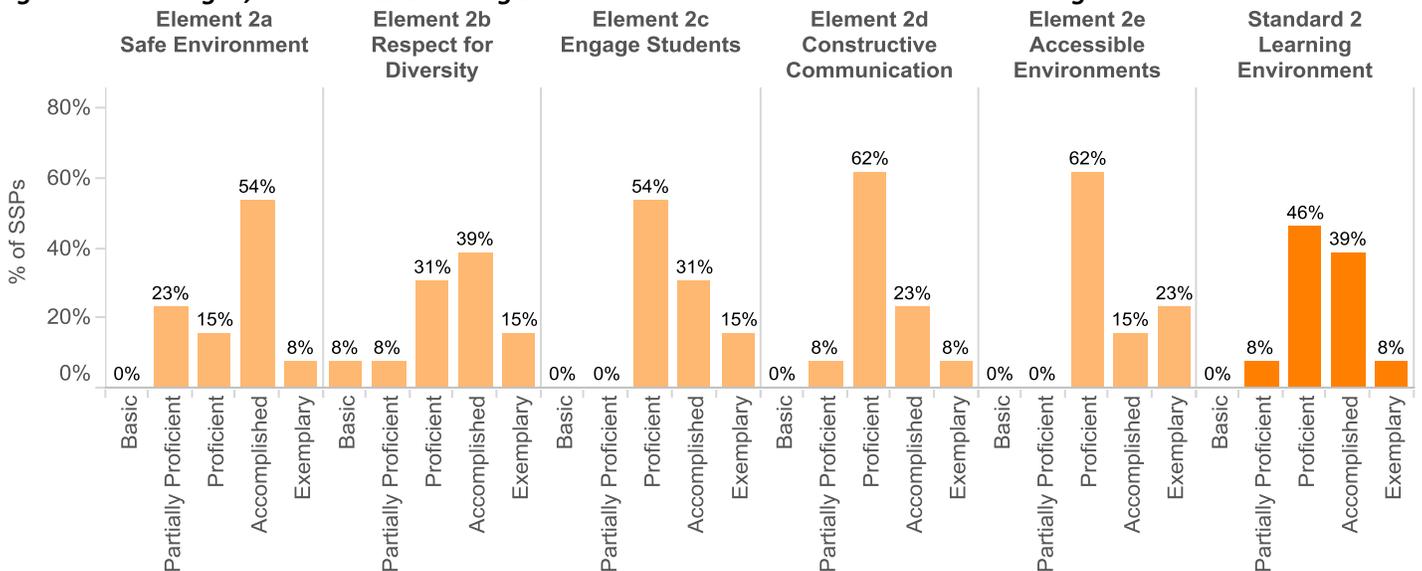
Figure 4. Audiologist, Standard 1: Professional Expertise – elements and summative rating



Note. Percentages may not add to 100 percent due to rounding.

For audiologists in the pilot, Standard 2 (Learning Environment) displayed a high degree of internal consistency (Cronbach’s $\alpha = 0.88$). The correlation between elements in Standard 2 ranged between moderate and strong ($0.45 < \rho < 0.88$), while the elements were each strongly correlated with the overall standard ($0.72 < \rho < 0.89$).

Figure 5. Audiologist, Standard 2: Learning Environment – elements and summative rating

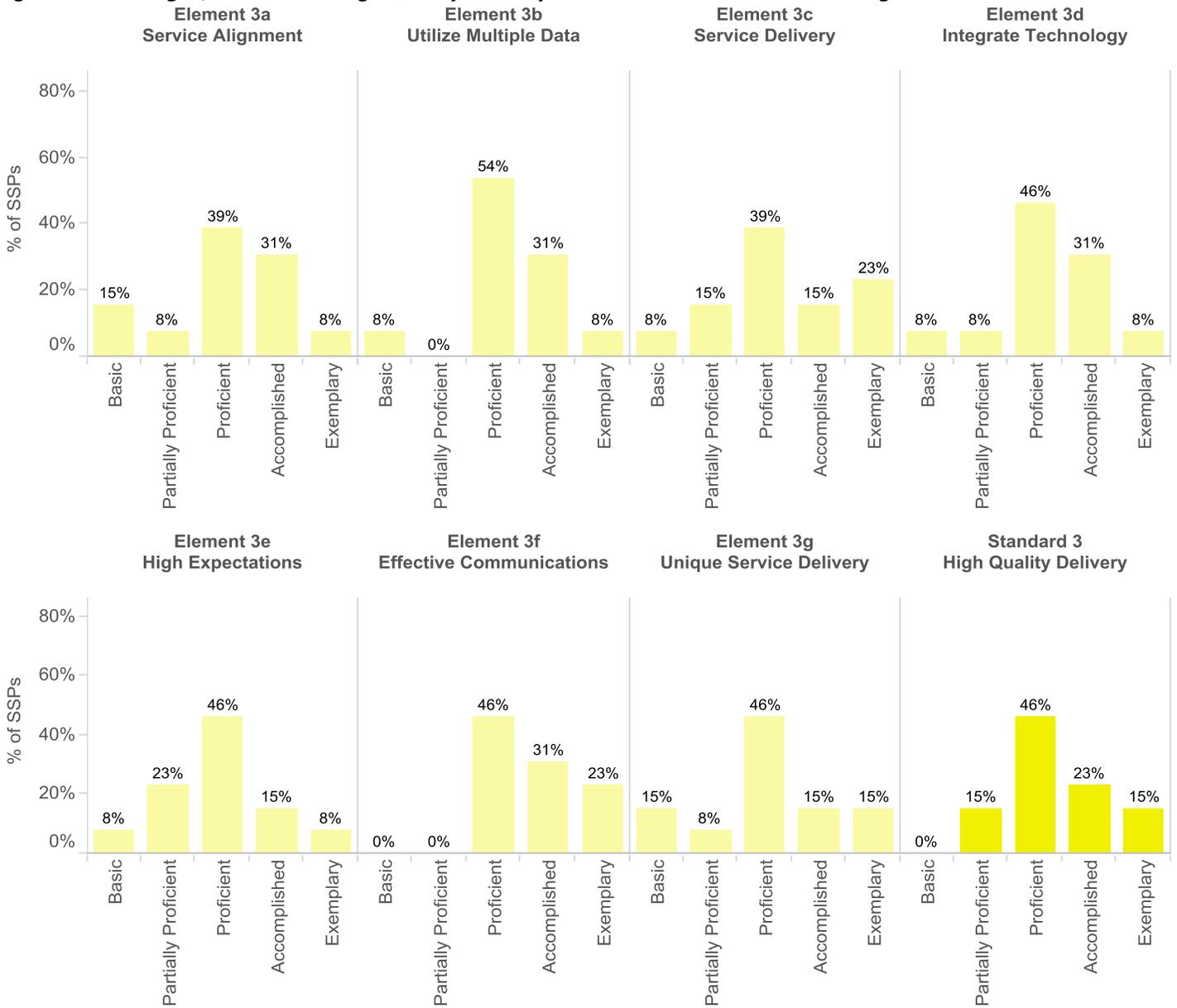


Note. Percentages may not add to 100 percent due to rounding.

Standard 3 (High Quality Delivery) displayed a high degree of internal consistency (Cronbach’s $\alpha = 0.87$). The correlation between elements in Standard 3 ranged between weak and strong ($0.06 < \rho < 0.83$), while the elements were each moderately to strongly correlated with the overall standard ($0.38 < \rho < 0.89$).



Figure 6. Audiologist, Standard 3: High Quality Delivery – elements and summative rating

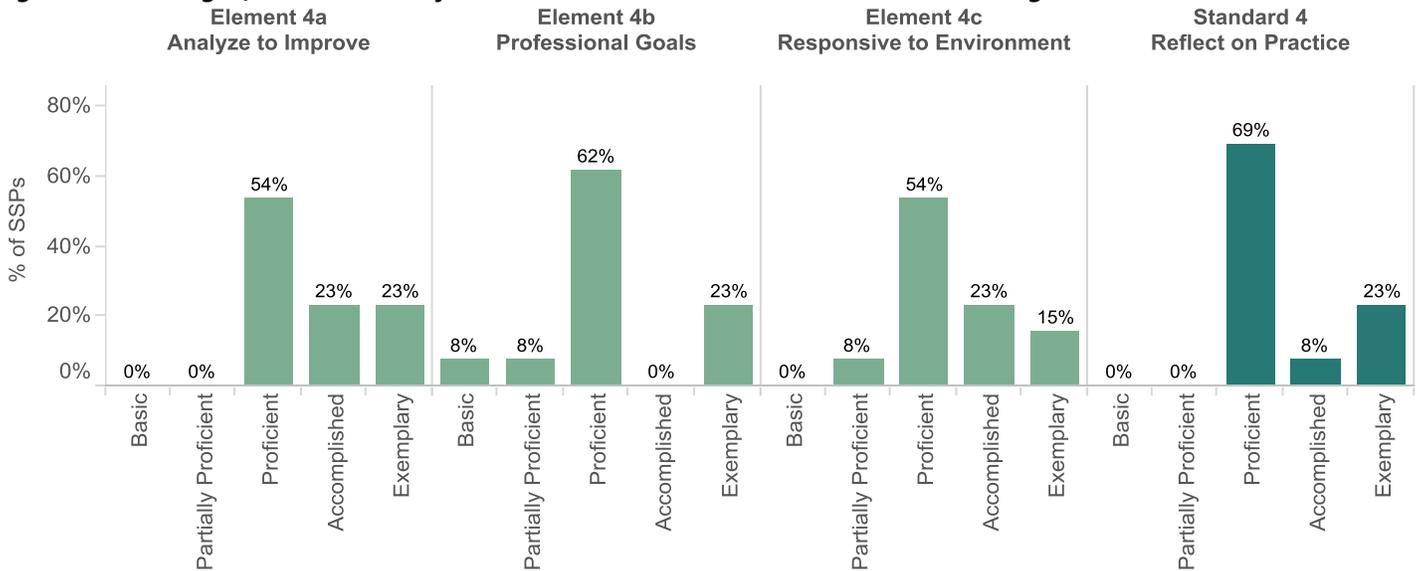


Note. Percentages may not add to 100 percent due to rounding.



For audiologists in the pilot, Standard 4 (Reflect on Practice) displayed acceptable internal consistency (Cronbach’s $\alpha = 0.63$). The correlation between elements in Standard 4 ranged between weak and moderate ($0.25 < \rho < 0.51$), while the elements were each strongly correlated with the overall standard ($0.65 < \rho < 0.80$).

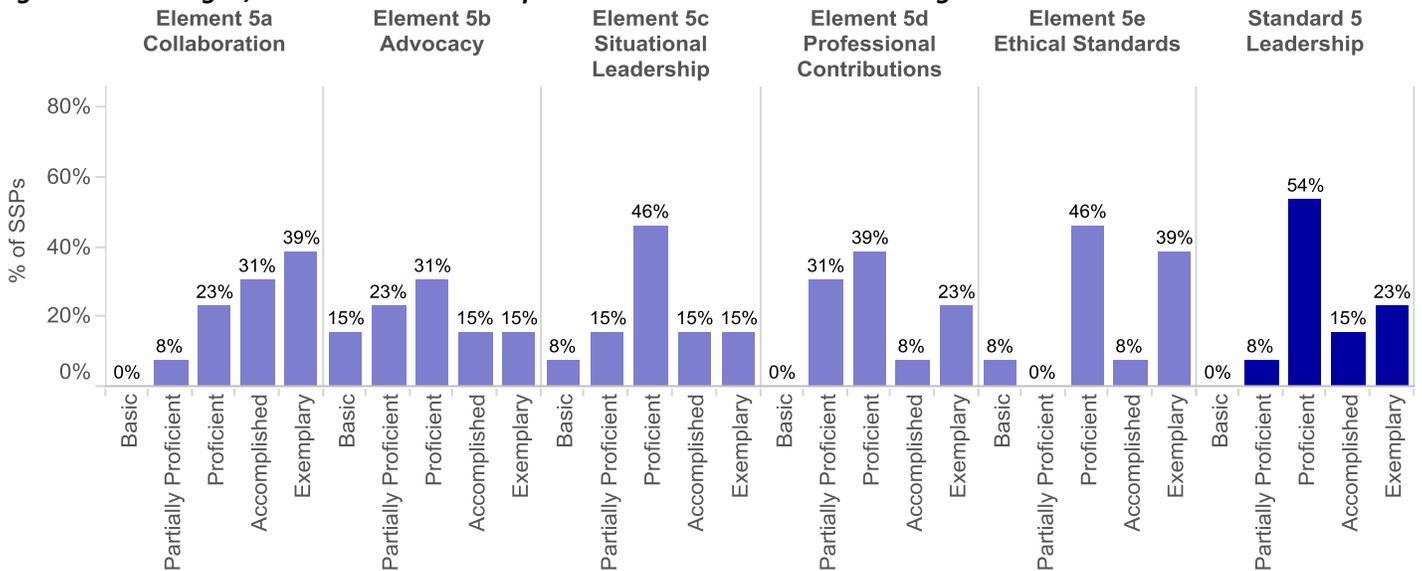
Figure 7. Audiologist, Standard 4: Reflect on Practice – elements and summative rating



Note. Percentages may not add to 100 percent due to rounding.

For audiologists in the pilot, Standard 5 (Leadership) displayed a high degree of internal consistency (Cronbach’s $\alpha = 0.88$). The correlation between elements in Standard 5 ranged between weak and strong ($0.21 < \rho < 0.93$), while the elements were each moderately to strongly correlated with the overall standard ($0.47 < \rho < 0.89$).

Figure 8. Audiologist, Standard 5: Leadership – elements and summative rating



Note. Percentages may not add to 100 percent due to rounding.



Conclusion

In developing and implementing the Colorado State Model Evaluation System, it has been noted that SSPs are unique educational professionals that have diverse evaluation needs and outcomes. The implementation of the Colorado State Model Evaluation System has largely been positively received by audiologists in the pilot. As a whole, audiologists had the greatest change in the percent positive responses on the survey item pertaining to the level of standards set for the person being evaluated. However, as indicated in the overall SSP pilot report, audiologists indicated that their prior evaluation system was more effective than the Colorado State Model Evaluation System. Specifically, no pilot audiologists indicated that the Colorado State Model Evaluation System was “Very Effective” or “Effective,” while 25 percent of respondents indicated that their prior system was “Effective.” In addition, several of the items on the perception survey from piloted audiologists suggest that this group does not have as many positive views of the Colorado State Model Evaluation System compared to their prior system of evaluation. These areas include the ability for the evaluation system to identify areas of growth, support the improvement of service delivery, provide an accurate assessment of performance, and the audiologists’ understanding of what information is used in the evaluation. These are areas that CDE will track over time and, working with audiologists, determine how to improve the model to fit their unique contexts. Otherwise, all audiologists in the pilot were deemed proficient or higher on their final professional practice rating. Each of the five standards, however, varied in the level of proficiency. This variation occurred across as well as within each of the standards.

This report suggests that there is a range of reliability associated with the standards and with overall professional practice ratings. For audiologists in the pilot, all overall and standard level reliability indicators displayed an acceptable to high degree of reliability. Ratings also correlated with one another across and within each standard, suggesting that the Colorado State Model Evaluation System does capture different but related aspects of professional practices of audiologists. Further research into these areas could yield additional insight on the use of the Colorado State Model Evaluation System by audiologists. The small sample sizes associated with this population implies that generalizable conclusions about the perceptions and reliability should not be drawn from this report. The preliminary results do suggest that the Colorado State Model Evaluation System can be validated as an effective measurement tool for improving professional practices. The validation process would produce greater insight on the use of the evaluation system as a reliable, valid, and fair instrument for educator evaluation. As the Colorado State Model Evaluation System continues to be implemented and additional data is collected, supplementary analyses may be performed to better understand the use of this system among audiologists.