



**WYOMING  
STATE BOARD  
OF EDUCATION**

To: Joint Education Interim Committee (JEIC) Members

From: Tom Sachse, Coordinator  
Wyoming State Board of Education

Subject: Interim Priority #5

Some of you may recall that during last year’s interim session, the state board recommended conducting a survey regarding the size and scope of the basket of goods and services. The state board, in collaboration with seven professional associations, collected 607 survey responses from around the state. The results of that survey are presented [here](#).

On discussing the results, the state board asked that I write a brief paper on how to interpret those results. That paper is included [here](#). With that as background information, the state board then convened a committee now called the Basket of Goods Task Force, with the make-up called for in Interim Topic Number Five. This convening was done with the prior approval of this committee’s co-chairs. In this brief report, I will attempt to summarize the work of the task force to date and discuss implications for three sets of Uniform Student Content and Performance Standards.

**Basket of Goods Task Force:** This task force is comprised of approximately 25 members, with additional representation from the State Board of Education, Wyoming Department of Education, and the Attorney General’s Office. The names of the task force members are included [here](#). The group has met twice and there are plans for one additional meeting later this month. At the first meeting, the task force spent time analyzing and discussing the basket survey and the white paper that presented issues and recommendations about those results. At that same meeting, the group reviewed seven steps in the process of adding to the basket of goods from legislative intent through to classroom implementation. Participants on the task force include educational experts who, in total, represent literally hundreds of years of experience in the Wyoming public school system. Despite this collective expertise, most in the room learned that they were not knowledgeable about a number of the steps in that process. More importantly, most task force members realized they didn’t fully understand whether implementation of the Wyoming content and performance standards was required or optional at different grade levels. At the second meeting, the task force identified “complexities” in that seven-step process. Those complexities are included [here](#). The next step, to be taken at the final meeting of the task force, is to make recommendations

to the State Board of Education on refinements in the seven-step process that would lead to greater understanding and communication among stakeholders in the system. I hope to have the opportunity to present the State Board's recommendations at a later interim meeting of the JEIC.

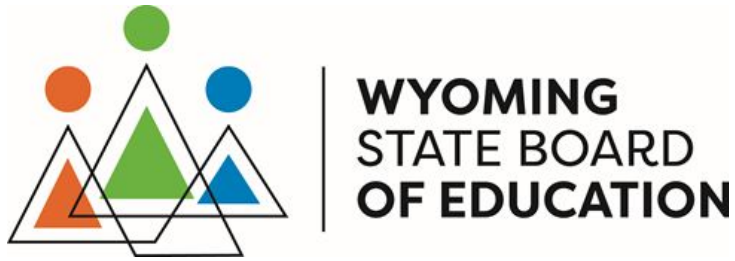
**Computer Science:** The State Board of Education received the proposed Computer Science Standards at its March meeting. It also took a great deal of public testimony both advocating for and advocating against the approval of the draft standards. At least 50 individuals and organizations presented testimony to the board. A number of the standards committee members and industry representatives testified affirmatively about the standards in the 201-page document. On the other hand, a number of teachers and curriculum directors raised concerns about the number and rigor of proposed standards and benchmarks. They were particularly anxious about the rigorous benchmarks in grades kindergarten through five. Many were concerned that there simply wasn't room in the school day for an additional content area. Some were concerned because they lacked the background to teach coding and other content included in the computer science domain. Ultimately, the State Board did not achieve a majority who would vote to promulgate the standards for public comment. Instead, the board made the unusual decision to send the standards back to the review committee and asked them to simplify the standards in four different ways. The board voted to authorize \$25,000 to bring the committee back, as the department had already expended all funds for this committee's purpose. The board clarified its recommendations for refinement in [this memo](#). The committee was reconvened for two days and they simplified the standards by designating some as priority, some as supportive, and others as enhanced.

At its April meeting, the State Board received the revised standards along with additional testimony. The State Board then approved this new version of the standards for promulgation and public comment. At its May meeting, attorneys for the State Board advised that this tiered approach to standards designation may not be advisable. The State Board has directed the attorneys to make a formal determination regarding this approach. The board hopes to receive legal counsel on this matter at its June meeting. While the state board has till January 2022 to complete the computer science standards, they are trying to expedite the standards completion to get districts more time for a phased implementation process.

**Civics:** The State Board has asked the State Superintendent of Public Instruction to review the department's workload to see whether a social studies committee could be reconstituted to recast the Wyoming social studies standards with the rigor and specificity of the civics framework for the National Assessment of Educational Progress (NAEP). Given the recent legislative history regarding bills that would add a graduation requirement for students to pass the naturalization examination, the State Board wanted to demonstrate its intention to respond to legislative interests, such as improving civics instruction leading to greater civic engagement and participation.

**CPR:** Similarly, the State Board has asked the State Superintendent of Public Instruction to request that the upcoming health standards review committee discuss whether CPR and First Aid should be included in the next iteration of health standards. This too is in response to legislative action that would add another graduation requirement by adding CPR to the basket of goods and services.

In these four endeavors, the State Board is attempting to be responsive to the state legislature in regard to legislative priorities for what students should know and be able to do. It is also trying to clarify and refine the current process for adding to the basket. The State Board acknowledges its complicity in making the basket larger in scope and more challenging in rigor. Ultimately, it is the classroom teacher that bears the brunt of additions to the basket of goods and services. Many teachers are concerned that the legislative priority for basic skills acquisition may be compromised by recent additions including Indian Education for All and Computer Science. The State Board also recognizes the duality in convening a task force to consider whether the basket is simply too full and at the same time recommending additions such as those referred to in civics and CPR.



# **Survey Results On the Basket of Goods and Services: A Report to the Wyoming State Board of Education**

**Prepared by Tom Sachse & Kylie Taylor**

**Discussion Draft: February 14, 2019**



**Walt Wilcox, Chairman Wyoming State Board of Education**

**Introduction:** This report to the Wyoming State Board of Education summarizes a survey regarding the state’s “Basket of Goods and Services” proposed to the Joint Education Interim Committee on September 28, 2018 in Casper, WY. The intent of the state board in conducting this survey was to get a snapshot of how various stakeholders viewed the growing curricular expectations for all students.

**Background:** In the previous biennium, the Wyoming State Legislature proposed bold additions to the state’s Uniform Student Content and Performance Standards. Additions including Indian Education for All (modeled after the Montana program of the same name) and Computer Science were supported by the state board. But the board was concerned that these additions and other proposals, including adding CPR to the health standards and four years of math in high school may be too much to add at a time when the system was already dealing with a new assessment system, major changes to the state’s accountability system, and cuts in funding levels. These additional standards and the existing standards are all contained in Chapter 10 Rules (found on the Secretary of State’s website).

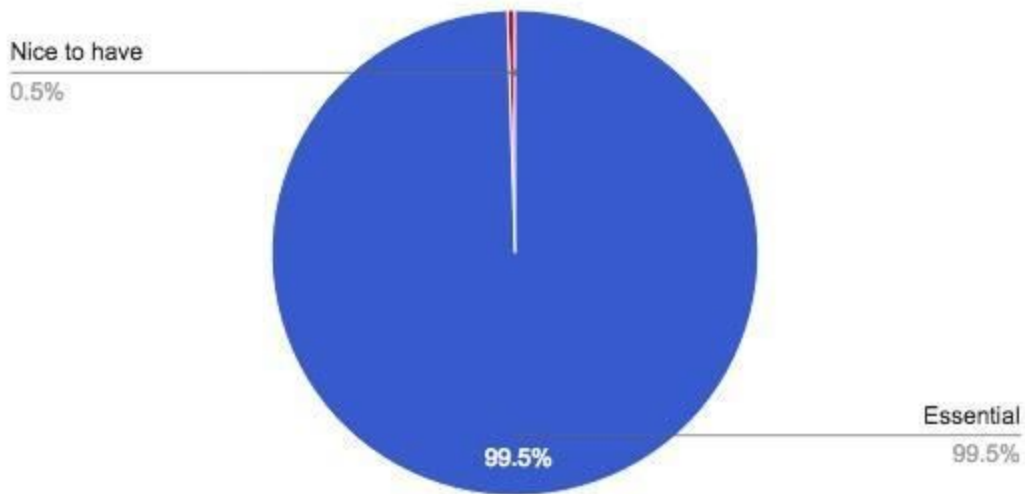
**Methods:** This survey was conducted entirely on-line and consisted of six questions that most respondents completed in less than 10 minutes. They were asked about their role, asked about the relative importance of the now 10 content areas for elementary grades, asked about the relative importance of the now 10 content areas for secondary grades, and asked about whether other additions should be made in the near future given the current status of public schooling in Wyoming.

The survey was sent to various professional associations for larger distribution. These partner associations included those for school board members, superintendents, curriculum directors, principals, teachers, and parents. In two cases, the survey was presented in person by the board’s coordinator; all other surveys were emailed with requests for responses. The survey was opened on October 25th, 2018 and was closed on February 11th, 2019. The survey period was longer than anticipated due to similar surveys being conducted and the winter holidays. Given that similar statewide education surveys often get 30-50 respondents, the board set a lofty goal of getting 300 responses. The final number of surveys completed was 606. This report was created using an application found by Trustee Fuhrman. The pie charts it creates has oddities like listing NOT\_Found in the title sometimes and combining Essential.Nice to Have sometimes. Please ignore these random labels; they are part of a jpeg picture and cannot be deleted. The graphs and my summaries are accurate.

**Respondents:** Of the 606 respondents, the largest number was Teachers (200 responses--33%). They were followed by Parents (143 responses--24%); Principals (114 responses--19%); School Board Members (60 responses--10%); Central Office Staff, like Curriculum Directors (53 responses--9%); and Superintendents (36 responses of 48 Superintendents--6%). Some respondents gave multiple affiliations to this question.

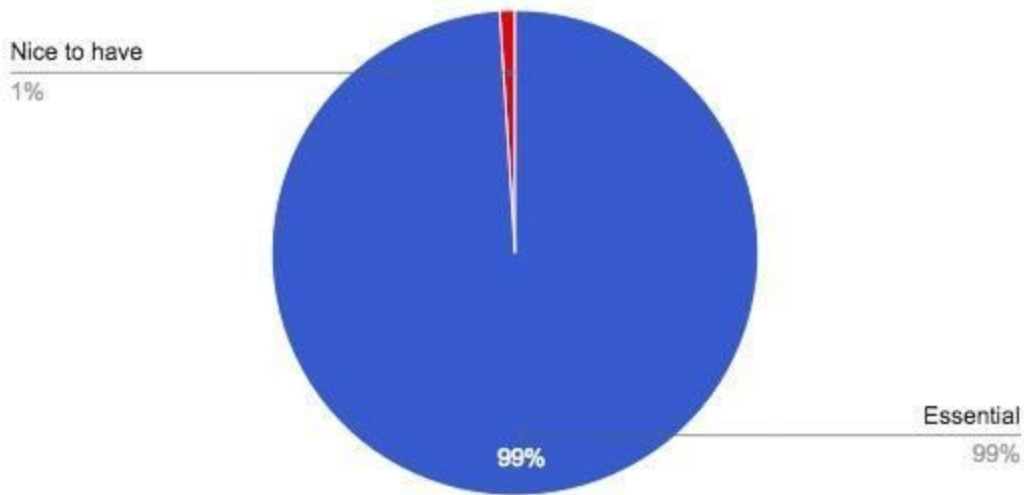
**Results:**

Please rank Wyoming's 10 required K-12 subject areas in order of importance for ELEMENTARY students. [Language Arts] NOT\_FOUND



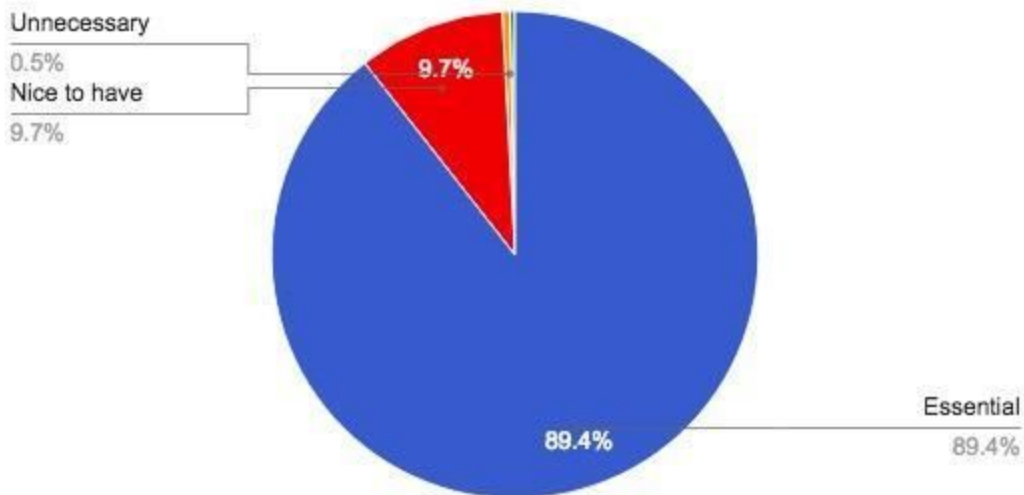
Not surprisingly, virtually everyone agreed that elementary students should study the Language Arts. The astonishing response is that someone thought Reading and Writing are “Nice to Have.”

Please rank Wyoming's 10 required K-12 subject areas in order of importance for ELEMENTARY students. [Mathematics] NOT\_FOUND



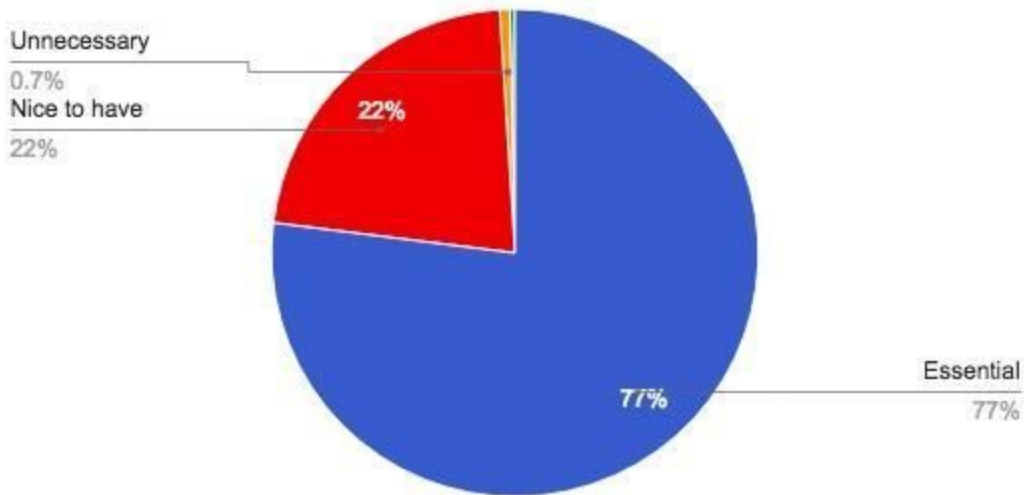
Here too, the overwhelming response is that all students should learn Math in the elementary grades.

Please rank Wyoming's 10 required K-12 subject areas in order of importance for ELEMENTARY students. [Science] NOT\_FOUND



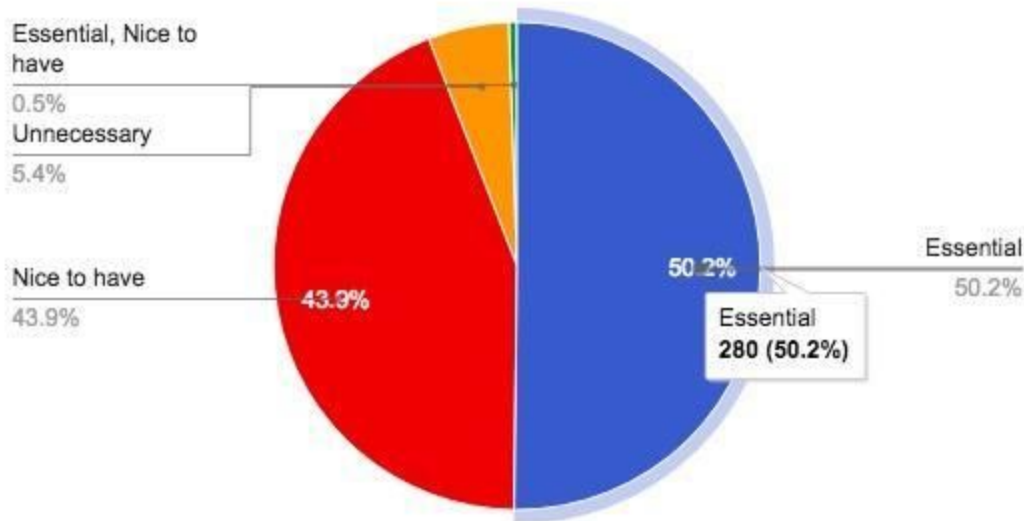
For elementary Science, nearly 10% felt this subject was Nice to Have--and this is a tested subject area. Still, about 9 in 10 felt elementary science was a core subject.

Please rank Wyoming's 10 required K-12 subject areas in order of importance for ELEMENTARY students. [Social Studies] NOT\_FOUND



While nearly 80% felt social studies was important, over 1 in 5 thought it was Nice to Have.

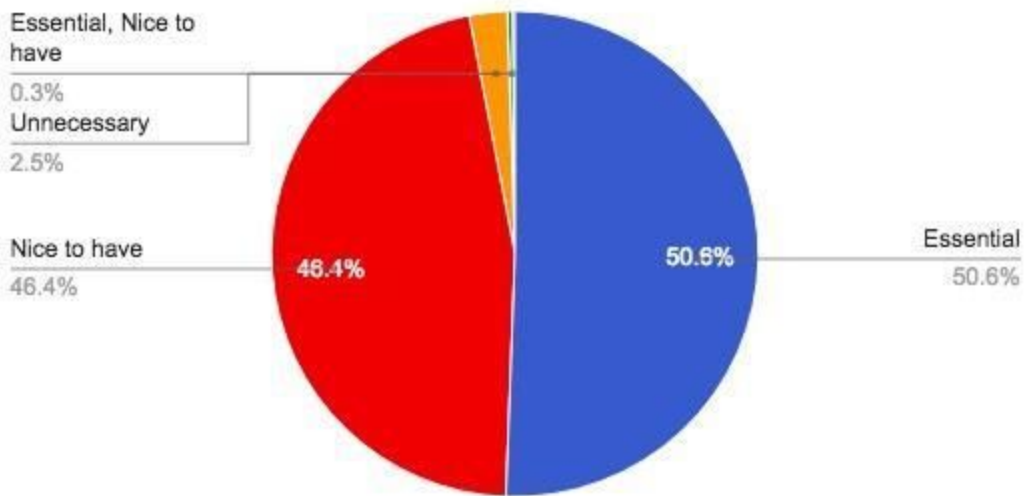
Please rank Wyoming's 10 required K-12 subject areas in order of importance for ELEMENTARY students. [Computer Science] NOT\_FOUND



About half of all respondents felt the new subject area, Computer Science was Essential. The other half found it Nice to Have or Unnecessary.

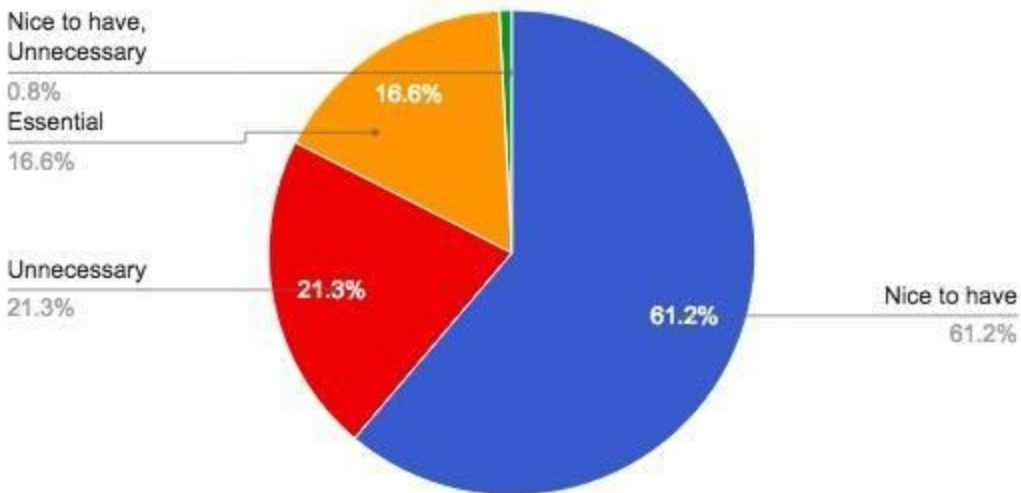


Please rank Wyoming's 10 required K-12 subject areas in order of importance for ELEMENTARY students. [Fine and Performing Arts] NOT\_FOUND



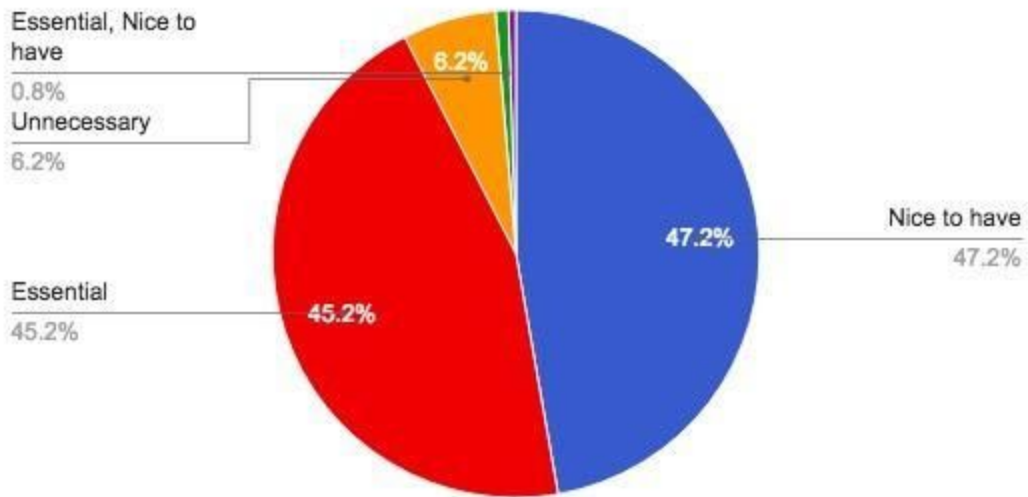
Like Computer Science, about half felt Art and Music were Essential and half thought it was Nice to Have or Unnecessary.

Please rank Wyoming's 10 required K-12 subject areas in order of importance for ELEMENTARY students. [Foreign Language] NOT\_FOUND



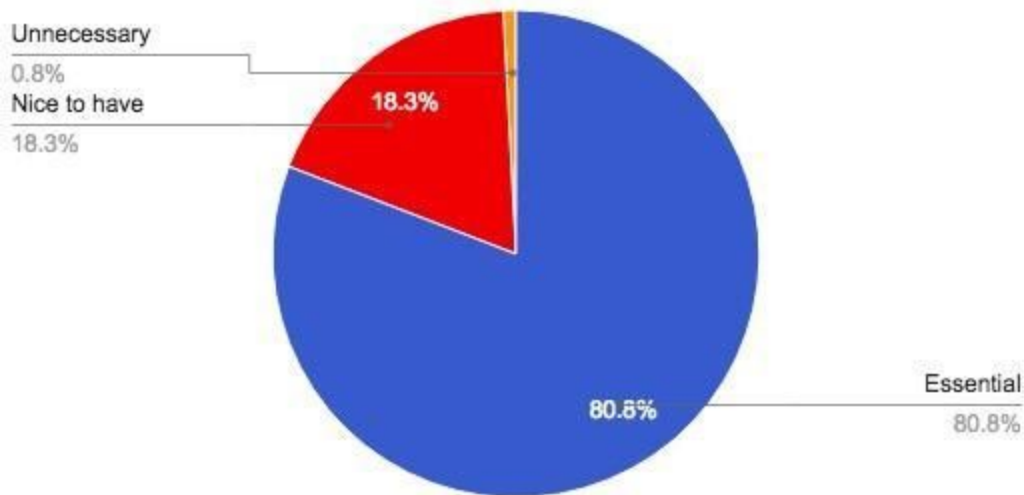
Despite the existing K-2 Foreign Language mandate, only about 17% found it Essential, while over 21% thought it was Unnecessary and 62% gave it a Nice to Have.

Please rank Wyoming's 10 required K-12 subject areas in order of importance for ELEMENTARY students. [Health] NOT\_FOUND



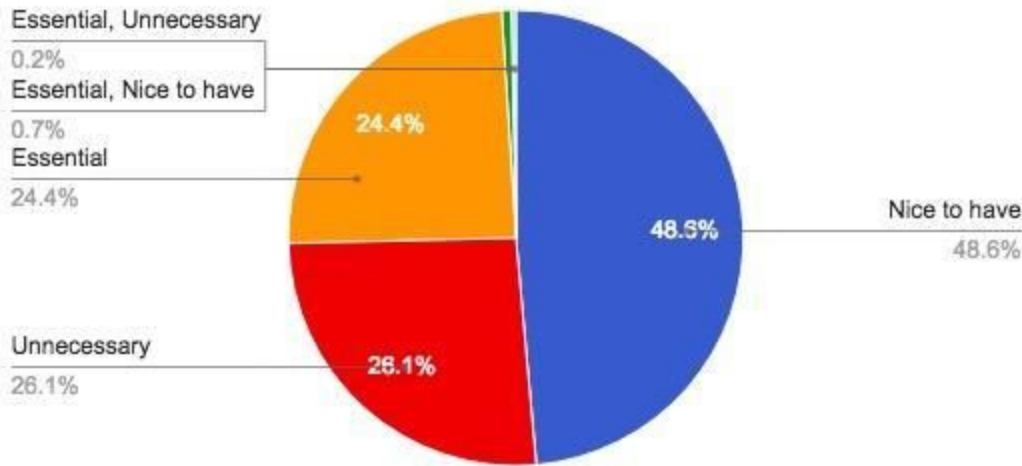
Less than half of respondents found that Health was Essential at the elementary level. A similar size group found it Nice to Have and 6% thought it was Unnecessary.

Please rank Wyoming's 10 required K-12 subject areas in order of importance for ELEMENTARY students. [Physical Education] NOT\_FOUND



About 4 in 5 respondents felt PE was Essential and about 20% thought it was Nice to Have.

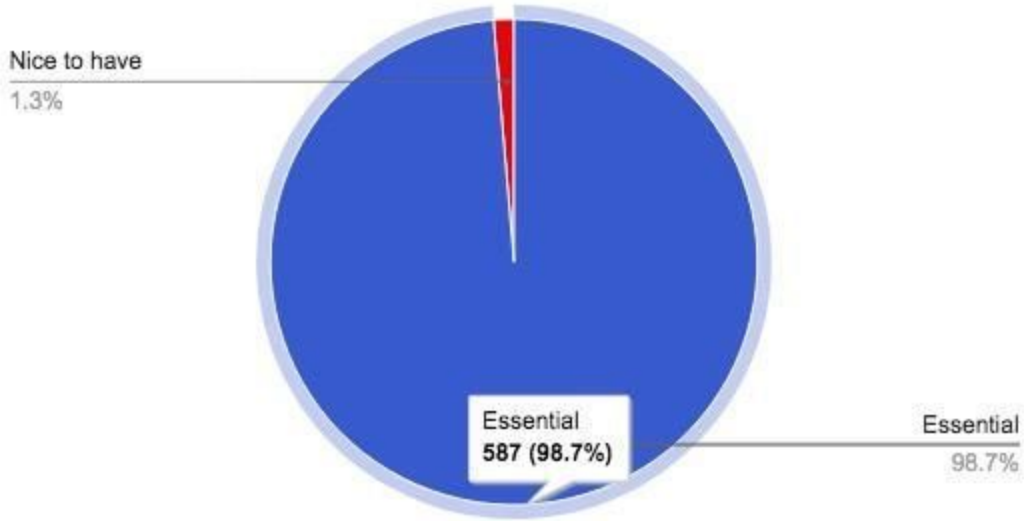
Please rank Wyoming's 10 required K-12 subject areas in order of importance for ELEMENTARY students. [Career and Technical (vocational) Education]  
 NOT\_FOUND



About one-quarter of respondents felt C&TE was Essential, while almost half felt C&TE was Nice to Have and the remaining quarter was Unnecessary.

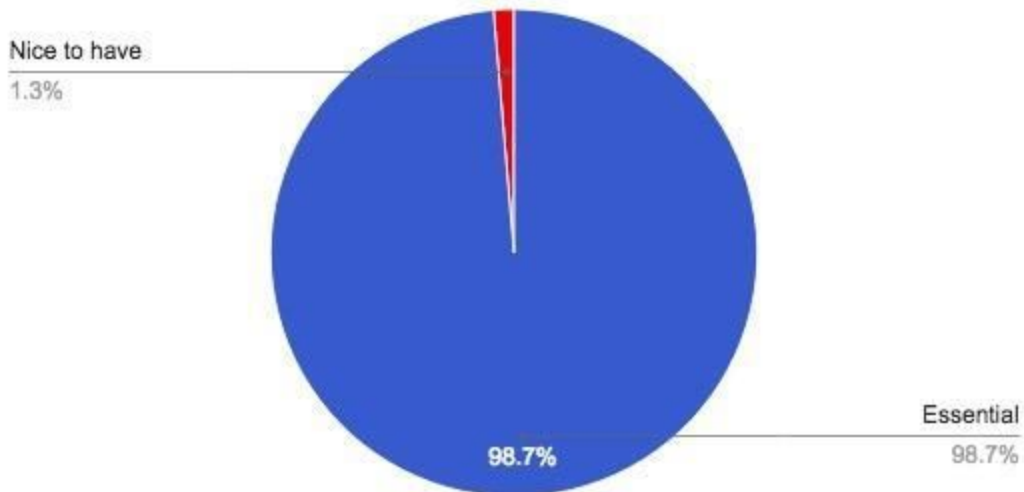
**Open Ended Comments:** Respondents were also asked to provide additional comments about subjects that they responded were unnecessary. A large number of respondents (27) said C&TE was unnecessary K-5; 25 said Foreign Language was unnecessary at K-5; 12 felt elementary grades should focus on the tested subjects and 10 said just focus on the three “R’s”; 7 felt Health and PE could be integrated; 5 said elementary teachers don’t have enough time in the day to “do it all”; 2 thought Computer Science could be done 6-12 and 1 suggested Computer Science instead of Foreign Language; 1 felt Science and Social Studies could start at grade 3; and, 1 felt the Arts were “an extra.”

Please rank Wyoming's 10 required K-12 subject areas in order of importance for SECONDARY students. [Language Arts] NOT\_FOUND



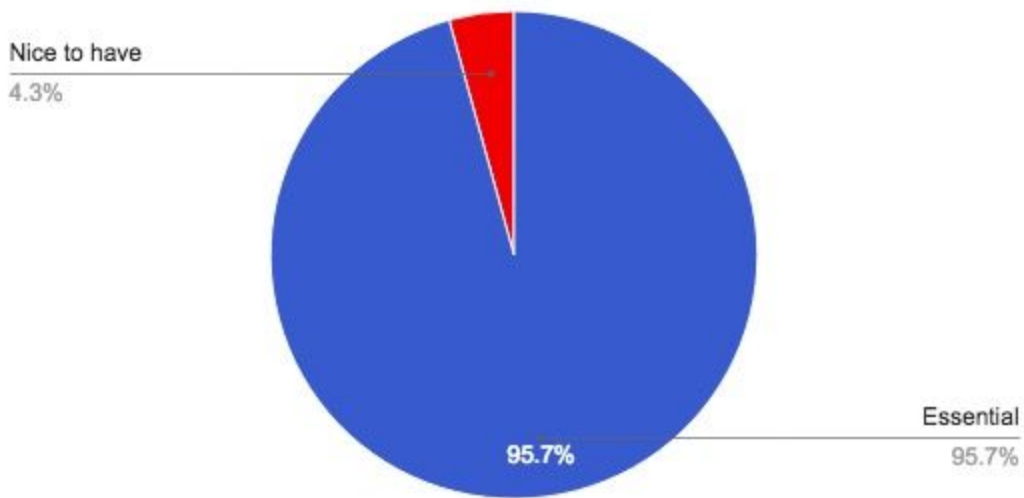
Virtually all respondents reported Language Arts was Essential at the secondary grades.

Please rank Wyoming's 10 required K-12 subject areas in order of importance for SECONDARY students. [Mathematics] NOT\_FOUND



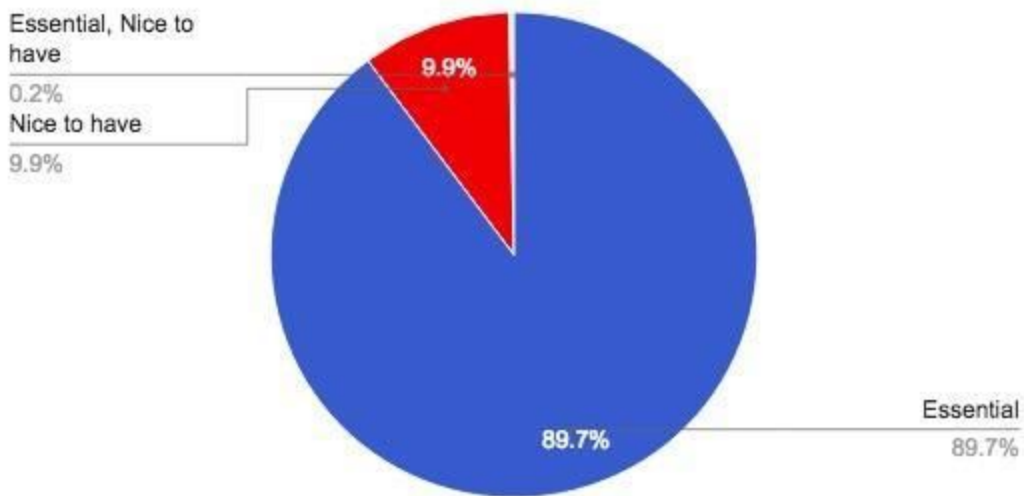
The same percentage who thought English was Essential felt the same about Mathematics.

Please rank Wyoming's 10 required K-12 subject areas in order of importance for SECONDARY students. [Science] NOT\_FOUND



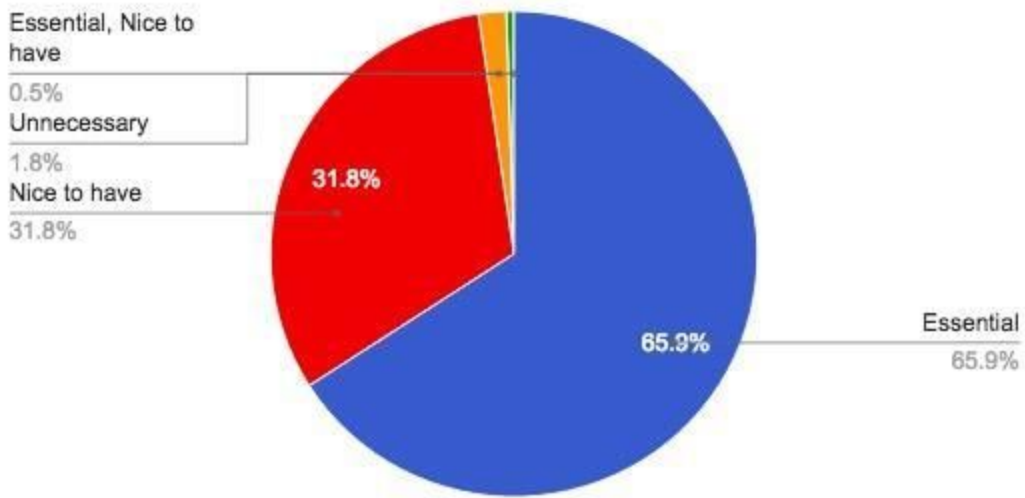
About 96% felt secondary science was Essential and 4% thought it was Nice to Have.

Please rank Wyoming's 10 required K-12 subject areas in order of importance for SECONDARY students. [Social Studies] NOT\_FOUND



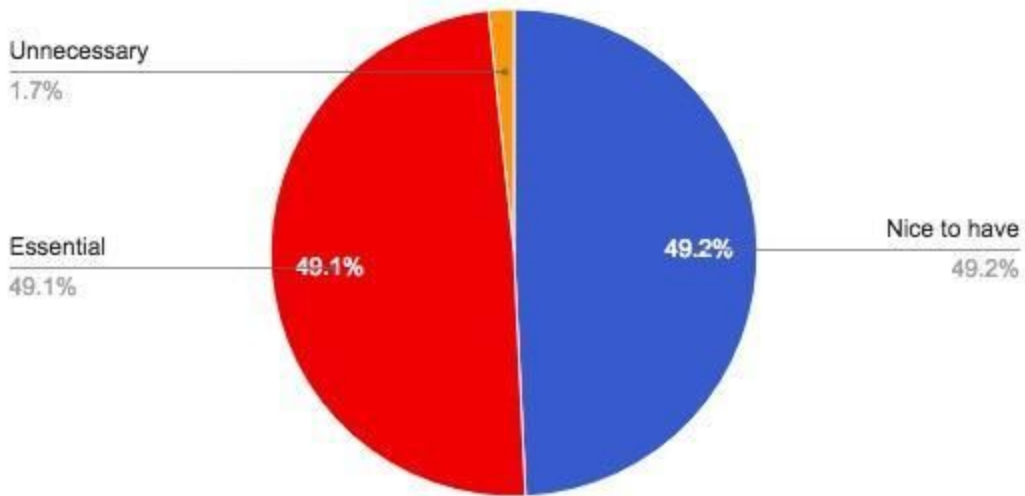
Nine in ten thought Social Studies was core and 10% found it Nice to Have.

Please rank Wyoming's 10 required K-12 subject areas in order of importance for SECONDARY students. [Computer Science] NOT\_FOUND



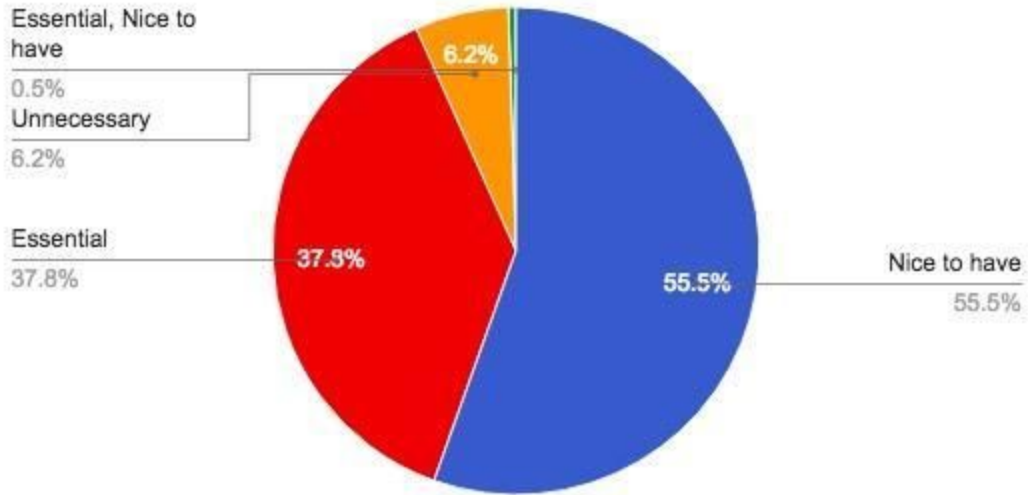
About two-thirds reported Computer Science as Essential in secondary grades and about one-third found it Nice to Have.

Please rank Wyoming's 10 required K-12 subject areas in order of importance for SECONDARY students. [Fine and Performing Arts] NOT\_FOUND



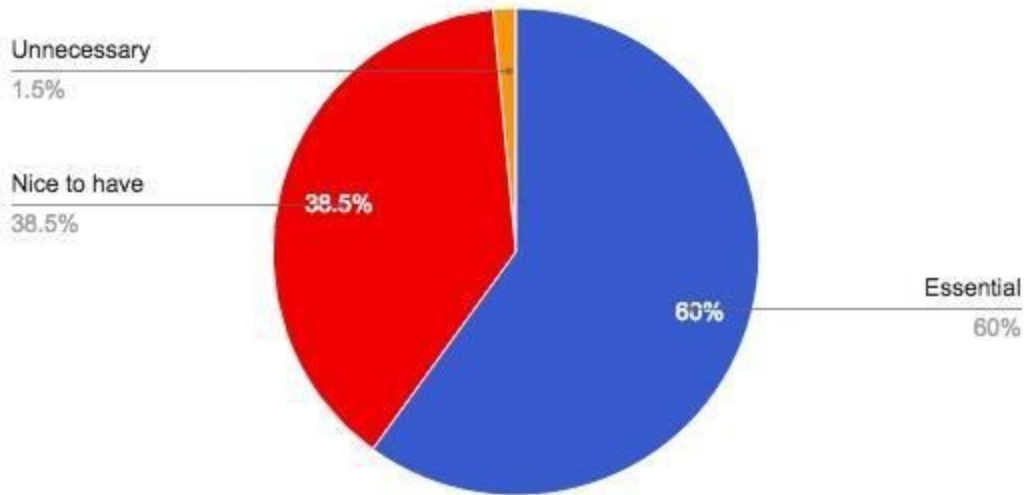
Respondents were split 50:50 with half thinking Arts as Essential and half thinking Arts as Nice to Have.

Please rank Wyoming's 10 required K-12 subject areas in order of importance for SECONDARY students. [Foreign Language] NOT\_FOUND



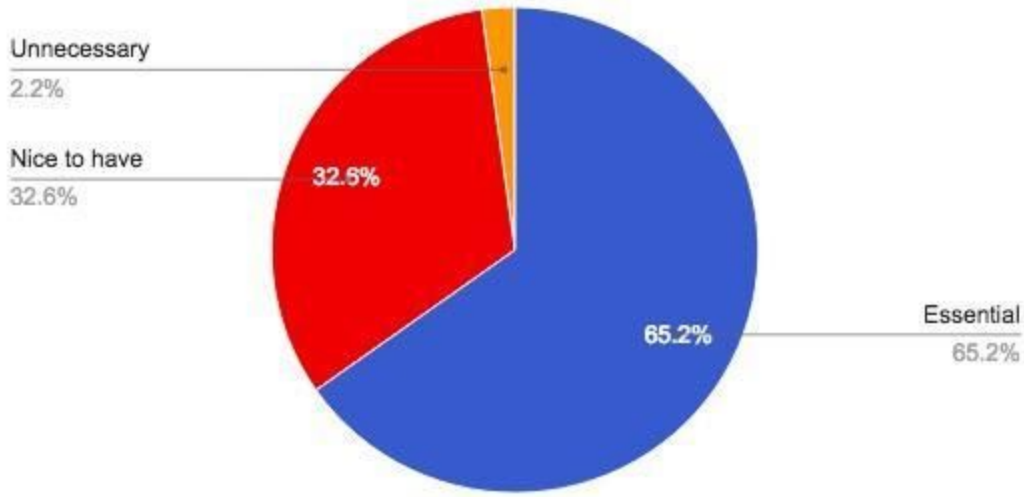
Surprisingly, about 37% reported Foreign Language as Essential for secondary students to study, while about 55% found it Nice to Have and 6% thought it was Unnecessary.

Please rank Wyoming's 10 required K-12 subject areas in order of importance for SECONDARY students. [Health] NOT\_FOUND



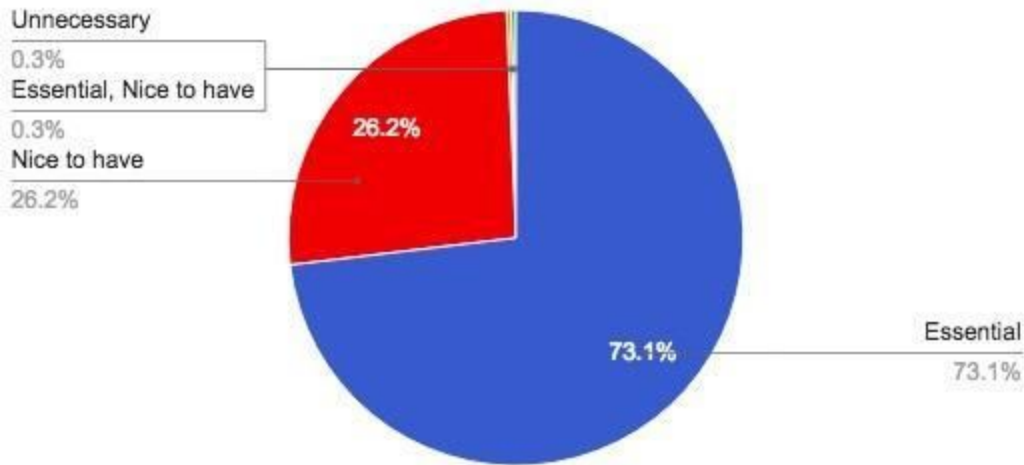
While 38% found Health to be Nice to Have, 60% reported it to be Essential.

Please rank Wyoming's 10 required K-12 subject areas in order of importance for SECONDARY students. [Physical Education] NOT\_FOUND



About 2/3rds reported PE as Essential; the other 1/3rd found it Nice to Have.

Please rank Wyoming's 10 required K-12 subject areas in order of importance for SECONDARY students. [Career and Technical (vocational) Education] NOT\_FOUND



Fully 73% reported C&TE as Essential and 26% found it Nice to Have.



**Open ended responses:** As with elementary, respondents were asked to comment on those subjects they listed as Unnecessary. Many of the comments suggested that certain subjects were perceived as required; this may have been because they are components of the Hathaway Success Curriculum. For example, the most common comment from 10 respondents was to make Foreign Language optional, which it is. Another 7 comments suggested that PE should be optional (or replaced by credits earned in extracurricular sports or clubs). Then, 5 respondents commented that Computer Science should be an elective. Three respondents suggested that there were too many requirements. While 2 comments were made that C&TE was important, another 2 suggested C&TE should be optional. Two respondents felt students needed to concentrate on basic skills and two respondents thought Health should be integrated with PE. Singleton comments included: do foreign language in the elementary grades; eliminate Computer Science; all subjects are necessary; need more time for Computer Science and C&TE; integrate Computer Science with other subjects; and, teach more civics.

The survey also asked respondents whether other subjects should be added to the basket of goods and services. To this question, the largest number of responses (21) said No. Another 18 felt Personal Finance should be added to the curriculum. Life Skills was seen as an important addition by 6 respondents. Another 4 respondents felt that Social-Emotional Learning should be added. More C&TE options were suggested by 4 respondents. Two respondents added suggestions for more: Civics; Music; Home Economics; and integrating Computer Science into C&TE. Singleton suggestions were voiced for: Internships; Indian Education for All; Ethics; Information Literacy; STEM-based coursework; Verbal Communications; Statistics; Art; Performing Arts; Sex Education; and, more Foreign Languages than just Spanish and French. When asked whether the Basket of Goods and Services should be expanded at a time of fiscal constraint, 59% said No and 28% said Yes.

**Conclusion:** With more than 600 responses to a voluntary, on-line survey this topic seemed to have touched a nerve. With one-third of respondents from teachers, there is confidence that those closest to the topic have spoken out. Of course, there was strong support for Language Arts, Mathematics, and Science. There was moderate support for Social Studies and Computer Science. There was little support for elementary C&TE or Foreign Language despite the current mandate. There were many suggestions for integrating Health and PE as well as for integrating Computer Science with C&TE. Many felt nothing more should be added to the basket at this time. But there was support for more attention to Financial Literacy, Life Skills, and Social-Emotional Learning. There was also support for fewer requirements and more options.

The question these results present to the board is now what? Are these results definitive enough to take action on? For example, should the board present these findings to the Joint Education Committee and ask for reconsideration of the K-2 Foreign Language mandate? Should the board ask the department to fully integrate Health and PE standards? Should the elective areas in the elementary grades start at grades 3 or 4 or even 6? Should the board have grade level standards in tested areas, but have grade-level span standards in elective areas?

Perhaps a more rigorous and expansive study should be commissioned by the board. There are a number of policy directions this survey may suggest. This survey is presented as a discussion draft. It may be prudent to take a month to further examine these results and have a fuller discussion of the policy implications at a future meeting.



March 14, 2019

## **Thoughts on the Basket of Goods and Services: Finding Equity and Quality in Wyoming's Public School Content Standards**

**Preliminary thoughts and Definitions:** This brief paper is written at the direction of the state board and is designed to frame some of the issues and alternatives the board may wish to consider. Recent additions (including Indian Education for All and Computer Science) by the state legislature prompted the state board to conduct a survey of education stakeholders to gauge their views on the current status of content standards requirements. Recent legislation regarding content standards and the results of the board's survey combined to cause this reconsideration of the entire set of standards contained in Chapter 10. It seems prudent now for the state board to evaluate how the state defines and refines content standards. Is the process working as it is or are there some facets of the process that might be reconsidered?

There is a critical statutory obligation the state board operates within. W.S. 21-2-304 (a)iii states, "By rule and regulation and in consultation and coordination with local school districts, prescribe uniform student content and performance standards for educational programs prescribed under W.S. 21-9-101 and 21-9-102 ... The board shall ensure that educational programs offered by public schools in accordance with these standards provide students an opportunity to acquire sufficient knowledge and skills, at a minimum, to enter the University of Wyoming and Wyoming community colleges, to prepare students for the job market or post-secondary vocational and technical training and to achieve the general purposes of education that equip students for their role as a citizen and participant in the political system and to have the opportunity to compete both intellectually and economically in society.

It may be useful to start with some general definitions, partly because there are new board members and partly because it is likely this paper will be sent to others, beyond state board members who may not be familiar with some of these distinctions.

*Uniform Student Content and Performance Standards*—this is the actual term used in legislation to capture the standards and benchmarks promulgated as part of the Chapter 10 rules. For shorthand, we'll use the term content standards or content.

*Core subjects*—these are typically referred to as including English language arts, mathematics, science, and social studies because these are the four areas where the state legislature has set graduation requirements--W.S. 21-2-304(a) iii (A)(B)(C)(D).

*“Elective” subjects*—these are typically referred to as including career and technical education, foreign language, fine and performing arts, health, and physical education. These are not actually electives in districts. By law, all students must be given the opportunity to take courses in all nine subject areas.

*Standards*—these are significant aspects of study within a content area that are iterative across grade levels. For example, writing is a standard in English/language arts that plays out from grades K through 12 with ever deepening expectations for sophisticated expression of ideas.

*Benchmarks*—these are more specific explications of standards for grade levels or grade level spans. For example, within the writing standard a benchmark for 11<sup>th</sup> and 12<sup>th</sup> grade students reads as follows: Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience,

*The basket of goods and services*—this is the entirety of the Common Core of Knowledge and Common Core of Skills as stipulated in statute. The basket of goods and services takes on a special meaning given the four Campbell County decisions by the Wyoming Supreme Court. Essentially, the Campbell decisions suggest that the state legislature is responsible for identifying what’s in the entire basket and then paying for it. It is important to note that the Wyoming State Legislature has the power to mandate additions or changes to the Common Core of Knowledge or the Common Core of Skills. The State Board of Education, through the department, and in consultation with school districts has the responsibility for promulgating Chapter 10 rules that contain the uniform student content and performance standards.

*Unpacking standards*—this is the process districts use to implement new sets of standards as they are approved. Many districts use a Professional Learning Communities (PLC) process that has four questions to be answered at the school site, the first of which is “What do we want students to learn and be able to do?” Other districts typically form committees to frame a scope and sequence for a subject for grades K-12. Oftentimes, districts will identify priority standards or power standards that become the organizers for the scope and sequence. This can get quite complex, because in addition to identifying what gets taught when these groups also have to identify instructional resources, software, other forms of media, as well as assessments to gauge how well students have learned a particular standard and its associated benchmarks. This becomes even more complicated when some subjects are integrated with others. Expository writing can be integrated with social studies or science topics. Statistics can be linked to social studies or health. Many districts use a formalized process called curriculum mapping to ensure that there are not gaps or redundancies.

*Curriculum*—this is the entire constellation of instructional resources and techniques the teachers use to help students learn. While a number of other states identify curriculum that districts can and cannot use, Wyoming is expressly prohibited from selecting textbooks or other curricular resources that are used to deliver instruction.

**What was learned:** The Wyoming State Board of Education undertook a broad survey of (606) practitioners to gauge their impressions about the current and growing requirements for content standards in Wyoming public schools. A majority of respondents felt that additional content should not be mandated at a time when funding of public schools is stagnant or declining. The core subjects—English, math, science, and social studies—were well supported by a majority of respondents. At the elementary level, “elective” subjects like the arts and foreign language were seen as “nice to have” by half or more of respondents. And for the new subject area, computer science, half of respondents found it to be essential and the other half found it “nice to have.” At the secondary level the general mood of respondents was to make content requirements as flexible as possible and give students and parents more opportunities to choose.

**What the issues are:** It could be that the basket of goods survey (hereinafter referred to as the survey) raises more questions than it answers. But for simplicity sake, these questions could be clustered into four issue areas. These include: content, deployment, implementation, and dissemination.

The issue about the **content** of the standards might be framed by questions such as: Are the 10 content areas currently used in Wyoming the most critical areas for all Wyoming students? Are the 10 content areas necessary at all grade levels?

The issue about **deployment** of the standards might be framed by questions such as: Should all standards be written at the same level of specificity? Could the “elective” content areas be developed at the local level versus the state level? Could some of the standards be written as exploratory in nature?

The issue about **implementation** of the standards might be framed by questions such as: What are the implications for teaching and learning once standards are established? How does having state standards contribute to equity among districts and schools?

The issue about **dissemination** of the survey results might be framed by questions such as: Do these results create a call to action by the state board? What should the state board do with these results? Should the state board (through the department) establish a framework for future standards committees? Is the state board the correct agency to be answering questions about the nature and specificity of state standards?

Once again, the overriding issue for consideration by the state board is whether the entirety of the standards is adequate for addressing the balance of excellence and equity. Do the state standards as a whole elevate districts' ambition and ability to create programs that offer Wyoming students an opportunity to be successful in their chosen life path? Do the state standards as a whole contribute to all Wyoming students receiving approximately the same basket of goods and service regardless of zip code? This matter really does get to the heart of what education Wyoming students actually receive in school.

**Related content standards issues:** The last two general sessions of the Wyoming State Legislature saw the submission of several bills with the intention of changing the content standards requirements. A civics examination bill would have required passing the naturalization citizenship test as a condition of graduation. A CPR bill would have required students to receive instruction on basic CPR technique as a condition of graduation. A bill to have made the K-2 foreign language requirement permissive was introduced twice. Yet another bill would have added a requirement of four years of mathematics as a condition of the graduation. These bills all failed, but clearly there is a feeling that legislative mandate is the primary route to define K-12 content standards requirements. The state board has recently acted to provide a "trigger mechanism" to allow members of the public to petition the state board to reconsider rules promulgation on what comprises the basket of goods and services.

**What the status is:** There are currently nine defined subject areas that represent the Common Core of Knowledge, including English/language arts, mathematics, science, social studies, foreign language, fine and performing arts, career and technical education, health, and physical education. The Wyoming State Board of Education has a statutory mandate to add a tenth subject to the Common Core of Knowledge—computer science by January 2022.

In reviewing the standards and benchmarks, it becomes quite obvious that the level of specificity differs significantly in the different content areas. Those areas that are tested on the statewide assessment: English/language arts, mathematics, and science are grade level specific, rigorous, and detailed. Here's a sample benchmark from science: "Analyze data to support the claim that Newton's second law of motion describes a mathematical relationship among the net force on a macroscopic object, its mass, and its acceleration."

Those subjects that are not tested on the statewide assessment, include social studies, foreign language, fine and performing arts, career and technical education, health, and physical education. These subjects' standards are represented in grade level bands and

more generally phrased. Here's a sample benchmark from health: "Describe situations or circumstances that help or hinder healthy decision-making."

There appears to be some level of uncertainty regarding students' level of civic understanding and engagement. Some have suggested that the very general benchmarks under the civics content standard could be the source of that assumed lack of civics understanding. A quick examination of those civic benchmarks reveals they are rather general. Some would argue that this gives districts broad flexibility in defining those standards and benchmarks; others would argue that civics education deserves a level of specificity like those of the tested subjects. Here are several examples: By the end of grade five, students should "understand the purposes of the three branches of government." By the end of grade eight, students should "understand the basic structures of various political systems (e.g., tribal, local, national, and world)." (Yes, there is no mention of state government.) And by the end of grade twelve, students should "demonstrate an understanding of the structures of both the Wyoming and US constitutions (e.g., Articles, Bill of Rights, amendments)".

Given this pattern, it seems curious that the proposed standards for computer science look much more like the tested subjects than the non-tested subjects. Here's a sample benchmark from computer science that students should "master" by the end of eighth grade: Apply multiple methods of encryption to model the secure transmission of data. In addition, there are grade specific benchmarks, leading up to that eighth grade mastery. At grade six, the benchmark is to: "explain the importance of cybersecurity and describe how one method of encryption works." At grade seven, the benchmark is to: "identify and explain two or more methods of encryption used to ensure and secure the transmission of information."

**Elementary foreign language as an illustrative example:** The State Board of Education (supported by a series of state supreme court decisions) genuinely supports the twin aspirations of quality and equity of educational opportunity throughout Wyoming schools. It is their intention that children from Sundance receive the same high quality education as those in Laramie.

Wyoming has for years now, had a requirement for foreign language instruction in kindergarten through second grade. Currently, four districts offer a robust and intensive language immersion program to some students in some schools. These programs are offered in grades kindergarten through second but are expanded to later grades as well. Students enrolled in these programs are found to develop foreign language proficiency, cultural sensitivity, and significant progress in English/language arts as well.

In the board's basket survey, approximately 17% of the respondents felt that elementary foreign language was essential, while 61% found it "nice to have", and 21% found it unnecessary. It appears that support for foreign language, despite the legislative mandate, is soft at best. And yet four districts have taken it upon themselves to design and implement a world-class foreign language instructional program beginning in the earliest grades. Despite the same general foreign language standards, the interpretation and implementation of those standards differs significantly depending on the school a student happens to attend. So the equity issue exists not only between school districts, but between schools within a district.

**Options for the board's consideration:** The Wyoming State Board of Education is in a curious position. It has the authority, through the Department of Education, to promulgate rules that establishes the curricular requirements for all schools in Wyoming. It also does so "in consultation with school districts" and the basket survey results suggest they prefer more flexibility.

On the big issue of equity and quality the state board could:

1. Establish a committee of practitioners to study and discuss the issues proposed above and develop a framework for future work in regard to Wyoming content standards. That committee might consist of three trustees, superintendents, curriculum directors, secondary principals, elementary principals, and six teachers. It could also have parents, community leaders, etc. This committee could meet during the interim and present recommendations to the WDE, state board, and to the Joint Interim Education Committee (JEIC) in the fall.
2. Make the determination that future "elective" subjects' standards will be exploratory at the elementary grades. Of course, it would do well to have an operational definition (or perhaps a sample format) that illustrates what exactly exploratory means.
3. Clarify and refer the matter to the JEIC. The larger issue of balancing equity and quality is to some extent the role of the state legislature. Surely the four Campbell cases that went before the Wyoming Supreme Court would suggest that the legislature was responsible for determining what is in the basket of goods and services and how much that costs to deliver.

These are challenging issues to be sure. But now that the state board has the results of the survey, it is better able to see options that relate directly to the standards they adopt. The board will no doubt benefit from the analysis and expertise of leadership and staff from the WDE.



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## Basket of Goods Task Force - Day 2 Working Document

### Phase 1: Concept proposal/lobbying

Complicating factors in this phase include: 1) the difficulty of clearly and accurately defining an advocate's intent; 2) the need for broad research to determine the breadth and depth of the issue statewide, beyond the advocate's experience; 3) the question as to education's role in addressing the issue; 4) **understanding the big picture of the issue and who it impacts at every level**; 5) addressing the potential bias(es) of advocates; 6) understanding of how current statutes, rules, and standards currently address the area of concern; and **7) educating legislators on these issues and the impact of legislation.**

- Could the WDE conduct an audit, through district curriculum directors, to determine whether/how the topic is already being addressed in schools?
- What is the normal process for a district to make the desired change and can that process be used to make this desired change?
- Is there a potential to create a School District Representation Committee for fast turn around on feedback to legislators - Representation from Large, medium and small districts. Would all districts be willing to do this? Rotational representation? To include: Teachers, admin, supervisors, etc.
- Could Task force members meet with local legislators and ask them how they view adding to the basket, without the recommendations coming from the education community?
- Can WDE experts be asked to provide information and research for consideration when making decisions/changes to current law/practice?
- Could more research be provided on the success and challenges of schools/districts already implementing standards/instruction that is being proposed?
- How effective would a subcommittee made of k-16 individuals be in assessing needs and costs of new Legislation? Would it help to have coordinated input from not only k-12, but also at the post-secondary level?
- Does "broad research" need to be better defined? Is that a form, or template that needs to be developed? What does this look like?
- How does the teacher pipeline factor into decisions? This includes both teacher prep programs as well as available workforce.
- Is PTSB prepared to deal with credentialing changes/additions that may result from proposed legislation?
- Could there be a process for lawmakers to explore options before they suggest it as a law?
- Can this committee create a flowchart or document (pre-made for easy reference) showing the impact of changes/additions at all levels from SBE down to the classroom?
- What kind of problem analysis process could be used to address all the above pieces including an audit?

- What would be the best way to inform/teach Legislators..help them understand the need for and how to use a process like this..even though we know we can't force it. Help them understand the need?
- Where is the right step in the process to review and develop an understanding of what is currently required for students and to consider what new legislation would add?
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## Phase 2: Bill becomes a law

Complicating factors in this phase include: 1) the difference between the sponsor's intent, the LSO interpretation, **and the actions of agencies charged with implementation** can lead to unintended consequences; 2) the legislators' best intention may not comport with the reality of other demands on educators; 3) downstream costs, including funding, **time, staffing, certifications**, instructional materials and professional development are not contained in the "fiscal note" that legislators pay close attention to; and 4) time constraints (**including implementation, work load, and tested areas**) are not well understood by some legislators.

- It would be beneficial to have a time period, which the legislature allowed for specific review/public comment, with educators input on proposed bills. I understand there is a public comment session, but I wonder how we can better communicate as a group of educators the proposed bills?
- Could a legislative review committee or team composed of legislators with education backgrounds be composed to review education related legislation before it's proposed, with the intent of clarifying some of the issues above?
- I am not an expert on the legislative process. Is there a regular review of laws/bills? I am envisioning an audit of sorts, which would allow for input on whether or not the bill was successful once it was passed into law.
- I would like to invite legislators into our schools to see first hand the work that is done on a daily basis.
- Can we provide legislators a binder of all the current standards AND benchmarks so that they can see the scope of work at each grade level? Perhaps this would help build an understanding of time workload and time use of staff and students.
- Is it possible to create a flowchart or something so that legislators could easily see the impact of a bill (and where costs would be incurred) and who that would potentially affect?
- Is there a process to help legislators understand the impact on the end users. This would include an understanding of all resources such as time, personnel, and money.
- Can the state board work with WDE to develop common review instructions for tested and non-tested subjects?

- Can individual legislation that impacts graduation requirements or the delivery of the basket of goods be required to be sponsored by the Education Committee to ensure that it has been adequately vetted prior to introduction?
- Could a fact sheet be created for lawmakers that explains how the law will impact students at the elementary, middle school, and high school levels?
- Could potential timelines for implementation, costs projections for training and materials be determined and provided as factors?
- Is the legislature utilizing all of the resources that are currently available to inform their decisions? Each level of education has a state level coordinating body, e.g. WASBO, that compiles district by district information.
- Can we change the process - All bills to include a narrative from the originating sponsor and advocate to clarify the intent of the bill?
- Can we involve the school district representative committee, to consider downstream costs, timing, materials, etc.
- If we define the problem better in phase 1, could these pieces be brought into that process?
- At what places as the Bill moves through the system do non-legislative folks have the opportunity to understand, ask questions, give input etc...and how are they communicated with?
- Can the legislature work with the WDE to evaluate the standards revision cycle and determine the appropriate timeline for standards review/development?

### Phase 3: WDE standards development

Complicating factors in this phase include: 1) since the **SBE and WDE** (executive branch) and the LSO (legislative branch) **are all involved in facilitating the work of development**, there can be differences in intent **of the law** versus interpretation; 2) a broadly stated legislative act can be interpreted differently by the standards **development/review committee**; and 3) the standards/review committee operates in isolation, **focusing on that particular content area** without fully understanding the implications of all other standards that compose the existing basket of goods.

- I feel a regular committee of educators, such as, this committee could assist in providing regular feedback on standard development. This would require representation with various backgrounds and areas of expertise.
- Do we need to do some prioritization of standards at the state development level?
- A regular review of the standard and assessment blueprint may assist.
- Can the development/review committee include non-content experts in order to provide a broad perspective?

- There might be a need for better communication and understanding among all who are involved. This would include between the LSO and WDE and SBE and the Standards Committee.
- Can liaisons from WDE work closely with LSO and district representatives to develop an if/then causation flowchart which outlines implications?
- Can a group (perhaps this group) create a Framework for Standards Review (not the process but the consideration/impact side of things to consider during development/review)?
- Can the narrative intent guide the initial plan laid out by WDE - Shared with Office of School Representation - Feedback and modification?
- Can the process be better defined to include the involvement of districts at an earlier stage?
- Could a group (such as the one we're on with many stakeholders) be created on a permanent basis to evaluate new standards and provide feedback
- Could the WDE rank the standards from highest priority to supporting standards?
- Could WDE specify which standards should be mastered versus introduced per grade level/band?
- Could WDE limit benchmarks and leave that interpretation up to districts?
- Is it fair to require alternative schools, small schools or schools with primarily low SES students to teach the same standards, or even the same amount of standards?
- How do we ensure equity of programs based on economies of scale? How do we recognize the needs of different school communities, not only between districts, but within districts as well?
- Would it be possible to create an overarching, inclusive, Standards Team that processes any newly legislated standards as well as review of existing standards with consideration given to the entire basket of goods? Could this team build parameters, based on the total basket of goods, to inform the work for new and existing standards?
- How might we step back and determine exit standards for grade band look fors to provide focus for breadth and depth of content development with new or existing standards?

#### Phase 4: SBE approval process

Complicating factors in this phase include: 1) there is limited, authentic input from classroom teachers in the SBE review process; 2) the approval process takes a long time given the lack of input; 3) until computer science, standards have not been prioritized making the SBE review limited in scope; 4) it can be challenging for SBE members to understand the motivation, intent, and messages of individuals who testify; and 5) there are limited efforts to understand impacts (fiscal, qualifications/certifications, staffing, PD, equipment/materials, skills) on local districts.

- Can the SBE request targeted input from professional organizations--WASA, WCDA, etc.?
- Is there a way to gather more input from the end users?
- At what point should PTSB be brought into (and maybe they already are) the conversation to understand the implications any new standards will have on the collective teaching corps?
- Can we prioritize standards so that we know what are the most important ones?
- Can the SBE get input from educators at all levels K-12?
- Is there a more effective way to garner feedback from those most affected by the end result?
- If we stopped and asked for feedback on small chunks at a time...more of a back and forth process would that encourage more feedback from school level folks?
- Could SBE conduct a regular review of the basket of goods to ensure that we are current on what students should know/be able to do in today's world? (Not sure which entity/organization should do this)

#### Phase 5: Governor approval

Complicating factors in this phase include: 1) there is little input except for special interest groups; 2) there is a lack of collaboration with school district practitioners; 3) there could be a political agenda within the governor's office or management council; 4) **there is a lack of outreach to content experts before making a decision; and 5) there is an information gap on the fiscal impact on school districts.**

- Can we ask the Governor's Office to seek input from constituents (beyond the public comment period)?
- Can we include a step in the Governor's approval process that includes a review of impediments to adoption of new standards?
- How can the governor be better informed prior to giving approval?
- Could the Governor have a standing education committee or task force that could be managed by SBE or WDE with participants from various stakeholder groups to help inform decisions?

#### Phase 6: District implementation

Complicating factors in this phase include: 1) there are **limited** implementation resources provided for additional content mandates; 2) there are varying degrees of implementation across districts; and 3) new mandates often consume professional development time because

of deployment regulations and related requirements; **this impacts other professional development needs.**

- Could the WDE continue to provide on-going regional professional development to support standards implementation (much like the science training or Ag in the classroom projects)?
- Could more 'modern' methods of PD (YouTube, teacher collaboration, UW literacy project- Literacy Teachers rd) be looked into to cut down on costs and increase authentic learning opportunities for staff?
- I feel it is important for districts to continue adopting standards through a PLC lense. This allows districts the autonomy to determine which standards will be prioritized and essential for students to learn.
- For smaller schools and districts, would it be helpful if some level of prioritization was done at the state or committee level?
- I would suggest the WDE continue to provide PD opportunities for districts and staff, which is specific to the standards we are adopting.
- I feel it is important for this committee to assist in providing some input regarding which content areas and standards will be prioritized.
- Can we provide a consistent approach to the amount of PD that may be needed for the implementation of new standards?
- Can new initiatives be a phased in approach?
- Can Pilot Districts be established for implementation? Can Pilot Districts then share info to other districts following implementation (Pilot districts are funded for development of materials and curriculum).
- Can the WDE use an existing process (e.g., Accreditation) to monitor implementation variation by subject area?
- Can the WDE create a new team (content experts) to assist districts with implementation and instruction?
- Could trainings continue to be initiated and aligned at regional sites and coordinated through WDE in a timely manner with input from district?
- Could school districts have pilot schools that try out new standards and curriculum before whole district roll out?
- In order to streamline and clarify the different legislative mandates around requirements of implementation, could a guidebook or implementation guide or something that gives action steps to the legislative language be developed?
- Could the state support and fund facilitated sessions that district teams can attend and get support from each other and perhaps some experts in the fields while they do this work?
- Does the state movement towards standards have implications for the need to understand the phases of Standard- Based Education at the district level?

Phase 7: Classroom instruction/assessment & student learning

Complicating factors in this phase include: 1) there is simply not enough time in the school year to properly implement existing content requirements; 2) **teachers may lack expertise and resources to teach new standards**; 3) **finding balance between standards learning, informal curriculum (such as social-emotional learning), and assessments**; and 4) **a lack of diverse input early in the process.**

- Could schools create their own priority standards?
- Can WDE look for model implementation sites and make those known among districts?
- Could we look at more clearly defining a WY graduate?
- How can we determine which standards have priority? The WDE assessment blueprint could potentially assist with this work.
- Would it be possible to audit the amount of time required to teach all standards required by Wyoming law? This may provide additional information to legislators.
- Can we provide sufficient time for the implementation of standards in order to allow for PD?
- Could we use Grade band exit outcomes to help focus and prioritize (whole child)?
- What is the ability for UW and Community College's to provide teacher content development?
- How does PTSB determination of what constitutes certification in different areas and what input or influence do we have around those decisions?
- Would it be possible to create personalized learning pathways for children to help select curriculum and standards by district?
- Has there ever been research around how many students graduate in Wyoming every year that have received credit in other states? As much work as we put into standards in Wyoming, what's to stop students from transferring into Wyoming and graduating their senior year? What really ensures a student's education reflects Wyoming standards? Are there communities with mobility levels so high that this is a bigger issue than we think?
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**WYOMING  
STATE BOARD  
OF EDUCATION**

Date: April 2, 2019  
To: Committee Members  
From: Walt Wilcox, Chairman  
Wyoming State Board of Education  
Subject: Computer Science Standards Revision Priorities

At its March 21 meeting in Casper, the Wyoming State Board of Education took testimony from over 50 individuals regarding the draft Computer Science standards. While many in the audience praised the rigor and comprehensiveness of the draft standards, many others asked the State Board of Education to “tap the brakes” on the approval process and refine the draft standards to make them more accessible, especially at the elementary grade levels.

On further reflection, I’d like to attempt to capture the major ideas suggested by those testifying. If the computer science standards review committee undertakes serious discussion of the issues raised below with recommended changes to the proposed standards, the state board is likely to approve them at their April meeting. The state board supports the addition of new computer science standards and recognizes its legislative mandate to promulgate rules that adds this 10<sup>th</sup> content area to the Common Core of Knowledge. The sooner these standards are adopted, the more time districts will have to plan for their deployment and implementation.

*Outcomes:* There was considerable concern among those testifying, that the standards and benchmarks appeared as though they were not based on an intentional analysis of the overall outcomes expected of students by grade level span. Perhaps by reconsidering whether all the domains are the focus areas for the standards or whether some can begin in the secondary grades, the total load can be reduced at the elementary grades. The standards as proposed were all defined as spanning grades kindergarten through grade 12. If the committee can identify the overall outcomes in terms of what students most need to know and be able to do by grade level span, it is likely that some of the domains may not require benchmarks at the elementary grades.

*Standards and benchmarks:* In presenting an overview of how standards and benchmarks are deployed by grade level span, department of education staff reported that benchmarks at the elementary grades were mandatory, while benchmarks at the secondary grades, just have to be offered. Based on this assertion, it is much more important for the standards and benchmarks at the elementary grades to be only those that are absolutely necessary for the outcomes proposed above. Benchmarks of the elementary grades should be at the same “grain size” or level of importance. Many of the benchmarks were determined to be suitably integrated with other subject areas. Those integrated benchmarks can appear elsewhere in those content areas and don’t need to be repeated in the computer science standards. By eliminating benchmarks at elementary grades that don’t conform to major outcomes and by eliminating those that can be integrated in other subjects, the total number of benchmarks in the elementary grades can be reduced significantly.

*Utility:* The issue of presentation is not a matter of simply formatting, rather it’s a matter of utility. Indeed, the state board received numerous comments about the fact that the first draft of the computer science standards was rendered in language that made it difficult for teachers to understand and assimilate. (For example, authentication can be identified by its more common synonym, log-in.) Equally as important is that these standards are arrayed (labelled) in a way that would make it difficult for committees of district faculty to “unpack” the standards. References to domains and practices are confusing rather than helpful. The identification of standards and the references to related or complimentary standards requires going back and forth numerous times to fully appreciate how related standards might be clustered into “power” or “priority” standards for designing instruction.

*Deployment:* Normally, the State Board does not concern itself very much with the issues related to deployment. But the area of computer science is different primarily because it is a brand-new subject area that is being added to the Common Core of Knowledge. The board also learned during testimony and from the department’s October report to the joint education interim committee that computer science has very different levels of implementation from district to district. Some districts have robust programs that have been operating successfully for some time, while other districts offer no computer science at all. For these reasons, the board would like a deeper understanding of the various facets of deployment planning.

Fortunately, two members of the State Board of Education representing community colleges and the University of Wyoming have made it clear that they support new computer science standards. It would be useful to have specific deployment plans regarding professional development opportunities and preservice enrollments along with projections for newly certified computer science teachers between now and the fall of 2022. Similarly, the state board would like to know what funding will be made available by the state legislature to support the implementation of computer science standards at all grades. The department’s estimate of \$12.25 million annual funding for computer science implementation is primarily directed toward secondary grades.

It may will be that department of education staff can address issues related to utility and deployment, so that the committee can focus on the more compelling work of defining outcomes and refining the standards and benchmarks. I hope this summary will be useful in helping the department staff and the standards review committee refine these standards, so they are understandable to our faculty and accessible to our students. I look forward to receiving revised standards at our April board meeting.