Professional Development Opportunities and Needs

of Secondary Family and Consumer Science Teachers

in the Northwest United States

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by

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Authorization to Submit Thesis

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Abstract

With U.S. school districts spending an average of $18,000 per teacher per year on professional development and teachers themselves spending approximately nineteen full school days participating in it per year, a significant gain in teacher effectiveness or development of student skills has not been seen (The New Teacher Project, 2015). This could be attributed to the 60% of teachers who responded that they did not think that the professional development they received was effective or a good use of their time (The New Teacher Project, 2015). This is alarming as a crucial element of teaching secondary FCS is maintaining relevant curriculum and course content. Without effective professional development, secondary FCS teachers do not have the appropriate information to teach their students and successfully prepare them to enter a competitive and rapidly evolving workplace environment. To work toward resolving this issue, needs assessments must be conducted to find the areas where teachers need professional development assistance.

This study was a quantitative descriptive study which utilized a survey instrument based on the Borich Needs Assessment Model, containing multiple choice, Likert scale, and text entry questions. It collected data to determine the perceived importance and competence of secondary FCS teachers, in Idaho, Montana, Oregon, Washington, and Wyoming, in relevant education components, including technology; course, curriculum, and standards development; teaching; and professional development, programs, and organizations. It collected data on their perceived needs for relevant and applicable professional development and access to other programs/organizations. It also collected data on motivators, deterrents, and preferred methods for participating in professional development. Using this data, the study compared the differences in perceived needs for professional development of secondary FCS teachers based on their professional and personal demographics. Lastly, it collected data on their personal opinions of how frequently state and national FCS standards should be updated.

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Dedication

*This, or anything else I've accomplished, could not have been done
without the support of all the amazing people I have in my life.*

Sue Ropski: Thank you for being the best mom in the world.
I can't express how much you have helped me reach and
exceed all the goals I have had in my life. xoxo

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LIST OF ABBREVIATIONS

AAFCS .... American Association of Family and Consumer Sciences

ACTE .... Association for Career and Technical Education

CTE .... Career and Technical Education

CTEI .... Career and Technical Education Idaho

FCCLA .... Family, Career and Community Leaders of America

FCS .... Family and Consumer Sciences

IATFACS .... Idaho Association of Teachers of Family and Consumer Sciences

Idaho AEYC .... Idaho Association for the Education of Young Children

MACTE .... Montana Association for Career and Technical Education

MAFACS .... Montana Association of Family and Consumer Sciences

MEA .... Montana Education Association

NACAA .... National Association County Agricultural Agents

NAE4-HE .... National Association of Extension 4-H Extension

NAEYC .... National Association for the Education of Young Children

NEA .... National Education Association

ORAFACS .... Oregon Association of Teachers of Family and Consumer Sciences

PD .... Professional Development

PTE .... Professional and Technical Education

Q .... Question (referencing the survey instrument; e.g. Q1 means Question 1)

WA-ACTE .... Washington Association for Career and Technical Education

WAFACS .... Washington Association of Teachers of Family and Consumer Sciences

WATFACS .... Wyoming Association of Teaching of Family and Consumer Sciences

WEA .... Wyoming Education Association

CHAPTER 1
INTRODUCTION

1.1 BACKGROUND

Family and Consumer Sciences (FCS) is a complex area of study developed by scientists and educators focusing on a vast array of highly applicable vocational and life skills. "Historically, skills and content were taught through the very technical 'how to' approach of Home Economics, then in 1993 the discipline re-examined the perception of their work" (Erwin, 2018, pg. 1). This began with the name change of Home Economics to Family and Consumer Sciences and followed with updating courses to focus on current and relevant skills. With the passing of the Carl D. Perkins Career and Technical Education Improvement Act of 2006, FCS was required to create "coherent and rigorous content aligned with challenging academic standards as are taught to all other students" (Duncan, 2011, pg. 9). To do this, areas of study (also known as clusters or pathways, depending on the state or district) were created to prepare students for a successful post-secondary education in academia or industry.

Currently, FCS teaches a large variety of courses nationally at the secondary level. Each of the courses fall under one of the sixteen FCS Areas of Study created by the National Association of State Administrators of Family and Consumer Sciences (NASAFACS); the Areas of Study are: (1) Career, Community, and Family Connections; (2) Consumer and Family Resources; (3) Consumer Services; (4) Education and Early Childhood; (5) Facilities and Property Management; (6) Family; (7) Family and Human Services; (8) Food Production and Services; (9) Food Science, Dietetics, and Nutrition; (10) Hospitality, Tourism, and Recreation; (11) Housing and Interior Design; (12) Human Development; (13) Interpersonal Relationships; (14) Nutrition and Wellness; (15) Parenting; (16) Textiles, Fashion, and Apparel (National Standards and Competencies, 2018). Each of these Areas of Study have individual standards and competencies developed specifically for their curriculum, nationally and within each state. While these areas can be known by a variety of different names, depending on the location the course is taught, this list of Areas of Study was used in the survey instrument as it is nationally recognized.

As of June 2004, with 86% of secondary FCS teachers responding nationally, only 252 of the 37,500 teachers were male (Werhan & Way, 2006). While 37,500 FCS teachers is a large number, it only makes up 1.9% of all public secondary school teachers, a percentage significantly down since the recorded 5.9% in 1966 (Werhan & Way, 2006). Educators who teach secondary FCS come from many different backgrounds and paths, though the majority of secondary FCS teachers

are female, white, middle-aged, married, and held a bachelor's degree at a minimum, with many holding master's (Erwin, 2018 & Arnett, 2008).

There has been a shortage of secondary FCS teachers reported in thirty-three states, a balanced amount in six, and an oversupply in only one; Arkansas, Georgia, Oklahoma, and Rhode Island did not report information back (Arnett-Hartwick, 2017; Erwin, 2018; Werhan, 2013; Werhan & Way, 2006). Based on the decline in secondary FCS teachers, job projections indicate that there will continue to be a need for them in our future.

Teaching secondary FCS is a time-consuming and demanding job. Teachers are expected not only to teach their courses' specific required standards but to assist their students to develop "the social, emotional and character maturity to be able to act responsibly and productively to synthesize knowledge from multiple sources, to work cooperatively, and to apply the highest standards in all aspects of their lives" (National Standards Overview, 2018). In addition to these high expectations, secondary FCS teachers are often in single person departments and teach three or more preps a day (Erwin, 2018).

Even though many secondary FCS teachers have pursued or are currently pursuing a post-secondary education, it is important to differentiate this between continued education through professional development. Continued education through professional development is crucial for all teachers, but especially for those teaching in Career and Technical Education (CTE), which includes FCS. As FCS has progressed under the wing of CTE, it has followed in their transition from having a focus on student training and preparation for entry level employment to that of training and preparation for post-secondary education, either academic or vocational (O'Connor, 2012). This, in turn, requires FCS teachers to stay up to date with current trends, technological advances, and relevant job market information as well as the expected continual education in "classroom management, facility management, external relations, lab budgeting and safety, professionalism, work-based learning issues, and advising student organizations" (Erwin, 2018).

Without easy accessibility to relevant and content-specific professional development opportunities for secondary FCS teachers, it is unreasonable to expect them to be able to prepare students with the required skills to successfully enter a competitive workforce upon program completion. To find what needs secondary FCS teachers have in relation to professional development opportunities, it is crucial to conduct a needs assessment survey and use that data to provide subsequent programming for the future.

"In order to be able to give teachers what they want and need – professional development that is relevant, interactive, and timely and delivered by someone who understands their experience – a needs assessment should be conducted" (Erwin, 2018). The Borich Needs Assessment Model is

applicable in this case as it allowed teachers to rate competencies by their personal competence and perceived importance of them. The competencies can then be analyzed and ranked to determine what professional development needs are a priority (Erwin, 2018). By identifying these needs, professional development courses can be tailored to educate teachers with the information they need to be successful now and in the future.

1.2 PURPOSE OF STUDY

The purpose of this study was to utilize a needs assessment survey to give a voice to secondary FCS teachers as to the current status of secondary FCS education in relation to curriculum, standards, and professional development opportunities pertinent to their area of content. It specifically focused on collecting data from secondary FCS teachers in five areas:

1. perceived importance and competence of secondary Family and Consumer Science teachers in educational competencies, including technology; course, curriculum, and standards development; teaching; and professional development, programs, and organizations
2. statistically significant differences in perceived needs for professional development of secondary Family and Consumer Science teachers based on professional and personal demographics
3. motivators, deterrents, and preferred methods for participating in professional development of secondary Family and Consumer Sciences teachers
4. insight into any other opportunities or provisions which secondary Family and Consumer Science teachers see as important to maintain current and relevant material being taught in their courses
5. personal opinions on how frequently state and national FCS standards should be updated.

This information was analyzed and formatted into an appropriate layout for distribution to be utilized by states, districts, schools, and individual teachers to apply toward advancing our secondary FCS programs. This information could also be used to advise districts, colleges, or universities on how to better market FCS Education to work toward filling the growing need in secondary teaching positions.

1.3 RESEARCH QUESTIONS

The following research questions guided this study:

1. What are the perceived needs for professional development and access to other programs or organizations offered to secondary FCS teachers in the NW US?

2. What are the statistically significant differences in perceived needs for professional development of secondary FCS teachers in the NW US based on demographics?

3. What are the motivators, deterrents, and preferred methods for participating in professional development of FCS teachers?

4. What are other opportunities that secondary FCS teachers in the NW US see as important professional development?

5. How frequently do secondary FCS teachers in the NW US think state and national standards should be updated?

1.4 LIMITATIONS & DELIMITATIONS

This study was limited by the number of secondary FCS teachers in Idaho, Montana, Oregon, Washington, and Wyoming who choose to respond to the survey. Many FCS programs are called by alternative names (Home Economics, etc.) which made thorough distribution of this survey to all secondary FCS teachers difficult. Also, in states such as Oregon, FCS is regulated by district, not at the state level, so it was more difficult to reach all FCS teachers equally.

Delimitations of this study include distribution to only secondary FCS teachers in Idaho, Montana, Oregon, Washington, and Wyoming (~775 teachers), not FCS teachers nation-wide. The survey only accepted responses from FCS teachers in 6-12th grade, not post-secondary. The survey did not contain many open-ended answer options. The survey did not require an answer for each question to allow participants to skip a question if they were not comfortable answering it. This resulted in incomplete survey responses from many of the participants. Qualtrics recorded all survey responses on the final date that the survey was open. This resulted in the recording of incomplete survey responses as well. Only surveys with at a completion rate of 50% or higher were included in the data analysis. This survey was only available to take online and was mainly distributed through email. The responses to the Likert scale questions were self-appointed and therefore there was the potential of personal bias. Since the survey was completely anonymous there was no implementation of strategy to ensure the survey was only taken once by each teacher. This means there was a possibility that one or more teachers submitted information more than once.

1.5 DEFINITION OF TERMS

The following are the definitions of terms as they were used or referred to as in this study:

ACTE's Mission: to provide educational leadership in developing a competitive workforce, ACTE strives to empower educators to deliver high quality CTE programs that ensure all students are positioned for career success (About ACTE, 2019)

Authentic Assessment: an approach to teaching and student assessment that involves the student
deeply, is cognitively complex and intrinsically interesting, uses a format that is consistent
with how ability is evaluated in the real-world and evaluates skills and abilities that have
value and meaning outside of the classroom or on the job (Burrack, 2018)

Career and Technical Education: A term applied to schools, institutions, and educational programs
that specialize in the skilled trades, applied sciences, modern technologies, and career
preparation; it was formerly (and is still commonly) called vocational education (Career and
Technical Education, 2014)

Career Clusters: Specified groupings of courses related to the same overarching subject. These
include: Agriculture, Food and Natural Resources; Architecture and Construction; Arts, A/V
Technology and Communications; Education and Training; Finance; Health Science;
Hospitality and Tourism; Human Services; Marketing, Sales and Service; Science,
Technology, Engineering and Mathematics (Family and Consumer Sciences Education
Division, 2019)

Curriculum: "curriculum professionals may reject any concern with the question of *what* the
curriculum should contain, except in so far as their primary concern with *how* the
educational process should be organized leads to implications for content… curriculum
inquiry is educational inquiry; both properly address the *what* and *how* questions together
and deal with all the ramifications of trying to answer, "What should children learn, in what
sequence, and by what methods?" (Egan, 1978, pg. 15)

Departmentalized Instruction: "instruction to several classes of different students most or all of the
day in one or more subjects, in contrast to self–contained classes which are defined as
instruction to the same group of students all or most of the day in multiple subjects"
(National Center for Education Statistics, 2012)

Family and Consumer Science (FCS): (previously or alternatively known as Home Economics,
Human Sciences, Home Science, Domestic Economy, or Human Ecology) the field of study
focused on the science and the art of living and working well in our complex world (What is
FCS?, 2019)

FCCLA: Family, Career and Community Leaders of America (FCCLA) is a dynamic and effective
national student organization that helps young men and women become leaders and address
important personal, family, work and societal issues through Family and Consumer Sciences
Education as determined by the state department of education (Join FCCLA, 2019)

Goals 2000: Educate America Act: a program created to set educational goals for the nation's public
schools to be achieved by the year 2000, create a framework for implementing the goals, and

provide incentives for the states to cooperate in meeting the goals (The History of Goals 2000, 2002)

National Standards: a set of educational standards that serve as a basis of educational reform across the nation as educators and policy makers respond to the call for a clear definition of desired outcomes of schooling and a way to measure student success in terms of these outcomes (Education Standards, 2019)

Professional Development: (continuing education, staff development, professional learning, professional growth, training, in-service) "formal methods such as conferences, seminars, workshops, collaborative learning among groups of colleagues, purchased programs from a vendor, or course for college credit (online or in person), all of which are fairly structured and facilitated by someone with more expertise," which are used to assist in keeping teachers up-to-date with "national content standards, state and local curriculum guidelines, student performance on standardized assessments … changing laws and policies, technology and student needs" (Erwin, 2018, pg. 38-39)

Secondary FCS: sixth through twelfth grade Family and Consumer Science programs/courses

1.6 SIGNIFICANCE OF STUDY

U.S. school districts spent an average of $18,000 per teacher per year on professional development (equivalent of 6-9% of a district's annual operating budget), while teachers themselves spent approximately nineteen full school days participating in it per year; nineteen full school days equates to 150 hours, or almost 10% of a school year (The New Teacher Project, 2015). Even with this commitment of time and funds, a significant gain in teacher effectiveness or development of student skills has not been seen (The New Teacher Project, 2015). This could be attributed to the overwhelming response, 60% of teachers, who responded that they did not think that the professional development they received was effective or a good use of their time (The New Teacher Project, 2015). This is alarming as a crucial element of teaching secondary FCS is maintaining relevant curriculum and course content. Without effective professional development, secondary FCS teachers do not have the current information to teach their students and successfully prepare them to enter a competitive and rapidly evolving workplace environment.

This study collected data to determine the perceived importance and competence of secondary FCS teachers, in Idaho, Montana, Oregon, Washington, and Wyoming, in relevant education components, including technology; course, curriculum, and standards development; teaching; and professional development, programs, and organizations. It collected data on their perceived needs for relevant and applicable professional development and access to other

programs/organizations. It also collected data on motivators, deterrents, and preferred methods for participating in professional development. Using this data, the study compared the differences in perceived needs for professional development of secondary FCS teachers based on their professional and personal demographics. Lastly, it collected data on their personal opinions of how frequently state and national FCS standards should be updated.

The results of this study will be used to inform districts, schools, and teachers of the current status of secondary FCS teachers in the NW region of the US. It also provided access to their personal thoughts and perceptions on the effectiveness of currently offered professional development and how it impacted the development of their curriculum, standards, and overall ability to successfully teach. By assessing secondary FCS teachers on a regional level through a single survey instrument, this study was able to provide a compilation of data for educators, administrators, and districts to reference and utilize towards effectively and efficiently developing their FCS programs to fit the quickly growing needs of students preparing to enter the workplace.

1.7 ORGANIZATION OF STUDY

Chapter 1 contains the introduction. This consists of seven sections: Background; Purpose of Study; Research Questions; Limitations & Delimitations; Definitions of Terms; Significance of Study; and, Organization of Study.

Chapter 2 contains the literature review. This consists of seven sections: Becoming FCS; Development of National Standards; Trends & Issues; Curriculum Development; Career and Technical Student Organizations; Routes to FCS; and, Professional Development.

Chapter 3 contains the methodology. This consists seven sections: Purpose of Study; Research Questions; Research Design; Population & Data Collection; Instrument; Developing the Instrument; and, Data Analysis.

Chapter 4 contains the findings. This consists of four sections: Response Rate; Data Collection; Trends in Perceived Needs of Professional Development; and, Differences in Perceived Needs Based on Demographics.

Chapter 5 contains the summary, conclusions, and recommendations. This consists of six sections: Summary; Methodology; Findings; Conclusions; Recommendations; and, Future Studies.

CHAPTER 2
LITERATURE REVIEW

2.1 BECOMING FCS

Family and Consumer Sciences originated under the name Home Economics, emerging in educational settings in the mid-1800s (Heggestad, 2019). It quickly developed, through the guidance of women such as Catharine Esther Beecher (b. 1800 - d. 1878), author of *A Treatise on Domestic Economy*, and Ellen H. Richards (b. 1842 - d. 1911), founder of the American Home Economics Association (AHEA) (Michals, 2015; Talbot, 1985). The American Home Economics Association impacted the field greatly, allowing members an organization that possessed a voice loud enough to enact federal and state change through political action and public debate on a variety of policy issues, including social welfare, nutrition, child development, housing, consumer protection and advocacy, and standardization of textiles and other consumer products (Heggestad, 2019). Changes made included "funding for home economics research and teaching, including adult education work through agricultural extension services, leading to the rapid expansion of educational programs" (Heggestad, 2019). By becoming involved with agriculture extension services and education, Home Economics was able to secure a place alongside them in land grant universities. This allowed them to continue to grow and expand through an academic setting, with their students going on to "careers in business, including the food industry, textiles and clothing, hotel and restaurant management, and interior design" or "in public-sector and nonprofit organizations in such fields as public health, institutional management, social work, housing, and, of course, education" (Heggestad, 2019).

In 1993, American Home Economics Association decided to assess their field of Home Economics, which resulted in the organization rebranding as the American Association of Family and Consumer Sciences (AAFCS). This allowed the public and other vocational or academic sectors to more clearly understand the goals and mission of the field as it progresses into the 21st century (Home Economics History, 2019). In light of this change, there was a widespread name transition for the entire field of Home Economics to Family and Consumer Sciences. The AAFCS stated that

> home economics has transformed into FCS due to the complex social and economic issues that individuals, families, and communities face today. Like any other applied science, family and consumer sciences has evolved with society and technology. Our emphasis is on issues relevant to today's individuals and families and skills critical to successful living and working in the 21st century global society (AAFCS and FCS FAQ, 2019).

While this name alteration was officially enacted by the AAFCS, many states, schools, and individuals still refer to it by previously more common names (such as Home Economics, Human

Sciences, Home Science, Domestic Economy, Workforce Education and Development, Applied Science and Technology, or Human Ecology), which caused fragmentation within FCS (Arnett-Hartwick, 2017). This fragmentation made it difficult to collect data on or locate Family and Consumer Science programs nationally. It also caused people unfamiliar with FCS to be confused or not fully understand the program as a whole (Arnett-Hartwick, 2017).

2.2 DEVELOPMENT OF NATIONAL STANDARDS

The basis for the creation of national standards began in March of 1992 when a group of Family and Consumer Science administrators met in Washington, DC. They worked to lay foundational groundwork, including vision and mission statements for FCS on a national level. These vision and mission statements were modified and edited by groups and individuals across the country until December 1994, when they were officially adopted. The next spring, the NASAFACS followed suit, also alongside the national education act at the time (Goals 2000: Educate America), to work towards developing national standards for FCS (National Standards Overview, 2018).

> The resulting work became a powerful tool for showcasing the transitions that had occurred in this field and the shift from the philosophy of home economics and its emphasis on technical homemaking skills, to Family and Consumer Sciences, with its focus on broader family and society issues and careers in Family and Consumer Sciences, and provided significant guidance for the field. The first edition, National Standards for Family and Consumer Sciences Education (NASAFACS, V-TECS 1998), provided a strong and clear conceptualization and a common direction for Family and Consumer Sciences Education at the national, state, and local levels (National Standards Overview, 2018).

Second and third editions of these national standards followed in the subsequent years, the second in 2008 and the third in 2018. The second revision began in May 2005 and utilized over 1,000 reviewers (FCS educators, specialists, etc.) from across the nation, resulting in the National Standards for FCS Education, Second Edition (NASAFACS, 2008), which focused on "competencies and process questions and alignment with FCCLA programs and added alignment with Career Clusters and 21st Century Skills" (National Standards Overview, 2018). The third revision began in 2014 with over 2,000 reviewers, and resulted in the National Standards for FCS Education, Third Edition (NASAFACS, 2018). The third edition of standards are the current standards at the time of this study and are the ones referred to in this study.

2.3 TRENDS & ISSUES

      As a part of PTE/CTE (previously known as vocational education), FCS had a strong focus in developing specific, job-related content and skills for students to learn. Each course integrated "occupational, career focused, and work-based learning" to work towards achieving the goal of preparing students to enter a competitive workforce upon completion (Erwin, 2018, pg. 14). These "work-based experiences are expected to be incorporated into curriculum with some Family and Consumer Science teachers training their students to run childcare centers or preschools and full-service cafes or restaurants right in their departments" (Erwin, 2018, pg.14). Due to this, FCS teachers should have a strong background in the actual practice of what they are teaching, as to best create a successful and realistic setting for their students to learn. This was seen through "a continuing trend in the field… the need for Family and Consumer Sciences professionals to function as specialists, requiring both considerable depth in one subject area specialization and the ability to integrate concepts from other areas of the family and consumer sciences knowledge base" (King & Wang, 2009, p. 75). Based on this, having a strong background in the FCS subject being taught and/or having easy access to relevant and content-specific professional development for FCS teachers was a priority for adequate student education to occur.

      Teachers spent approximately nineteen full school days participating in professional development per year; nineteen full school days equates to 150 hours, or almost 10% of a school year (The New Teacher Project, 2015). 60% of teachers responded that they did not think that the professional development they received was effective or a good use of their time (The New Teacher Project, 2015). This was an issue specifically for FCS teachers as they needed their professional development to keep up to date with the trends and expectations of the subject(s) they taught to prepare their students for career readiness. A focus on career readiness was highlighted in the 2006 reauthorization of the Carl D. Perkins Career and Technical Education Act:

> The purpose of this Act is to [1]**develop more fully the academic and career and technical skills of secondary education students** and postsecondary education students who elect to enroll in career and technical education programs, by—
> (1) building on the efforts of States and localities to **develop challenging academic and technical standards and to assist students in meeting such standards**, including preparation for high skill, high wage, or high demand occupations in current or emerging professions;

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[1] Chosen text in this quote bolded by Ropski to emphasize most applicable sections to reader

(2) promoting the **development of services and activities** that integrate rigorous and **challenging academic and career and technical instruction**, and that link secondary education and postsecondary education for participating career and technical education students;

(3) increasing State and local flexibility in **providing services and activities designed to develop, implement, and improve career and technical education**, including tech prep education;

(4) conducting and disseminating national research and disseminating information on best practices that improve career and technical education programs, services, and activities;

(5) providing technical assistance that—

(A) promotes leadership, initial preparation, and professional development at the State and local levels; and

(B) **improves the quality of career and technical education teachers**, faculty, administrators, and counselors;

(6) supporting partnerships among secondary schools, post-secondary institutions, baccalaureate degree granting institutions, area career and technical education schools, local workforce investment boards, business and industry, and intermediaries; and

(7) providing individuals with opportunities throughout their lifetimes to develop, in conjunction with other education and training programs, the knowledge and skills needed to keep the United States competitive (Carl D. Perkins Career and Technical Education Improvement Act of 2006).

For our FCS teachers to keep up with the mandates of this Act, they needed to receive adequate support from their districts and administrations, especially in the form of relevant and content-specific professional development opportunities.

2.4 CURRICULUM DEVELOPMENT

The development and continual updating of effective curriculum is key for the success of any teacher, but especially one who teaches FCS. Curriculum is created based on the national and state standards required for each course. When these standards change, curriculum must immediately change to reflect them. Based on this, "it is critical for content standards to be clearly identified and communicated to teachers, administrators, parents, and students. With the content standards identified, it is recommended that assessment measures be developed that can determine the extent to which standards are translated into increases in student achievement" (Smith, Hall, & Jones, 2005, p. 55). FCS teachers should create assessments that adequately evaluate students with career-readiness

in mind. One way to work toward creating assessments that fulfill this was to utilize authentic assessment.

> Authentic assessment as one form of assessment, has its roots in the work of Piaget... who believed that the learner must be active to be engaged... Authentic assessment is also supported by constructivist theorists who promote the concept that bringing the real-world context into the classroom can promote learning... In teaching environments where authentic assessments are used, students are more engaged and gain greater confidence in the content and their skills in the specific area, thereby improving overall performance and ultimately learning transfer and potentially mastering competencies (Thurab-Nkhosi, et al, 2018).

Creating authentic assessment to evaluate how a teacher's curriculum teaches students to understand required standards is not an easy task by any means; it is a task that necessitates years of training, experience, and support, all of which should be able to be easily accessed through professional development opportunities.

2.5 CAREER AND TECHNICAL STUDENT ORGANIZATIONS

Career and Technical Student Organizations (CTSOs) are found for each branch of CTE. "These organizations provide opportunities for students in leadership, competitive events, and other programs," while simultaneously being incorporated into classroom curriculum by the teacher (Erwin, 2018, pg. 27). The CTSO for FCS is Family, Career, and Community Leaders of America (FCCLA). CTSOs, such as FCCLA, have many career-readiness benefits for students such as leadership skills and networking connections, as well as benefits for teachers such as developed content and activities accessible for them to include in their curriculum (Simonsen, et al, 2014).

> Today over 175,000 FCCLA members in more than 5,300 chapters are active in a network of associations in all 50 states, in addition to the Virgin Islands and Puerto Rico… involvement in FCCLA offers members the opportunity to expand their leadership potential and develop skills for life—planning, goal setting, problem solving, decision making, and interpersonal communication—necessary in the home and workplace (FCCLA, 2019).

2.6 ROUTES TO FCS

Traditionally, FCS teachers complete a bachelor's degree in education and FCS before entering the classroom. Due to the decline in teachers following this route and the influx of interest in those wanting to switch from a technical (FCS-related) career to teaching FCS, many alternative options and routes for certification have been created, e.g. Peace Corps, Teach for America, Teacher Opportunity Corps, Limited Occupational Specialist Certification, Standard Occupational Specialist

Certification, etc. "Because they are 'thrown in' to teaching, they may have some different areas of need for professional development compared to the traditionally prepared CTE teacher," which is important for administrators and departments to remember when planning professional development opportunities (Erwin, 2018, pg. 30).

In Idaho, there are multiple post-secondary options for becoming a FCS educator. The University of Idaho offers a BSFCS, BSECDE (Early Childhood Development), and MSFCS (University of Idaho, 2019). Idaho State University offers a B.A. or B.S. in Secondary Education with a major in Family and Consumer Sciences Education, a B.S. in General Family Consumer Sciences (a non-teaching major), a minor in Consumer Economics, and a minor in Family Consumer Sciences (Idaho State University, 2019). Brigham Young University Idaho offers B.S. degrees in Child Development, FCS Education, FCS Extension, Apparel Entrepreneurs, Marriage & Family Studies, and Professional Preschool Education (Brigham Young University Idaho, 2019).

In Montana, the main post-secondary option for becoming a FCS educator is through Montana State University. They offer B.S. degrees in FCS Education (teaching option) and Human Development and Family Science. They also offer minors in Human Development, Personal and Consumer Finance, and Teacher (FCS Education) (Montana State University, 2019).

In Oregon, the main post-secondary option for becoming a FCS educator is through Oregon State University. They offer a B.S. in Family and Consumer Science (teaching option) and also offer an additional CTE endorsement with that program (Oregon State University, 2019).

In Washington, there are multiple post-secondary options for becoming a FCS educator. Washington State University offer a B.A. in Human Development with an option to add on teaching certificates in FCS and CTE (Washington State University, 2019). Central Washington University offers a B.S. in FCS, a minor in FCS, and a B.S. in FCS/CTE Teaching. They also offer degrees, minors, and certificates in Apparel, Textile, & Merchandising; Family & Child Life; Hospitality, Tourism, & Event Management; and Wine Studies. Additionally, they offer M.S. degrees in Family & Child Life, FCS Education, and CTE (Central Washington University, 2019).

In Wyoming, the main post-secondary option for becoming a FCS educator is through the University of Wyoming. They offer a B.S. in Human Development & Family Sciences (teaching track) as well as M.S. degrees in FCS, Food Science & Human Nutrition, and Early Childhood Development (University of Wyoming, 2019 & Petersons, 2020).

2.7 POPULATION DEMOGRAPHICS

1) Population of city/town participant teaches in (Q3) -- Less than 2500 people / More than 2500 people

   "An urban place is any incorporated place or census designated place (CDP) with at least 2,500 inhabitants" "A rural place is any incorporated place or CDP with fewer than 2,500 inhabitants" (United States Census Bureau, 2018a).

2) Number of students in participants' school (Q4) -- Less than 1000 students / More than 1000 students

   "Since 2007, overall enrollment in high school has not significantly changed" (United States Census Bureau, 2018b). As of 2007, there were an estimated 24,600 secondary public schools in the United States and about 26,034,000 sixth through twelfth grade students. If equally distributed, this would equate to about 1058 students per school (National Center for Education Statistics, 2019; National Center for Education Statistics, 2014).

3) Average class size (Q5) -- 25 students or less / More than 25 students

   "As of 2012, the average class size for secondary teachers in departmentalized instruction was 24.85 students per class" (National Center for Education Statistics, 2012).

4) Years participant has taught FCS (Q6) -- 15 years or less / 16 years or more

   "In the 2015-16 school year, teachers in public schools had on average about 14 years of experience" (Walker, 2018).

5) Participants' highest level of education (Q9) -- Less than Master's / Master's or more

   "Between 1999–2000 and 2015–16, the percentage of public school teachers who had completed a postbaccalaureate degree increased from 47 to 57 percent" (National Center for Education Statistics, 2016).

6) Number of FCS teachers in participants' school (Q10) -- 1 FCS teacher total / More than 1 FCS teacher total

   As of June 2004, there was an estimated 43,605 secondary FCS teachers in the U.S (Werhan & Way, 2006). Using the estimated 24,600 secondary public schools in the U.S. to calculate, and calculating for equal distribution, this would equate about 1.77 secondary FCS teachers per secondary school in the U.S. (National Center for Education Statistics, 2019).

7) Frequency of FCS collaboration (Q11) – Meet weekly or more often / Meet less than weekly

   "43% of secondary teachers meet for collaboration weekly or more often" (Johnston & Berglund, 2018).

8) Participants' professional organization membership status (Q12) -- In no professional organizations / In at least one professional organization

9) FCCLA advisor status (Q13) -- FCCLA Advisor / Not an FCCLA Advisor

10) Participants' age (Q29) -- Aged 18-39 / Aged 40+

    The average age of a secondary teacher in the U.S. is 42.9 years of age (Data USA, 2016).

2.8 PROFESSIONAL DEVELOPMENT

    Professional development focuses on teachers learning new practices and information related to their field which can be utilized in the classrooms to better educate and prepare their students to be career-ready post-graduation. It is commonly known under many alternative names such as continued education, staff development, professional learning, professional growth, training, or in-service (Erwin, 2018). Yet,

> not every form of professional development, even those with the greatest evidence of positive impact, is of itself relevant to all teachers. There is thus a constant need to study, experiment, discuss and reflect in dealing with teacher professional development on the interacting links and influences of the history and traditions of groups of teachers, the educational needs of their student populations, the expectations of their education systems, teachers' working conditions and the opportunities to learn that are open to them (Avalos, 2012).

Unfortunately, one reason many professional development opportunities are not relevant to more teachers "is that administrators or others make decisions about 'what teachers need' rather than letting teachers identify and advocate for what they perceive as their needs and preferred ways of professional development" (Erwin, 2018).

    Given this, it is crucial that states, districts, and schools take into consideration the needs of teachers. By collaborating with teachers and creating professional development opportunities to fill their specific needs, states, districts, and schools should be able to offer professional development that teachers would presumably respond more positively to and be more likely to attend. Not only will this develop a stronger bond between secondary FCS teachers and their occupations, it would result in many more successful programs that actively prepare our students for "family life, work life, and careers in Family and Consumer Sciences by providing opportunities to develop the knowledge, skills, attitudes, and behaviors needed for success" (National Standards Overview, 2018).

CHAPTER 3

METHODOLOGY

3.1 PURPOSE OF STUDY

The purpose of this study was to utilize a needs assessment survey to give a voice to secondary FCS teachers as to the current status of secondary FCS education in relation to curriculum, standards, and professional development opportunities pertinent to their area of content. It specifically focused on collecting data from secondary FCS teachers in five areas:

1. perceived importance and competence of secondary Family and Consumer Science teachers in educational competencies, including technology; course, curriculum, and standards development; teaching; and professional development, programs, and organizations

2. statistically significant differences in perceived needs for professional development of secondary Family and Consumer Science teachers based on professional and personal demographics

3. motivators, deterrents, and preferred methods for participating in professional development of secondary FCS teachers

4. insight into any other opportunities or provisions which secondary FCS teachers see as important to maintain current and relevant material being taught in their courses

5. personal opinions on how frequently state and national FCS standards should be updated.

This information was analyzed and formatted into an appropriate layout for distribution to be utilized by states, districts, schools, and individual teachers to apply toward advancing our secondary FCS programs. This information could also be used to advise districts, colleges, or universities on how to improve marketing and outreach regarding FCS Education to work toward filling the growing need in secondary teaching positions.

3.2 RESEARCH QUESTIONS

The following research questions guided this study:

1. What are the perceived needs for professional development and access to other programs or organizations offered to secondary FCS teachers in the NW US?

2. What are the statistically significant differences in perceived needs for professional development of secondary FCS teachers in the NW US based on demographics?

3. What are the motivators, deterrents, and preferred methods for participating in professional development of FCS teachers?

4. What are other opportunities that secondary FCS teachers in the NW US see as important professional development?

5. How frequently do secondary FCS teachers in the NW US think state and national standards should be updated?

3.3 RESEARCH DESIGN

This study was a quantitative descriptive study which utilized a survey instrument based on the Borich Needs Assessment Model. It contained multiple choice, Likert scale, and text entry questions. In the implementation of a needs assessment model, Borich defined five steps necessary to take:

1. List Competencies. These statements are taken from teacher effectiveness studies, from intents and objectives of teacher trainers, or both. (Borich, 1980, pg. 39).

2. Survey Inservice Teachers. All, or a sample of the trainees, who have completed training are asked to complete a two-part response survey that rates "(a) the relevance of each competency to their current job function and (b) their current level of attainment of each competency" (Borich, 1980, pg. 40).

3. Rank Competencies. Each competency is ranked by determining the Mean Weighted Discrepancy Scores. Discrepancies with the "greatest positive rank difference (...) have the highest priority for revising" (Borich, 1980, pg. 40).

4. Compare High Priority Competencies with Training Program Content. Examine "instructional time devoted to the competency, clarity of instruction, adequacy of training materials, and number of minutes or hours allotted to students for practicing the competency" (Borich, 1980, pg. 41). This can sometimes show that there was insufficient training instead of ineffective training.

5. Revise Program or Revise Competency. Modify program to match high priority competencies or supply external resources to address high priority competencies if altering the program is not feasible. (Borich, 1980, pg. 41)

A quantitative approach for this study was the best option as "the benefits of a quantitative study include the statistical ability to be able to see the relationships between and among variables, as well as the significance and power of those correlations" (Erwin, 2018, pg. 57). Through this, the study allowed the participants to express their perceptions and thoughts in a manner that could be quantified and turned into data. The data was then be analyzed to determine what changes, if any, should be made. Some questions included the option for text entry to offer further insight into the perceptions of the secondary FCS teachers.

3.4 POPULATION & DATA COLLECTION

      Population consisted of currently teaching secondary FCS teachers in Idaho, Montana, Oregon, Washington, and Wyoming. There were an estimated 875 secondary FCS teachers within these five states.

      The contact for Idaho FCS was Theresa Golis, Program Quality Manager – Family & Consumer Sciences and Human Services. She estimated the current number of active secondary FCS teachers (2019-2020) in Idaho was about 220. She was able to disperse the survey information to those teachers a total of four times via email. I personally handed out flyers advertising this survey when I attended the 2019 Idaho REACH Conference in Boise, ID. See Appendix B for flyers and email invite for survey.

      The contact for Montana was Megan Vincent, FCS Specialist. She estimated the current number of active secondary FCS teachers (2019-2020) in Montana was about 158 – this includes middle and high school (~57 teach both high school & middle school, ~66 teach high school only, ~35 teach middle school only). She was able to disperse the survey information to this subgroup a total of four times via email.

      The contact for Oregon was more difficult to find as FCS was not overseen on a state-wide level. Elizabeth Castillo Lopez, Office Specialist, estimated the current number of active secondary FCS teachers (2019-2020) in Oregon was about 90-100. Sarah Wright, Oregon State University, disperse the survey information to 42 ORAFACS members teachers a total of four times via Listserv. Jim Taylor, CTE at Oregon Department of Education, connected me with Wendy Smith, ORAFACS treasurer (next in line for president), and Jessica Motter, ORAFACS school district and public relations chair, who were able to help disperse the survey information via email to currently teaching FCS teachers in Oregon.

      The contact for Washington was Michelle Spenser, FCS Program Supervisor. She estimated the current number of active secondary FCS teachers (2019-2020) in Washington is about 300. She was able to disperse the survey information to those teachers a total of four times via email.

      The contact for Wyoming was Dr. Michelle Aldrich, director of CTE. She estimated the current number of active secondary FCS teachers (2019-2020) in Wyoming was about 96-100. She was able to disperse the survey information to this subgroup a total of four times via email.

3.5 INSTRUMENT

      The survey instrument used for this study was created based on the Borich Needs Assessment Model, the instrument used by Arnett, Cannon, Kitchel, and Duncan (2010), and the instrument used by Erwin (2018). Through the use of this model and incorporating competencies and

information from both of the other survey instruments, the instrument for this study also addressed new information. See Appendices C, D, and E.

"Once related questions are grouped, it is often best to begin with questions that are most salient and interesting, and then move to those that are less salient. Psychologists have long known that once a person makes a decision to act in a certain way, they are likely to continue acting in that way even when the costs of doing so rise (Cialdini, 2009). Asking the more salient questions early in a questionnaire will help convince sample members to respond and will give them time to build commitment to the questionnaire, reducing the likelihood that they will quit when the questions become less interesting." (Dillman, 2014)

Question #1 served as an introduction to the survey. Questions #2-13 were multiple choice and focused on the professional backgrounds of the participants as well as FCS-specific collaboration and participation in groups or organizations. Questions #14-17 were multiple choice and focused on knowledge and perceptions of state and national standards.

Question #18 served as a prompt for Questions #19-22. Questions #19-22 utilized the Borich needs assessment model to rate the perceived level of importance and competence on a Likert scale in four categories: technology; course, curriculum, and standards development; teaching; and professional development, programs, and organizations. The options on the scale for importance were: not at all important, somewhat unimportant, somewhat important, very important. The options on the scale for competence were: not at all competent, somewhat not competent, somewhat competent, very competent. Four options instead of five were used to dissuade from passive responses. Question #19 was comprised of two statements focusing on technology in the classroom. Question #20 was comprised of three statements focusing on course, curriculum, and standards development. Question #21 was comprised of two statements focusing on teaching. Question #22 was comprised of five statements focusing on professional development, programs, and organizations.

Question #23 was comprised of four statements and utilized a Likert scale with four options (strongly deters, somewhat deters, somewhat motivates, strongly motivates) to assess the level each statement motivated or deterred the participant from participating in professional development. Four options instead of five were used to dissuade from passive responses. Question #24 was comprised of five statements and utilized a Likert scale with four options (strongly disagree, somewhat disagree, somewhat agree, strongly agree) to assess how the participant perceived the professional development that was currently being offered to them. Four options instead of five were used to dissuade from passive responses. Question #25 offered a list of nine statements and utilized a Likert scale with four options (strongly do not prefer, somewhat do not prefer, somewhat prefer, strongly

prefer) to assess the preferred scheduling options for professional development. Four options instead of five were used to dissuade from passive responses. Question #26 was a text entry inquiring the content the participant was interested to learn in a professional development course. Question #27 was comprised of five statements and utilized a Likert scale with four options (strongly disagree, somewhat disagree, somewhat agree, strongly agree) to assess how the participant perceived their own teaching in relation to their current and relevant curriculum and standards. Four options instead of five were used to dissuade participants from passive responses.

Questions #28-30 were multiple choice and inquired about personal demographics. Question #31 was optional text entry for the participant to comment with any questions or concerns relating to the survey or study and included a link to a secondary survey which allowed optional text entry for the participant to enter their email to be sent the findings from the overall survey.

3.6 DEVELOPING THE INSTRUMENT

During the development of the survey instrument, a pilot survey was distributed to ten secondary FCS teachers, attending a professional development workshop at the University of Idaho, to review the instrument for logical validity and clarity. The survey was then altered after this pilot before it was distributed for the purpose of this study. There were ten alterations made to the survey instrument used in the pilot:

1. *Pilot Q2 (You received the majority of your teacher training in the state of…)* The pilot analysis proved this question to be irrelevant to answer any of the research questions. To resolve this, the question was deleted.

2. *Pilot Q4 - 8 (What is the name of the county in _____ where you currently teach?)* The pilot analysis proved these questions to be irrelevant to answer any of the research questions. To resolve this, the questions were deleted and replaced with the question: "What is the population of the city/town you currently teach?"

3. *Pilot Q10 - 12 (How many years do you plan to continue teaching Family & Consumer Sciences?; When you leave teaching Family & Consumer Sciences, you are planning to…; Which profession are you planning to change to? Why?)* The pilot analysis proved these questions to be irrelevant to answer any of the research questions. To resolve this, the questions were deleted.

4. *Pilot Q13 (Based on the 16 nationally recognized FCS areas of study, which area(s) do you currently teach or have taught in the past? Mark all that apply and/or specify through written response.)* The pilot analysis proved this question format resulted in too many varied

answers due to the written response option. To resolve this, the option for written response was deleted and replaced with the optional answer, "Unsure of area(s) of study."

5. *Pilot Q18 (What grade(s) do you currently teach?)* The pilot analysis proved this question to be irrelevant to answer any of the research questions. To resolve this, the question was deleted.

6. *Pilot Q23 - 24 (Do you advise your chapter of FCCLA alone or with another teacher?; Do you advise or assist with any other student groups at your school outside of FCCLA? If yes, please specify.)* The pilot analysis proved these questions to be irrelevant to answer any of the research questions. To resolve this, the questions were deleted.

7. *Pilot Q27 (How often do you think that state or national standards for FCS courses need to be updated?)* In discussion after the survey was taken, the pilot group expressed that they had varied levels of knowledge between state and national standards which made them unsure of how to accurately answer this question. To resolve this, the question was separated into two individual questions: "How often do you think that **state** standards for FCS courses need to be updated," and, "How often do you think that **national** standards for FCS courses need to be updated."

8. *Pilot Q29 - 32 (Borich Needs Assessment Model section)* In discussion after the survey was taken, the pilot group expressed that they did not want to choose the option "Somewhat incompetent" due to a negative connotation with the word "incompetent." They expressed that they felt the word meant that they could not become more competent if they tried. To resolve this, "Somewhat incompetent" was changed to "Somewhat not competent."

9. *Pilot Q33 - 34, 37 (Rate each statement to the level it motivates or deters you from participating in professional development. & Rate each statement to the level you agree or disagree with it. & Rate each statement to the level it you agree or disagree with it.)* The pilot analysis proved that these questions did not give enough range in answers with the option for the participant to choose that they had no opinion. To resolve this, the questions were changed from having a three-point Likert scale to a four-point Likert scale which forced the participant to choose a positive or negative answer.

10. *Pilot Q35 (Which of these best reflect your personal preferences for scheduling of professional development opportunities? Choose as many as apply.)* The pilot analysis proved that this question did not give sufficient data in the format it was in. To resolve this, the question was changed to match Q33-34 and Q37 with a four-point Likert scale with the option for "other" deleted.

A Cronbach's alpha test was run on the data from the pilot. A value of 0.654 was obtained for competencies rated for importance. SPSS suggested deleting the competency, "Selecting current/relevant student references, materials, and textbooks," to obtain a score of .745. Instead of deleting the competency, it was altered to read, "Selecting relevant student references, materials, and textbooks." With a larger participant group and clearer phrasing, the alpha value should be higher in the final survey results. A value of 0.390 was obtained for competencies rated for competence. SPSS suggested deleting the competency, "Establishing opportunities or creating connections for student work internships or jobs," to obtain a score of .711. Instead of deleting the competency, it was altered to read, "Establishing opportunities for student work internships or jobs." This pilot group also had varied demographics, especially in relation to years teaching FCS. 50% of the group had taught FCS for three or less years while 30% had taught it for over twenty-two. This could cause a varied response in answers for this question. With a larger participant group and clearer phrasing, the alpha value for this section should be higher in the final survey results.

After meeting with a University of Idaho statistician to discuss the pilot survey results, more changes were deemed necessary to make. The other competencies in this section that had received lower alpha values were edited for clarity to raise the alpha value in the final survey results. The competencies edited were: "Using current and relevant **computer/ internet technology** to teach interactive lessons on content or career-specific tasks," was changed to, "Using relevant **computer/internet technology** to teach interactive lessons on content." "Using current and relevant **non-computer technology** to teach interactive lessons on content or career-specific tasks (such as up-to-date kitchen equipment, up-to-date sewing/design equipment, etc.)," was changed to, "Using relevant **non-computer technology** to teach interactive lessons on content (such as up-to-date kitchen equipment, up-to-date sewing/design equipment, etc.)."

A Cronbach's alpha test was also run on the other Likert-scale questions. A value of 0.889 was obtained for the section, "Rate each statement to the level it motivates or deters you from participating in professional development." A value of 0.764 was obtained for the combined sections, "Rate each statement to the level you agree or disagree with it." Both of these values should stay the same or rise when tested on a larger participant group.

3.7 DATA ANALYSIS

Both Excel and the Statistical Package for Social Science Statistics (SPSS) were used to analyze the survey questions. Questions with Likert scales were analyzed for frequencies, means, and standard deviations. Mean Weighted Discrepancy Scores (MWDS) were used to rank each of the educational component sections: technology; course, curriculum, and standards development;

teaching; and professional development, programs, and organizations. Erwin's analysis process was followed then to

> determine discrepancy scores, weighted discrepancy scores, and MWDS… A discrepancy score was calculated for each individual on each competency by taking the importance rating minus the ability (competency) rating. Next, a weighted discrepancy score was then calculated on each individual for each of the professional competencies by multiplying the discrepancy score by the mean importance rating. A Mean Weighted Discrepancy Score (MWDS) for each of the competencies was then calculated by taking the sum of the weighted discrepancy scores and dividing by the number of observations. Using the MWDS, the competencies were ranked. The competencies with the highest MWDS were those with the highest perceived need and priority for professional development. The competencies were grouped into related categories in which professional development could be provided for the competencies with the highest MWDS. (Erwin, 2018, pg. 62)

Independent t-tests were conducted to determine if there were any statistically significant differences between the twelve educational competencies in the survey (questions #19-22) and the following survey participant professional and personal demographics:

1. Population of city/town participant teaches in (Less than 2500 people / More than 2500 people)
2. Number of students in participants' school (Less than 1000 students / More than 1000 students)
3. Average class size (25 students or less / More than 25 students)
4. Years participant has taught FCS (14 years or less / 15 years or more)
5. Participants' highest level of education (Less than Master's / Master's or more)
6. Number of FCS teachers in participants' school (1 FCS teacher total / More than 1 FCS teacher total)
7. Frequency of FCS collaboration (Meet weekly or more often / Meet less than weekly)
8. Participants' professional organization membership status (In no professional organizations / In at least one professional organization)
9. FCCLA advisor status (FCCLA Advisor / Not an FCCLA Advisor)
10. Participants' age (Aged 18-39 / Aged 40+)

Data from the t-tests were analyzed to compare needs more in-depth within the survey's participant population, looking for correlations between their professional and personal demographics with their responses to their professional development needs. See Appendix I.

Chapter 4
FINDINGS[2]

This chapter covers the results of the study. It reports the analyzed data from all five states combined. (See Appendix I for broken down data for each individual state.) The purpose of this study was to utilize a needs assessment survey to give a voice to secondary FCS teachers as to the current status of secondary FCS education in relation to curriculum, standards, and professional development opportunities pertinent to their area of content. The following research questions guided this study:

1. What are the perceived needs for professional development and access to other programs or organizations offered to secondary FCS teachers in the NW US?
2. What are the significant differences in perceived needs for professional development of secondary FCS teachers in the NW US based on demographics?
3. What are the motivators, deterrents, and preferred methods for participating in professional development of FCS teachers?
4. What are other opportunities that secondary FCS teachers in the NW US see as important professional development?
5. How frequently do secondary FCS teachers in the NW US think state and national standards should be updated?

4.1 RESPONSE RATE

There were 328 respondents who completed 50% or more: 202 completed 100%, 93 completed 97%, 2 completed 84%, 1 completed 81%, 5 completed 71%, 1 completed 69%, 6 completed 65%, 2 completed 63%, 13 completed 55%, and 2 completed 53%; this data is what was analyzed. There were an estimated 875 secondary FCS teachers currently teaching in those five states. This estimates that we received a 37.49% response rate. All 328 of the FCS teachers who took the survey submitted it, though not all of them answered all of the questions. The survey was taken through Qualtrics and then analyzed through SPSS and Excel.

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[2] For findings from the pilot survey, see Appendix F.

4.2 ALL NW STATES

4.2.1 RESPONSE RATE

There were 328 responses completed 50% or more; 202 completed 100%, 93 completed 97%, 2 completed 84%, 1 completed 81%, 5 completed 71%, 1 completed 69%, 6 completed 65%, 2 completed 63%, 13 completed 55%, and 2 completed 53%. All 328 of the FCS teachers who took the survey submitted it, though not all of them answered all of the questions. The survey was taken through Qualtrics and then analyzed through SPSS and Excel.

4.2.2 DATA

Professional Demographics

All NW States survey participants responded that 67 participants (20.43%) taught in a city/town with a population of less than 2,500 people; 155 participants (47.26%) taught in a city/town with a population of 2,500 to 50,000 people; 104 (31.71%) taught in a city/town with a population of over 50,000 people; and, 2 (0.61%) chose to not respond. See Figure 4.1.
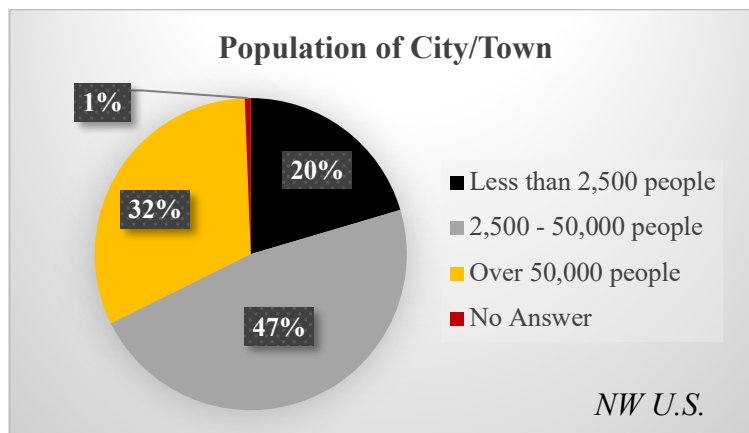
Figure 4.1

All NW States survey participants responded that 4 (1.22%) participants had less than 50 students in their school; 17 (5.18%) participants had 50-100 students in their school; 61 (18.60%) participant had 101-300 students in their school; 29 (8.84%) participants had 301-500 students in their school; 37 (11.28%) participants had 501-750 students in their school; 38 (11.59%) participants had 751-1000 students in their school; 36 (10.98%) participants had 1001-1200 students in their school; and 106 (32.32%) participants had 1200+ students in their school. See Figure 4.2.
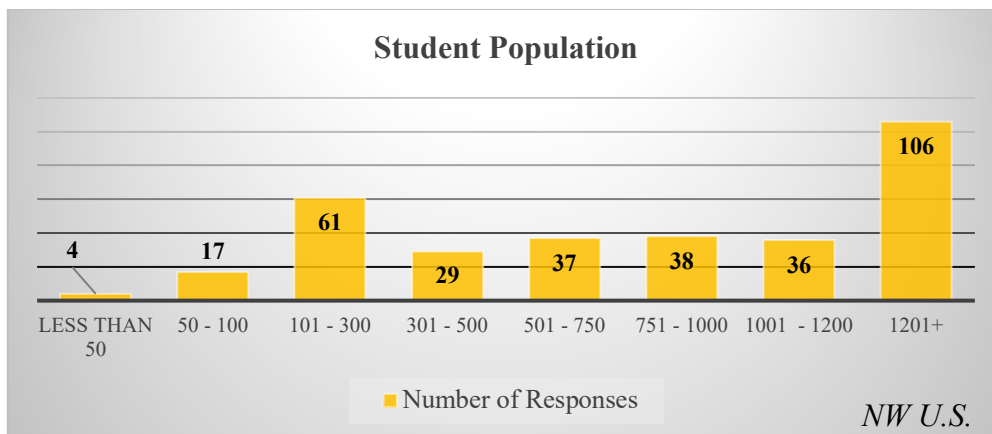
Figure 4.2

All NW States survey participants responded that 2 (0.61%) participants had an average class size of less than 5 students; 25 (7.62%) participants had an average class size of 6-10 students; 36 (10.98%) participants had an average class size of 11-15 students; 51 (15.55%) participants had an average class size of 16-20 students; 72 (21.95%) participants had an average class size of 21-25 students; 99 (30.18%) participants had an average class size of 26-30 students; 36 (10.98%) participants had an average class size of 31-35 students; 4 (1.22%) participants had an average class size of 36+ students; and, 3 (0.91%) chose to not respond. See Figure 4.3.
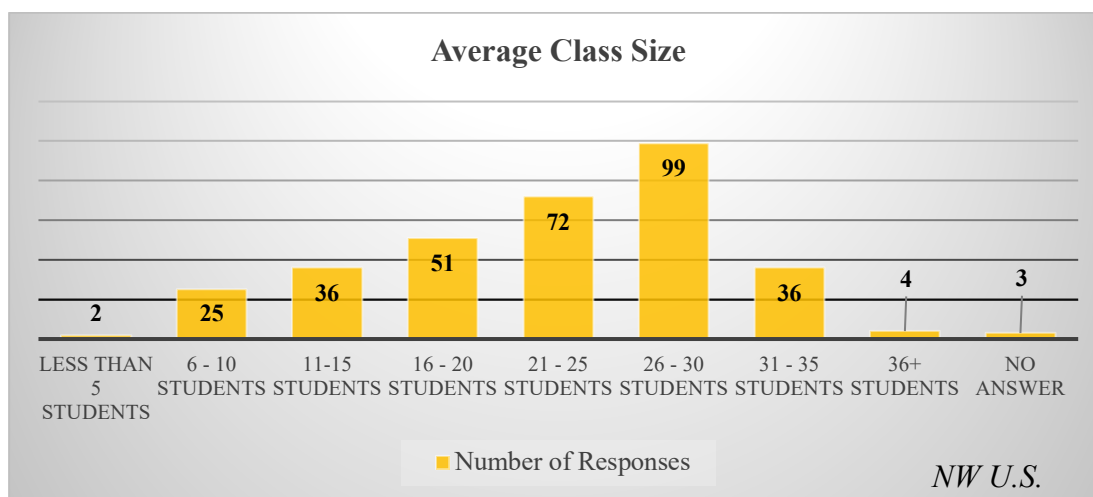
Figure 4.3

All NW States survey participants responded that 38 (11.59%) participants have taught FCS for 31+ years; 20 (6.10%) participants have taught FCS for 6 years; 19 (5.79%) participants have taught FCS for 3 years; 18 (5.49%) participants have taught FCS for 5 years; 15 (4.57%) participants have taught FCS for 20 years; 13 (3.96%) participants have taught FCS for 8 years;

12 (3.66%) participants have taught FCS for 1 year; 12 (3.66%) participants have taught FCS for 2 years; 12 (3.66%) participant has taught FCS for 4 years; 12 (3.66%) participant has taught FCS for 12 years; 12 (3.66%) participants have taught FCS for 16 years; 11 (3.35%) participant has taught FCS for less than 1 year; 11 (3.35%) participants have taught FCS for 7 years; 11 (3.35%) participants have taught FCS for 10 years; 10 (3.05%) participant has taught FCS for 11 years; 10 (3.05%) participants have taught FCS for 18 years; 10 (3.05%) participant has taught FCS for 30 years; 8 (2.44%) participants have taught FCS for 15 years; 8 (2.44%) participant has taught FCS for 17 years; 8 (2.44%) participant has taught FCS for 26 years; 7 (2.13%) participants have taught FCS for 9 years; 7 (2.13%) participants have taught FCS for 14 years; 6 (1.83%) participant has taught FCS for 13 years; 6 (1.83%) participant has taught FCS for 28 years; 5 (1.52%) participants have taught FCS for 19 years; 5 (1.52%) participant has taught FCS for 22 years; 5 (1.52%) participant has taught FCS for 25 years; 5 (1.52%) participant has taught FCS for 27 years; 5 (1.52%) participants have taught FCS for 29 years; 4 (1.22%) participants have taught FCS for 21 years; 1 (0.30%) participants have taught FCS for 23 years; 1 (0.30%) participant has taught FCS for 24 years; and, 1 (0.30%) participant chose to not answer. See Figure 4.4.
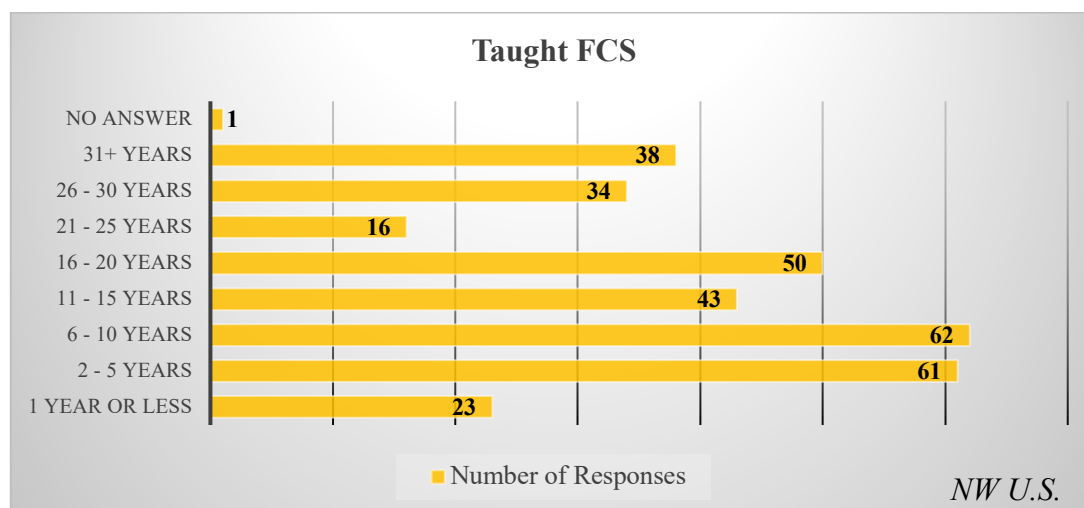
Figure 4.4

There were 16 areas of study chosen by 328 All NW States participants. There were 16 total areas chosen by 328 total participants. 234 (71.34%) participants teach or have taught Nutrition and Wellness; 210 (64.02%) participants teach or have taught Food Production and Services; 203 (61.89%) participants teach or have taught Education and Early Childhood; 179 (54.57%) participants teach or have taught Human Development; 177 (53.96%) participants teach or have taught Textiles, Fashion, and Apparel; 169 (51.52%) participants teach or have taught Parenting;

163 (49.70%) participants teach or have taught Food Science, Dietetics, and Nutrition; 154 (46.95%) participants teach or have taught Housing and Interior Design; 143 (43.60%) participants teach or have taught Interpersonal Relationships; 142 (43.29%) participants teach or have taught Career, Community, and Family Connections; 131 (39.94%) participants teach or have taught Family; 124 (37.80%) participants teach or have taught Consumer and Family Resources; 94 (28.66%) participants teach or have taught Family and Human Services; 83 (25.30%) participants teach or have taught Hospitality, Tourism, and Recreation; 62 (18.90%) participants teach or have taught Consumer Services; 10 (3.05%) participants are unsure of which area(s) of study they teach or have taught; 5 (1.52%) participants teach or have taught Facilities and Property Management; and, 1 (0.30%) participants did not answer. See Figure 4.5.
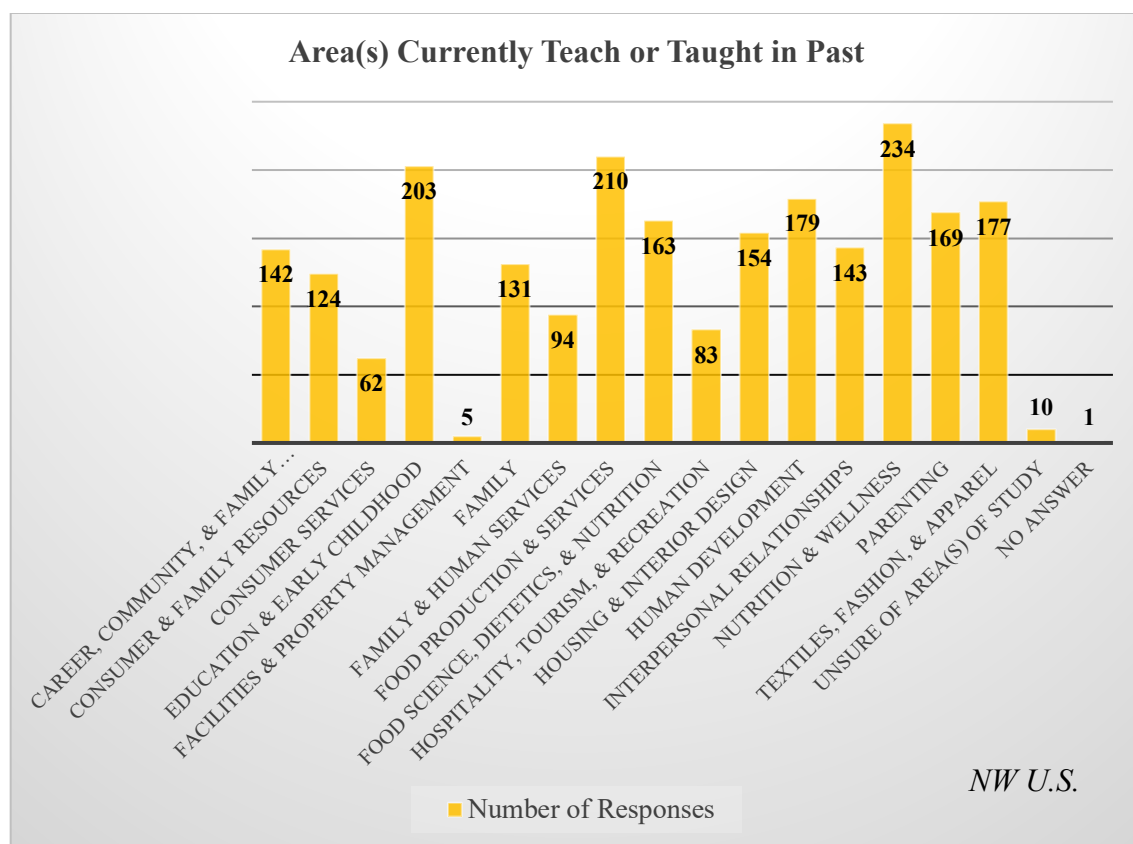
Figure 4.5

All NW States survey participants responded that 186 (56.71%) participants were prepared through an undergraduate traditional FCS teacher education program (graduated with teaching certification with endorsement in FCS); 103 (31.40%) participants were prepared through an undergraduate teacher education program (graduated with teaching certification and bachelor's in education or related major); 80 (24.39%) were prepared through a graduate program relating to education at least one year beyond a bachelor's degree; 39 (11.89%) participants were

prepared through ways that were not listed in this survey; 18 (5.49%) participants were prepared through substitute teaching that resulted in permanent position; 17 (5.18%) participants were prepared through no prior teaching experience but have a degree and career experience in an FCS-related field; 9 (2.74%) participants were prepared through a Standard Occupational Specialist Certification; 8 (2.44%) participants were prepared through no prior teaching experience but have a degree and no career experience in a FCS-related field; 6 (1.83%) participants were prepared through no prior teaching experience or a degree in a FCS-related field but have career experience in a FCS-related field; and, 0 (0.00%) chose to not answer. This shows the many different routes which were available and utilized to become an FCS teacher in the NW States. See Figure 4.6.

FCS Teacher Preparation

Category	Number of Responses
UNLISTED OPTION	39
NO PRIOR TEACHING EXPERIENCE OR DEGREE IN FCS BUT CAREER EXPERIENCE IN FCS	6
NO PRIOR TEACHING EXPERIENCE BUT A DEGREE AND NO CAREER EXPERIENCE IN FCS	8
NO PRIOR TEACHING EXPERIENCE BUT A DEGREE AND CAREER EXPERIENCE IN FCS	17
STANDARD OCCUPATIONAL SPECIALIST CERTIFICATION	9
LIMITED OCCUPATIONAL SPECIALIST CERTIFICATION	3
ALTERNATIVE ROUTE (PEACE CORPS, TEACH FOR AMERICA, ETC.)	13
SUBSTITUTE TEACHING THAT RESULTED IN PERMANENT POSITION	18
GRADUATE PROGRAM RELATED TO EDUCATION AT LEAST ONE YEAR BEYOND BACHELOR'S	80
UNDERGRADUATE TRADITIONAL FCS TEACHER EDUCATION PROGRAM	186
UNDERGRADUATE TEACHER EDUCATION PROGRAM	103

■ Number of Responses   *NW U.S.*

Figure 4.6

All NW States survey participants responded that 112 (34.15%) participants' highest level of formal education was a Master's degree + more graduate hours; 63 (19.21%) participants' highest level of formal education was a Bachelor's Degree; 49 (14.94%) participants' highest level of formal education was a Master's Degree; 44 (13.41%) participants' highest level of formal education was 37+ graduate hours; 26 (7.93%) participants' highest level of formal

education was 1-18 graduate hours; 24 (7.32%) participants' highest level of formal education was 19-36 graduate hours; 5 (1.52%) participants' highest level of formal education was an Associate Degree; 2 (0.61%) participants' highest level of formal education was a Doctorate; 2 (0.61%) participants chose to not answer; 1 (0.30%) participant's highest level of formal education was a Specialist; and, 0 (0.00%) participants' highest level of formal education was a High School Diploma. See Figure 4.7.
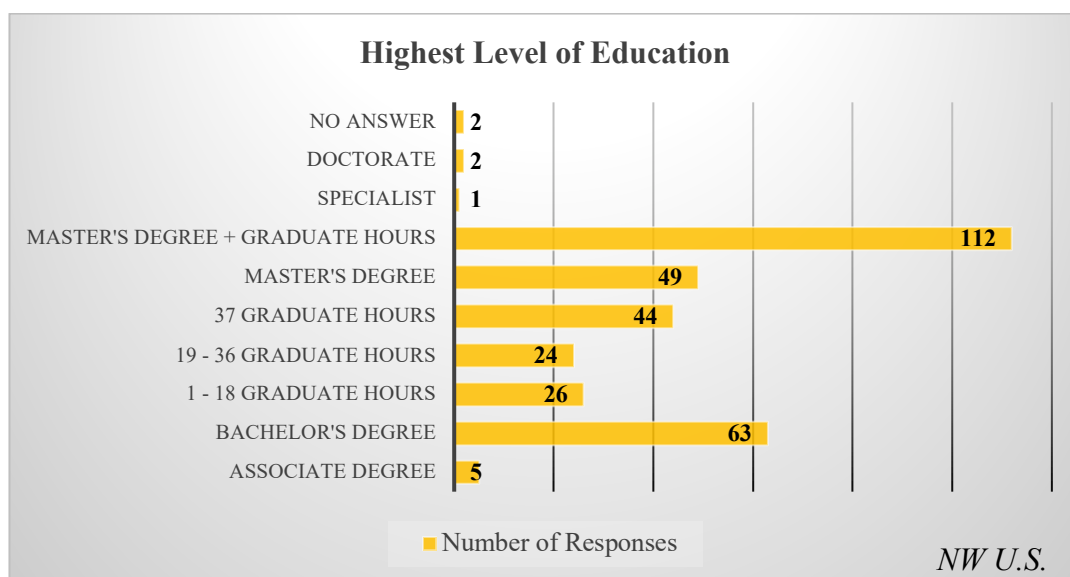
Figure 4.7

All NW States survey participants responded that 173 (52.74%) participants taught FCS courses at their school alone; 80 (24.39%) participants taught FCS courses at their school with another FCS teacher; 48 (14.63%) participants taught FCS courses at their school with two other FCS teachers; 15 (4.57%) participant taught FCS courses at their school with three other FCS teachers; 7 (2.13%) participants taught FCS courses at their school with five or more other FCS teachers; and, 5 (1.52%) participants taught FCS courses at their school with four other FCS teachers. See Figure 4.8.
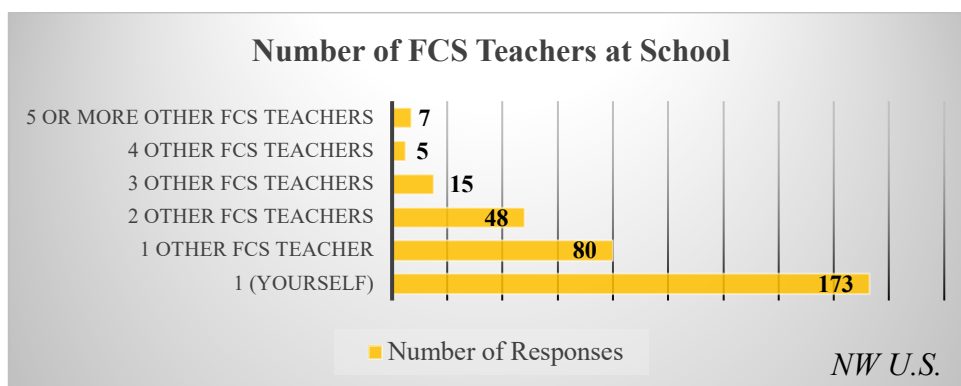
Figure 4.8

All NW States survey participants responded that 60 (18.29%) participants met with other FCS teachers in their school/district once a month; 57 (17.38%) participants met once a week; 42 (12.80%) participants met once a quarter; 35 (10.67%) participants met once a semester; 30 (9.15%) participants met once a year; 28 (8.54%) participants have never met with other FCS teachers in their school/district; 23 (7.01%) participants have no other teacher in their school/district to meet with; 19 (5.79%) participants met daily or regularly; 9 (2.74%) participants chose to not respond; 8 (2.44%) participants did not think this question was applicable to them; 6 (1.83%) participants met irregularly; 5 (1.52%) participants met twice a month; 2 (0.61%) participants met three times per year; 2 (0.61%) participants met weekly via video chat; 1 (0.30%) participant was unsure how often they met; and, 1 (0.30%) participant met two times per week. See Figure 4.9.
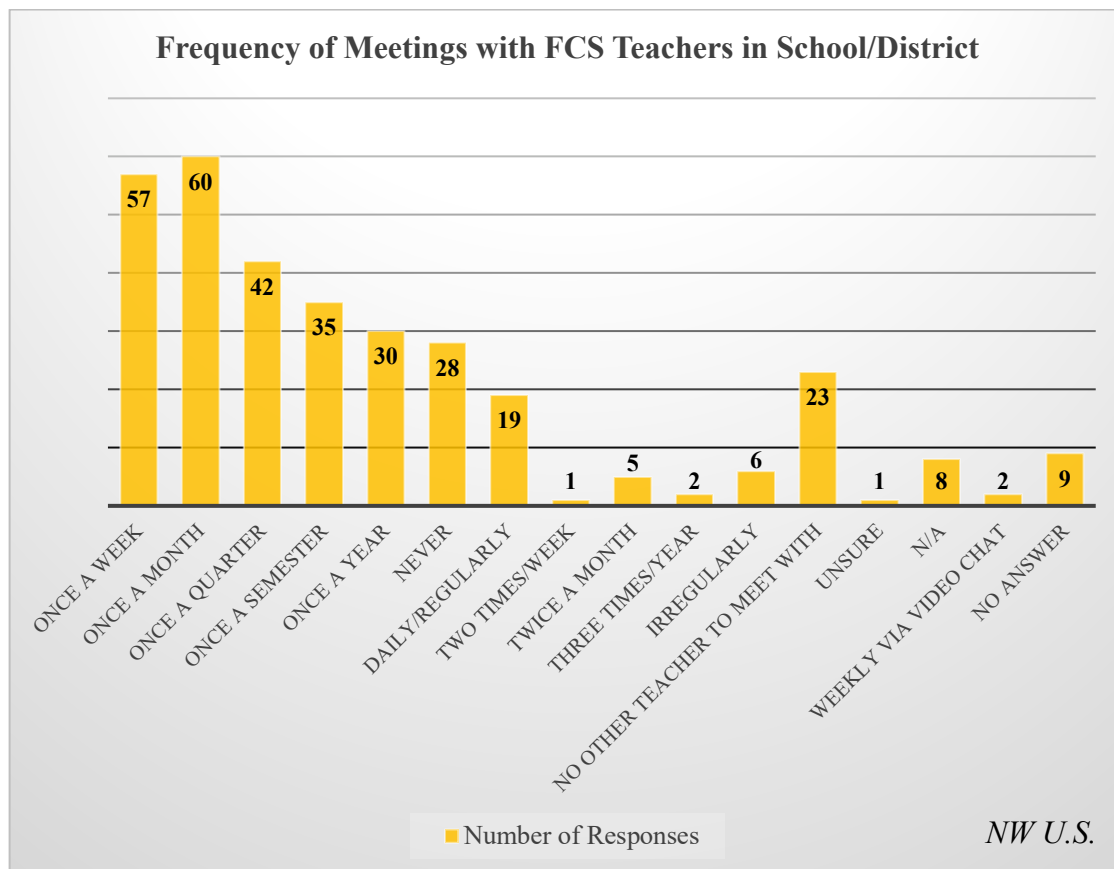
Figure 4.9

All NW States survey participants responded that 188 (57.32%) participants held membership in the Association for Career and Technical Education (ACTE/FCSTN); 172 (52.44%) participants held membership in the American Association of Family and Consumer Sciences (AAFCS/NAFCS); 79 (24.09%) participants did not hold membership in any

professional organization; 9 (2.74%) participants held membership in their national/state AEYC; 7 (2.13%) participant held membership in the National/Wyoming/Montana Education Association (NEA/WEA/MEA); 7 (2.13%) participants chose to not answer; 4 (1.22%) participants held membership in FCCLA; 2 (0.61%) participants held membership in the ESP; 2 (0.61%) participants held membership in the NAE4-HE; 2 (0.61%) participants held membership in the NACAA; 1 (0.30%) participant held membership in the Montana Cattlewomen; 1 (0.30%) participant held membership in the American Culinary Federation; 1 (0.30%) participant held membership in the Council on Family; and, 1 (0.30%) participant was unsure what in which organization(s) they held membership. See Figure 4.10.
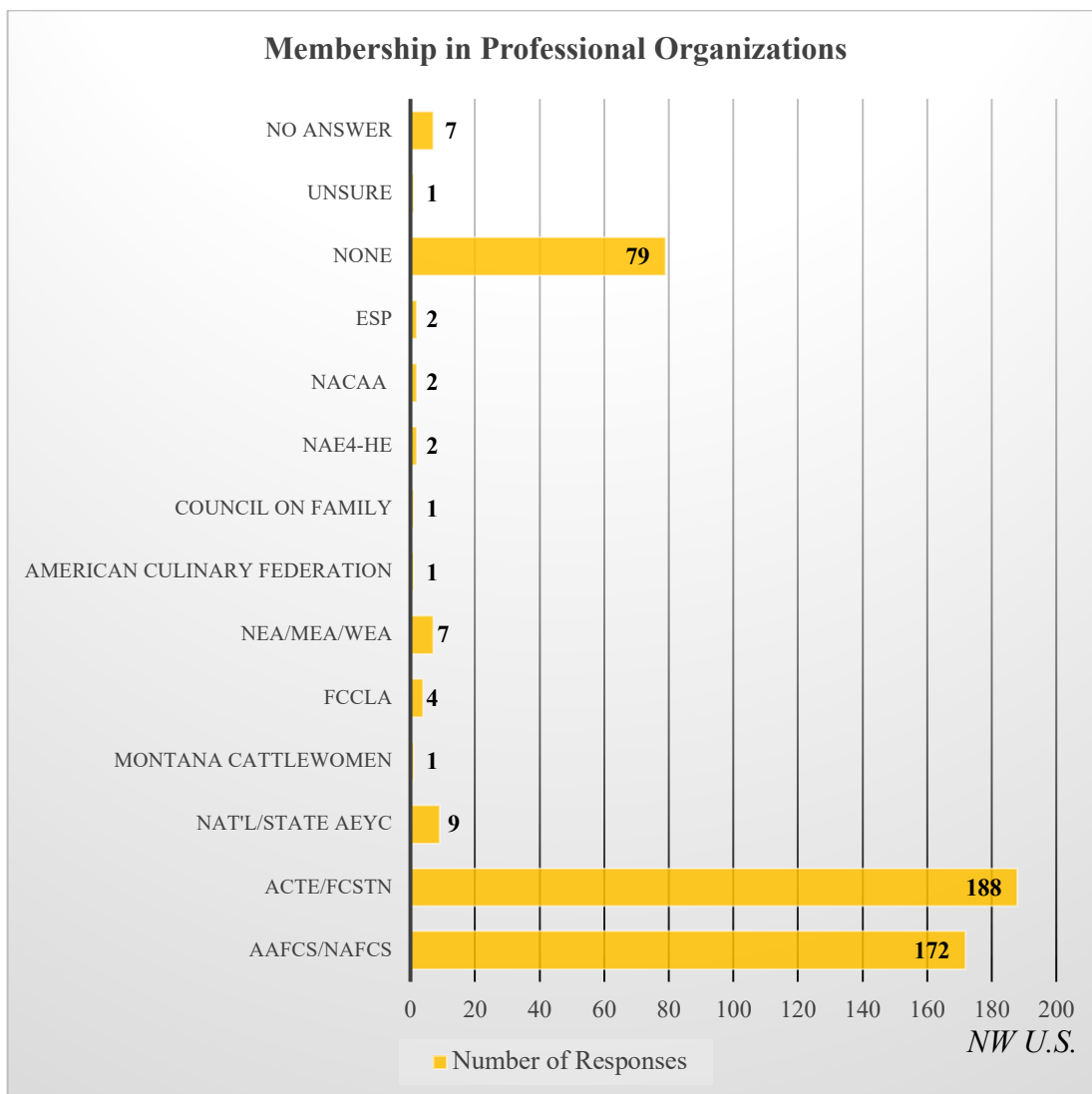
Figure 4.10

All NW States survey participants responded that 192 (58.54%) participants advised a chapter of FCCLA at their school; 135 (41.16%) participants did not advise a chapter of FCCLA at their school; and, 1 (0.30%) chose to not answer. See Figure 4.11.
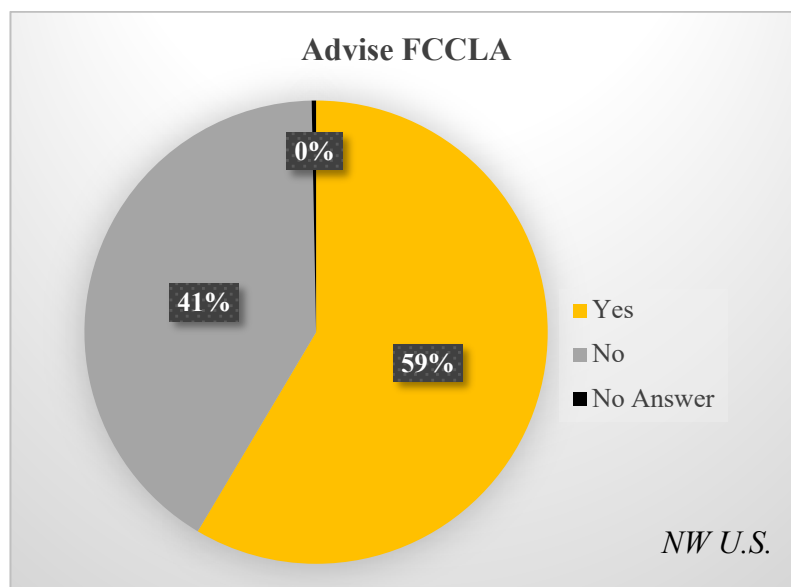
Figure 4.11

All NW States survey participants responded that 306 (93.29%) participants knew where to find **state** standards for the FCS course(s) they teach; and, 22 (6.71%) participants did not know where to find **state** standards for the FCS course(s) they teach. See Figure 4.12.
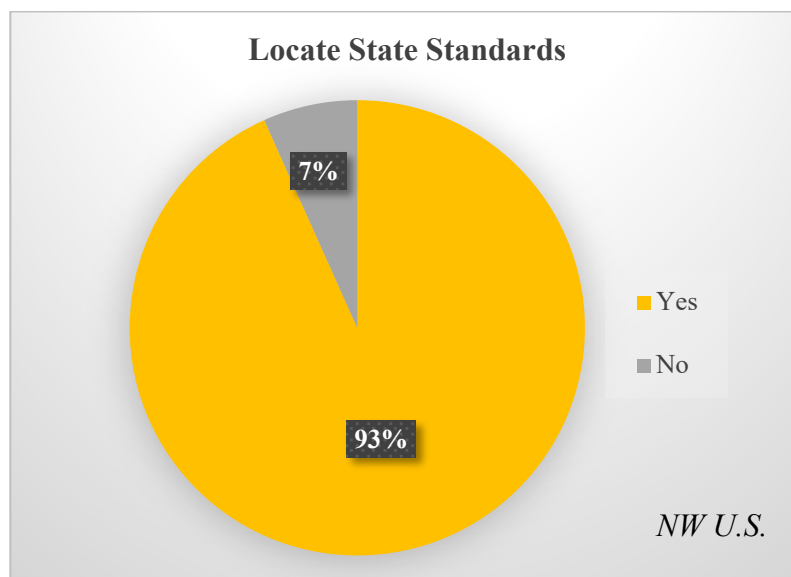
Figure 4.12

All NW States survey participants responded that 295 (89.94%) participants knew where to find **national** standards for the FCS course(s) they teach; 32 (9.76%) participants did not know where to find **national** standards for the FCS course(s) they teach; and, 1 (0.30%) chose to not answer. See Figure 4.13.
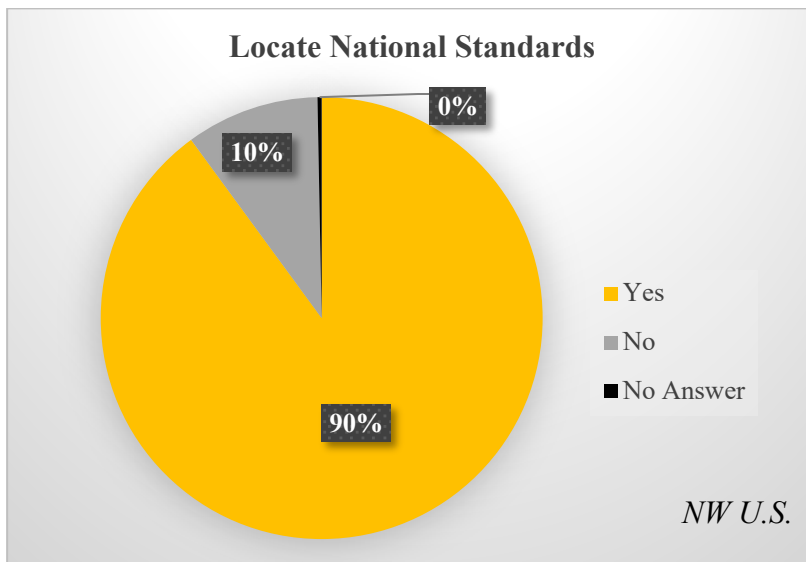
Figure 4.13

All NW State survey participants responded that 129 (39.33%) participants thought **state** standards for FCS courses need to be updated every four years; 110 (33.54%) participants thought **state** standards for FCS courses need to be updated every three years; 27 (8.23%) participants thought **state** standards for FCS courses need to be updated every other year; 21 (6.40%) participants thought **state** standards for FCS courses need to be updated every five years; 11 (3.35%) participants thought **state** standards for FCS courses need to be updated every year; 8 (2.44%) participants did not specify how often **state** standards for FCS courses need to be updated; 4 (1.22%) participants thought **state** standards for FCS courses need to be updated every five to ten years; 4 (1.22%) participants expressed no preference in how often **state** standards for FCS courses need to be updated; 3 (0.91%) participants thought **state** standards for FCS courses need to be updated depending on the subject; 3 (0.91%) participants thought **state** standards for FCS courses need to be updated as needed; 3 (0.91%) participants expressed dislike toward current **state** standards for FCS courses; 3 (0.91%) participants chose to not answer; 1 (0.30%) participant thought there only needs to be national standards; and, 1 (0.30%) participant thought **state** standards for FCS courses need to be updated when national standards are. See Figure 4.14.
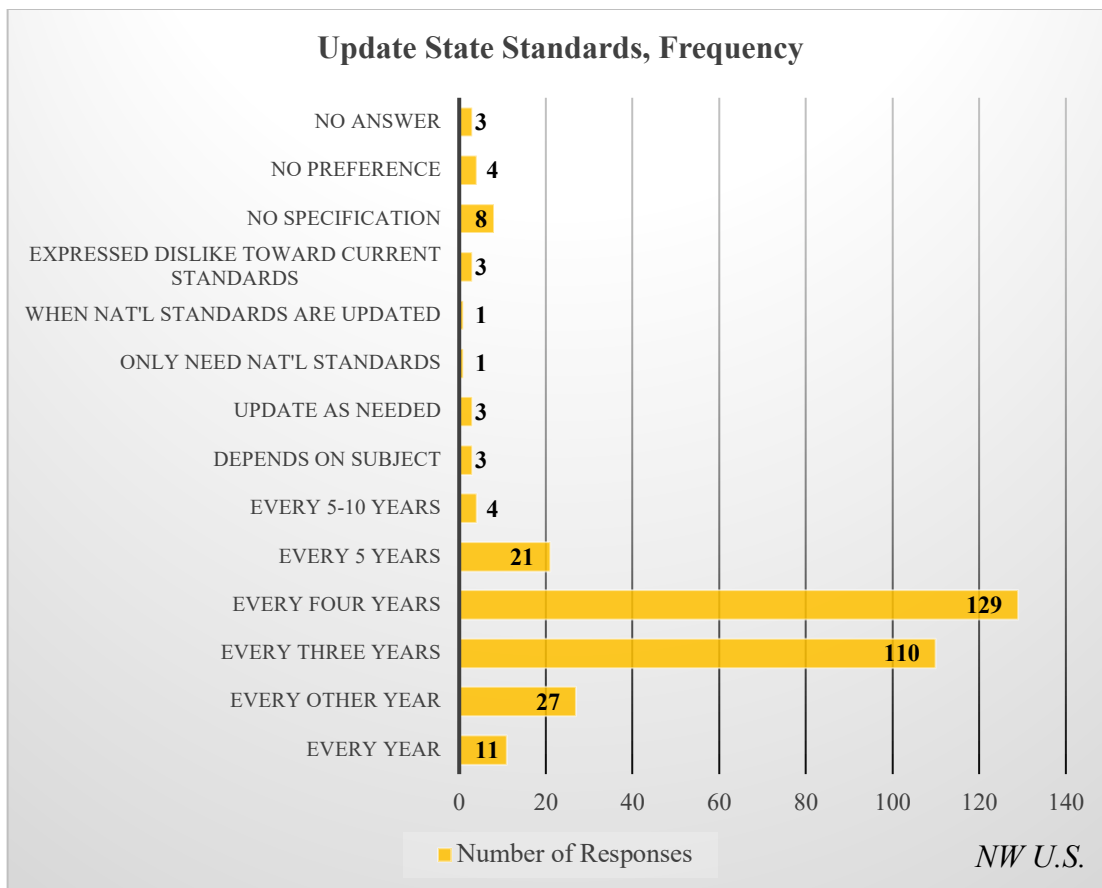
Figure 4.14

All NW States survey participants responded that 143 (43.60%) participants thought **national** standards for FCS courses need to be updated every four years; 96 (29.27%) participants thought **national** standards for FCS courses need to be updated every three years; 28 (8.54%) participants thought **national** standards for FCS courses need to be updated every five years; 27 (8.23%) participants thought **national** standards for FCS courses need to be updated every other year; 11 (3.35%) participants thought **national** standards for FCS courses need to be updated every year; 6 (1.83%) participants had no specification for how often **national** standards for FCS courses need to be updated; 5 (1.52%) participants chose to not answer; 4 (1.22%) participants thought **national** standards for FCS courses need to be updated every five to ten years; 3 (0.91%) participants thought **national** standards for FCS courses need to be updated as needed; 2 (0.61%) participants had no preference for how often **national** standards for FCS courses need to be updated; 2 (0.61%) participants thought **national** standards for FCS courses should never be updated as it sounds like more work for teachers; and, 1 (0.30%) participant thought **national** standards for FCS courses need to be updated the same as they are currently. See Figure 4.15.
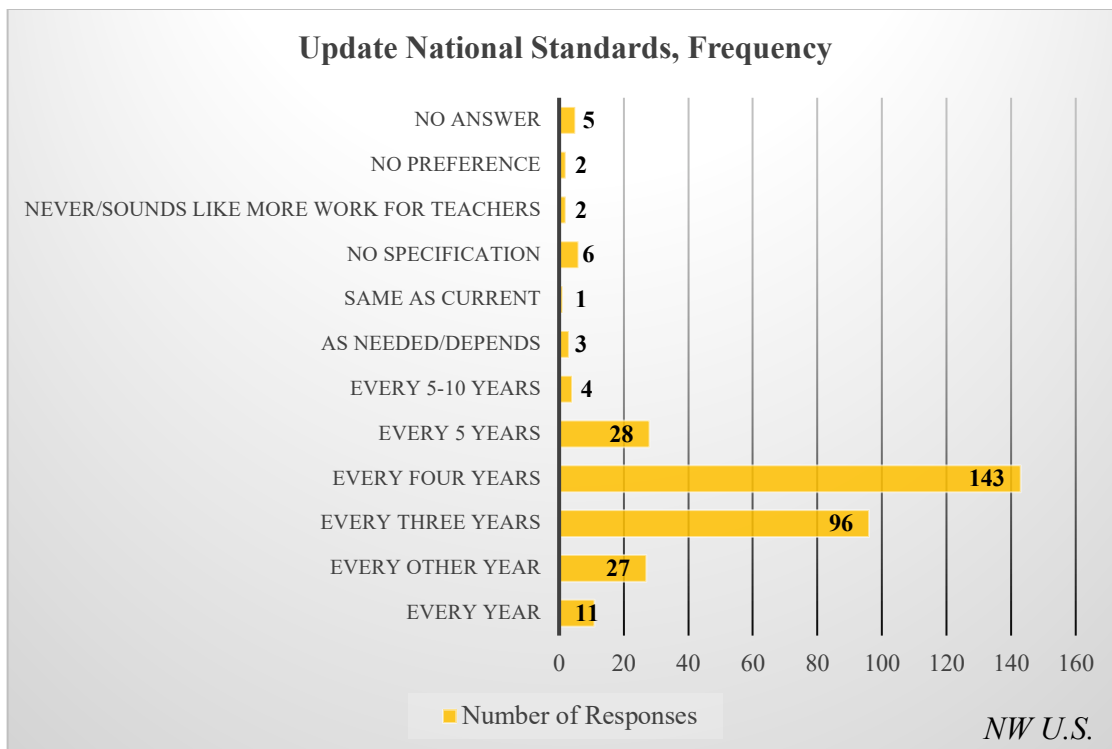
Figure 4.15

Perceived Needs for Professional Development

This section contains the analysis of the responses of Oregon secondary FCS teachers relating to the twelve competencies this study focuses on. The twelve competencies are broken down into four sections: Technology; Course, Curriculum, and Standards Development; Teaching; Professional Development, Programs, and Organizations.

To determine professional development needs in addressing research question 1, the Mean Weighted Discrepancy scores were used to rank the list of competencies. To determine discrepancy scores, weighted discrepancy scores, and MWDS the following procedures were followed. A discrepancy score was calculated for each individual on each competency by taking the importance rating minus the ability (competency) rating. Next, a weighted discrepancy score was then calculated on each individual for each of the professional competencies by multiplying the discrepancy score by the mean importance rating. A Mean Weighted Discrepancy Score (MWDS) for each of the competencies was then calculated by taking the sum of the weighted discrepancy scores and dividing by the number of observations. Using the MWDS, the competencies were ranked. The competencies with the highest MWDS were those with the highest perceived need and priority for professional development (Erwin, 2018, pg. 83).

See Tables 4.1 and 4.2.

Table 4.1: All NW States Q19-22

	Importance			Competence		
	n	*Mean*	*SD*	*n*	*Mean*	*SD*

Q19 Technology

Using current and relevant **computer/internet technology** to teach interactive lessons on content or career-specific tasks	311	3.49	0.606	296	3.27	0.590
Using current and relevant **non-computer technology** to teach interactive lessons on content or career-specific tasks (such as up-to-date equipment, up-to-date sewing/design equipment, etc.)	309	3.74	0.515	295	3.51	0.582

Q20 Course, Curriculum, and Standards Development

Determining the content that should be taught in your specific course(s)	307	3.86	0.357	291	3.65	0.540
Keeping current on trends and issues in your area of content	308	3.84	0.381	291	3.40	0.610
Reporting your program information to your district and state Department of Education	306	3.16	0.776	289	3.10	0.771

Q21 Teaching

Selecting current/relevant student references, materials, and textbooks	295	3.68	0.507	279	3.48	0.611
Educating students and maintaining required health and safety standards (state/federal/OSHA)	294	3.89	0.323	276	3.59	0.561

Q22 Professional Development, Programs, and Organizations

Organizing activities for students with local organizations relating to your content area	295	3.28	0.626	278	3.10	0.744
Providing information to students related to furthering their education in your content area	293	3.69	0.491	279	3.38	0.610
Establishing opportunities or creating connections for student work internships or jobs	293	3.49	0.617	277	2.97	0.791
Developing a variety of School-to-Work/Career activities in your curriculum	292	3.42	0.667	275	2.96	0.809
Integrating life skills into your curriculum	290	3.95	0.237	275	3.80	0.444

Table 4.2: All NW States Competencies MWDS

List of All NW States Competencies Ranked by MWDS[3]

Competency	n	MWDS	Rank
22.3 Establishing opportunities or creating connections for student work internships or jobs *(Professional Development, Programs, and Organizations)*	277	1.8017	1
20.2 Keeping current on trends and issues in your area of content *(Course, Curriculum and Standards Development)*	291	1.7023	2
22.4 Developing a variety of School-to-Work/Career activities in your curriculum *(Professional Development, Programs, and Organizations)*	275	1.6167	3
22.2 Providing information to students related to furthering their education in your content area *(Professional Development, Programs, and Organizations)*	279	1.1639	4
21.2 Educating students and maintaining required health and safety standards (state/federal/OSHA) *(Teaching)*	270	1.1238	5
19.2 Using current and relevant **non-computer technology** to teach interactive lessons on content or career-specific tasks (such as up-to-date kitchen equipment, up-to-date sewing/design equipment, etc.) *(Technology)*	295	0.8748	6
20.1 Determining the content that should be taught in your specific course(s) *(Course, Curriculum and Standards Development)*	291	0.8224	7
19.1 Using current and relevant **computer/internet technology** to teach interactive lessons on content or career-specific tasks *(Technology)*	296	0.7782	8
21.1 Selecting current/relevant student references, materials, and textbooks *(Teaching)*	279	0.7650	9
22.5 Integrating life skills into your curriculum *(Professional Development, Programs, and Organizations)*	274	0.6487	10

22.1 Organizing activities for students with local

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[3]See Appendix G for breakdown of statistics of Table 4.1 & 4.2

organizations relating to your content area *(Professional Development, Programs, and Organizations)*	277	0.6039	11
20.3 Reporting your program information to your district and state Department of Education *(Course, Curriculum and Standards Development)*	289	0.2187	12

The range of means of importance was 3.16 to 3.95 on a four-point Likert scale. This shows that all of the competencies listed were seen as important competencies for Montana secondary FCS teachers. The range of means of competence was 2.96 to 3.80 on a four-point Likert scale. Two competencies scored below 3.00: *22.3 Establishing opportunities or creating connections for student work internships or jobs* ($M = 2.97$); and, *22.4 Developing a variety of School-to-Work/Career activities in your curriculum* ($M = 2.96$). This shows that the majority of the NW States secondary FCS teachers perceived themselves competent in most competencies.

The competencies were scored as followed, the higher the MWDS, the higher the professional development need priority: *22.3 Establishing opportunities or creating connections for student work internships or jobs* (MWDS = 1.8017); *20.2 Keeping current on trends and issues in your area of content* (MWDS = 1.7023); *22.4 Developing a variety of School-to-Work/Career activities in your curriculum* (MWDS = 1.6167); *22.2 Providing information to students related to furthering their education in your content area* (MWDS = 1.1639); *21.2 Educating students and maintaining required health and safety standards (state/federal/OSHA)* (MWDS = 1.1238); *19.2 Using current and relevant **non-computer technology** to teach interactive lessons on content or career-specific tasks (such as up-to-date kitchen equipment, up-to-date sewing/design equipment, etc.)* (MWDS = 0.8748); *20.1 Determining the content that should be taught in your specific course(s)* (MWDS = 0.8224); *19.1 Using current and relevant **computer/internet technology** to teach interactive lessons on content or career-specific tasks* (MWDS = 0.7782); *21.1 Selecting current/relevant student references, materials, and textbooks* (MWDS = 0.7650); *22.5 Integrating life skills into your curriculum* (MWDS = 0.6487); *22.1 Organizing activities for students with local organizations relating to your content area* (MWDS = 0.6039); and, *20.3 Reporting your program information to your district and state Department of Education* (MWDS = 0.2187).

Professional Development Motivations & Deterrents

Participants were asked to rate four statements to the level it motivated or deterred them from participating in professional development. They ranked each statement using a 4-point

Likert scale: 4 strongly motivates, 3 somewhat motivates, 2 somewhat deters, and 1 strongly deters. The strongest motivator in the NW US for participating in professional development was: The professional development is specifically related to your content area ($M = 3.76$, $SD = 0.517$). The subsequent ranking for motivators followed as: The professional development is offered at different times or in multiple sessions to allows for flexibility in scheduling ($M = 3.55$, $SD = 0.649$); The professional development is related to updated or new technology ($M = 3.39$, $SD = 0.657$); and, The professional development will allow you to gain college credit ($M = 3.29$, $SD = 0.717$). None of the statements were seen as deterrents. See Table 4.3.

Table 4.3: All NW States PD Motivation/Deterrent

Rate each statement to the level it motivates or deters you from participating in professional development.	n	Mean	SD
The professional development is specifically related to your content area	290	3.76	0.517
The professional development is related to updated or new technology	292	3.39	0.657
The professional development will allow you to gain college credit	288	3.29	0.717
The professional development is offered at different times or in multiple sessions to allow for flexibility in scheduling	290	3.55	0.649

See Appendix I for breakdown of statistics of Table 4.3

Professional Development Offered

Participants were asked to rate five statements relating to professional development currently offered to the level they agreed or disagreed with them. They ranked each statement using a 4-point Likert scale: 4 strongly agree, 3 somewhat agree, 2 somewhat disagree, 1 strongly disagree. The statement all NW States participants most agreed with was: Professional development is offered that teaches current or updated information ($M = 3.39$, $SD = 0.742$). The subsequent ranking for agreement followed as: Professional development is offered that is related to the content you teach ($M = 3.26$, $SD = 0.934$); Professional development if offered at times you are available to attend ($M = 3.25$, $SD = 0.845$); Professional development is offered that is affordable for you to participate in ($M = 3.24$, $SD = 0.866$); and, Professional development is offered at locations that are close enough to your school or home for you to attend ($M = 3.07$, $SD = 0.958$). See Table 4.4.

Table 4.4: All NW States PD Offered	*n*	*Mean*	*SD*
Rate each statement to the level it you agree or disagree with it.			
Professional development is offered that teaches current or updated information	290	3.39	0.742
Professional development is offered that is related to the content you teach	290	3.26	0.934
Professional development is offered at times you are available to attend	289	3.25	0.845
Professional development is offered that is affordable for you to participate in	290	3.24	0.866
Professional development is offered at locations that are close enough to your school or home for you to attend	288	3.07	0.958

Professional Development Preferences

Professional development preferences were ranked on a 4-point Likert scale: 7 strongly prefer, 6 somewhat prefer, 5 somewhat do not prefer, 4 strongly do not prefer. The highest ranked preferences were: *Full-day professional development during the school year* ($M = 6.26$, $SD = 0.897$); *In-service sessions at Summer PTE/CTE Conference* ($M = 6.07$, $SD = 0.933$); and, *One-week professional development in the summer* ($M = 5.79$, $SD = 1.024$). The lowest ranked preferences were: *Half-day professional development in the morning during the school year* ($M = 5.25$, $SD = 1.084$); *Weekend professional development during the school year* ($M = 4.84$, $SD = 0.988$); and, *Professional development on weekday evenings during the school year* ($M = 4.76$, $SD = 0.936$). See Figures 4.16 – 4.25 for complete professional development rankings.

Figure 4.16: M = 6.26, SD = 0.897

In-service sessions at Summer PTE/CTE Conference

- 12% Strongly do not prefer
- 21% Somewhat do not prefer
- 38% Somewhat prefer
- 29% Strongly prefer

NW U.S.

Figure 4.17: M = 6.07, SD = 0.933

Self-directed internet-based professional development courses

- 19% Strongly do not prefer
- 27% Somewhat do not prefer
- 33% Somewhat prefer
- 21% Strongly prefer

NW U.S.

Figure 4.19: M = 5.56, SD = 1.021

One-week professional development in the summer

- 15% Strongly do not prefer
- 19% Somewhat do not prefer
- 37% Somewhat prefer
- 29% Strongly prefer

NW U.S.

Figure 4.18: M = 5.79, SD = 1.024

Half-day professional development in the afternoon during the school year

- 2%
- 26% Strongly do not prefer
- 32% Somewhat do not prefer
- 40% Somewhat prefer
- Strongly prefer

NW U.S.

Figure 4.20: M = 5.41, SD = 0.987

Internet-based professional development courses at specified times

- Strongly do not prefer: 26%
- Somewhat do not prefer: 32%
- Somewhat prefer: 30%
- Strongly prefer: 12%

NW U.S.

Figure 4.21: M = 5.27, SD = 0.985

Weekend professional development during the school year

- Strongly do not prefer: 51%
- Somewhat do not prefer: 21%
- Somewhat prefer: 21%
- Strongly prefer: 7%

NW U.S.

Figure 4.23: M = 4.84, SD = 0.988

Half-day professional development in the morning during the school year

- Strongly do not prefer: 33%
- Somewhat do not prefer: 24%
- Somewhat prefer: 27%
- Strongly prefer: 16%

NW U.S.

Figure 4.22: M = 5.25, SD = 1.084

Professional development on weekday evenings during the school year

- Strongly do not prefer: 54%
- Somewhat do not prefer: 21%
- Somewhat prefer: 21%
- Strongly prefer: 4%

NW U.S.

Figure 2.24: M = 4.76, SD = 0.936

Preferred Professional Development Ranked by Mean

Category	Mean
FULL-DAY PD DURING THE SCHOOL YEAR	6.26
IN-SERVICE SESSIONS @ SUMMER P/CTE CONFERENCE	6.07
ONE-WEEK PD IN THE SUMMER	5.79
SELF-DIRECTED INTERNET-BASED PD	5.56
HALF-DAY PD IN THE AFTERNOON DURING THE SCHOOL YEAR	5.41
INTERNET-BASED PD AT SPECIFIED TIMES	5.27
HALF-DAY PD IN THE MORNING DURING THE SCHOOL YEAR	5.25
WEEKEND PD DURING THE SCHOOL YEAR	4.84
PD ON WEEKDAY EVENINGS DURING THE SCHOOL YEAR	4.76

■ Mean

NW U.S.

Figure 4.25

See Appendix I for breakdown of statistics of Figures 4.16 – 4.25.

Standards & Curriculum Confidence

All NW States participants were asked to rate five statements relating to professional development currently offered to the level they agreed or disagreed with them. They ranked each statement using a 4-point Likert scale: 4 strongly agree, 3 somewhat agree, 2 somewhat disagree, 1 strongly disagree. The statement they most agreed with was: *You use authentic assessment in*

your classroom more often than traditional assessment (M = 3.40, SD = 0.677). The subsequent

ranking for agreement followed as: *You are confident your students will leave your course*

knowing information and skills that ready them to enter a competitive workforce (M = 3.35, SD

= 0.635); *You are confident your curriculum includes the most current and relevant information*

available related to your content area (M = 3.18, SD = 0.654); *The current national standards*

reflect relevant and updated information (M = 3.14, SD = 0.631); and, *Your current state*

standards reflect relevant and updated information (M = 3.01, SD = 0.805). See Figures 196-

200.
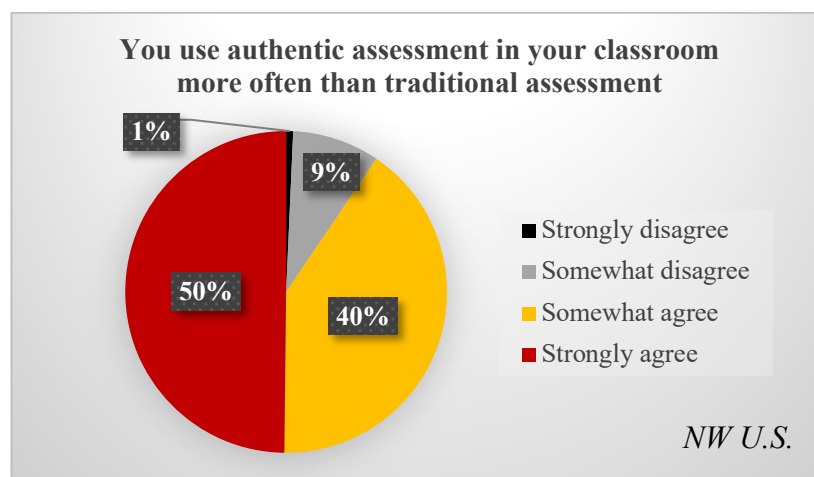
Figure 4.26: M = 3.40, SD = 0.677

Figure 4.27: M = 3.35, SD = 0.635

You are confident your curriculum includes the most current and relevant information available related to your content area

- Strongly disagree
- Somewhat disagree
- Somewhat agree
- Strongly agree

2%
9%
30%
59%

NW U.S.

Figure 4.28: M = 3.18, SD = 0.654

The current national standards reflect relevant and updated information

- Strongly disagree
- Somewhat disagree
- Somewhat agree
- Strongly agree

1%
11%
27%
61%

NW U.S.

Figure 4.29: M = 3.14, SD = 0.631

Your current state standards reflect relevant and updated information

- Strongly disagree
- Somewhat disagree
- Somewhat agree
- Strongly agree

13%
6%
27%
54%

NW U.S.

Figure 4.30: M = 3.01, SD = 0.805

Personal Demographics

All NW States survey participants responded that 284 (86.59%) participants identified as female; 36 (10.98%) participants chose to not respond; 7 (2.13%) participants identified as male; and, 1 (0.30%) participant preferred to not answer. See Figure 4.31.
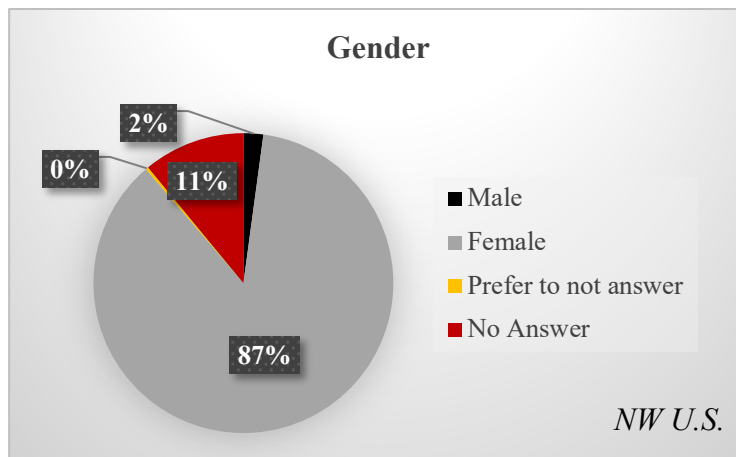
Figure 4.31

All NW States survey participants responded that 5 (1.52%) participant was between the ages of 18-24; 20 (6.10%) participant was between the ages of 25-29; 26 (7.93%) participants were between the ages of 30-34; 37 (11.28%) participants were between the ages of 35-39; 25 (7.62%) participants were between the ages of 40-44; 27 (8.23%) participants were between the ages of 45-49; 38 (11.59%) participants were between the ages of 50-54; 57 (17.38%) participants were between the ages of 55-59; 41 (12.50%) participants were between the ages of 60-64; 16 (4.88%) was 65+; and, 36 (10.98%) chose to not answer. See Figure 4.32.
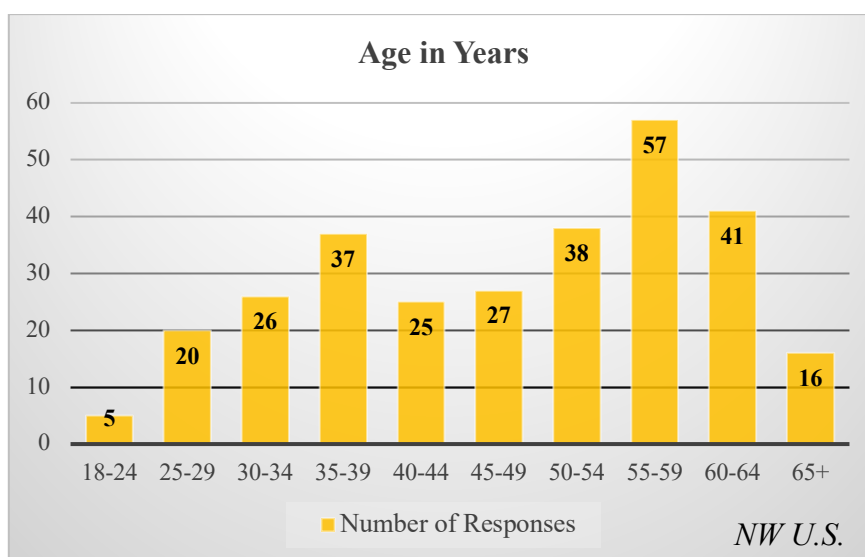
Figure 4.32

All NW States survey participants responded that 277 (%) participants identified as White; 37 (%) participants chose to not response; 7 (%) participants identified as other race/ethnicity; 5 (%) participants identified as unspecified; 4 (%) participants identified as American Indian/Alaskan Native; 2 (%) participants identified as Hispanic; 1 (%) participant identified as African American; 1 (%) participant identified as Asian. See Figure 4.33.
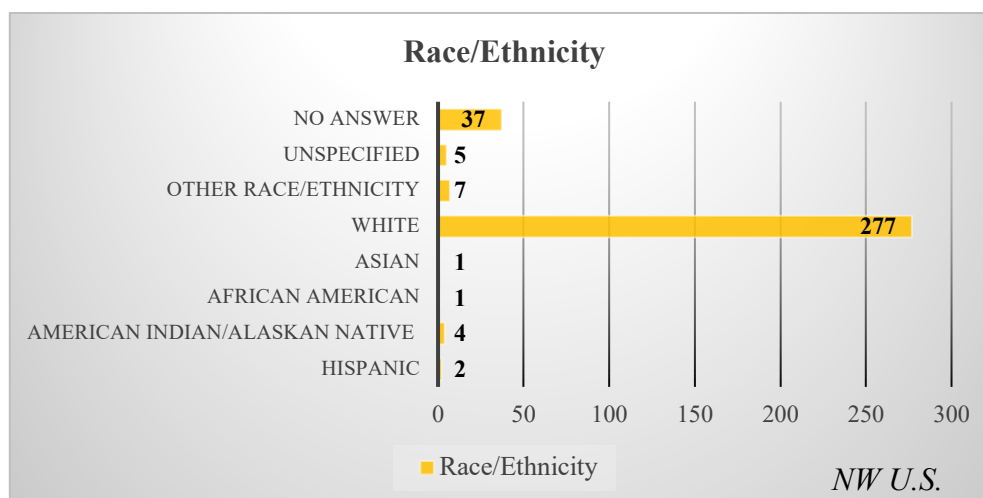
Figure 4.33: 6 participants responded with more than one race/ethnicity – Total percentage will be more than 100%.

4.3 TRENDS IN PERCEIVED NEEDS OF PROFESSIONAL DEVELOPMENT
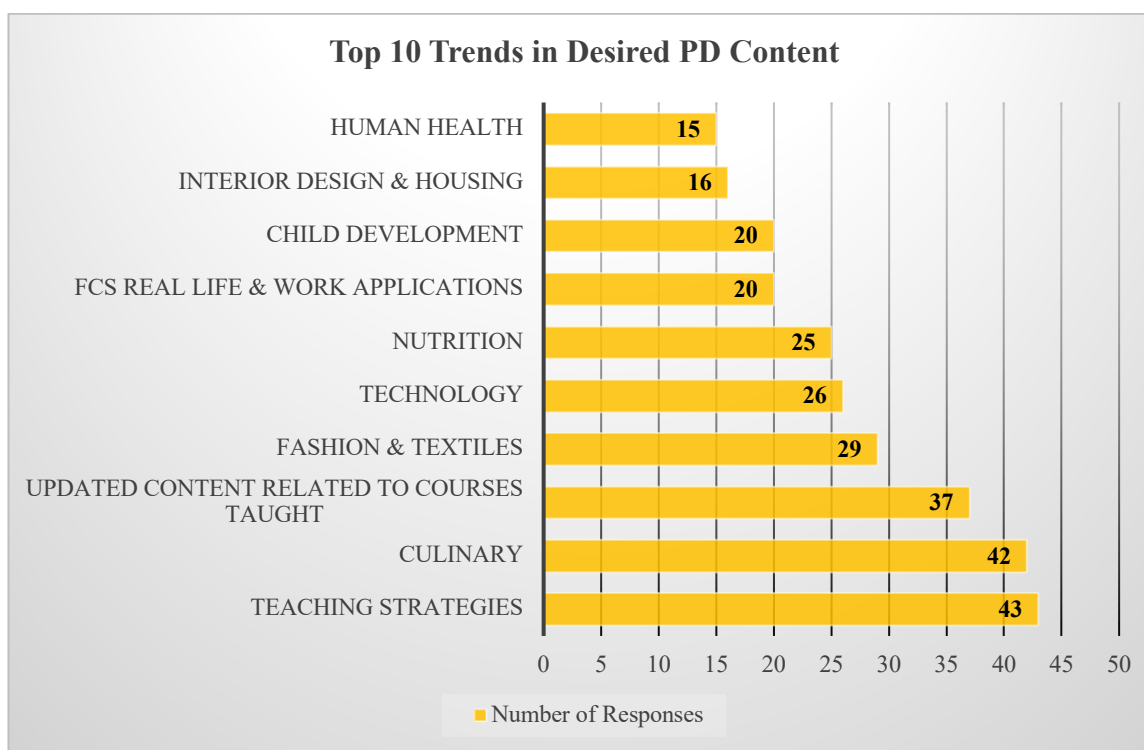
Figure 4.34

The top ten trends in perceived needs of professional developments[4], based on the open-ended response option offered to survey participants, were, ranked high to low:

1. Teaching strategies
2. Culinary
3. Updated content related to courses taught
4. Fashion & textiles
5. Technology
6. Nutrition
7. FCS real like & work applications
8. Child development
9. Interior design & housing
10. Human health

As this prompt was open-ended, each participants' response was personalized and specific to what professional development they felt they needed. While these top ten trends were generalized from those responses, they still provided beneficial and insightful information on areas that the secondary FCS teachers who participated in this study desired more professional development opportunities in.

4.4 DIFFERENCES IN PERCEIVED NEEDS BASED ON DEMOGRAPHICS

This section utilized independent t-tests to determine if there were any statistically significant differences between the twelve educational competencies in the survey and the following survey participant professional and personal demographics:

1. Population of city/town participant teaches in (Less than 2500 people / More than 2500 people)
2. Number of students in participants' school (Less than 1000 students / More than 1000 students)
3. Average class size (25 students or less / More than 25 students)
4. Years participant has taught FCS (14 years or less / 15 years or more)
5. Participants' highest level of education (Less than Master's / Master's or more)
6. Number of FCS teachers in participants' school (1 FCS teacher total / More than 1 FCS teacher total)
7. Frequency of FCS collaboration (Meet weekly or more often / Meet less than weekly)

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[4] *See each state's section for detailed breakdown of all desired PD content.*

8. Participants' professional organization membership status (In no professional organizations / In at least one professional organization)
9. FCCLA advisor status (FCCLA Advisor / Not an FCCLA Advisor)
10. Participants' age (Aged 18-39 / Aged 40+)

This showed if there were any statistically significant differences in perceived needs for professional development of secondary Family and Consumer Science teachers based on professional and personal demographics.

No Statistically Significant Differences

There were no statistically significant differences in MWDS based on population of participants' city/town, on the number of students in the participants' school, or in the participants' average class size.

Years Participant Has Taught FCS

There were nine statistically significant differences in MWDS based on years participant has taught FCS:

1. Determining the content that should be taught in your specific course(s)
2. Keeping current on trends and issues in your area of content
3. Reporting your program information to your district and state Department of Education
4. Selecting current/relevant student references, materials, and textbooks
5. Educating students and maintaining required health and safety standards (state/federal/OSHA)
6. Organizing activities for students with local organizations relating to your content area
7. Providing information to students related to furthering their education in your content area
8. Establishing opportunities or creating connections for student work internships or jobs
9. Developing a variety of School-to-Work activities in your curriculum.

In *Years Participant Has Taught FCS*, group 0 was, "14 years or less," and group 1 was, "15 years or more." The significant differences in, "Determining the content that should be taught in your specific course(s)," were found with those who have taught 14 years or less ($M = 1.42$) higher than those who have taught 15 years or more ($M = 0.03$). The significant differences in, "Keeping current on trends and issues in your area of content," were found with those who have taught 14 years or less ($M = 2.10$) higher than those who have taught 15 years or more ($M = 1.18$). The significant differences in, "Reporting your program information to your district and state Department of Education," were

found with those who have taught 14 years or less (*M* = 0.82) higher than those who have taught 15 years or more (*M* = -0.54). The significant differences in, "Selecting current/relevant student references, materials, and textbooks," were found with those who have taught 14 years or less (*M* = 1.06) higher than those who have taught 15 years or more (*M* = 0.40). The significant differences in, "Educating students and maintaining required health and safety standards (state/federal/OSHA)," were found with those who have taught 14 years or less (*M* = 1.60) higher than those who have taught 15 years or more (*M* = 0.68). The significant differences in, "Organizing activities for students with local organizations relating to your content area," were found with those who have taught 14 years or less (*M* = 0.91) higher than those who have taught 15 years or more (*M* = 0.21). The significant differences in, "Providing information to students related to furthering their education in your content area," were found with those who have taught 14 years or less (*M* = 1.54) higher than those who have taught 15 years or more (*M* = 0.73). The significant differences in, "Establishing opportunities or creating connections for student work internships or jobs," were found with those who have taught 14 years or less (*M* = 2.39) higher than those who have taught 15 years or more (*M* = 1.11). Lastly, in this demographic breakout, the significant differences in, "Developing a variety of School-to-Work activities in your curriculum," were found with those who have taught 14 years or less (*M* = 2.10) higher than those who have taught 15 years or more (*M* = 1.04). This shows a trend of secondary FCS teachers who have taught 14 years or less needing more professional development assistance in these areas than those who have taught 15 years or more.

Participants' Highest Level of Education

There were five statistically significant differences in MWDS based participants' highest level of education:

1. Using current and relevant *non-computer technology* to teach interactive lessons on content or career-specific tasks (such as up-to-date kitchen equipment, up-to-date sewing/design equipment, etc.)
2. Keeping current on trends and issues in your area of content
3. Reporting your program information to your district and state Dept. of Education
4. Selecting current/relevant student references, materials, and textbooks
5. Developing a variety of School-to-Work activities in your curriculum.

In *Participants' Highest Level of Education*, group 0 was, "Less than Master's," and group 1 was, "Master's or above." The significant differences in, "Using current and relevant *non-computer technology* to teach interactive lessons on content or career-specific tasks (such as up-to-date kitchen

equipment, up-to-date sewing/design equipment, etc.)," were found with those having less than a Master's ($M = 1.26$) higher than those having a Master's or above ($M = 0.52$). The significant differences in, "Keeping current on trends and issues in your area of content," were found with those having less than a Master's ($M = 2.04$) higher than those having a Master's or above ($M = 1.41$). The significant differences in, "Reporting your program information to your district and state Department of Education," were found with those having less than a Master's ($M = 0.74$) higher than those having a Master's or above ($M = -0.23$). The significant differences in, "Selecting current/relevant student references, materials, and textbooks," were found with those having less than a Master's ($M = 1.24$) higher than those having a Master's or above ($M = 0.34$). The significant differences in, "Developing a variety of School-to-Work activities in your curriculum," were found with those having less than a Master's ($M = 2.02$) higher than those having a Master's or above ($M = 1.29$). This shows a trend of secondary FCS teachers who have less than a Master's degree needing more professional development assistance in using non-computer technology in the classroom, keeping current on trends, reporting their program information, selecting student materials, and developing school-to-work activities.

Participants' Reported Frequency of FCS Collaboration

There were three statistically significant differences in MWDS based on participants' reported frequency of FCS collaboration:

1. Organizing activities for students with local organizations relating to your content area
2. Developing a variety of School-to-Work activities in your curriculum
3. Integrating life skills into your curriculum

In *Frequency of FCS Collaboration*, group 0 was, "Less than once a week," and group 1 was, "Once a week or more." The significant difference in, "Organizing activities for students with local organizations relating to your content area," was found with those collaborating once a week or more ($M = 1.21$) higher than those collaborating less than once a week ($M = 0.36$). The significant difference in, "Developing a variety of School-to-Work activities in your curriculum," was found with those who collaborated once a week or more ($M = 2.12$) needing more professional development assistance in this area than those who collaborated less than once a week ($M = 1.40$). The significant difference in, "Integrating life skills into your curriculum," was found with those who collaborated once a week or more ($M = 0.99$) needing more professional development assistance in this area than those who collaborated less than once a week ($M = 0.50$). Each of these showed a

trend of secondary FCS teachers who collaborated once a week or more needing more professional development assistance in this area that those who collaborated less than once a week.

Participants' Professional Organization Membership

There was one statistically significant difference in MWDS based on participants' professional organization membership:

1. Determining the content that should be taught in your specific course(s).

In *Professional Organization Membership*, group 0 was, "Membership in no professional organization," and group 1 was, "Membership in at least one professional organization." The significant difference in, "Determining the content that should be taught in your specific course(s)," was found with those having membership in no professional organization ($M = 1.48$) higher than those having membership in at least one professional organization ($M = 0.61$). This shows a trend of secondary FCS teachers who have membership in no professional organization needing more professional development assistance in this area than those with membership in at least one professional organization.

Participants' FCCLA Advisor Status

There were two statistically significant differences in MWDS based on participants' FCCLA advisor status:

1. Reporting your program information to your district and state Dept. of Education
2. Organizing activities for students with local organizations relating to your content area.

In *FCCLA Advisor Status*, group 0 was, "Not an FCCLA advisor," and group 1 was, "FCCLA Advisor." The significant differences in, "Reporting your program information to your district and state Department of Education (Q20.3)," were found with those being an FCCLA advisor ($M = 0.59$) higher than those not being an FCCLA advisor ($M = -0.28$). The significant differences in, "Organizing activities for students with local organizations relating to your content area," were found with those not being an FCCLA advisor ($M = 0.89$) higher than those who were an FCCLA advisor ($M = 0.19$). This shows two trends: 1) secondary FCS teachers who are an FCCLA advisor needing more professional development assistance in reporting program information to their district and Department of Education, and, 2) secondary FCS teachers who are not an FCCLA advisor needing more professional development assistance in organizing activities for students with local organizations relating to their content area.

Participants' Age

There were six statistically significant differences in MWDS based on participants' age:

1. Using current and relevant *computer/internet technology* to teach interactive lessons on content or career-specific tasks

2. Determining the content that should be taught in your specific course(s)

3. Keeping current on trends and issues in your area of content

4. Reporting your program information to your district and state Dept. of Education

5. Educating students and maintaining required health and safety standards (state/federal/OSHA)

6. Organizing activities for students with local organizations relating to your content area.

In *Participants' Age*, group 0 was, "Aged 18-39," and group 1 was, "Aged 40+." The significant differences in, "Using current and relevant *computer/internet technology* to teach interactive lessons on content or career-specific tasks," were found with those being aged 40+ ($M = 1.15$) higher than those aged 18-39 ($M = 0.20$). The significant differences in, "Determining the content that should be taught in your specific course(s)," were found with those being aged 18-39 ($M = 1.36$) higher than those aged 40+ ($M = 0.67$). The significant differences in, "Keeping current on trends and issues in your area of content," were found with those being aged 18-39 ($M = 2.31$) higher than those aged 40+ ($M = 1.47$). The significant differences in, "Reporting your program information to your district and state Department of Education," were found with those being aged 18-39 ($M = 1.05$) higher than those aged 40+ ($M = -0.12$). The significant differences in, "Educating students and maintaining required health and safety standards (state/federal/OSHA)," were found with those being aged 18-39 ($M = 1.88$) higher than those aged 40+ ($M = 0.86$). The significant differences in, "Organizing activities for students with local organizations relating to your content area," were found with those being aged 18-39 ($M = 1.18$) higher than those aged 40+ ($M = 0.23$). This shows two trends: 1) secondary FCS teachers who are aged 40+ needing more professional development assistance in using current and relevant *computer/internet technology* relating to their content in their courses, and, 2) secondary FCS teachers who are aged 18-39 needing more professional development assistance in determining course content, reporting program information, health and safety, and organizing activating with local organizations.[5]

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[5] See Appendix I for t-test data.

Chapter 5

SUMMARY, CONCLUSIONS, & RECOMMENDATIONS

Chapter 5 documents a summary of the study, the methodology used in the study, the findings of the study, the conclusions from the study, the recommendations based upon the conclusions, and directions for future studies.

5.1 SUMMARY

This study was guided by the following five research questions:

1. What are the perceived needs for professional development and access to other programs or organizations offered to secondary FCS teachers in the NW US?

2. What are the statistically significant differences in perceived needs for professional development of secondary FCS teachers in the NW US based on demographics?

3. What are the motivators, deterrents, and preferred methods for participating in professional development of FCS teachers?

4. What are other opportunities that secondary FCS teachers in the NW US see as important professional development?

5. How frequently do secondary FCS teachers in the NW US think state and national standards should be updated?

With U.S. school districts spending an average of $18,000 per teacher per year on professional development and teachers themselves spending approximately nineteen full school days participating in it per year, a significant gain in teacher effectiveness or development of student skills has not been seen (The New Teacher Project, 2015). This could be attributed to the 60% of teachers who responded that they did not think that the professional development they received was effective or a good use of their time (The New Teacher Project, 2015). This is alarming as a crucial element of teaching secondary FCS is maintaining relevant curriculum and course content. Without effective professional development, secondary FCS teachers will not have the current information to teach their students and successfully prepare them to enter a competitive and rapidly evolving workplace environment. To work toward resolving this issue, needs assessments must be conducted to find the areas where teachers need professional development assistance.

This study collected data to determine the perceived importance and competence of secondary FCS teachers, in Idaho, Montana, Oregon, Washington, and Wyoming, in relevant education components, including technology; course, curriculum, and standards development;

teaching; and professional development, programs, and organizations. It collected data on their perceived needs for relevant and applicable professional development and access to other programs/organizations. It also collected data on motivators, deterrents, and preferred methods for participating in professional development. Using this data, the study compared the differences in perceived needs for professional development of secondary FCS teachers based on their professional and personal demographics. Lastly, it collected data on their personal opinions of how frequently state and national FCS standards should be updated.

5.2 METHODOLOGY

This study was a quantitative descriptive study which utilized a survey instrument based on the Borich Needs Assessment Model containing multiple choice, Likert scale, and text entry questions. The population of this study consisted of currently teaching secondary FCS teachers in Idaho, Montana, Oregon, Washington, and Wyoming; there were an estimated 875 secondary FCS teachers within those five states. The survey instrument used was created based on the Borich Needs Assessment Model, the instrument used by Arnett, Cannon, Kitchel, and Duncan (2010), and the instrument used by Erwin (2018). While using this model and incorporating competencies and information from both of the other survey instruments, the instrument for this study also addressed new information.

Both Excel and the Statistical Package for Social Science Statistics (SPSS) were used to analyze the survey questions. Questions with Likert scales were analyzed for frequencies, means, and standard deviations. Mean Weighted Discrepancy Scores (MWDS) were used to rank each of the educational component sections: technology; course, curriculum, and standards development; teaching; and professional development, programs, and organizations. Independent t-tests were run on ten demographics to determine if there were any statistically significant differences between them relating to the twelve educational competencies in the survey (questions #19-22). Data from these t-tests were analyzed to compare needs more in-depth within the survey's participant population, looking for correlations between their professional and personal demographics with their responses to their professional development needs.

5.3 FINDINGS

The purpose of this study was to utilize a needs assessment survey to give a voice to secondary FCS teachers as to the current status of secondary FCS education in relation to curriculum, standards, and professional development opportunities pertinent to their area of content.

It focused on answering five main research questions. The findings which answered these questions are as follows:

Research question #1: *What are the perceived needs for professional development and access to other programs or organizations offered to secondary FCS teachers in the NW US?*

1. The top three perceived professional development needs of FCS teachers in the NW US were:

    a. Establishing opportunities or creating connections for student work internships or jobs ($n = 277$, MWDS = 1.8017)

    b. Keeping current on trends and issues in your area of content ($n = 291$, MWDS = 1.7023)

    c. Developing a variety of School-to-Work/Career activities in your curriculum ($n = 275$, MWDS = 1.6167)

2. The bottom three perceived professional development needs of FCS teachers in the NW US were:

    a. Integrating life skills into your curriculum ($n = 274$, MWDS = 0.6487)

    b. Organizing activities for students with local organization relating to your content area ($n = 277$, MWDS = 0.6039)

    c. Reporting your program information to your district and state Department of Education ($n = 289$, MWDS = 0.2187)

Research question #2: *What are the statistically significant differences in perceived needs for professional development of secondary FCS teachers in the NW US based on demographics?*

1. Twelve professional and personal demographics were recorded in this study. Ten of them (a, b, c, d, g, h, i, j, k, and l) were subsequently analyzed to answer this research question. The majority of secondary FCS teachers in the NW US

    a. taught in a city of 2,500-50,000 people

    b. had 1200+ students in their school

    c. had 26-30 students as an average class size

    d. had taught FCS between 2-10 years

    e. teach or had taught Nutrition & Wellness, Food Production & Services, or Education & Early Childhood

    f. were prepared to teach through an undergraduate traditional FCS teacher education program

g. held a Master's degree plus graduate hours

h. were the only FCS teacher at their school

i. met with other FCS teachers in their school or district once a week to once a month

j. were members of AAFCS, ACTE, or no professional organizations

k. advised FCCLA

l. identified as female, over 50 years of age, and white.

2. There were no statistically significant differences in MWDS based on population of participants' city/town, on the number of students in the participants' school, or on the participants' average class size.

3. There were statistically significant differences in MWDS based on years participant has taught FCS. The significant differences in,

a. "Determining the content that should be taught in your specific course(s)," were found with those who have taught 14 years or less ($M = 1.42$) higher than those who have taught 15 years or more ($M = 0.03$).

b. "Keeping current on trends and issues in your area of content," were found with those who have taught 14 years or less ($M = 2.10$) higher than those who have taught 15 years or more ($M = 1.18$).

c. "Reporting your program information to your district and state Department of Education," were found with those who have taught 14 years or less ($M = 0.82$) higher than those who have taught 15 years or more ($M = -0.54$).

d. "Selecting current/relevant student references, materials, and textbooks," were found with those who have taught 14 years or less ($M = 1.06$) higher than those who have taught 15 years or more ($M = 0.40$).

e. "Educating students and maintaining required health and safety standards (state/federal/OSHA)," were found with those who have taught 14 years or less ($M = 1.60$) higher than those who have taught 15 years or more ($M = 0.68$).

f. "Organizing activities for students with local organizations relating to your content area," were found with those who have taught 14 years or less ($M = 0.91$) higher than those who have taught 15 years or more ($M = 0.21$).

g. "Providing information to students related to furthering their education in your content area," were found with those who have taught 14 years or less ($M = 1.54$) higher than those who have taught 15 years or more ($M = 0.73$).

    h.   "Establishing opportunities or creating connections for student work internships or jobs," were found with those who have taught 14 years or less ($M = 2.39$) higher than those who have taught 15 years or more ($M = 1.11$).

    i.   "Developing a variety of School-to-Work activities in your curriculum," were found with those who have taught 14 years or less ($M = 2.10$) higher than those who have taught 15 years or more ($M = 1.04$).

4. There were statistically significant differences in MWDS based on participants' highest level of education. The significant differences in,

    a.   "Using current and relevant *non-computer technology* to teach interactive lessons on content or career-specific tasks (such as up-to-date kitchen equipment, up-to-date sewing/design equipment, etc.)," were found with those having less than a Master's ($M = 1.26$) higher than those having a Master's or above ($M = 0.52$).

    b.   "Keeping current on trends and issues in your area of content," were found with those having less than a Master's ($M = 2.04$) higher than those having a Master's or above ($M = 1.41$).

    c.   "Reporting your program information to your district and state Department of Education," were found with those having less than a Master's ($M = 0.74$) higher than those having a Master's or above ($M = -0.23$).

    d.   "Selecting current/relevant student references, materials, and textbooks," were found with those having less than a Master's ($M = 1.24$) higher than those having a Master's or above ($M = 0.34$).

    e.   "Developing a variety of School-to-Work activities in your curriculum," were found with those having less than a Master's ($M = 2.02$) higher than those having a Master's or above ($M = 1.29$).

5. There were statistically significant differences in MWDS based on participants' highest level of education. The significant differences in,

    a.   "Organizing activities for students with local organizations relating to your content area," was found with those collaborating once a week or more ($M = 1.21$) higher than those collaborating less than once a week ($M = 0.36$).

    b.   "Developing a variety of School-to-Work activities in your curriculum," was found with those who collaborated once a week or more ($M = 2.12$) needing more professional development assistance in this area than those who collaborated less than once a week ($M = 1.40$).

    c. "Integrating life skills into your curriculum," was found with those who collaborated once a week or more ($M = 0.99$) needing more professional development assistance in this area than those who collaborated less than once a week ($M = 0.50$).

6. There was a statistically significant difference in MWDS based on participants' professional organization membership. The significant difference in,

    a. "Determining the content that should be taught in your specific course(s)," were found with those having membership in no professional organization ($M = 1.48$) higher than those having membership in at least one professional organization ($M = 0.61$).

7. There were statistically significant differences in MWDS based on participants' FCCLA advisor status. The significant differences in,

    a. "Reporting your program information to your district and state Department of Education," were found with those being an FCCLA advisor ($M = 0.59$) higher than those not being an FCCLA advisor ($M = -0.28$).

    b. "Organizing activities for students with local organizations relating to your content area," were found with those not being an FCCLA advisor ($M = 0.89$) higher than those who were an FCCLA advisor ($M = 0.19$).

8. There were statistically significant differences in MWDS based on participants' age. The significant differences in,

    a. "Using current and relevant *computer/internet technology* to teach interactive lessons on content or career-specific tasks," were found with those being aged 40+ ($M = 1.15$) higher than those aged 18-39 ($M = 0.20$).

    b. "Determining the content that should be taught in your specific course(s)," were found with those being aged 18-39 ($M = 1.36$) higher than those aged 40+ ($M = 0.67$).

    c. "Keeping current on trends and issues in your area of content," were found with those being aged 18-39 ($M = 2.31$) higher than those aged 40+ ($M = 1.47$).

    d. "Reporting your program information to your district and state Department of Education," were found with those being aged 18-39 ($M = 1.05$) higher than those aged 40+ ($M = -0.12$).

    e. "Educating students and maintaining required health and safety standards (state/federal/OSHA)," were found with those being aged 18-39 ($M = 1.88$) higher than those aged 40+ ($M = 0.86$).

    f.   "Organizing activities for students with local organizations relating to your content area," were found with those being aged 18-39 ($M = 1.18$) higher than those aged 40+ ($M = 0.23$).

Research question #3: *What are the motivators, deterrents, and preferred methods for participating in professional development of FCS teachers?*

1. The strongest professional development motivator for secondary FCS teachers in the NW US was, The professional development is specifically related to your content area ($M = 3.76$, $SD = 0.517$). The study participants did not rank any of the options provided as a deterrent.

Table 5.1: PD Motivators/Deterrents

Rate each statement to the level it motivates or deters you from participating in PD	n	Mean	SD
PD is specifically related to your content area	290	3.76	0.517
PD is related to updated or new technology	292	3.39	0.657
PD will allow you to gain college credit	288	3.29	0.717
PD is offered at different times or in multiple session to allow for flexibility in scheduling	290	3.55	0.649

2. The most preferred ways for professional development to take place were:

    1) Full-day PD during the school year ($M = 6.26$, $SD = 0.897$)

    2) In-service sessions at summer PTE/CTE conference ($M = 6.07$, $SD = 0.933$)

    3) One-week PD in the summer ($M = 5.79$, $SD = 1.024$). *See Figure 4.25.*

3. The least preferred ways for professional development to take place were:

    1) PD on weekday evenings during the school year ($M = 4.76$, $SD = 0.936$)

    2) Weekend PD during the school year ($M = 4.84$, $SD = 0.988$)

    3) Half-day PD in the morning during the school year ($M = 5.25$, $SD = 1.084$). *See Figure 4.25.*

Research question #4: *What are other opportunities that secondary FCS teachers in the NW US see as important professional development?*

1. The top ten trends in perceived needs of professional developments, based on the open-ended response option offered to survey participants, were, ranked high to low:

    1) Teaching strategies

    2) Culinary

    3) Updated content related to courses taught

    4) Fashion & textiles

5) Technology

6) Nutrition

7) FCS real like & work applications

8) Child development

9) Interior design & housing

10) Human health

See Figure 4.34.

2. For the top three trends in desired PD opportunities, one written response was chosen at random from each state to provide further insight:

    a. Teaching Strategies

        i. "How to deal with feeling overwhelmed and to still do a good job teaching." –Idaho

        ii. "I would like to learn more about the trends toward gaming in the classrooms and how to develop that atmosphere." –Montana

        iii. "Ideas for keeping all students engaged during labs." –Oregon

        iv. "Building relationships with students, creating inclusive classrooms, and reaching high achievers." –Washington

        v. "Skills needed to work with large groups of students without enough equipment for all students. The nuts and bolts of pulling off the classes we teach. Less theory, less technology, more teaching skills." –Wyoming

    b. Culinary

        i. "Culinary, specifically more about making the kitchen brigade concept work in a non-professional kitchen." –Idaho

        ii. "Culinary Arts training." –Montana

        iii. "Getting activities for culinary and hospitality that keep kids interested when we are not in the kitchen." –Oregon

        iv. "Networking with chefs and career-related professionals." –Washington

        v. "Culinary Arts in general or more about nutrition or how to teach labs more efficiently." –Wyoming

    c. Updated content related to courses taught

        i. "Updated content material and techniques related to courses taught." –Idaho

        ii. "Trends and updates toward motivating students in clothing, textiles and construction skills and opportunities." –Montana

iii. "Trends and how to use technology specifically in our FACS content areas."
–Oregon

iv. "Anything with updated, new information... I am always interested in the latest information in our field." –Washington

v. "How to EASILY stay up to date on the trends of FACS." –Wyoming

Research question #5: *How frequently do secondary FCS teachers in the NW US think state and national standards should be updated?*

1. The majority of teachers thought that the state standards should be updated every three to four years, with the third highest ranking suggesting every other year.

Category	Number of Responses
NO ANSWER	3
NO PREFERENCE	4
NO SPECIFICATION	8
EXPRESSED DISLIKE TOWARD CURRENT STANDARDS	3
WHEN NAT'L STANDARDS ARE UPDATED	1
ONLY NEED NAT'L STANDARDS	1
UPDATE AS NEEDED	3
DEPENDS ON SUBJECT	3
EVERY 5-10 YEARS	4
EVERY 5 YEARS	21
EVERY FOUR YEARS	129
EVERY THREE YEARS	110
EVERY OTHER YEAR	27
EVERY YEAR	11

NW U.S.
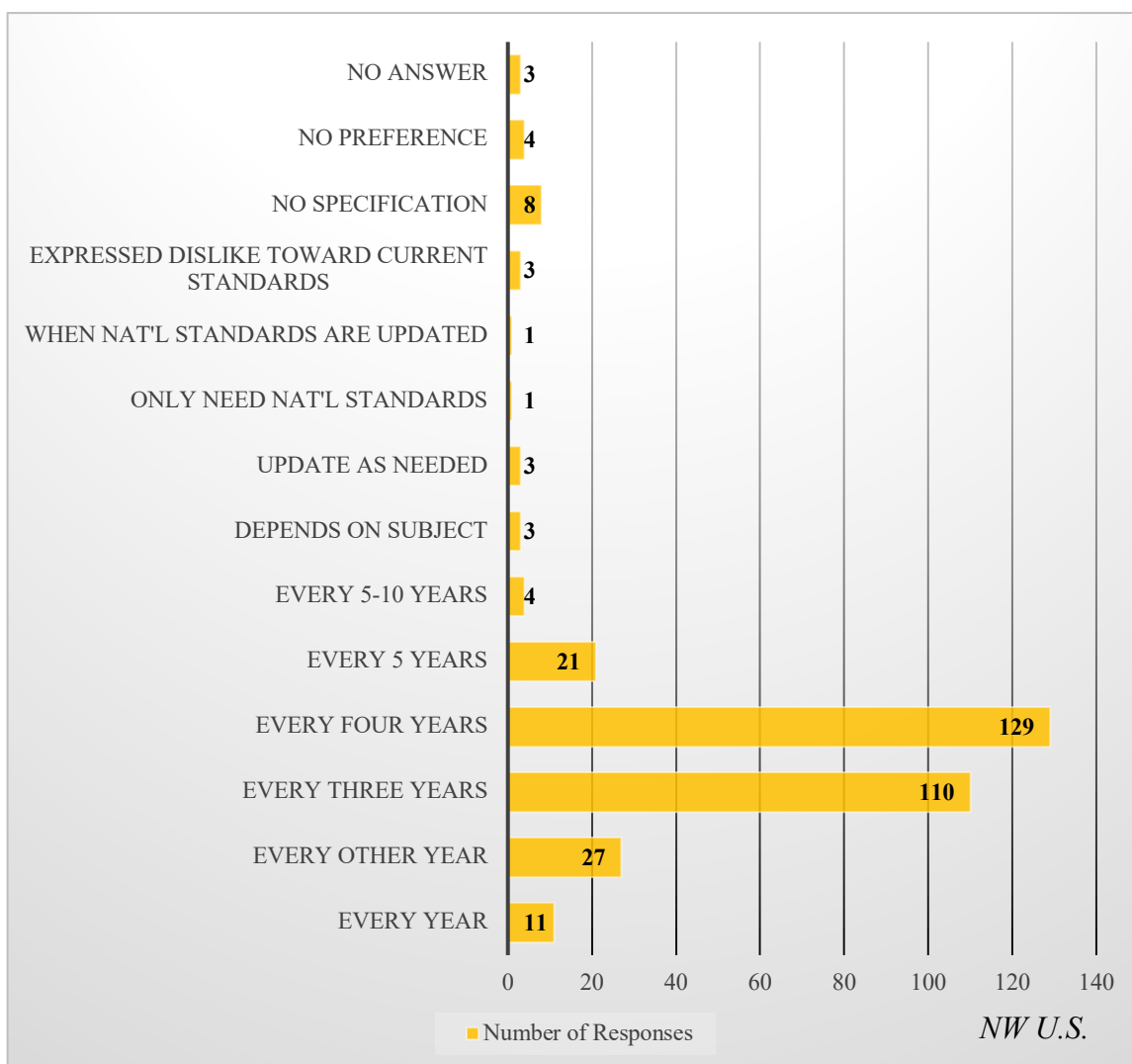
Figure 5.1

2. The majority of teachers thought that the national standards should be updated every three to four years, with the third highest ranking suggesting every five years.
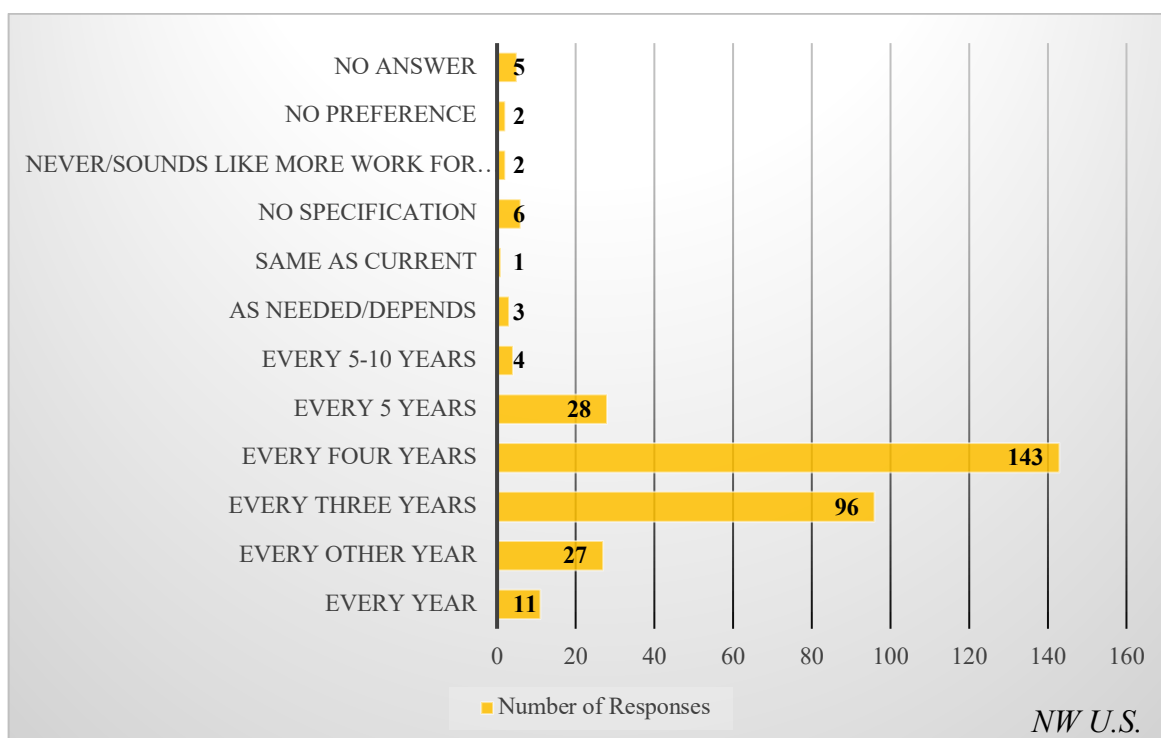
Figure 5.2

5.4 CONCLUSIONS

The following were the most prominent conclusions found in this study:

1. The greatest professional development need for secondary FCS teachers in the NW US was learning how to establish opportunities or create connections for student work internships or jobs.

2. Secondary FCS teachers in the NW US who have taught 15 years or less needed more professional development assistance in, determining the content that should be taught in their specific course(s); keeping current on trends and issues in their area of content; reporting their program information to their district and state Department of Education; organizing activities for students with local organizations relating to their content area; providing information to students related to furthering their education in their content area; establishing opportunities or creating connections for student work internships or jobs; and, developing school-to-work activities in their curriculum, than those who have taught 16 years or more.

3. Secondary FCS teachers in the NW US who have less than a Master's degree needed more professional development assistance in, using current and relevant non-computer technology in the classroom; keeping current on trends and issues in their area of content; reporting their program information to their district and state Department of Education; selecting student materials and texts; and, developing school-to-work activities in their curriculum, than those who have a Master's degree or above.

4. Secondary FCS teachers in the NW US who have membership in no professional organization needed more professional development assistance in, determining the content that should be taught in their specific course(s), than those with membership in at least one professional organization.

5. Secondary FCS teachers in the NW US who are an FCCLA advisor needed more professional development assistance in, reporting program information to their district and Department of Education, than those who are not an FCCLA advisor.

6. Secondary FCS teachers in the NW US who are not an FCCLA advisor needed more professional development assistance in, organizing activities for students with local organizations relating to their content area, than those who are an FCCLA advisor.

7. Secondary FCS teachers in the NW US who are aged 40+ needed more professional development assistance in, using current and relevant computer/internet technology relating to content in their courses, than those aged 18-39.

8. Secondary FCS teachers in the NW US who are aged 18-39 needed more professional development assistance in, determining the content that should be taught in their specific course(s); reporting program information to their district and Department of Education; educating students and maintaining required health and safety standards health and safety; and, organizing activities for students with local organizations relating to their content area, than those aged 40+.

9. The strongest professional development motivator for secondary FCS teachers in the NW US was that the professional development is specifically related to their content area.

10. Secondary FCS teachers in the NW US most preferred professional development to take place over the course of a full day during the school year.

11. Secondary FCS teachers in the NW US wrote in that their highest perceived needs in areas of professional development were: 1) teaching strategies, 2) culinary, and 3) updated content related to courses they taught.

12. Secondary FCS teachers in the NW US thought that state and national standards should be updated every three to four years.

5.5 RECOMMENDATIONS

As seen in this study, there is a need for content-specific professional development opportunities for secondary FCS teachers in the NW US. While content-specific is important, there is a large amount of content covered under the FCS umbrella. Due to this, each state and/or district should evaluate their FCS programs by assessing their teachers' professional development needs, through this survey or one like it, and utilize that data to provide the professional development opportunities their teachers need to excel. Administrators can utilize the data in this study to evaluate if they are providing their FCS teachers relevant and applicable professional development opportunities.

It is apparent with the 37% response rate to this survey, as well as the written responses to the open-ended questions, that FCS teachers in the NW US have strong feelings about their current professional development opportunities and what they believe they need so they can best prepare their students to succeed and enter a competitive future career. FCS teachers can utilize the data in this study to address professional development needs with their administration and work to advocate for the types of professional development opportunities they need.

5.6 FUTURE STUDIES

Below are four ways this study could be replicated or altered in future studies to collect new, more specific, or more general data.

1. This study could be replicated in other regions of the United States, across the United States as a whole, or in a single state or district.
2. This study could be altered to focus on post-secondary FCS programs instead of secondary FCS programs.
3. This study could be altered to address other CTE programs instead of FCS in relation to needs assessments for professional development opportunities.
4. This study could be narrowed down to focus on any one of the five research questions. More specific data could then be collected to give a more detailed answer to each of the questions.

The following suggestions for future studies are based on discussions that arose through the process of reading, analyzing, and questioning the data collected in this study. They did not fit into

the spectrum of research questions for this study but could provide very important and applicable information as a result in future studies.

1. What professional development opportunities are currently being offered to secondary FCS teachers in the NW U.S.?

    a. Is it primarily PD focusing on specific content? Is it PD focusing on general teaching strategies? Is it PD focusing on technology? etc.

2. Are we setting our teachers up for failure by not requiring more advanced content in their post-secondary FCS education?

    a. Needs assessment of FCS teachers who trained through a post-secondary FCS education program, focusing on skills learned in the program versus skills needed in the classroom

3. How does diversity play a factor in teaching secondary FCS if our teacher population is so homogenous?

    a. female, over 50 years of age, white, etc.

4. What are the benefits of collaboration for FCS teachers?

    a. What happens during their current collaboration? What happens during the collaboration of those who see positive effects from it on their teaching? How often should they collaborate? How long should they collaborate for? Does collaboration help them become more effective FCS teachers?

5. How do preferred ways of PD affect teacher's willingness to participate in PD?

6. What do teachers know about the process of updating state and national sets of standards and what is their knowledge of how to play an active role in those updates?

    a. How would this affect their opinions on how often the standards should be updated?

7. How does being involved in a FCS-related organization affect a FCS teacher?

    a. There were mixed responses in this study from those involved in FCS-related organizations indicating they needed PD in some areas but not others. What kinds of assistance do these organizations give FCS teachers? Compare perceptions on this from organizations vs perceptions of teachers?

8. What are the impacts of mentoring teachers?

    a. Does mentoring positively, negatively, or not impact a secondary FCS teacher? How long should mentoring last? Does it lose or gain perceived worth for the teacher receiving it over time? What mentoring programs are already implemented?

9. Should we be trying to create collaboration between secondary and post-secondary teachers?

      a.   What are the benefits? What are the costs?

10. How does school culture affect professional development?

11. Is there a correlation between PD needs and what route a teacher took to become a FCS teacher?

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Appendix A

Content Matrix

Research Question	Instrument Question #	Survey Item(s)	Found in Literature
-		Introduction to Survey	-
2	2	You currently teach in (state) …	-
2	3	What is the population of the city/town where you currently teach?	Geography Program Urban and Rural, 2010; United States Census Bureau, 2018a
2	4	The number of students in your school is…	National Center for Education Statistics, 2019; National Center for Education Statistics, 2014
2	5	Your average class size is …	National Center for Education Statistics, 2012
2	6	You have taught Family & Consumer Sciences for ___ years? (round up half years)	Erwin, 2018, pg. 154; Arnett, Cannon, Kitchel, & Duncan, 2010, Table 1; Walker, 2018
2	7	Based on the 16 nationally recognized FCS areas of study, which area(s) do you currently teach or have taught in the past? Mark all that apply and/or specify through written response.	National Standards Overview, 2018
2	8	How were you prepared to teach FCS? Mark all that apply.	Erwin, 2018, pg. 155
2	9	Your highest level of formal education is…	Erwin, 2018, pg. 156; Arnett, Cannon, Kitchel, & Duncan, 2010, Table 1; National Center for Education Statistics, 2016
2	10	How many teachers teach Family & Consumer Science courses at your school, including yourself?	Erwin, 2018, pg. 157; National Center for Education Statistics, 2019; Werhan & Way, 2006
2	11	How often do you meet with other Family & Consumer Science teachers in your school/district?	Johnston & Berglund, 2018

2	12	In which professional organization(s) do you hold membership?	Erwin, 2018, pg. 158
2	13	Do you advise a chapter of Family, Career, and Community Leaders of America (FCCLA) at your school?	Erwin, 2018, pg. 157
2, 5	14	Do you know where to find the **state** standards for the FCS course(s) you teach?	
2, 5	15	Do you know where to find the **national** standards for the FCS course(s) you teach?	National Standards and Competencies, 2018
5	16	How often do you think that **state** standards for FCS courses need to be updated?	
5	17	How often do you think that **national** standards for FCS courses need to be updated?	National Standards and Competencies, 2018
-	18	Intro to educational components section	-
-	19	Technology	-
1, 2	19.1	Using current and relevant **computer/internet technology** to teach interactive lessons on content or career-specific tasks	Erwin, 2018, pg. 149
1, 2	19.2	Using relevant **non-computer technology** to teach interactive lessons on content (such as up-to-date kitchen equipment, up-to-date sewing/design equipment, etc.)	Erwin, 2018, pg. 150
-	20	Course, Curriculum, and Standards Development	-
1, 2	20.1	Determining the content that should be taught in your specific course(s)	Erwin, 2018, pg. 150; Arnett, Cannon, Kitchel, & Duncan, 2010, Table 2
1, 2	20.2	Keeping current on trends and issues in your area of content	Erwin, 2018, pg. 150; Arnett, Cannon, Kitchel, & Duncan, 2010, Table 2
1, 2	20.3	Reporting your program information to your district and state Department of Education	Erwin, 2018, pg. 150; Arnett, Cannon, Kitchel, & Duncan, 2010, Table 2
-	21	Teaching	-
1, 2	21.1	Selecting relevant student references, materials, and textbooks	Erwin, 2018, pg. 148, 150; Arnett, Cannon, Kitchel, & Duncan, 2010, Table 2

1, 2	21.2	Educating students and maintaining required health and safety standards (local, state, federal)	Erwin, 2018, pg. 150; Arnett, Cannon, Kitchel, & Duncan, 2010, Table 2
-	22	Professional Development, Programs, and Organizations	-
1, 2	22.1	Organizing activities for students with local organizations relating to your content area	Erwin, 2018, pg. 149; Arnett, Cannon, Kitchel, & Duncan, 2010, Table 2
1, 2	22.2	Providing information to students related to furthering their education in your content area	Arnett, Cannon, Kitchel, & Duncan, 2010, Table 2
1, 2	22.3	Establishing opportunities or creating connections for student work internships or jobs	Arnett, Cannon, Kitchel, & Duncan, 2010, Table 2
1, 2	22.4	Developing a variety of School-to-Work activities in your curriculum	Erwin, 2018, pg. 149; Arnett, Cannon, Kitchel, & Duncan, 2010, Table 2
1, 2	22.5	Integrating life skills into your curriculum	Erwin, 2018, pg. 147
-	23	Rate each statement to the level it motivates or deters you from participating in professional development.	-
1, 3	23.1	The professional development is specifically related to your content area	Erwin, 2018, pg. 151
1, 3	23.2	The professional development if related to updated or new technology	Erwin, 2018, pg. 151
1, 3	23.3	The professional development will allow you to gain college credit	Erwin, 2018, pg. 152
1, 3	23.4	The professional development is offered at different times or in multiple sessions to allow for flexibility in scheduling	Erwin, 2018, pg. 152
-	24	Rate each statement to the level you agree or disagree with it.	-
1, 3	24.1	Professional development is offered that teaches current and updated information	
1, 3	24.2	Professional development is offered that is related to the content you teach	
1, 3	24.3	Professional development is offered at times you are available to attend	

1, 3	24.4	Professional development is offered that is affordable for you to participate in	
1, 3	24.5	Professional development is offered at locations that are close enough to your school or home for you to attend	
3	25	Which of these best reflect your personal preferences for scheduling of professional development opportunities? (Choose as many as apply.)	Erwin, 2018, pg. 153
4	26	What content would you be interested in learning in a professional development course?	
-	27	Rate each statement to the level you personally agree or disagree with it.	-
1	27.1	You are confident your curriculum includes the **most current and relevant** information available related to your content area	
1	27.2	You are confident your students will leave your course knowing information and skills that ready them to enter a competitive workforce	*Idaho Career & Technical Education*
1	27.3	The current **national** standards reflect relevant and updated information	National Standards and Competencies, 2018
1	27.4	Your current **state** standards reflect relevant and updated information	
1	27.5	You use authentic assessment in your classroom more often than traditional assessment	Erwin, 2018, pg. 147
2	28	You identify as (gender)	Arnett, Cannon, Kitchel, & Duncan, 2010, Table 1
2	29	You are (age)	Arnett, Cannon, Kitchel, & Duncan, 2010, Table 1; Data USA, 2016
2	30	The race/ethnicity you identify with is (choose as many as apply)	Quick Facts United States, 2018
-	31	Optional email entry	-
4	32	Optional comment, question, concern entry	

Appendix B

Email Invite & Survey Flyer

Dear Secondary FCS Teacher:

I, Elizabeth Ropski from the Department of Family & Consumer Sciences at the University of Idaho, am writing to request your participation in a research survey I am conducting for my master's thesis. The purpose of my research is to give a voice to secondary Family and Consumer Science teachers nationally as to their perceptions of the current status of secondary Family and Consumer Science education in relation to curriculum and professional development opportunities. For the purpose of this study, we are defining secondary teachers as teachers of students from grades 6-12.

Your participation will involve completing and submitting an online survey provided in this link: https://uidaho.co1.qualtrics.com/jfe/form/SV_aeE8nmi3gJXPnDf. The survey should take about 5-10 minutes to complete. The survey includes questions about professional development, FCS curriculum, and teacher background. Your involvement in the study is voluntary, and you may choose not to participate. You may answer as many or few questions as you choose. There are no known risks in this study. Data will be analyzed and formatted into an appropriate layout for national distribution to be utilized by states, districts, schools, and individuals to apply toward advancing our secondary Family and Consumer Science programs. There are no names or identifying information associated with your responses so your responses will be kept anonymous and confidential. No personal identity information will be required by or shared in the results of this survey.

The findings from this project will provide analyzed information to states, districts, schools, and individual teachers to apply toward advancing our secondary Family and Consumer Science programs. This information will also be used to advise districts, colleges, or universities on how to better market Family and Consumer Science Education to work toward filling the growing need in secondary teaching positions.

If published, results will be presented in summary form only.

If you have any questions about this research project, please feel free to contact Elizabeth Ropski at rops7565@vandals.uidaho.edu or (208) 871-5629. If you have questions regarding your rights as a research subject, or about what you should do in case of any harm to you, or if you want to obtain information or offer input you may call the Office of Research Assurances at (208) 885-6340 or irb@uidaho.edu.

By participating in this survey, you certify that you are at least 18 years of age and agree to participate in the above described research study.

Thank you very much for your time and cooperation.

BETH ROPSKI

Carmelita Spencer Foods Laboratory Manager

UI FCS Farmers Market Community Outreach

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Pronouns: she/her/hers

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Family and Consumer Sciences'

Northwest Secondary
FCS Teacher Survey

The purpose of this survey is to **give a voice to Northwest secondary Family and Consumer Science teachers (6-12 grade)** as to their perceptions of the current status of secondary Family and Consumer Science education in relation to professional development opportunities and current course curriculum/standards.

Your participation will involve completing and submitting an online survey. The survey should take **5-10 minutes** to complete. The survey includes questions about professional development, curriculum/standards, and teacher background.

The findings from this project will **provide analyzed information to states, districts, schools, and individual teachers to apply toward advancing our secondary Family and Consumer Science programs**. The information will also be used to advise districts, colleges, or universities on how to better market Family and Consumer Science Education to work toward filling the growing need in FCS teaching positions.

Thank you for your time and participation in our study. Your thoughts and opinions matter and can help make a difference locally and nationally.

You can find our online survey by going to: *tinyurl.com/yyrbh54o*
or by using the camera on your phone to scan this QR code.

University *of* **Idaho**
Margaret Ritchie School of
Family and Consumer Sciences

For more information

contact: Beth Ropski

call or text: 208-871-5629

email: rops7565@vandals.uidaho.edu

Appendix C

Final Survey Instrument

Q1 Thank you for choosing to participate in this Northwest US Family and Consumer Sciences survey. Please answer as many questions as you are able. If you would prefer to not answer a question, you can leave it unanswered and proceed to the next question. This survey will take 5-10 minutes to complete.

Q2 You currently teach in (state)
   Idaho
   Montana
   Oregon
   Washington
   Wyoming

Q3 What is the population of the city/town where you currently teach?
   Less than 2500 people
   2,500 - 50,000 people
   Over 50,000 people

Q4 The number of students in your school is less than 50
   101-300
   301-500
   501-750
   751-1000
   1001-1200
   1200+

Q5 Your average class size is
   less than 5 students
   6-10 students
   11-15 students
   16-20 students
   21-25 students
   26-30 students
   31-35 students
   36+ students

Q6 You have taught Family and Consumer Science for _____ years. (round up half year)

Q7 Based on the 16 nationally recognized FCS areas of study, which area(s) do you currently teach or have taught in the past? Mark all that apply.

Career, Community, and Family Connections	Human Development
Consumer and Family Resources	Interpersonal Relationships
Consumer Services	Nutrition and Wellness
Education and Early Childhood	Parenting
Facilities and Property Management	Textiles, Fashion, and Apparel
Family	Unsure of area(s) of study
Family and Human Services	
Food Production and Services	
Food Science, Dietetics, and Nutrition	
Hospitality, Tourism, and Recreation	

Q8 How were you prepared to teach FCS? Mark all that apply.

Undergraduate teacher education program (graduated with teaching certification and bachelor's in education or related major)

Undergraduate traditional FCS teacher education program (graduated with teaching certification with endorsement in Family & Consumer Sciences)

Graduate program relating to education at least one year beyond bachelor's degree

Substitute teaching that resulted in permanent position

Alternative route (Peace Corps, Teach for America, Teacher Opportunity Corps, US Military, other) -- please note the route you took if this applies

Limited Occupational Specialist Certification

Standard Occupational Specialist Certification

No prior teaching experience but have a degree and career experience in a FCS-related field

No prior teaching experience but have a degree and no career experience in a FCS-related field

No prior teaching experience or a degree in a FCS-related field but have career experience in a FCS-related field

Please share any further information on how you were prepared to teach that you feel necessary.

Q9 Your highest level of formal education is

High School Diploma
Associate Degree
Bachelor's Degree
1-18 graduate hours
19-36 graduate hours
37+ graduate hours
Master's Degree
Master's Degree + more graduate hours
Specialist
Doctorate

Q10 How many teachers teach Family & Consumer Science courses at your school, including yourself?

1   4
2   5
3   6+

Q11 How often do you meet with other Family & Consumer Science teachers in your school/district?

Once a week
Once a month
Once a quarter
Once a semester
Once a year
Other

Q12 In which professional organization(s) do you hold membership?

American Association of Family and Consumer Sciences (AAFCS/NAFCS)
Association for Career and Technical Education (ACTE/FCSTN)
Other _____
None

Q13 Do you advise a chapter of Family, Career, and Community Leaders of America (FCCLA) at your school?

Yes
No

Q14 Do you know where to find the *state* standards for the FCS course(s) you teach?
    Yes
    No

Q15 Do you know where to find the *national* standards for the FCS course(s) you teach?
    Yes
    No

Q16 How often do you think that *state* standards for FCS courses need to be updated?
    Every year
    Every other year
    Every three years
    Every four years
    Other

Q17 How often do you think that *national* standards for FCS courses need to be updated?
    Every year
    Every other year
    Every three years
    Every four years
    Other

Q18 *For the following statements:*
*In the **left** column, rate the statement in accordance to your perceived level of **importance** of it to your area of content at this current time. In the **right** column, rate the statement in accordance to your perceived level of **competence** to it in your area of content at this current time.*

Q19 Technology	Importance	Competence
19.1 Using relevant **computer/internet technology** to teach interactive lessons on content	▼ Not at all important ... Very important	▼ Not at all competent ... Very competent
19.2 Using current and relevant **non-computer technology** to teach interactive lessons on content or career-specific tasks (such as up-to-date kitchen equipment, up-to-date sewing/design equipment, etc.)		

Q20 Course, Curriculum, and Standards Development	Importance	Competence

	Importance	Competence
20.1 Determining the content that should be taught in your specific course(s) 20.2 Keeping current on trends and issues in your area of content 20.3 Reporting your program information to your district and state Department of Education	▼ Not at all important ... Very important	▼ Not at all competent ... Very competent

Q21 Teaching	Importance	Competence
21.1 Selecting relevant student references, materials, and textbooks 21.2 Educating students and maintaining required health and safety standards (local/state/federal)	▼ Not at all important ... Very important	▼ Not at all competent ... Very competent

Q22 Professional Development, Programs, and Organizations	Importance	Competence
22.1 Organizing activities for students with local organizations relating to your content area 22.2 Providing information to students related to furthering their education in your content area 22.3 Establishing opportunities or creating connections for student work internships or jobs 22.4 Developing a variety of School-to-Work activities in your curriculum 22.5 Integrating life skills into your curriculum	▼ Not at all important ... Very important	▼ Not at all competent ... Very competent

Q23 Rate each statement to the level it motivates or deters you from participating in professional development.

	Strongly deters	Somewhat deters	Somewhat motivates	Strongly motivates
23.1 The professional development is specifically related to your content area				
23.2 The professional development is related to updated or new technology				
23.3 The professional development will allow you to gain college credit				
23.4 The professional development is offered at different times or in multiple sessions to allow for flexibility in scheduling				

Q24 Rate each statement to the level it you agree or disagree with it.

	Strongly disagree	Somewhat disagree	Somewhat agree	Strongly agree
24.1 Professional development is offered that teaches current and updated information				
24.2 Professional development is offered that is related to the content you teach				
24.3 Professional development is offered at times you are available to attend				
24.4 Professional development is offered that is affordable for you to participate in				
24.5 Professional development is offered at locations that are close enough to your school or home for you to attend				

Q25 Which of these best reflect your personal preferences for scheduling of professional development opportunities? (Choose as many as apply.)

	Strongly do not prefer	Somewhat do not prefer	Somewhat prefer	Strongly prefer
25.1 Half-day professional development in the morning during the school year				
25.2 Half-day professional development in the afternoon during the school year				
25.3 Professional development on weekday evenings during the school year				
25.4 Full-day professional development during the school year				
25.5 Weekend professional development during the school year				
25.6 One-week professional development in the summer				
25.7 In-service sessions at Summer PTE/CTE Conference				
25.8 Self-directed internet-based professional development courses with no face-to-face meetings				
25.9 Internet-based professional development courses at specified times (facilitated through a program such as Zoom or Skype)				
25.10 Other				

Q26 What content would you be interested in learning in a professional development course?
   Text entry.

Q27 Rate each statement to the level you personally agree or disagree with it.

	Strongly disagree	Somewhat disagree	Somewhat agree	Strongly agree
27.1 You are confident your curriculum includes the **most current and relevant** information available related to your content area				
27.2 You are confident your students will leave your course knowing information and skills that ready them to enter a competitive workforce				
27.3 The current **national** standards reflect relevant and updated information				
27.4 Your current **state** standards reflect relevant and updated information				
27.5 You use authentic assessment in your classroom more often than traditional assessment				

Q28 You identify as
Male
Female
Other
Prefer to not answer

Q29 You are (age)
18-24
25-29
30-34
35-39
40-44
45-49
50-54
55-59
60-64
65+

Q30 The race/ethnicity you identify with is (choose as many as apply)

African
African American
American Indian/Alaskan Native
Asian
Black
Hispanic

Latinx
Middle Eastern
Native Hawaiian
Pacific Islander
White
Other race/ethnicity
Unspecified

Q31 Thank you for taking the time out of your busy schedule to complete this survey. Your thoughts and opinions matter and can help make a difference locally and nationally. If you have any further comments, questions, or concerns, please include them here. If you would like to receive an email with this study's final results, please click here or follow link below to enter your email. Your information will not be linked to your survey answers. https://uidaho.co1.qualtrics.com/jfe/form/SV_af1M1AGW1Gx6VBr If not, you can skip this question and the survey will be complete. Thank you!

Appendix D

2010 Survey Instrument:

Arnett, Cannon, Kitchel, and Duncan

IDAHO PROFESSIONAL-TECHNICAL EDUCATION NEEDS ASSESSMENT

Two sections comprise this needs assessment. Section I contains items designed to assess the educational needs of professional-technical education (PTE) teachers. Section II contains demographic questions. The data collected from this survey is important for the planning and development of in-service educational opportunities for PTE educators. Responses will be kept confidential.

Thank you for completing this survey.

SECTION I: In-Service Needs of Professional-Technical Education Teachers

Directions: For each of the following topics, in the **left** column *circle* the number that best indicates your perceived level of **IMPORTANCE** to professional-technical education teachers. In the **right** hand column *circle* the number that best indicates **your** perceived level of **COMPETENCE** regarding the in-service topic.

<table>
<tr><td colspan="3" align="center">EXAMPLE</td></tr>
<tr><td>Level of Importance</td><td></td><td>Level of Competence</td></tr>
<tr><td>1   2   3   4   (5)</td><td>Developing Community Support</td><td>(1)   2   3   4   5</td></tr>
<tr><td>1=Not Important
2=Little Importance
3=Somewhat Important Competent
4=Important
5=Very Important</td><td></td><td>1=Not Competent
2=Little Competence
3=Somewhat Competent
4=Competent
5=Very Competent</td></tr>
<tr><td colspan="3" align="center">This person perceived the topic "Developing community support"
as Very Important and perceived that they had Little Competence in this area.</td></tr>
</table>

Technical PTE: The following items focus on technical expertise.

Level of Importance						*Level of Competence*				
1	2	3	4	5	Using computers and technology in classroom/laboratory teaching.	1	2	3	4	5
1	2	3	4	5	Using multimedia equipment in teaching.	1	2	3	4	5
1	2	3	4	5	Teaching skills and concepts in your area of PTE.	1	2	3	4	5
1	2	3	4	5	Integrating current advances in technology into the curriculum.	1	2	3	4	5
1	2	3	4	5	Teaching safety skills and concepts in your area of PTE.	1	2	3	4	5

Student Organization Development: The following items focus on student organizations.

Level of Importance						*Level of Competence*				
1	2	3	4	5	Developing an effective public relations program.	1	2	3	4	5
1	2	3	4	5	Coordinating activities with local organizations/agencies.	1	2	3	4	5
1	2	3	4	5	Providing guidance to students interested in further education	1	2	3	4	5
1	2	3	4	5	Providing career exploration activities in your PTE area.	1	2	3	4	5
1	2	3	4	5	Establishing and organizing co-op/internships.	1	2	3	4	5
1	2	3	4	5	Developing a variety of curriculum-based School-to-Work and/or School-to-Career activities.	1	2	3	4	5
1	2	3	4	5	Integrating life skills into the curriculum.	1	2	3	4	5

Level of Importance						*Level of Competence*				
1	2	3	4	5	Planning and conducting student field trips.	1	2	3	4	5
1	2	3	4	5	Organizing and supervising teaching laboratories.	1	2	3	4	5
1	2	3	4	5	Conducting an adult program.	1	2	3	4	5
1	2	3	4	5	Teaching using experiments.	1	2	3	4	5
1	2	3	4	5	Teaching students problem-solving and decision-making skills.	1	2	3	4	5
1	2	3	4	5	Teaching learning disabled students.	1	2	3	4	5
1	2	3	4	5	Teaching gifted and talented students.	1	2	3	4	5
1	2	3	4	5	Conducting parent/teacher conferences.	1	2	3	4	5
1	2	3	4	5	Developing performance based assessment instruments.	1	2	3	4	5
1	2	3	4	5	Assessing and evaluating student performance.	1	2	3	4	5
1	2	3	4	5	Managing student behavior problems.	1	2	3	4	5
1	2	3	4	5	Motivating students to learn.	1	2	3	4	5

Program Management: The following items focus on management of the complete professional-technical education program.

Level of Importance						*Level of Competence*				
1 2 3 4 5					Completing reports for local and state	1 2 3 4 5				
1 2 3 4 5					Conducting needs assessments and surveys to determine the courses that should be taught.	1 2 3 4 5				
1 2 3 4 5					Locating and selecting student references and materials.	1 2 3 4 5				
1 2 3 4 5					Determining the content that should be taught in specific courses.	1 2 3 4 5				
1 2 3 4 5					Evaluating the local PTE program.	1 2 3 4 5				
1 2 3 4 5					Developing relations with fellow teachers and administrators.	1 2 3 4 5				
1 2 3 4 5					Establishing a program advisory committee.	1 2 3 4 5				
1 2 3 4 5					Ability to use the local advisory committee to acquire resources to sustain the local program.	1 2 3 4 5				

Please identify other topics or activities you believe may be important to the success of PTE teachers.

_____

What form(s) of in-service delivery would you prefer? **(Check ✓ all that apply)**

_____ Mentoring Program with Experienced Teacher   _____ Course for Credit
_____ 2-3 Hour Seminar/Workshop   _____ Videotapes
_____ One Week Short Course (during summer)   _____ Interactive TV (providing your school or regional center
_____ In-service Sessions at Summer PTE Conference   could be connected)
_____ District In-service Courses (4 meetings at 4 hours each) _____ Web-based Courses, Workshops, and/or Seminars
_____ Weekday Meeting (during summer)   Other (Please specify: _____

SECTION II: Demographic Information

Directions: Please answer the following questions as they relate to your current teaching situation. Place a written response or check adjacent to each question.

1. I am a _____ male, _____ female.

2. What is your race/ethnicity? _____Native Hawaiian _____White (Not Hispanic) _____Hispanic

   _____ Black (Not Hispanic) _____Asian/Pacific Islander _____American Indian/Alaskan Native

   _____ Unknown/Unspecified

3. I am currently _____ married, _____ single.

4. Age: _____ less than 25 _____ 25-34 _____ 35-44 _____ 45-54 _____ 55-64 _____65+

5. PTE Teaching Experience: _____ 0-5 _____ 6-10 _____ 11-15 _____ 16-20 _____ 21-25 _____26-30 _____ 30+ years

6. What county of the state do you teach? _____

7. What level of PTE do you teach?

   _____ Secondary _____ Middle/Junior High Other _____

8. What area of PTE do you teach?

   _____ Business Area _____ Marketing Area

   _____ Counseling and Special Needs _____ Related Subjects

   _____ Health Area _____ Occupational Family & Consumer Science

   _____ Work-Based Learning _____ Trades & Industry

   _____ Pro-Tech Administrator _____ Technology Education

   _____ Other _____

9. How were you prepared to teach? (Check all that apply)

    _____ Undergraduate teacher education program (graduated with teacher certification and degree in education or related major).

    _____ Graduate program of one year beyond the bachelors degree.

    _____ Combined undergraduate and graduate program.

    _____ Substitute teaching that led to a permanent teaching position.

    _____ An alternate route program such as Peace Corps, Teach for America, Teacher
       Opportunity Corps, U. S. Military.

    _____ Technical Workforce Training Academic Certificate through an Idaho institution of higher learning

    _____ Technical Workforce Training Academic Certificate through an institution of higher learning outside of Idaho

    _____ No prior teaching experience, but have a degree and career experience in a CTE related field.

    _____ No prior teaching experience, but have a degree and no career experience in a CTE related field.

    _____ No prior teaching experience, but have career experience and do not have a degree in a CTE related field.

10. My highest level of formal education is:

    _____ HS Diploma   _____ Associates   _____ Bachelors   _____ Masters   _____ Specialist   _____ Doctorate

11. I received my teacher training in the state of _____ _____.

12. I received my teacher training at (institution) _____.

13. Quality of your teacher training program: _____ Poor   _____ Acceptable   _____ Good   _____ Excellent

14. Quality of previous *industry* sponsored in-service/professional development programs:

    _____ Poor   _____ Acceptable   _____ Good   _____ Excellent

15. Quality of previous *state* sponsored in-service/professional development programs:

_____ Poor   _____ Acceptable   _____ Good   _____ Excellent

16. Quality of previous *university (University of Idaho, Idaho State University, etc.)* sponsored in-service/professional development programs:

_____ Poor _____ Acceptable _____ Good   _____ Excellent

17. Quality of previous *local school district* sponsored in-service/professional development programs:

_____ Poor   _____ Acceptable   _____ Good   _____ Excellent

18. The total student enrollment at my school is _____ students.

19. The total student enrollment (unduplicated count) in my local program is _____ students.

20. The total student enrollment (unduplicated count) in my courses is _____ students.

21. Including you how many PTE instructors are there at your school? _____

22. My school _____ **DOES _____DOES NOT** currently have an organized Adult Education program.

23. My program _____**DOES _____DOES NOT** currently have an organized Adult Education program.

24. My program _____ **DOES _____DOES NOT** currently have an advisory committee?

25. Type of school I teach in each day is best described as being:

_____Comprehensive High School   _____Career/Vocational Center _____Charter School   _____ Private School

26. Type of community I teach in each day is best described as being:

_____ Rural   _____ Suburban _____ Urban

Credit: This instrument was developed from one used by the University of Georgia
Department of Agricultural Leadership, Education, and Communication.

Thank you for taking time to complete this questionnaire!

APPENDIX E

2018 Survey Instrument:

Erwin

Directions for the Survey

Directions: There are a number of topics related to the teaching of Family and Consumer Sciences in Nebraska. In the left column, select the number that best indicates your perceived level of IMPORTANCE to Family and Consumer Sciences teachers in Nebraska. In the right column, select the number that best indicates your perceived level of COMPETENCE regarding the professional development topic.

EXAMPLE

Importance	Topic	Competence
1 2 3 4 **5**	**Developing Community Support**	**1** 2 3 4 5

1 = Not Important	1 = Not Competent
2=Little Importance	2 = Little Competence
3=Somewhat Important	3 = Somewhat Competent
4=Important	4 = Competent
5=Very Important	5 = Very Competent

This person perceived the topic "Developing Community Support" as Very Important to Family and Consumer Sciences teachers in Nebraska and perceived that they personally had Little Competence in this area.

Content Knowledge and Curriculum Development in:

Content Knowledge and Curriculum Development in:
Areas of content knowledge identified in the proposed Nebraska Department of Education Rule 24 Regulations for Certificate Endorsement: Family and Consumer Sciences Education

Importance		Competence
1 2 3 4 5		1 2 3 4 5
○○○○○	1/132. Career, Community and Family Connections: Analyze family, community, and work interrelationships; investigate career paths; examine family and consumer sciences careers; and apply career decision making and transitioning processes.	○○○○○
○○○○○	2/132. Consumer Economics and Family Resources: Utilize resources responsibly to address the diverse needs and goals of individuals, families, and communities in family and consumer sciences areas such as resource management, consumer economics, financial literacy, living environments, and textiles and apparel.	○○○○○
○○○○○	3/132. Family and Human Development: Apply principles and theories of child development, human growth and development, interpersonal relationships, and family to strengthen individuals and families across the lifespan in contexts such as parenting, care giving, and the workplace.	○○○○○
○○○○○	4/132. Nutrition, Food Science, and Food Production: Apply nutrition concepts that enhance individual and family well-being across the lifespan; apply food science and nutrition, food production and preparation; promote food production skills for families and in the workplace; and demonstrate effective lab management practices that apply to food and nutrition.	○○○○○
○○○○○	5/132. Design, Textiles, Apparel, or Interiors: Demonstrate application of elements and principles of design related to textiles, apparel, and interiors; integrate knowledge, skills, and practices required for careers in housing, interior design, clothing, and textiles; and demonstrate effective lab management practices that apply to design, textiles, apparel, and interiors.	○○○○○

Content Knowledge and Curriculum Development in:

Developing & Implementing Curriculum for Nebraska Programs of Study related to Family and Consumer Sciences content (program of study name followed by list of courses in that program):

4		1
1 2 3 4 5		1 2 3 4 5
○○○○○	6/132. HSE.HS1 Child, Youth, and Family Studies: Human Growth and Development, Interpersonal Relationships, and Parenting and Families	○○○○○
○○○○○	7/132. HSE.HS2 Early Childhood Education and Services: Child Development, Early Childhood Education and Services, and Early Childhood Practicum	○○○○○
○○○○○	8/132. HSE.HS.3 Nutrition and Wellness: Fundamentals of Food and Nutrition, Nutrition, and Dietetics	○○○○○

4		1	
1 2 3 4 5		1 2 3 4 5	
○○○○○	9/132. HSE.HS.4 Food Science: Fundamentals of Food and Nutrition, Food Science, and Fundamentals of Entrepreneurship/Entrepreneurship/College Introduction to Entrepreneurship	○○○○○	
○○○○○	10/132. HSE.HS.5 Design: Intro to Design Principles, Textile Construction/Home Design and Interiors/Fashion Design, and Fundamentals of Entrepreneurship/Entrepreneurship/ College Introduction to Entrepreneurship	○○○○○	
○○○○○	11/132. HSE.HS.6 Counseling and Mental Health: Families in Crisis, Careers in Mental Health, and Psychology or AP Psychology or Sociology	○○○○○	
○○○○○	12/132. HSE.HS.7 FNS: Nutrition and Food Science Certified: FNS Food Production, Nutrition and Health, FNS Food Science/FNS Nutrition Science, and FNS Food and Nutrition Research and Development	○○○○○	
○○○○○	13/132. HSE.HS.8 Education and Training: Introduction to Education and Training, Best Practices in Education and Training, and Field Experience in Education and Training	○○○○○	
○○○○○	14/132. BMM.HS.1 Culinary Arts: Fundamentals of Food and Nutrition, Culinary I, Culinary II/Fundamentals of Entrepreneurship	○○○○○	
○○○○○	15/132. OTHER: Other programs of study in which you teach all or part of the courses within that program. Please note the name of the program of study or individual courses that fit in a program of study below in A.	○○○○○	
○○○○○	16/132. OTHER: High school courses that are not a part of any program of study but are a part of my program. Please note the names of those courses below in B.	○○○○○	

17/132. A. Please note the name of the program of study or individual classes that fit in a program of study here.

[ ]

18/132. B. Please note the names of high school classes that are not a part of any program of study.

[ ]

Content Knowledge and Curriculum Development in:

Content Knowledge and Curriculum Development in:

Other areas of curriculum development:

Importance 1 2 3 4 5		Competence 1 2 3 4 5
⭕⭕⭕⭕⭕	19/132. Middle School - 6 FACS, 7 FACS, and 8 FACS Standards.	⭕⭕⭕⭕⭕
⭕⭕⭕⭕⭕	20/132. Knowledge and integration of Nebraska Career Readiness Standards in courses.	⭕⭕⭕⭕⭕
⭕⭕⭕⭕⭕	21/132. Knowledge and integration of math standards into the FACS curriculum.	⭕⭕⭕⭕⭕
⭕⭕⭕⭕⭕	22/132. Knowledge and integration of English Language Arts standards into the FACS curriculum.	⭕⭕⭕⭕⭕
⭕⭕⭕⭕⭕	23/132. Knowledge and integration of science standards into the FACS curriculum.	⭕⭕⭕⭕⭕
⭕⭕⭕⭕⭕	24/132. Knowledge and integration of 21st Century Skills.	⭕⭕⭕⭕⭕
⭕⭕⭕⭕⭕	25/132. Developing curriculum-based Work-Based Learning activities. Specific content on FACS related occupations: career skills, education requirements, industry certifications, etc.	⭕⭕⭕⭕⭕
⭕⭕⭕⭕⭕	26/132. Establishing and organizing co-op/internships.	⭕⭕⭕⭕⭕
⭕⭕⭕⭕⭕	27/132. Developing project-based or problem-based curriculum.	⭕⭕⭕⭕⭕

28/132. Other **content knowledge and curriculum development** you believe is important.

> [   ]

Teaching & Learning

Teaching & Learning

The following items focus on teaching and learning.

Importance 1 2 3 4 5		Competence 1 2 3 4 5
⭕⭕⭕⭕⭕	29/132. Child and youth development.	⭕⭕⭕⭕⭕
⭕⭕⭕⭕⭕	30/132. Classroom culture and relationships: diversity, inclusive practices, and English language learners.	⭕⭕⭕⭕⭕
⭕⭕⭕⭕⭕	31/132. Planning and conducting student field trips.	⭕⭕⭕⭕⭕

Importance 1 2 3 4 5		Competence 1 2 3 4 5
○○○○○	32/132. Planning and preparing for student laboratory experiences.	○○○○○
○○○○○	33/132. Using a variety of instructional strategies and resources to engage all learners.	○○○○○
○○○○○	34/132. Teaching problem-solving & decision-making skills.	○○○○○
○○○○○	35/132. Teaching Special Education students.	○○○○○
○○○○○	36/132. Teaching High Ability Learners.	○○○○○
○○○○○	37/132. Conducting parent/teacher conferences.	○○○○○
○○○○○	38/132. Assessing and evaluating student performance.	○○○○○
○○○○○	39/132. Classroom management/ managing student behavior.	○○○○○
○○○○○	40/132. Motivating students to learn.	○○○○○
○○○○○	41/132. Teaching students to think critically and creatively.	○○○○○
○○○○○	42/132. Teaching proper safety attitudes and procedures in the classroom and lab.	○○○○○
○○○○○	43/132. Locating current and reliable research in content areas and updating curriculum to reflect current developments and trends.	○○○○○
○○○○○	44/132. Professionalism: related to being a teacher working with students, colleagues, administrators, parents, and community members (FACS content and/or student organizations).	○○○○○
○○○○○	45/132. Time management related to lesson planning, lab planning and set up, class time with students, and completing administrative tasks.	○○○○○
○○○○○	46/132. Providing support to another teacher through mentoring (formal or informal) and/or participating in a mentoring program as a new teacher.	○○○○○

47/132. Other teaching and learning topics you believe are important.

[   ]

Student Organization Development

Student Organization Development
The following items focus on student organization development.

Importance		Competence

Importance			Competence		
1 2 3 4 5			1 2 3 4 5		
OOOOO	48/132. Knowledge about Career and Technical Student Organizations (CTSO's).		OOOOO		
OOOOO	49/132. Recruiting/promoting student involvement with CTSOs.		OOOOO		
OOOOO	50/132. Facilitate the conduct of regularly scheduled chapter meetings		OOOOO		
OOOOO	51/132. Engaging students to build a progressive leadership and personal development plan through CTSO involvement.		OOOOO		
OOOOO	52/132. Coordinating activities with local organizations/agencies.		OOOOO		
OOOOO	53/132. Planning and implementing service learning activities.		OOOOO		
OOOOO	54/132. Implementing an awards recognition program planned and conducted by student members.		OOOOO		
OOOOO	55/132. Knowledge of issues involved when traveling with students.		OOOOO		
OOOOO	56/132. Fundraising for CTSOs.		OOOOO		
OOOOO	57/132. Integrating CTSO activities into the regular classroom.		OOOOO		
OOOOO	58/132. Preparing members for competitive events and leadership development.		OOOOO		

59/132. Other student organization development issues you believe are important:

[ ]

Technology Use

Technology Use

The following items focus on the use of technology and technical expertise.

Importance			Competence		
1 2 3 4 5			1 2 3 4 5		
OOOOO	60/132. Intentional integration of instructional technology to facilitate learning, creativity, and innovation during face-to-face instruction.		OOOOO		
OOOOO	61/132. Use of technology tools for on-line instruction.		OOOOO		
OOOOO	62/132. Promote and model digital citizenship and responsibility.		OOOOO		
OOOOO	63/132. Use of computer software to teach content specific or career specific tasks.		OOOOO		

Importance			Competence
1 2 3 4 5			1 2 3 4 5
○○○○○	64/132. Use of non-computer, content specific technology in teaching.		○○○○○

65/132. Other technology use issues you believe are important:

[   ]

Program Management

Program Management

The following items focus on management of the complete Family and Consumer Sciences program.

Importance			Competence
1 2 3 4 5			1 2 3 4 5
○○○○○	66/132. Staying current on program related trends & current issues.		○○○○○
○○○○○	67/132. Developing an effective public relations/marketing program.		○○○○○
○○○○○	68/132. Communicating with local data steward to complete reports for the Nebraska Department of Education.		○○○○○
○○○○○	69/132. Conducting needs assessments to determine Programs of Study reflecting the needs of the community and developed in accordance with state guidelines.		○○○○○
○○○○○	70/132. Determining FACS content for specific courses.		○○○○○
○○○○○	71/132. Identifying appropriate course textbooks, references, and materials.		○○○○○
○○○○○	72/132. Evaluating a FACS program.		○○○○○
○○○○○	73/132. Establishing and using a program advisory committee.		○○○○○
○○○○○	74/132. Develop and maintain required safety standards (local, state, federal health & safety standards).		○○○○○
○○○○○	75/132. Demonstrate the ability to maintain a clean and organized classroom and/or laboratory environment conducive to learning; and organize storage space for both student and teacher materials, supplies and equipment.		○○○○○
○○○○○	76/132. Maintain an adequate and documented inventory of home and/or industry standard equipment, tools, consumable items, and instructional technology and able to develop a plan for new purchases and replacements.		○○○○○

Importance 1 2 3 4 5		Competence 1 2 3 4 5
⭕⭕⭕⭕⭕	77/132. Requesting financial support for equipment or professional development through federal (Carl Perkins), state, and/or local funding.	⭕⭕⭕⭕⭕
⭕⭕⭕⭕⭕	78/132. Grant writing and funding opportunities.	⭕⭕⭕⭕⭕
⭕⭕⭕⭕⭕	79/132. Budgeting for program – curriculum resources and labs.	⭕⭕⭕⭕⭕

80/132. Other important program management issues you believe are important:

[   ]

Professional Development Motivators

The next two sets of questions ask about Professional Development Motivators and Barriers to Professional Development.

Professional Development Motivators. Read each statement and rate how each statement motivates you to participate in professional development. Mark each statement using the scale of 1 indicating strongly disagree, 2 indicating somewhat disagree, 3 indicating undecided, 4 indicating somewhat agree, and 5 indicating strongly agree.

	Click to write Column 1 1 2 3 4 5
81/132. Required by administration.	⭕⭕⭕⭕⭕
82/132. Financial incentives.	⭕⭕⭕⭕⭕
83/132. A desire to learn general knowledge or skills to be a better teacher.	⭕⭕⭕⭕⭕
84/132. FACS related content to use both in my classroom and in my personal life.	⭕⭕⭕⭕⭕
85/132. FACS career skill related content.	⭕⭕⭕⭕⭕
86/132. Changing technology.	⭕⭕⭕⭕⭕
87/132. My own initiative.	⭕⭕⭕⭕⭕
88/132. Opportunity to network with colleagues.	⭕⭕⭕⭕⭕

	Click to write Column 1				
	1	2	3	4	5
89/132. Recertification.	○	○	○	○	○
90/132. Earning college credit.	○	○	○	○	○
91/132. Possibly more job/career options in the future.	○	○	○	○	○

92/132. Other professional development motivators.

[ ]

Professional Development Barriers

Professional Development Barriers. Read each statement and rate how each statement acts as a barrier for you to participate in professional development.   Mark each statement using the scale of 1 indicating strongly disagree, 2 indicating somewhat disagree, 3 indicating undecided, 4 indicating somewhat agree, and 5 indicating strongly agree.

	Disagree/Agree				
	1	2	3	4	5
93/132. Professional development is not helpful.	○	○	○	○	○
94/132. Not interested in professional development.	○	○	○	○	○
95/132. Not enough time for professional development.	○	○	○	○	○
96/132. Lack of financial support from administration.	○	○	○	○	○
97/132. Travel.	○	○	○	○	○
98/132. Proximity/access and ease of use of professional development resources.	○	○	○	○	○
99/132. Lack of recognition from school administration/school system.	○	○	○	○	○
100/132. Inability to secure a substitute teacher for time away from the classroom.	○	○	○	○	○

101/132. Other professional development barriers:

[ ]

Preferences for Professional Development

102/121. **Preferences for Professional Development**

Mark each statement based on your own preferences for professional development using the scale of 1 indicating strongly disagree, 2 indicating somewhat disagree, 3 indicating undecided, 4 indicating somewhat agree, and 5 indicating strongly agree.

	Disagree/Agree
	1 2 3 4 5
103/132. Mentoring program with experienced teacher	○○○○○
104/132. Half day seminar/workshop	○○○○○
105/132. One-week face-to-face course (during summer)	○○○○○
106/132. Workshops and sessions at Nebraska Career Education Conference in Kearney	○○○○○
107/132. Weekday meetings (during school year)	○○○○○
108/132. District professional development courses	○○○○○
109/132. Web-based during the regular school year	○○○○○
110/132. Weekends during the regular school year	○○○○○
111/132. One-hour webinars after school hours	○○○○○
112/132. Self-paced online courses	○○○○○
113/132. Professional learning communities	○○○○○

114/132. Other forms of professional development you would prefer.

[   ]

Demographics

Demographics

Directions: Please answer the following questions about you and as they relate to your current teaching position.

115/132. Male/female

○ Male
○ Female

116/132. Marital status

○ Married
○ Single

117/132. Age

○ under 25
○ 25-34
○ 35-44
○ 45-54
○ 55-64
○ 65+

118/132. Race/ethnicity

○ White (not Hispanic)
○ African American
○ Hispanic
○ Asian/Pacific Islander
○ American Indian/Alaska Native
○ Unknown/Unspecified

119/132. FACS teaching experience in years, including this school year (round up if 1/2 year)

○ 1-5
○ 6-10

○ 11-20

○ 21+

120/132. How many more years do you anticipate teaching (# of years until retirement/leave profession)?

○ 0-3

○ 4-7

○ 8-10

○ 10+

121/132. Is your teaching endorsement for Family and Consumer Sciences?

○ Yes

○ No

○ Other [   ]

122/132. Do you have a vocational or cooperative education - diversified occupations/work-based learning supplemental endorsement?

○ Yes

○ No

○ I don't know

123/132. How were you prepared to teach Family and Consumer Sciences?

○ undergraduate traditional Family and Consumer Sciences teacher education program.

○ graduate certification program beyond a content related bachelor's degree

○ alternative certification such as Transition to Teaching

○ alternative certification such as the Nebraska Career Education Permit

○ other [   ]

124/132. What is your highest level of formal education?

○ bachelor's degree

○ 1-18 graduate hours

○ 19-36 graduate hours

○ 37+ graduate hours

○ master's degree

○ master's plus more graduate hours

○ doctorate

125/132. The size of my school district is

○ A

○ B

○ C1

○ C2

○ D1

○ D2

126/132. Socioeconomic level of your school by percentage of free and reduced lunch:

○ <25%

○ between 26-50%

○ between 51-75%

○ between 76-100%

○ I don't know

127/132. Do you teach Family and Consumer Sciences? (select all that apply)

☐ full-time

☐ part-time

☐ middle school (grades 6-8)

☐ junior high (grades 7-8)

☐ high school

128/132. How many class preparations do you average per semester?

○ 1
○ 2
○ 3
○ 4
○ 5
○ 6
○ 7
○ 8+

129/132. How many teachers are in your department including you?

○ 1
○ 2
○ 3
○ 4
○ 5
○ 6+

130/132. Do you advise a Family, Career and Community Leaders of America Chapter?

○ Yes
○ No

131/132. Do you advise or sponsor any other student groups (excluding FCCLA)? If yes, note in text box marked other groups sponsored include......

○ Yes
○ No

○ Other groups sponsored include [_____]

132/132. In what professional organizations do you hold membership? (select all that apply and fill in other, if applicable)

☐ American Association of Family and Consumer Sciences (AAFCS/NAFCS)

☐ Association for Career and Technical Education (ACTE/FCSTN)

☐ Other [_____]

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APPENDIX F

Pilot Survey Data

The following contains the data collected from the pilot survey. It was taken by ten FCS teachers attending a professional development workshop at the University of Idaho.

RESPONSE RATE

All ten of the FCS teachers who took the survey submitted it, though not all of them answered all of the questions. The survey was taken through Qualtrics and then analyzed through SPSS and Excel.

DATA

Q1 You received the majority of your teacher training in the state of

State	Frequency	Percentage
Idaho	8	80.00%
Montana	1	10.00%
Utah	1	10.00%

Participants were asked to respond with the location they received the majority of their teacher training in. Eight (80.00%) responded that they received the majority of their teacher training in Idaho. One (10.00%) responded that they received the majority of their teacher training in Montana. One (10.00%) responded that they received the majority of their teacher training in Utah.

Q2 You currently teach in (state)

State	Frequency	Percentage
Idaho	9	90.00%
Oregon	0	0.00%
Montana	1	10.00%
Washington	0	0.00%
Wyoming	0	0.00%

Participants were asked to respond with which state they currently teach in. Nine (90.00%) responded that they currently teach in Idaho. Zero (0.00%) responded that they currently teach in Oregon. One (10.00%) responded that they currently teach in Montana. Zero (0.00%) responded that they currently teach in Washington. Zero (0.00%) responded that they currently teach in Wyoming. Each answer to this question directs the participant to a specific question after. Those who answer Idaho will be directed to a question that asks about Idaho counties; those who answer Oregon will be directed to a question that asks about Oregon counties; etc.

Q3 What is the name of the county in Idaho where you currently teach?

County	Frequency	Percentage
Ada	3	33.33%
Cassia	1	11.11%
Elmore	1	11.11%
Teton	1	11.11%
Twin Falls	2	22.22%
No answer	1	11.11%

Participants who answered Idaho to the previous question are directed to this question. This question asks them to choose the name of the county where they currently teach. Nine (90.00%) of participants responded that they live in Idaho. Three (33.33%) teach in Ada county. One (11.11%) teaches in Cassia county. One (11.11%) teaches in Elmore county. One (11.11%) teaches in Teton county. Two (22.22%) teach in Twin Falls county. One (11.11%) did not answer.

Q4 What is the name of the county in Oregon where you currently teach?

County	Frequency	Percentage
No answer	0	0.00%

Participants who answered Oregon to the previous question are directed to this question. This question asks them to choose the name of the county where they currently teach. Zero (0.00%) of the participants teach in Oregon.

Q5 What is the name of the county in Washington where you currently teach?

County	Frequency	Percentage
No answer	0	0.00%

Participants who answered Washington to the previous question are directed to this question. This question asks them to choose the name of the county where they currently teach. Zero (0.00%) of the participants teach in Washington.

Q6 What is the name of the county in Montana where you currently teach?

County	Frequency	Percentage
Missoula	1	100%
No answer	0	0.00%

The one participant that teaches in Montana teaches in Missoula county.

Q7 What is the name of the county in Wyoming where you currently teach?

County	Frequency	Percentage
No answer	0	0.00%

Participants who answered Wyoming to the previous question are directed to this question. This question asks them to choose the name of the county where they currently teach. Zero (0.00%) of the participants teach in Wyoming.

Q8 You have taught Family & Consumer Sciences for _____ years. (round up half years)

Years	Frequency	Percentage
Less than 1	2	20%
2	1	10%
3	2	20%
4	1	10%
5	1	10%
23	1	10%
27	1	10%
29	1	10%
No answer	0	0%

Participants were asked how many years of FCS teaching experience they had, rounding up for any half years. Two (20%) reported teaching less than one year, one (10%) reported teaching two years, two (20%) reported teaching three years, one (10%) reported teaching four years, one (10%) reported teaching five years, one (10%) reported teaching twenty-three years, one (10%) reported teaching twenty-seven years, and one (10%) reported teaching twenty-nine years.

Q9 How many years do you plan to continue teaching Family & Consumer Sciences?

Years	Frequency	Percentage
0-1	0	0%
2-4	1	10%
5-7	3	30%
8-10	1	10%
11+	5	50%
No answer	0	0%

Participants were asked how many years they planned to continue teaching Family & Consumer Sciences. None responded that they planned to teach 0-1 more years. One (10%) responded that they planned to teach 2-4 more years. Three (30%) responded that they planned to teach 5-7 more years. One (10%) responded that they planned to teach 8-10 more years. Five (50%) responded that they planned to teach 11+ more years.

Q10 When you leave teaching Family & Consumer Sciences, you are planning to

Plans	Frequency	Percentage
Retire	5	50%
Change Professions	0	0%
Not sure of plans at this time	5	50%
No answer	0	0%

Participants were asked what they plan to do when they leave teaching Family & Consumer Sciences. Five (50%) responded that they were going to retire. Five (50%) responded that they were not sure of their plans at this time.

Q11 Which profession are you planning to change to? Why?

Plans	Frequency	Percentage
No answer	10	100%

If participants answered that they were planning to change professions in the previous question, they would be given this question after. Zero (0.00%) responded in the previous question that they were planning to change their profession from teaching Family & Consumer Sciences so zero (0.00%) listed a profession they were changing to.

Q12 Based on the 16 nationally recognized FCS areas of study, which area(s) do you currently teach or have taught in the past? Mark all that apply and/or specify through written response.

Areas of study	Frequency	Percentage
Career, Community, and Family Connections	6	7.32%
Consumer and Family Resources	4	4.88%
Consumer Services	3	3.66%
Education and Early Childhood	5	6.10%
Facilities and Property Management	1	1.22%
Family	7	8.54%
Family and Human Services	1	1.22%
Food Production and Services	6	7.32%
Food Science, Dietetics, and Nutrition	4	4.88%
Hospitality, Tourism, and Recreation	2	2.44%
Housing and Interior Design	4	4.88%
Human Development	7	8.54%
Interpersonal Relationships	8	9.76%
Nutrition and Wellness	9	10.98%
Parenting	6	7.32%
Textiles, Fashion, and Apparel	8	9.76%
Other		
Personal Finance	1	1.22%

Participants were asked, based on the 16 nationally recognized FCS areas of study, which area(s) do they currently teach or have taught in the past. They were prompted to mark all areas of study that applied or to specify through written response. Six (7.32%) have taught in the area of study Career, Community, and Family Connections. Four (4.88%) have taught in the area of study Consumer and Family Resources. One wrote in that they taught Personal Finance which would fall under the Consumer and Family Resources area of study. This would bring the Consumer and Family Resources' count to five (6.10%). This issue prompted me to delete the write-in option and replace it with the option, "Unsure of area(s) of study." Three (3.66%) have taught in the area of study Consumer Sciences. Five (6.10%) have taught in the area of study Education and Early Childhood. One (1.22%) has taught in the area of study Facilities and Property Management. Seven (8.54%) have taught in the area of study Family. One (1.22%) has taught in the area of study Family and Human Services. Six (7.32%) have taught in the area of study Food Production and Services. Four (4.88%) have taught in the area of study Food Science, Dietetics, and Nutrition. Two (2.44%) have taught in the area of study Hospitality, Tourism, and Recreation. Four (4.88%) have taught in the area of study Housing and Interior Design. Seven (8.54%) have taught in the area of study Human Development. Eight (9.76%) have taught in the area of study Interpersonal Relationships. Nine (10.98%) have taught in the area of study Nutrition and Wellness. Six (7.32%) have

taught in the area of study Parenting. Eight (9.76%) have taught in the area of study Textiles, Fashion, and Apparel.

Q13 How were you prepared to teach FCS? Mark all that apply.

Prepared	Frequency	Percentage
Undergraduate teacher education program (graduated with teaching certification and bachelor's in education or related major)	2	10.53%
Undergraduate traditional FCS teacher education program (graduated with teaching certification with endorsement in Family & Consumer Sciences)	4	21.05%
Graduate program relating to education at least one year beyond bachelor's degree	3	15.79%
Substitute teaching that resulted in permanent position	2	10.53%
Alternative route (Peace Corps, Teach for America, Teacher Opportunity Corps, US Military, other) – please note the route you took if this applies		
Internship program with provisional licensure	1	5.26%
Teach-Now Teacher preparation program	1	5.26%
Limited Occupational Specialist Certification	1	5.26%
Standard Occupational Specialist Certification	1	5.26%
No prior teaching experience but have a degree and career experience in a FCS-related field	2	10.53%
No prior teaching experience but have a degree and no career experience in a FCS-related field	0	0%
No prior teaching experience or a degree in a FCS-related field but have career experience in a FCS-related field	1	5.26%
Please share any further information on how you were prepared to teach that you feel necessary. *Two undergraduate degrees and a teaching endorsement. One degree is in family and consumer science.*	1	5.26%
No answer	0	0%

Participants were asked to report how they were prepared to teach Family & Consumer Sciences. They were allowed to pick more than one response. Two (10.53%) responded that they were prepared to teach FCS through an undergraduate teacher education program (graduated with teaching certification and bachelor's in education or related major). Four (21.05%) were prepared to teach FCS through an undergraduate traditional FCS teacher education program (graduated with teaching certification with endorsement in Family & Consumer Sciences). Three (15.79%) were prepared to teach FCS through a

graduate program relating to education at least one year beyond a bachelor's degree. Two (10.53%) were prepared to teach FCS by substitute teaching that resulted in a permanent position. Two (10.53%) were prepared to teach FCS through an alternative route. One (5.26%) was prepared through an internship program with provisional licensure. One (5.26%) was prepared through the Teach-Now teacher preparation program. One (5.26%) was prepared to teach FCS by obtaining a Limited Occupational Specialist Certification. One (5.26%) was prepared to teach FCS by obtaining a Standard Occupational Specialist Certification. Two (10.53%) had no prior teaching experience but have a degree and career experience in a FCS-related field. No participants (0.00%) had no prior teaching experience but had a degree and no career experience in a FCS-related field. One (5.26%) had no prior teaching experience or a degree in a FCS-related field but had career experience in a FCS-related field. One (5.26%) had two undergraduate degrees and a teaching endorsement, with one of their degrees being in Family & Consumer Science. There were no participants that did not answer.

Q14 Your highest level of formal education is

Level of Education	Frequency	Percentage
High School Diploma	0	0%
Associate Degree	0	0%
Bachelor's Degree	5	50%
1-18 graduate hours	1	10%
19-36 graduate hours	1	10%
37+ graduate hours	0	0%
Master's Degree	0	0%
Master's Degree + more graduate hours	3	30%
Specialist	0	0%
Doctorate	0	0%
No answer	0	0%

Participants were asked for their highest level of formal education. Zero (0.00%) had a High School Diploma for their highest level of formal education. Zero (0.00%) had an associate degree for their highest level of formal education. Five (50.00%) had a bachelor's degree for their highest level of formal education. One (10.00%) had 1-18 graduate hours for their highest level of formal education. One (10.00%) had 19-36 graduate hours for their highest level of formal education. Zero (0.00%) had 37+ graduate hours for their highest level of formal education. Zero (0.00%) had a master's degree for their highest level of formal education. Three (30.00%) had a master's degree plus additional graduate hours for their highest level of formal education. Zero (0.00%) were a Specialist for their highest level of formal education. Zero (0.00%) had a Doctorate for their highest level of formal education. Zero (0.00%) did not answer.

Q15 The number of students in your school is

Number of Students	Frequency	Percentage
less than 50	0	0%
50-100	0	0%
101-300	2	20%
301-500	4	40%
501-750	1	10%
751-1000	2	20%
1001-1200	0	0%
1200+	1	10%
No answer	0	0%

Participants were asked how many students were in their school. Zero (0.00%) responded that they had less than 50 students in their school. Zero (0.00%) responded that they had 50-100 students in their school. Two (20.00%) responded that they had 101-300 students in their school. Four (40.00%) responded that they had 301-500 students in their school. One (10.00%) responded that they had 501-750 students in their school. Two (20.00%) responded that they had 751-1000 students in their school. Zero (0.00%) responded that they had 1001-1200 students in their school. One (10.00%) responded that they had 1200+ students in their school. Zero (0.00%) did not answer. See Table 15.

Q16 Your average class size is

Class size	Frequency	Percentage
less than 5 students	0	0%
6-10 students	1	10%
11-15 students	0	0%
16-20 students	3	30%
21-25 students	4	40%
26-30 students	2	20%
31-35 students	0	0%
36+ students	0	0%
No answer	0	0%

Participants were asked for their average class size. Zero (0.00%) responded that they had less than 5 students per class. One (10.00%) responded that they had 6-10 students on average per class. Zero (0.00%) responded that they had 11-15 students on average per class. Three (30.00%) responded that they had 16-20 students on average per class. Four (40.00%) responded that they had 21-25 students on average per class. Two (20.00%) responded that they had 26-30 students on average per class. Zero (0.00%) responded that they had 31-35 students on average per class. Zero (0.00%) responded that they had 36+ students on average per class. Zero (0.00%) did not answer.

Q17 What grade(s) do you teach?

Grades	Frequency	Percentage
Grade 6	1	7.69%
Grades 7-8	4	30.77%
Grades 9-12	8	61.54%
No answer	0	0.00%

Participants were asked what grade(s) they currently taught. They were allowed to pick more than one option. One (7.69%) responded that they taught Grade 6. Four (30.77%) responded that they taught Grades 7-8. Eight (61.58%) responded that they taught Grades 9-12. Zero (0.00%) did not answer.

Q18 How many teachers teach Family & Consumer Sciences courses at your school, including yourself?

FCS Teachers at School	Frequency	Percentage
1	9	90%
2	1	10%
3	0	0%
4	0	0%
5	0	0%
6+	0	0%
No answer	0	0%

Participants were asked how many teachers teach Family & Consumer Science courses at their school, including themselves. Nine (90%) responded that they were the only FCS teacher in their school. One (10%) responded that they were one of two teachers who taught FCS courses in their school. No one responded to having more than two teachers who taught FCS courses in their school.

Q19 How often do you meet with other Family & Consumer Science teachers in your school/district?

Meet with other FCS teachers	Frequency	Percentage
Once a week	2	20%
Once a month	1	10%
Once a quarter	2	20%
Once a semester	2	20%
Once a year	0	0%
Other		
No other FCS in my district	2	20%
No answer	1	10%

Participants were asked how often they met with other Family & Consumer Science teachers in your school/district. Two (20%) responded that they met once a week. One (10%) responded that they met once a month. Two (20%) responded that they met once a quarter. Two (20%) responded that they met once a semester. Two (20%) responded that there was not another FCS teacher in their district. One (10%) did not answer.

Q20 In which professional organization(s) do you hold membership?

Meet with other FCS teachers	Frequency	Percentage
American Association of Family and Consumer Sciences (AAFCS/NAFCS)	3	30%
Association for Career and Technical Education (ACTE/FCSTN)	2	20%
Other	0	0%
None	4	40%
No answer	1	10%

Participants were asked what professional organization(s) they held a membership in. Three (30.00%) responded that they held a membership in the American Association of Family and Consumer Sciences (AAFCS/NAFCS). Two (20.00%) held a membership in the Association for Career and Technical Education (ACTE/FCSTN). Zero (0.00%) held a membership in a professional organization that was not listed. Four (40.00%) responded that they did not hold a membership in any professional organization. One (10.00%) did not answer.

Q21 Do you advise a chapter of Family, Career, and Community Leaders of America (FCCLA) at your school?

Advise FCCLA	Frequency	Percentage
Yes	7	70%
No	3	30%
No answer	0	0%

Participants were asked if they currently advise a chapter of Family, Career, and Community Leaders of America (FCCLA) at their school. Seven (70.00%) responded that they did. Three (30.00%) responded that they did not. Zero (0.00%) did not respond.

Q22 Do you advise your chapter of FCCLA alone or with another teacher?

FCCLA Advisor(s)	Frequency	Percentage
Alone	7	70%
With another teacher	0	0%
No answer	3	30%

The seven (70.00%) of participants who answered that they currently advise a chapter of FCCLA at their school were then asked if they advised their chapter of FCCLA alone or with another teacher. Seven (100.00%) of the seven participants responded that they advised their chapter of FCCLA alone.

Q23 Do you advise or assist with any other student groups at your school outside of FCCLA? If yes, please specify.

Other Student Groups	Frequency	Percentage
Yes	3	30%
4H – 1		
Junior class – 1		
No	7	70%

Participants were asked if they currently advised or assisted with any other student groups at their school outside of FCCLA and if they responded that they did, they were prompted to specify the student group. Three (30.00%) responded that they currently advised or assisted another student group at their school outside of FCCLA. One (33.33%) of the three advised or assisted with 4H. One (33.33%) advised or assisted with Junior Class. One (33.33%) did not specify the student group they advised or assisted. Seven (70.00%) responded that they did not advise or assist any other student group at their school outside of FCCLA.

Q24 Do you know where to find the state standards for the FCS course(s) you teach?

State Standards	Frequency	Percentage
Yes	10	100%
No	0	0%
No answer	0	0%

Participants were asked if they know where to find the state standards for the FCS course(s) they teach. Ten (100.00%) responded that they knew where to find the state standards for the FCS course(s) that they teach. Zero (0.00%) responded that they did not know where to find the state standards for the FCS course(s) that they teach. Zero (0.00%) did not answer.

Q25 Do you know where to find the national standards for the FCS course(s) you teach?

National Standards	Frequency	Percentage
Yes	8	80%
No	2	20%
No answer	0	0%

Participants were asked if they know where to find the national standards for the FCS course(s) they teach. Eight (80.00%) responded that they knew where to find the national standards for the FCS course(s) that they teach. Two (20.00%) responded that they did not know where to find the national standards for the FCS course(s) that they teach. Zero (0.00%) did not answer.

Q26 How often do you think that state or national standards for FCS courses need to be updated?

Update Standards	Frequency	Percentage
Every year	1	10%
Every other year	0	0%
Every three years	6	60%
Every four years	2	20%
Other		
Every five years	1	10%

Participants were asked how often they think that state or national standards for FCS courses need to be updated. One (10.00%) responded that they think that state or national standards for FCS courses need to be updated every year. Zero (0.00%) responded that they think that state or national standards for FCS courses need to be updated every other year. Six (60.00%) responded that they think that state or national standards for FCS courses need to be updated every three years. Two (20.00%) responded that they think that state or national standards for FCS courses need to be updated every four years. One (10.00%) responded that they think that state or national standards for FCS courses need to be updated every five years.

Q27 Which of these best reflect your personal preferences for scheduling of professional

development opportunities? (Choose as many as apply.)

Update Standards	Frequency	Percentage
Half-day professional development in the morning during the school year	1	2.63%
Half-day professional development in the afternoon during the school year	4	10.53%
Professional development on weekday evenings during the school year	0	0.00%
Full-day professional development during the school year	3	7.89%
Weekend professional development during the school year	3	7.89%
One-week professional development in the summer	7	18.42%
In-service sessions at Summer PTE/CTE Conference	7	18.42%
Self-directed internet-based professional development courses with no face-to-face meetings	5	13.16%
Internet-based professional development courses at specified times (facilitated through a program such as Zoom or Skype)	7	18.42%
Other *2-3 days during the summer*	1	2.63%

Participants were asked which option(s) best reflected their personal preferences for scheduling professional development opportunities. They were prompted to choose as many as apply. One (2.63%) responded that they would prefer half-day professional development in the morning during the school year. Four (10.53%) responded that they would prefer half-day professional development in the afternoon during the school year. Zero (0.00%) responded that they would prefer professional development on weekday evenings during the school year. Three (7.89%) responded that they would prefer full-day professional development during the school year. Three (7.89%) responded that they would prefer weekend professional development during the school year. Seven (18.42%) responded that they would prefer one-week professional development in the summer. Seven (18.42%) responded that they would prefer in-service sessions at Summer PTE/CTE Conference. Five (13.16%) responded that they would prefer self-directed internet-based professional development courses with no face-to-face meetings. Seven (18.42%) responded that they would prefer internet-based professional development courses at specified

times (facilitated through a program such as Zoom or Skype). One (2.63%) responded that they would prefer two to three days of professional development during the summer instead of a full week.

Q28 What content would you be interested in learning in a professional development course?

Professional Development Interest	Frequency	Percentage
Connecting to industry	1	11.11%
Textiles & Apparel (sustainability, mending, technology in apparel, etc.)	2	22.22%
Culinary (techniques)	2	22.22%
Teaching relationships	1	11.11%
College/scholarships prep for students	1	11.11%
Anything	2	22.22%

Participants were asked to respond with what content they would be interested in learning in a professional development course. Participants were not prompted for this question and only given a text entry option for response. Due to this, responses that are similar will be lumped into broader categories. One (11.11%) responded that they would be interested in a professional development course where they learn how to better connect their course to industry. Two (22.22%) responded that they would be interested in a professional development course where they learn about textiles and apparel, specifically about sustainability, mending, technology in apparel, etc. Two (22.22%) responded that they would be interested in a professional development course where they learn about culinary and culinary techniques. One (11.11%) responded that they would be interested in a professional development course where they learn how to better teach relationships. One (11.11%) responded that they would be interested in a professional development course where they learn how to prepare students better for college, including information about scholarships. Two (22.22%) responded that they would be interested in a professional development course where they learn about anything.

Q29 You identify as

Gender	Frequency	Percentage
Male	0	0.00%
Female	10	100.00%
Other	0	0.00%
Prefer to not answer	0	0.00%

Participants were asked to respond which gender they identify with. Zero (0.00%) responded that they identify as male. Ten (100.00%) responded that they identify as female. Zero (0.00%) responded that they identify as other. Zero (0.00%) responded that they prefer to not answer.

Q30 You are (age)

Age	Frequency	Percentage
18-24	0	0.00%
25-29	0	0.00%
30-34	1	10.00%
35-39	2	20.00%
40-44	1	10.00%
45-49	1	10.00%
50-54	2	20.00%
55-59	3	30.00%
60-64	0	0.00%
65+	0	0.00%
No answer	0	0.00%

Participants were asked to report their age. Zero (0.00%) responded that they were 18-29. Zero (0.00%) responded that they were 25-29. One (10.00%) responded that they were 30-34. Two (20.00%) responded that they were 35-39. One (10.00%) responded that they were 40-44. One (10.00%) responded that they were 45-49. Two (20.00%) responded that they were 50-54. Three (30.00%) responded that they were 55-59. Zero (0.00%) responded that they were 60-64. Zero (0.00%) responded that they were 65+. Zero (0.00%) did not answer.

Q31 The race/ethnicity you identify with is (choose as many as apply)

Update Standards	Frequency	Percentage
African	0	0.00%
African American	0	0.00%
American Indian/Alaskan Native	0	0.00%
Asian	0	0.00%
Black	0	0.00%
Hispanic	0	0.00%
Latinx	0	0.00%
Middle Eastern	0	0.00%
Native Hawaiian	0	0.00%
Pacific Islander	0	0.00%
Spanish	0	0.00%
White	10	100.00%
Other race/ethnicity	0	0.00%
Unspecified	0	0.00%
No answer	0	0.00%

Participants were asked to respond with what race/ethnicity they identify with. They are given the option to pick more than one option. Zero (0.00%) responded that they identified as African. Zero (0.00%) responded that they identified as African American. Zero (0.00%) responded that they identified as American Indian/Alaskan Native. Zero (0.00%) responded that they identified as Asian. Zero (0.00%) responded that they identified as Black. Zero (0.00%) responded that they identified as Hispanic. Zero (0.00%) responded that they identified as Latinx. Zero (0.00%) responded that they identified as Middle Eastern. Zero (0.00%) responded that they identified as Native Hawaiian. Zero (0.00%) responded that they identified as Pacific Islander. Zero (0.00%) responded that they identified as Spanish. Ten (100.00%)

responded that they identified as White. Zero (0.00%) responded that they identified as another race/ethnicity. Zero (0.00%) responded that they did not want to specify. Zero (0.00%) did not respond.

Educational Competencies

There were four specific sections of the survey that used a Borich Needs Assessment Model to assess perceived importance and competence. The four sections were Technology; Course, Curriculum, and Standards Development; Teaching; Professional Development, Programs, and Organizations. In following Erwin's analyzing process, "Descriptive statistics including importance mean scores, competence mean scores, and standard deviations were calculated and reported for each competency. Respondents rated each competency on its importance to" themselves as a teacher "and their own perceived level of competence on the competency" (Erwin, 2018, pg. 77).

Out of twelve items, the lowest score of means for importance was 3.20 and the highest was a 4.00 on a 4-point Likert scale (Not at all important, Somewhat unimportant, Somewhat important, Very important). The items in order from what the participants' perceived as most important to least important are as follows (those numbered the same scored the exact same ranking): 1) Integrating life skills into your curriculum (M = 4.00, SD = 0.00); 2) Developing a variety of School-to-Work/Career activities in your curriculum (M = 3.90, SD = 0.316); 3) Using current and relevant non-computer technology to teach interactive lessons on content or career-specific tasks (such as up-to-date kitchen equipment, up-to-date sewing/design equipment, etc.) (M = 3.80, SD = 0.422); 3) Keeping current on trends and issues in your area of content (M = 3.80, SD = 0.422); 3) Providing information to students related to furthering their education in your content area (M = 3.80, SD = 0.422); 4) Selecting current/relevant student references, materials, and textbooks (M = 3.70, SD = 0.675); 5) Establishing opportunities or creating connections for student work internships or jobs (M = 3.60, SD = 0.516); 6) Educating students and maintaining required health and safety standards (state/federal/OSHA) (M = 3.60, SD = 0.699); 7) Organizing activities for students with local organizations relating to your content area (M = 3.50, SD = .707); 8) Using current and relevant computer/internet technology to teach interactive lessons on content or career-specific tasks (M = 3.40, SD = 0.699); 9) Determining the content that should be taught in your specific course(s) (M = 3.30, SD = 0.675); 10) Reporting your program information to your district and state Department of Education (M = 3.20, SD = 0.789).

Out of twelve items, the lowest score of means for competence was 3.00 and the highest was a 4.00 on a 4-point Likert scale (Not at all competent, Somewhat incompetent, Somewhat competent, Very competent). The items in order of what the participants perceive as highest to lowest competency are as follows: 1) Integrating life skills into your curriculum (M = 4.00, SD = 0.00); 2) Providing information to students related to furthering their education in your content area (M = 3.56, SD = 0.527); 3) Organizing activities for students with local organizations relating to your content area (M = 3.56, SD = 0.726); 4) Developing a variety of School-to-Work/Career activities in your curriculum (M = 3.44, SD = 0.527); 5) Selecting current/relevant student references, materials, and textbooks (M = 3.33, SD = 0.707); 6) Keeping

current on trends and issues in your area of content (M = 3.22, SD = 0.441); 7) Establishing opportunities or creating connections for student work internships or jobs (M = 3.22, SD = 0.667); 8) Educating students and maintaining required health and safety standards (state/federal/OSHA) (M = 3.22, SD = 0.972); 9) Using current and relevant non-computer technology to teach interactive lessons on content or career-specific tasks (such as up-to-date kitchen equipment, up-to-date sewing/design equipment, etc.) (M = 3.17, SD = 0.408); 10) Using current and relevant computer/internet technology to teach interactive lessons on content or career-specific tasks (M = 3.14, SD = 0.690); 11) Determining the content that should be taught in your specific course(s) (M = 3.11, SD = 0.333); 12) Reporting your program information to your district and state Department of Education (M = 3.00, SD = 1.118).

Table F.1: Pilot Survey Q19-22

	n	Importance Mean	SD	n	Competence Mean	SD
Technology						
Using current and relevant computer/internet technology to teach interactive lessons on content or career-specific tasks	10	3.400	0.699	7	3.140	0.690
Using current and relevant non-computer technology to teach interactive lessons on content or career-specific tasks (such as up-to-date kitchen equipment, up-to-date sewing/design equipment, etc.)	10	3.800	0.422	6	3.170	0.408
Course, Curriculum, and Standards Development						
Determining the content that should be taught in your specific course(s)	10	3.300	0.675	9	3.110	0.333
Keeping current on trends and issues in your area of content	10	3.800	0.422	9	3.220	0.441
Reporting your program information to your district and state Department of Education	10	3.200	0.789	9	3.000	1.118
Teaching						
Selecting current/relevant student references, materials, and textbooks	10	3.700	0.675	9	3.330	0.707
Educating students and maintaining required health and safety standards (state/federal/OSHA)	10	3.600	0.699	9	3.220	0.972
Professional Development, Programs, and Organizations						
Organizing activities for students with local organizations relating to your content area	10	3.500	0.707	9	3.560	0.726
Providing information to students related to furthering their education in your content area	10	3.800	0.422	9	3.560	0.527
Establishing opportunities or creating connections for student work internships or jobs	10	3.600	0.516	9	3.220	0.667
Developing a variety of School-to-Work/Career activities in your curriculum	10	3.900	0.316	9	3.440	0.527
Integrating life skills into your curriculum	9	4.000	0.00	8	4.000	0.000

To address research question #1, Erwin's methodology was utilized so,

> the Mean Weighted Discrepancy scores were used to rank the list of competencies. To determine discrepancy scores, weighted discrepancy scores, and MWDS the following procedures were followed. A discrepancy score was calculated for each individual on each competency by taking the importance rating minus the ability (competency) rating. Next, a weighted discrepancy score was then calculated on each individual for each of the professional competencies by multiplying the discrepancy score by the mean importance rating. A Mean Weighted Discrepancy Score (MWDS) for each of the competencies was then calculated by taking the sum of the weighted discrepancy scores and dividing by the number of observations. Using the MWDS, the competencies were ranked. The competencies with the highest MWDS were those with the highest perceived need and priority for professional development. (Erwin, 2018, pg. 83)

Table F.2: Pilot Survey Q19-22

Competency	n	MWDS	Rank
29.2 Using current and relevant **non-computer technology** to teach interactive lessons on content or career-specific tasks (such as up-to-date kitchen equipment, up-to-date sewing/design equipment, etc.) *(Technology)*	6	2.5333	1
30.2 Keeping current on trends and issues in your area of content *(Course, Curriculum and Standards Development)*	9	2.1111	2
32.4 Developing a variety of School-to-Work/Career activities in your curriculum *(Professional Development, Programs, and Organizations)*	9	1.7333	3
31.1 Selecting current/relevant student references, materials, and textbooks *(Teaching)*	9	1.2333	4
31.2 Educating students and maintaining required health and safety standards (state/federal/OSHA) *(Teaching)*	9	1.2000	5
32.3 Establishing opportunities or creating connections for student work internships or jobs *(Professional Development, Programs, and Organizations)*	9	1.2000	5
32.2 Providing information to students related to furthering their education in your content area *(Professional Development, Programs, and Organizations)*	9	0.84444	6
30.3 Reporting your program information to your district and state Department of Education *(Course, Curriculum and Standards Development)*	9	0.7111	7

29.1 Using current and relevant **computer/internet technology** to teach interactive lessons on content or career-specific tasks *(Technology)*	7	0.4857	8
30.1 Determining the content that should be taught in your specific course(s) *(Course, Curriculum and Standards Development)*	9	0.3666	9
32.5 Integrating life skills into your curriculum *(Professional Development, Programs, and Organizations)*	8	0.0000	10
32.1 Organizing activities for students with local organizations relating to your content area *(Professional Development, Programs, and Organizations)*	9	-0.3888	11

Differences in Perceived Needs Based on Demographics

T-tests will be used to answer research question #2. They were unable to be run for the pilot analysis due to the small sample size of the participant group. The final analysis will look for significant differences between the twelve competencies of educational competencies (survey questions #19-22) and the following participant professional and personal demographics:

state they currently teach in (Q3), years they have taught FCS (Q9), area of study taught (Q13), preparation for teaching FCS (Q14), highest level of education (Q15), number of students in their school (Q16), average class size (Q17), number of FCS teachers in their school (Q19), regularity of, meeting with other FCS teachers (Q20), advisor status of FCCLA (Q22), age (Q39).

Motivators, Deterrents, & Preferences for Professional Development Opportunities

To address research question 3, participants were asked to rate a series of four statements to the level they motivated or deterred the participant from participating in professional development on a 3-point Likert scale (Deters, Neither deters nor motivates, Motivates). The statements in order of highest motivation to lowest are as follows (those numbered the same scored the exact same ranking): 1) The professional development is specifically related to your content area ($M = 3.00$, $SD = 0.000$); 1) The professional development is offered at different times or in multiple sessions to allow for flexibility in scheduling ($M = 3.00$, $SD = 0.000$); 2) The professional development is related to updated or new technology ($M = 2.80$, $SD = 0.632$); 3) The professional development will allow you to gain college credit ($M = 2.60$, $SD = 0.699$).

Table F.3: Pilot Survey PD Motivation/Deterrent

	n	Mean	SD
Rate each statement to the level it motivates or deters you from participating in professional development.			
The professional development is specifically related to your content area	10	3.00	0.000
The professional development is related to updated or new technology	10	2.80	0.632
The professional development will allow you to gain college credit	10	2.60	0.699
The professional development is offered at different times or in multiple sessions to allow for flexibility in scheduling	10	3.00	0.000

They were then asked to rate a series of five statements to the level they agreed or disagreed with them on a 3-point Likert scale (Disagree, Neither agree nor disagree, Agree). The statements in order of most agreed with to most disagreed with are as follows (those numbered the same scored the exact same ranking): 1) Professional development is offered at time you are available to attend (M = 2.70, SD = 0.483); 2) Professional development is offered that teaches current or updated information (M = 2.70, SD = 0.675); 3) Professional development is offered that is affordable for you to participate in (M = 2.60, SD = 0.699); 4) Professional development is offered at locations that are close enough to your school or home for you to attend (M = 2.40, SD = 0.843); 4) Professional development is offered that is related to the content you teach (M = 2.40, SD = 0.843).

Table F.4: Pilot Survey PD Offered

	n	Mean	SD
Rate each statement to the level it you agree or disagree with it.			
Professional development is offered that teaches current or updated information	10	2.70	0.675
Professional development is offered that is related to the content you teach	10	2.40	0.843
Professional development is offered at times you are available to attend	10	2.70	0.483
Professional development is offered that is affordable for you to participate in	10	2.60	0.699
Professional development is offered at locations that are close enough to your school or home for you to attend	10	2.40	0.843

Participants were asked which option(s) best reflected their personal preferences for scheduling professional development opportunities. They were prompted to choose as many as apply. Seven (18.42%) responded that they would prefer one-week professional development in the summer. Seven (18.42%) responded that they would prefer internet-based professional development courses at specified times (facilitated through a program such as Zoom or Skype). Seven (18.42%) responded that they would prefer in-

service sessions at Summer PTE/CTE Conference. Five (13.16%) responded that they would prefer self-directed internet-based professional development courses with no face-to-face meetings. Four (10.53%) responded that they would prefer half-day professional development in the afternoon during the school year. Three (7.89%) responded that they would prefer full-day professional development during the school year. Three (7.89%) responded that they would prefer weekend professional development during the school year. One (2.63%) responded that they would prefer half-day professional development in the morning during the school year. One (2.63%) responded that they would prefer two to three days of professional development during the summer instead of a full week. Zero (0.00%) responded that they would prefer professional development on weekday evenings during the school year.

Table F.5: Pilot Survey PD Personal Preferences

Which of these best reflect your personal preferences for scheduling of professional development opportunities? (Choose as many as apply.)

Update Standards	Frequency	Percentage
Half-day professional development in the morning during the school year	1	2.63%
Half-day professional development in the afternoon during the school year	4	10.53%
Professional development on weekday evenings during the school year	0	0.00%
Full-day professional development during the school year	3	7.89%
Weekend professional development during the school year	3	7.89%
One-week professional development in the summer	7	18.42%
In-service sessions at Summer PTE/CTE Conference	7	18.42%
Self-directed internet-based professional development courses with no face-to-face meetings	5	13.16%
Internet-based professional development courses at Specified times (facilitated through a program such as Zoom or Skype)	7	18.42%
Other *2-3 days during the summer*	1	2.63%

Curriculum & Standards

Participants were asked to rate a series of five statements to the level they agreed or disagreed with them on a 3-point Likert scale (Disagree, Neither agree nor disagree, Agree). The statements in order of most agreed with to most disagreed with are as follows: 1) You use authentic assessment in your classroom more often than traditional assessment (M = 2.80, SD = 0.422); 2) You are confident your students will leave your course knowing information and skills that ready them to enter a competitive workforce (M = 2.70, SD = 0.483); 3) You are confident your curriculum includes that most current and relevant information available related to your content area (M = 2.50, SD = 0.707); 4) The current national standards reflect relevant and updated information (M = 2.40, SD = 0.516); 5) Your current state standards reflect relevant and updated information (M = 2.30, SD = 0.823).

Table F.6: Pilot Survey Curriculum & Standards

Rate each statement to the level it you
agree or disagree with it.

	n	*Mean*	*SD*
You are confident your curriculum includes the most current and relevant information available related to your content area	10	2.50	0.707
You are confident your students will leave your course knowing information and skills that ready them to enter a competitive workforce	10	2.70	0.483
The current national standards reflect relevant and updated information	10	2.40	0.516
Your current state standards reflect relevant and updated information	10	2.30	0.823
You use authentic assessment in your classroom more often than traditional assessment	10	2.80	0.422

At the end of the survey, participants are given the option to write any comments, questions, or concerns in a text entry box. Zero (0.00%) participants in the pilot study responded with any text in this box.

APPENDIX G
INDIVIDUAL STATES DATA

4.2 DATA COLLECTION

IDAHO

RESPONSE RATE

There were 83 responses completed 50% or more; 59 completed 100%, 10 completed 97%, 1 completed 84%, 1 completed 81%, 1 completed 78%, 1 completed 69%, 1 completed 65%, 2 completed 63%, 5 completed 55%, and 2 completed 53%. All 83 of the FCS teachers who took the survey submitted it, though not all of them answered all of the questions. The survey was taken through Qualtrics and then analyzed through SPSS and Excel.

DATA

Professional Demographics

Idaho survey participants responded that 32 participants (38.55%) taught in a city/town with a population of less than 2,500 people; 12 participants (14.46%) taught in a city/town with a population of 2,500 to 50,000 people; 38 (45.78%) taught in a city/town with a population of over 50,000 people; and, 1 participant chose not to respond to this question. See Figure G.1.
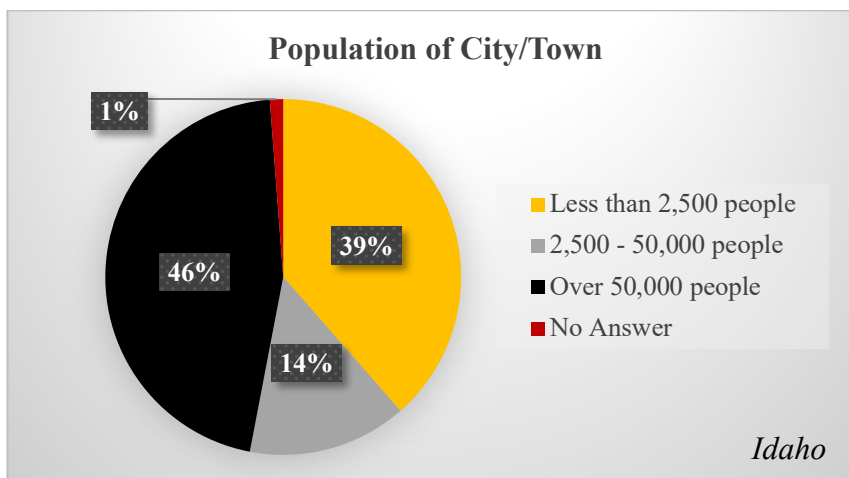
Figure G.1

Idaho survey participants responded that 2 (2.41%) participants had less than 50 students in their school; 2 (2.41%) participants had 50-100 students in their school; 15 (18.07%) participants had 101-300 students in their school; 4 (4.82%) participants had 301-500 students in their school; 12 (14.46%) participants had 501-750 students in their school; 8 (9.64%) participants

had 751-1000 students in their school; 12 (14.46%) participants had 1001-1200 students in their school; and, 28 (33.73%) participants had 1200+ students in their school. See Figure G.2.

Student Population

Category	Number of Responses
1200+	28
1001-1200	12
751-1000	8
501-750	12
301-500	4
101-300	15
50-100	2
LESS THAN 50	2

■ Number of Responses   *Idaho*
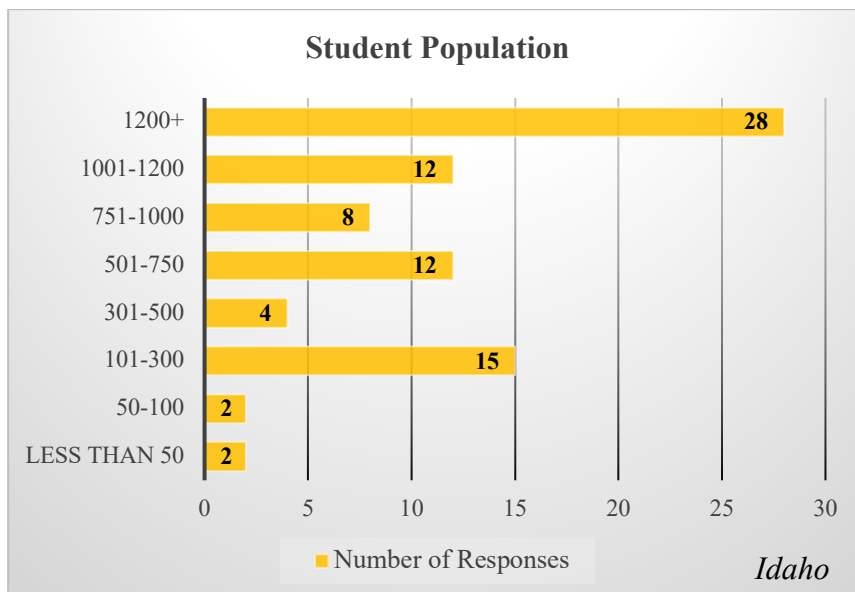
Figure G.2

Idaho survey participants responded that 0 (0.00%) participants had an average class size of less than 5 students; 3 (3.61%) participants had an average class size of 6-10 students; 9 (10.84%) participants had an average class size of 11-15 students; 10 (12.05%) participants had an average class size of 16-20 students; 24 (28.92%) participants had an average class size of 21-25 students; 29 (34.94%) participants had an average class size of 26-30 students; 8 (9.64%) participants had an average class size of 31-35 students; and, 0 (0.00%) participants had an average class size of 36+ students. See Figure G.3.

Average Class Size

Category	Number of Responses
36+ STUDENTS	0
31-35 STUDENTS	8
26-30 STUDENTS	29
21-25 STUDENTS	24
16-20 STUDENTS	10
11-15 STUDENTS	9
6-10 STUDENTS	3
LESS THAN 5 STUDENTS	0

■ Number of Responses   *Idaho*
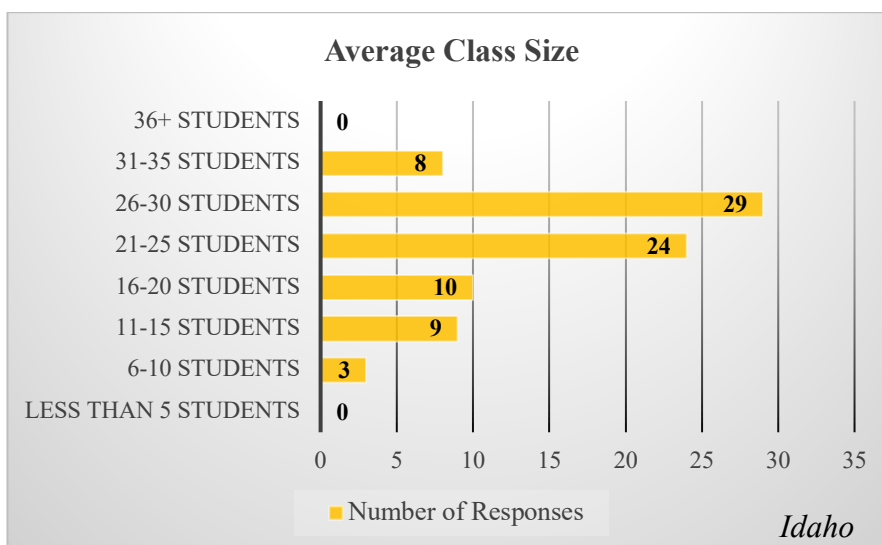
Figure G.3

Idaho survey participants responded that 4 (4.82%) participants have taught FCS for less than 1 year; 6 (7.25%) participants have taught FCS for 1 year; 3 (3.61%) participants have taught FCS for 2 years; 5 (6.02%) participants have taught FCS for 3 years; 4 (4.82%) participants have taught FCS for 4 years; 4 (4.82%) participants have taught FCS for 5 years; 3 (3.61%) participants have taught FCS for 6 years; 4 (4.82%) participants have taught FCS for 7 years; 4 (4.82%) participants have taught FCS for 8 years; 3 (3.61%) participants have taught FCS for 9 years; 3 (3.61%) participants have taught FCS for 10 years; 2 (2.41%) participants have taught FCS for 11 years; 5 (6.02%) participants have taught FCS for 12 years; 2 (2.41%) participants have taught FCS for 13 years; 1 (1.20%) participant has taught FCS for 14 years; 1 (1.20%) participant has taught FCS for 15 years; 2 (2.41%) participants have taught FCS for 16 years; 2 (2.41%) participants have taught FCS for 17 years; 1 (1.20%) participant has taught FCS for 18 years; 2 (2.41%) participants have taught FCS for 19 years; 2 (2.41%) participants have taught FCS for 20 years; 0 (0.00%) participants have taught FCS for 21 years; 2 (2.41%) participants have taught FCS for 22 years; 0 (0.00%) participants have taught FCS for 23 or 24 years; 1 (1.20%) participant has taught FCS for 25 years; 5 (6.02%) participants have taught FCS for 26 years; 1 (1.20%) participant has taught FCS for 27 years; 1 (1.20%) participant has taught FCS for 28 years; 1 (1.20%) participant has taught FCS for 29 years; 3 (3.61%) participants have taught FCS for 30 years; 5 (6.02%) participants have taught FCS for 31+ years; and, 1 (1.20%) participants chose to not respond. See Figure G.4.
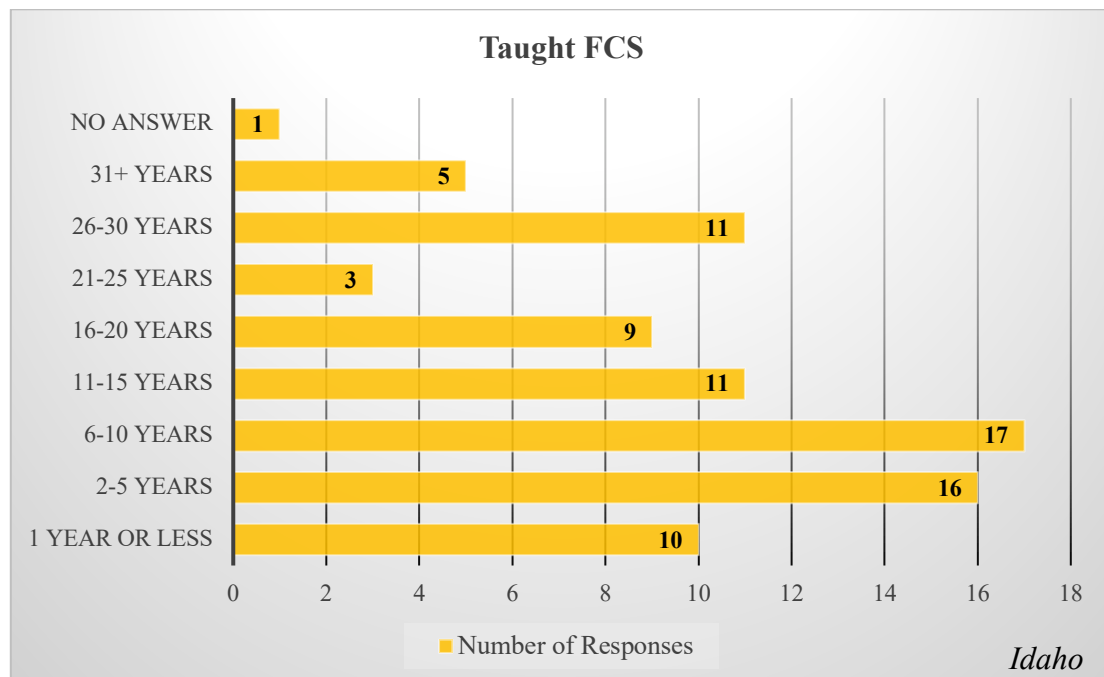
Figure G.4

There were 16 areas of study chosen by 83 Idaho participants. 60 (72.29%) participants teach or have taught Nutrition and Wellness; 48 (57.83%) participants teach or have taught Food Production and Services; 46 (55.42%) participants teach or have taught Textiles, Fashion, and Apparel; 41 (49.40%) participants teach or have taught Education and Early Childhood; 38 (45.78%) participants teach or have taught Human Development; 37 (44.58%) participants teach or have taught Parenting; 37 (44.58%) participants teach or have taught Housing and Interior Design; 36 (43.37%) participants teach or have taught Family; 32 (38.55%) participants teach or have taught Career, Community, and Family Connections; 31 (37.35%) participants teach or have taught Consumer and Family Resources; 30 (36.14%) participants teach or have taught Food Science, Dietetics, and Nutrition; 29 (34.94%) participants teach or have taught Interpersonal Relationships; 13 (15.66%) participants teach or have taught Family and Human Services; 11 (13.25%) participants teach or have taught Hospitality, Tourism, and Recreation; 9 (10.84%) participants teach or have taught Consumer Services; 4 (4.82%) participants are unsure of which area(s) of study they teach or have taught; 1 (1.20%) participant teaches or has taught Facilities and Property Management; and, 1 (1.20%) participant chose not to answer. See Figure G.5.

Area(s) Currently Teach or Taught in Past

Idaho

Number of Teachers
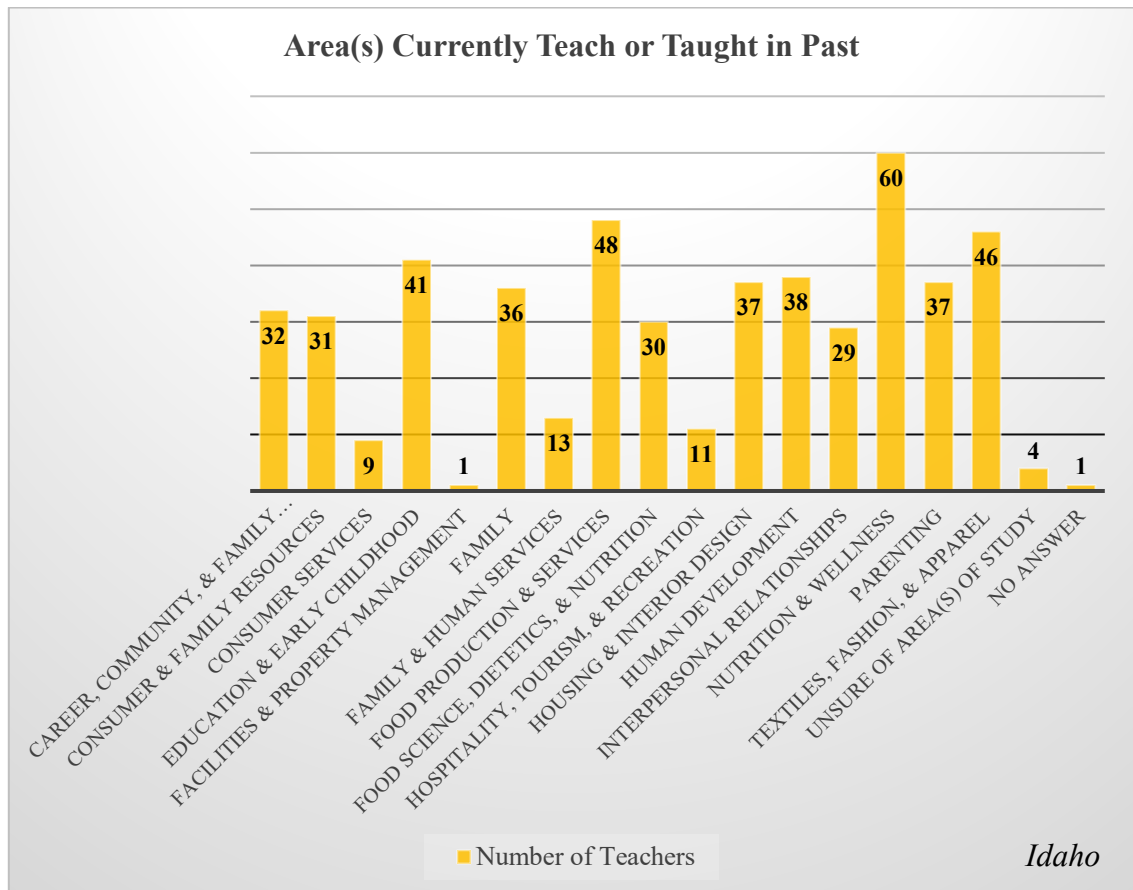
Figure G.5

Of the 83 participants, 56 responded that they were prepared in one of the following ways, 18 responded that they were prepared in two of the following ways, 8 responded that they were prepared in three of the following ways, and 1 responded that they were prepared in four of the following ways.

Idaho survey participants responded that 48 (57.83%) participants were prepared through an undergraduate traditional FCS teacher education program (graduated with teaching certification with endorsement in FCS); 24 (28.92%) participants were prepared through an undergraduate teacher education program (graduated with teaching certification and bachelor's in education or related major); 13 (15.66%) participants were prepared through a graduate program relating to education at least one year beyond a bachelor's degree; 7 (8.43%) participants were prepared through no prior teaching experience but have a degree and career experience in an FCS-related field; 7 (8.43%) participants were prepared through ways that were not listed in this survey; 6 (7.23%) participants were prepared through a Standard Occupational Specialist Certification; 4 (4.82%) participants were prepared through an alternative route; 3 (3.61%) participants were prepared through a Limited Occupational Specialist Certification; 3 (3.61%) participants were prepared through substitute teaching that resulted in permanent position; 3 (3.61%) participants were prepared through no prior teaching experience or a degree in a FCS-related field but have career experience in a FCS-related field; and, 2 (2.41%) participants were prepared through no prior teaching experience but have a degree and no career experience in a FCS-related field.

This shows the many different routes which were available and utilized to become an FCS teacher in Idaho. See Figure G.6.

FCS Teacher Preparation
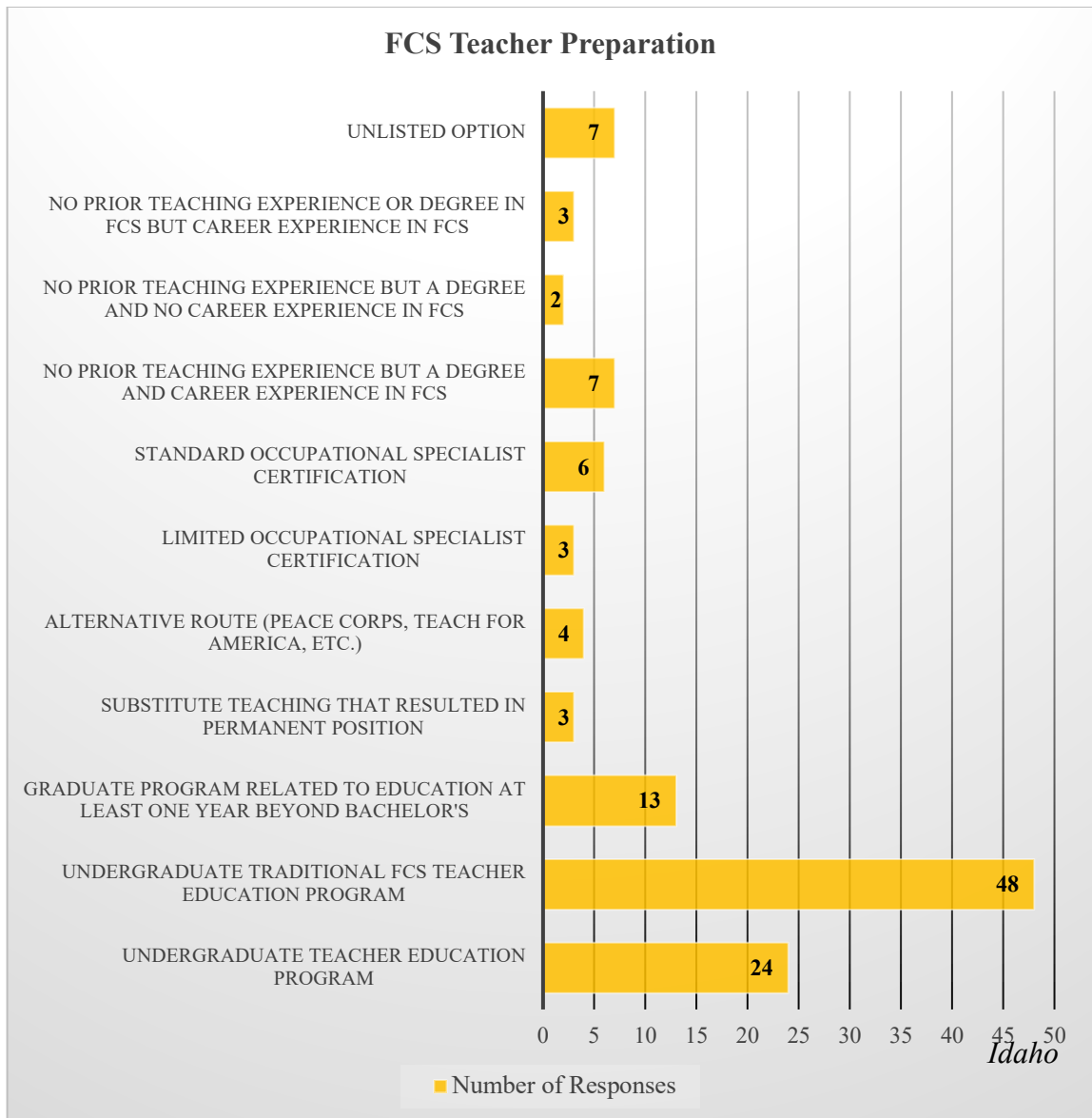
Figure G.6

Idaho survey participants responded that 0 (0.00%) participants' highest level of formal education was a High School Diploma; 2 (2.41%) participants' highest level of formal education was an Associate Degree; 29 (34.96%) participants' highest level of formal education was a Bachelor's Degree; 9 (10.84%) participants' highest level of formal education was 1-18 graduate hours; 9 (10.84%) participants' highest level of formal education was 19-36 graduate hours; 11 (13.25%) participants' highest level of formal education was 37+ graduate hours; 7 (8.43%) participants' highest level of formal education was a Master's Degree; 13 (15.66%) participants' highest level of formal education was a Master's Degree + more graduate hours; 1 (1.22%) participants' highest level of formal education was a Specialist; 0 (0.00%) participants'

highest level of formal education was a Doctorate; and, 2 (2.41%) participants chose not to answer. See Figure G.7.

Highest Level of Education

Category	Number of Responses
NO ANSWER	2
DOCTORATE	0
SPECIALIST	1
MASTER'S DEGREE + GRADUATE HOURS	13
MASTER'S DEGREE	7
37 GRADUATE HOURS	11
19 - 36 GRADUATE HOURS	9
1 - 18 GRADUATE HOURS	9
BACHELOR'S DEGREE	29
ASSOCIATE DEGREE	2

■ Number of Responses
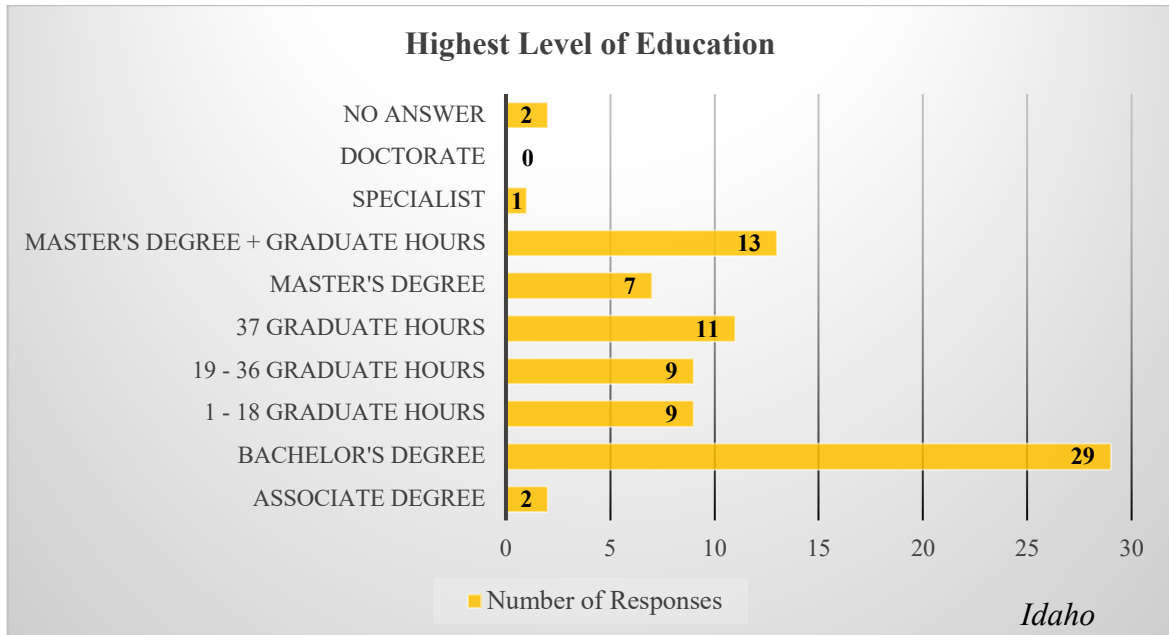
Idaho

Figure G.7

Idaho survey participants responded that 42 (50.60%) participants taught FCS courses at their school alone; 28 (33.72%) participants taught FCS courses at their school with another FCS teacher; 11 (13.25%) participants taught FCS courses at their school with two other FCS teachers; 1 (1.20%) participant taught FCS courses at their school with three other FCS teachers; 1 (1.20%) participant taught FCS courses at their school with four other FCS teachers; and, 0 (0.00%) participants taught FCS courses at their school with five or more other FCS teachers. See Figure G.8.

Number of FCS Teachers at School

Category	Number of Responses
5 OR MORE OTHER FCS TEACHERS	0
4 OTHER FCS TEACHERS	1
3 OTHER FCS TEACHERS	1
2 OTHER FCS TEACHERS	11
1 OTHER FCS TEACHER	28
1 (YOURSELF)	42

■ Number of Responses
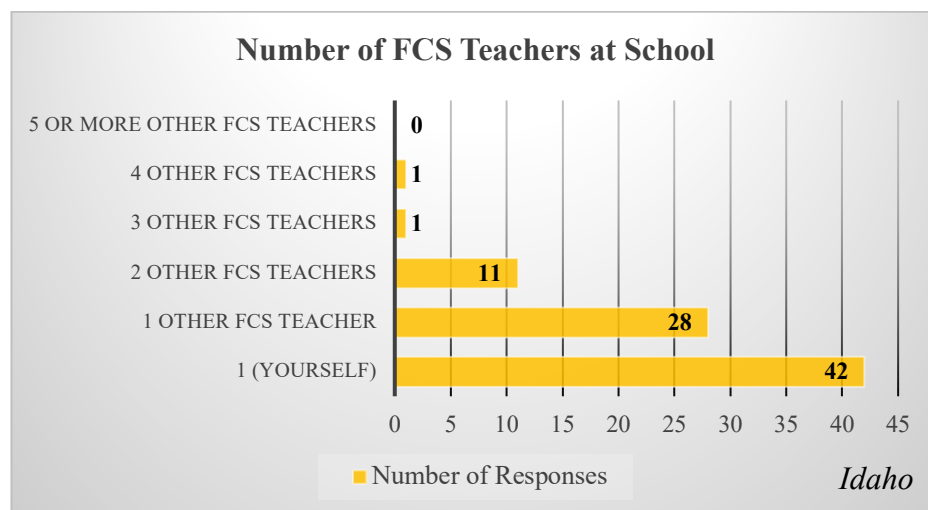
Idaho

Figure G.8

Idaho survey participants responded that 22 (26.51%) participants met with other FCS teachers in their school/district once a week; 13 (15.66%) participants met once a month; 15 (18.07%) participants met once a quarter; 8 (9.64%) participants met once a semester; 4 (4.82%) participants met once a year; 5 (6.02%) participants never met with other FCS teachers in their school/district; 1 (1.20%) participants met irregularly; 6 (7.23%) participants did not have other FCS teachers in their district to meet with; 4 (4.82%) participants met daily or regularly; 3 (3.61%) participants believed this question was not applicable to them; 1 (1.20%) participant was unsure of how often they met with other FCS teachers in their school/district; and, 1 (1.20%) participant met weekly via technology. See Figure G.9.
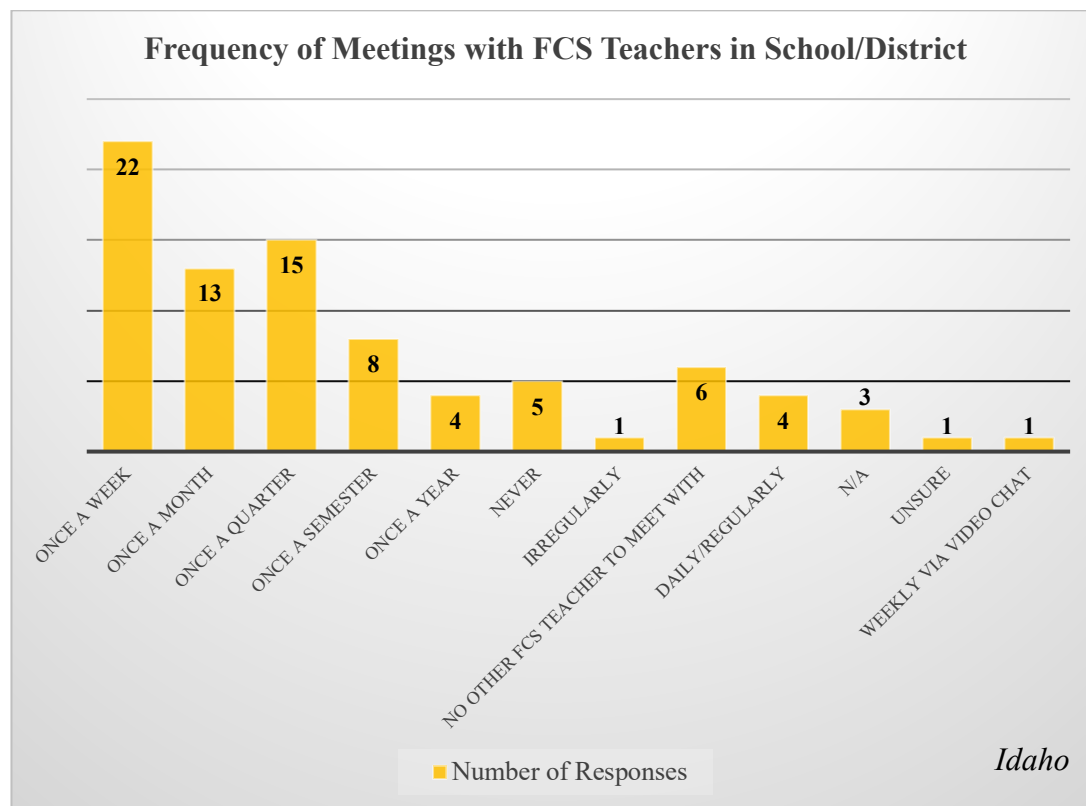
Figure G.9

Idaho survey participants responded that 19 (24.10%) participants held membership in the American Association of Family and Consumer Sciences (AAFCS/NAFCS); 16 (19.28%) participants held membership in the Idaho Association of Teachers of Family and Consumer Sciences (IATFACS); 34 (40.96%) participants held membership in the Association for Career and Technical Education (ACTE/FCSTN); 12 (14.46%) participants held membership in Career and Technical Education Idaho (CTEI); 4 (4.82%) participants held membership in the National Association for the Education of Young Children (NAEYC); 1 (1.20%) participant held

membership in the Idaho Association for the Education of Young Children (Idaho AEYC); 2 (2.41%) participants held membership in the Family, Career and Community Leaders of America (FCCLA); 1 (1.20%) participant held membership in the American Culinary Federation; 2 (2.41%) participants held membership in the National Education Association (NEA); 29 (34.94%) participants did not hold membership in any professional organization; and, 5 (6.02%) participants chose to not answer. See Figure G.10.

Figure G.10

Idaho survey participants responded that 57 (68.67%) participants advised a chapter of FCCLA at their school; 25 (30.12%) participants did not advise a chapter of FCCLA at their school; and, 1 (1.20%) chose to not respond. See Figure G.11.
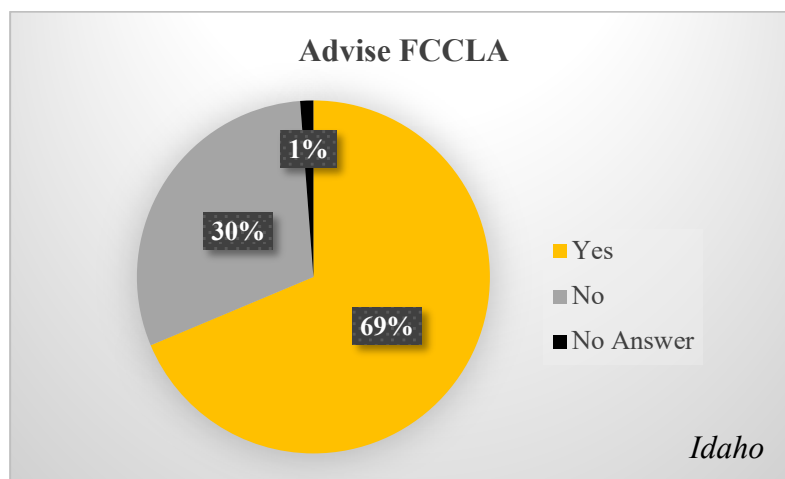
Figure G.11

Idaho survey participants responded that 83 (100.00%) participants know where to find **state** standards for the FCS course(s) they teach. See Figure G.12.

Locate State Standards

0%

100%

Yes

No
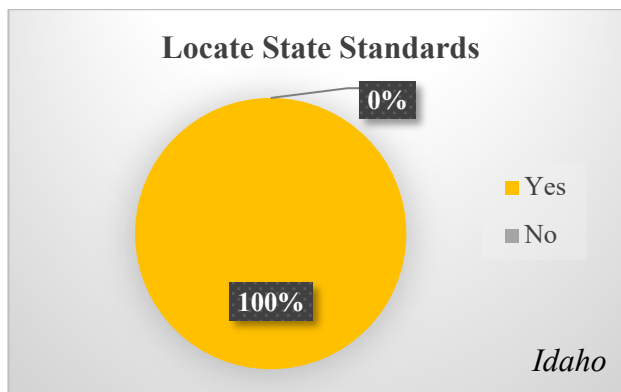
Idaho

Figure G.12

Idaho survey participants responded that 68 (81.93%) participants knew where to find **national** standards for the FCS course(s) they teach/taught; and, 15 (18.07%) participants did not know where to find **national** standards for the FCS course(s) they teach/taught. See Figure G.13.

Locate National Standards

18%

82%

Yes

No
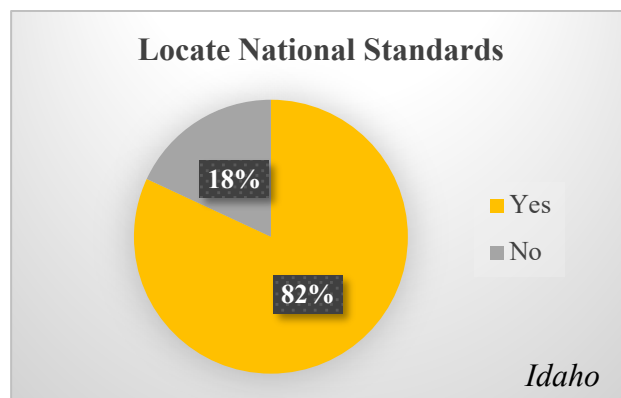
Idaho

Figure G.13

Idaho survey participants responded that 1 (1.20%) participant thought **state** standards for FCS courses need to be updated every year; 11 (13.25%) participants thought **state** standards for FCS courses need to be updated every other year; 34 (40.96%) participants thought **state** standards for FCS courses need to be updated every three years; 28 (33.73%) participants thought **state** standards for FCS courses need to be updated every four years; 3 (3.61%) participants thought **state** standards for FCS courses need to be updated every five to six years; 3 (3.61%) participants thought **state** standards for FCS courses need to be updated at different increments depending on the subject; 2 (2.41%) participants did not specify how often they thought **state** standards for FCS courses need to be updated; and, 1 (1.20%) participant chose to not answer. See Figure G.14.

Update State Standards, Frequency

Category	Number of Responses
NO ANSWER	1
NO SPECIFICATION	2
DEPENDS ON SUBJECT	3
EVERY 5 - 6 YEARS	3
EVERY FOUR YEARS	28
EVERY THREE YEARS	34
EVERY OTHER YEAR	11
EVERY YEAR	1
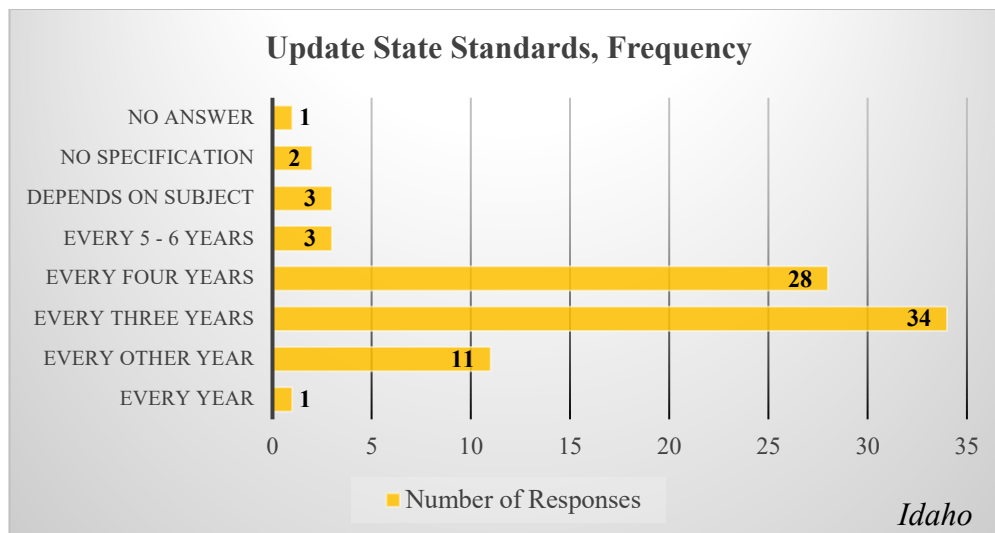
Idaho

Figure G.14

Idaho survey participants responded that 1 (1.20%) participant thought **national** standards for FCS courses need to be updated every year; 9 (10.84%) participants thought **national** standards for FCS courses need to be updated every other year; 28 (33.73%) participants thought **national** standards for FCS courses need to be updated every three years; 33 (39.76%) participants thought **national** standards for FCS courses need to be updated every four years; 6 (7.23%) participants thought **national** standards for FCS courses need to be updated every five to six years; 2 (2.41%) participants thought **national** standards for FCS courses need to be updated at different increments depending on the subject; 1 (1.20%) participant did not specify how often they think **state** standards for FCS courses need to be updated; and 3 (3.61%) participants chose to not answer. See Figure G.15.

Update National Standards, Frequency

Category	Number of Responses
NO ANSWER	3
NO SPECIFICATION	1
DEPENDS	2
EVERY 5 - 6 YEARS	6
EVERY FOUR YEARS	33
EVERY THREE YEARS	28
EVERY OTHER YEAR	9
EVERY YEAR	1
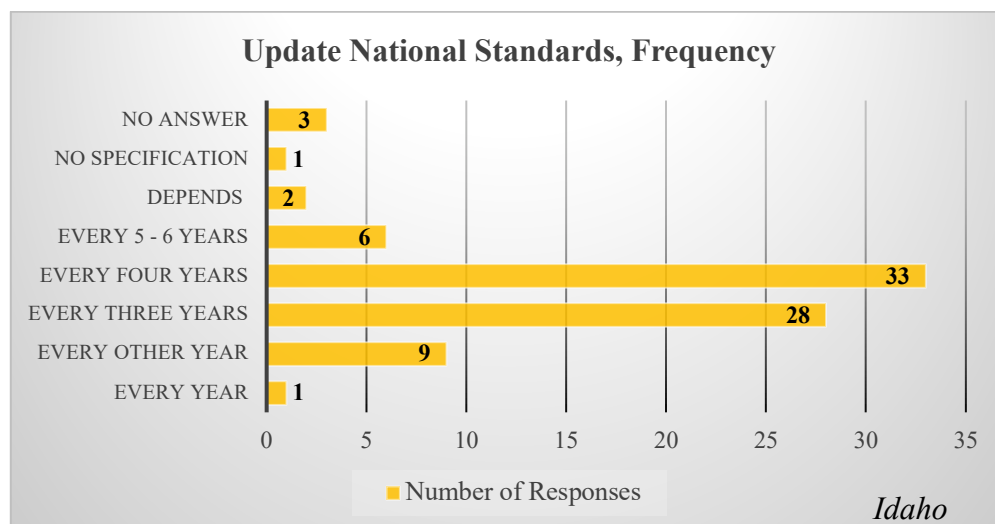
Idaho

Figure G.15

Perceived Needs for Professional Development

This section contains the analysis of the responses of Idaho secondary FCS teachers relating to the twelve competencies this study focuses on. The twelve competencies are broken down into four sections: Technology; Course, Curriculum, and Standards Development; Teaching; Professional Development, Programs, and Organizations.

To determine professional development needs in addressing research question 1, the Mean Weighted Discrepancy scores were used to rank the list of competencies. To determine discrepancy scores, weighted discrepancy scores, and MWDS the following procedures were followed. A discrepancy score was calculated for each individual on each competency by taking the importance rating minus the ability (competency) rating. Next, a weighted discrepancy score was then calculated on each individual for each of the professional competencies by multiplying the discrepancy score by the mean importance rating. A Mean Weighted Discrepancy Score (MWDS) for each of the competencies was then calculated by taking the sum of the weighted discrepancy scores and dividing by the number of observations. Using the MWDS, the competencies were ranked. The competencies with the highest MWDS were those with the highest perceived need and priority for professional development (Erwin, 2018, pg. 83).

See Tables G.1 and G.2.

Table G.1: Idaho Q19-22

		Importance			Competence	
	n	*Mean*	*SD*	*n*	*Mean*	*SD*
Technology						
Using current and relevant **computer/internet technology** to teach interactive lessons on content or career-specific tasks	76	3.47	0.577	67	3.28	0.517
Using current and relevant **non-computer technology** to teach interactive lessons on content or career-specific tasks (such as up-to-date kitchen equipment, up-to-date sewing/design equipment, etc.)	75	3.80	0.435	66	3.56	0.530
Course, Curriculum, and Standards Development						
Determining the content that should be taught in your specific course(s)	73	3.81	0.396	64	3.59	0.555
Keeping current on trends and issues in your area of content	74	3.81	0.459	65	3.31	0.557
Reporting your program information to your district and state Department of Education	74	3.24	0.699	64	3.11	0.799
Teaching						
Selecting current/relevant student references, materials, and textbooks	71	3.61	0.547	61	3.39	0.640
Educating students and maintaining required health and safety standards (state/federal/OSHA)	70	3.86	0.352	59	3.58	0.593
Professional Development, Programs, and Organizations						
Organizing activities for students with local organizations relating to your content area	71	3.27	0.560	62	3.15	0.674
Providing information to students related to furthering their education in your content area	71	3.73	0.446	63	3.29	0.607
Establishing opportunities or creating connections for student work internships or jobs	71	3.55	0.580	62	2.90	0.918
Developing a variety of School-to-Work/Career activities in your curriculum	70	3.43	0.650	61	2.90	0.851
Integrating life skills into your curriculum	69	3.91	0.332	60	3.77	0.500

Table G.2: Idaho Competencies MWDS

List of Idaho Competencies Ranked by MWDS[6]

Competency	n	MWDS	Rank
22.3 Establishing opportunities or creating connections for student work internships or jobs *(Professional Development, Programs, and Organizations)*	62	2.3476	1
22.4 Developing a variety of School-to-Work/Career activities in your curriculum *(Professional Development, Programs, and Organizations)*	61	1.9680	2
20.2 Keeping current on trends and issues in your area of content *(Course, Curriculum and Standards Development)*	65	1.9343	3
22.2 Providing information to students related to furthering their education in your content area *(Professional Development, Programs, and Organizations)*	63	1.7170	4
21.2 Educating students and maintaining required health and safety standards (state/federal/OSHA) *(Teaching)*	53	0.9468	5
19.2 Using current and relevant **non-computer technology** to teach interactive lessons on content or career-specific tasks (such as up-to-date kitchen equipment, up-to-date sewing/design equipment, etc.) *(Technology)*	66	0.9212	6
21.1 Selecting current/relevant student references, materials, and textbooks *(Teaching)*	61	0.8877	7
20.1 Determining the content that should be taught in your specific course(s) *(Course, Curriculum and Standards Development)*	64	0.8334	8
22.5 Integrating life skills into your curriculum *(Professional Development, Programs, and Organizations)*	60	0.7820	9
19.1 Using current and relevant **computer/internet technology** to teach interactive lessons on content or career-specific tasks *(Technology)*	67	0.6215	10

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[6] *Incomplete/missing data excluded in Table G.2 analysis.*

20.3 Reporting your program information to your district and state Department of Education *(Course, Curriculum and Standards Development)*	64	0.5569	11
22.1 Organizing activities for students with local organizations relating to your content area *(Professional Development, Programs, and Organizations)*	64	0.5361	12

The range of means of importance was 3.24 to 3.91 on a four-point Likert scale. This shows that all of the competencies listed were seen as important competencies for Idaho secondary FCS teachers. The range of means of competence was 2.90 to 3.77 on a four-point Likert scale. Two competencies scored below 3.00: *22.3 Establishing opportunities or creating connections for student work internships or jobs* ($M = 2.90$); and, *22.4 Developing a variety of School-to-Work/Career activities in your curriculum* ($M = 2.90$). This shows that the majority of Idaho secondary FCS teachers perceived themselves competent in most competencies.

The competencies were scored as followed, the higher the MWDS, the higher the professional development need priority: *22.3 Establishing opportunities or creating connections for student work internships or jobs* (MWDS = 2.3476); *22.4 Developing a variety of School-to-Work/Career activities in your curriculum* (MWDS = 1.9680); *20.2 Keeping current on trends and issues in your area of content* (MWDS = 1.9343); *22.2 Providing information to students related to furthering their education in your content area* (MWDS = 1.7170); *21.2 Educating students and maintaining required health and safety standards (state/federal/OSHA)* (MWDS = 0.9468); *19.2 Using current and relevant* **non-computer technology** *to teach interactive lessons on content or career-specific tasks (such as up-to-date kitchen equipment, up-to-date sewing/design equipment, etc.)* (MWDS = 0.9212); *21.1 Selecting current/relevant student references, materials, and textbooks* (MWDS = 0.8877); *20.1 Determining the content that should be taught in your specific course(s)* (MWDS = 0.8334); *22.5 Integrating life skills into your curriculum* (MWDS = 0.7820); *19.1 Using current and relevant* **computer/internet technology** *to teach interactive lessons on content or career-specific tasks* (MWDS = 0.6215); *20.3 Reporting your program information to your district and state Department of Education* (MWDS = 0.5569); and, *22.1 Organizing activities for students with local organizations relating to your content area* (MWDS = 0.5361).

Professional Development Motivations & Deterrents

Participants were asked to rate four statements to the level it motivated or deterred them from participating in professional development. They ranked each statement using a 4-point Likert scale: 4 strongly motivates, 3 somewhat motivates, 2 somewhat deters, and 1 strongly deters. The strongest motivator in Idaho for participating in professional development was: The professional development is specifically related to your content area ($M = 3.72$, $SD = 0.595$). The subsequent ranking for motivators followed as: The professional development is offered at different times or in multiple sessions to allows for flexibility in scheduling ($M = 3.51$, $SD = 0.678$); The professional development will allow you to gain college credit ($M = 3.41$, $SD = 0.671$); and, The professional development is related to updated or new technology ($M = 3.33$, $SD = 0.631$). None of the statements were seen as deterrents. See Table G.3.

Table G.3: Idaho PD Motivation/Deterrent	*n*	*Mean*	*SD*
Rate each statement to the level it motivates or deters you from participating in professional development.			
The professional development is specifically related to your content area	68	3.72	0.595
The professional development is related to updated or new technology	70	3.33	0.631
The professional development will allow you to gain college credit	69	3.41	0.671
The professional development is offered at different times or in multiple sessions to allow for flexibility in scheduling	69	3.51	0.678

See Appendix I for breakdown of statistics of Table G.3.

Professional Development Offered

Participants were asked to rate five statements relating to professional development currently offered to the level they agreed or disagreed with them. They ranked each statement using a 4-point Likert scale: 4 strongly agree, 3 somewhat agree, 2 somewhat disagree, 1 strongly disagree. The statement Idaho participants most agreed with was: Professional development is offered that teaches current or updated information ($M = 3.43$, $SD = 0.696$). The subsequent ranking for agreement followed as: Professional development is offered that is related to the content you teach ($M = 3.38$, $SD = 0.829$); Professional development is offered that is affordable for you to participate in (equally scoring with) Professional development is offered at locations that are close enough to your school or home for you to attend ($M = 3.36$, $SD = 0.874$); and, Professional development if offered at times you are available to attend ($M = 3.35$, $SD = 0.787$). See Table 4.

Table G.4: Idaho PD Offered

	n	Mean	SD

Rate each statement to the level it you

agree or disagree with it.

	n	Mean	SD
Professional development is offered that teaches current or updated information	69	3.43	0.696
Professional development is offered that is related to the content you teach	68	3.38	0.829
Professional development is offered at times you are available to attend	68	3.35	0.787
Professional development is offered that is affordable for you to participate in	69	3.36	0.874
Professional development is offered at locations that are close enough to your school or home for you to attend	69	3.36	0.874

See Appendix I for breakdown of statistics of Table G.4.

Professional Development Preferences

Professional development preferences were ranked on a 4-point Likert scale: 7 strongly prefer, 6 somewhat prefer, 5 somewhat do not prefer, 4 strongly do not prefer. The highest ranked preferences were: *Full-day professional development during the school year* ($M = 6.36$, $SD = 0.822$); *In-service sessions at summer PTE/CTE Conference* ($M = 6.31$, $SD = 0.808$); and, *One-week professional development in the summer* ($M = 5.94$, $SD = 1.006$). The lowest ranked preferences were: *Internet-based professional development courses at specified times (facilitated through a program such as Zoom or Skype)* ($M = 5.24$, $SD = 0.842$); *Professional development on weekday evenings during the school year* ($M = 4.67$, $SD = 0.863$); and, *Weekend professional development during the school year* (M = 4.66, SD = 0.833). See Figures 16-25 and Table 5 for complete professional development rankings

Full-day professional development during the school year

- 4% Strongly do not prefer
- 9% Somewhat do not prefer
- 33% Somewhat prefer
- 54% Strongly prefer

Idaho

Figure G.16: M = 6.36, SD = 0.822

One-week professional development in the summer

- 13% Strongly do not prefer
- 14% Somewhat do not prefer
- 39% Somewhat prefer
- 34% Strongly prefer

Idaho

Figure G.18: M = 5.94, SD = 1.006

In-service sessions at Summer PTE/CTE Conference

- 4% Strongly do not prefer
- 9% Somewhat do not prefer
- 38% Somewhat prefer
- 49% Strongly prefer

Idaho

Figure G.17: M = 6.31, SD = 0.808

Self-directed internet-based professional development courses

- 12% Strongly do not prefer
- 37% Somewhat do not prefer
- 27% Somewhat prefer
- 24% Strongly prefer

Idaho

Figure G.19: M = 5.64, SD = 0.979

Half-day professional development in the afternoon during the school year

- Strongly do not prefer: 16%
- Somewhat do not prefer: 27%
- Somewhat prefer: 40%
- Strongly prefer: 17%

Idaho

Figure G.20: M = 5.59, SD = 0.955

Internet-based professional development courses at specified times

- Strongly do not prefer: 20%
- Somewhat do not prefer: 42%
- Somewhat prefer: 32%
- Strongly prefer: 6%

Idaho

Figure G.22: M = 5.24, SD = 0.842

Half-day professional development in the morning during the school year

- Strongly do not prefer: 20%
- Somewhat do not prefer: 21%
- Somewhat prefer: 42%
- Strongly prefer: 17%

Idaho

Figure G.21: M = 5.56, SD = 1.002

Professional development on weekday evenings during the school year

- Strongly do not prefer: 58%
- Somewhat do not prefer: 16%
- Somewhat prefer: 26%
- Strongly prefer: 0%

Idaho

Figure G.23: M = 4.67, SD = 0.863

Figure G.24: M = 4.66, SD = 0.833
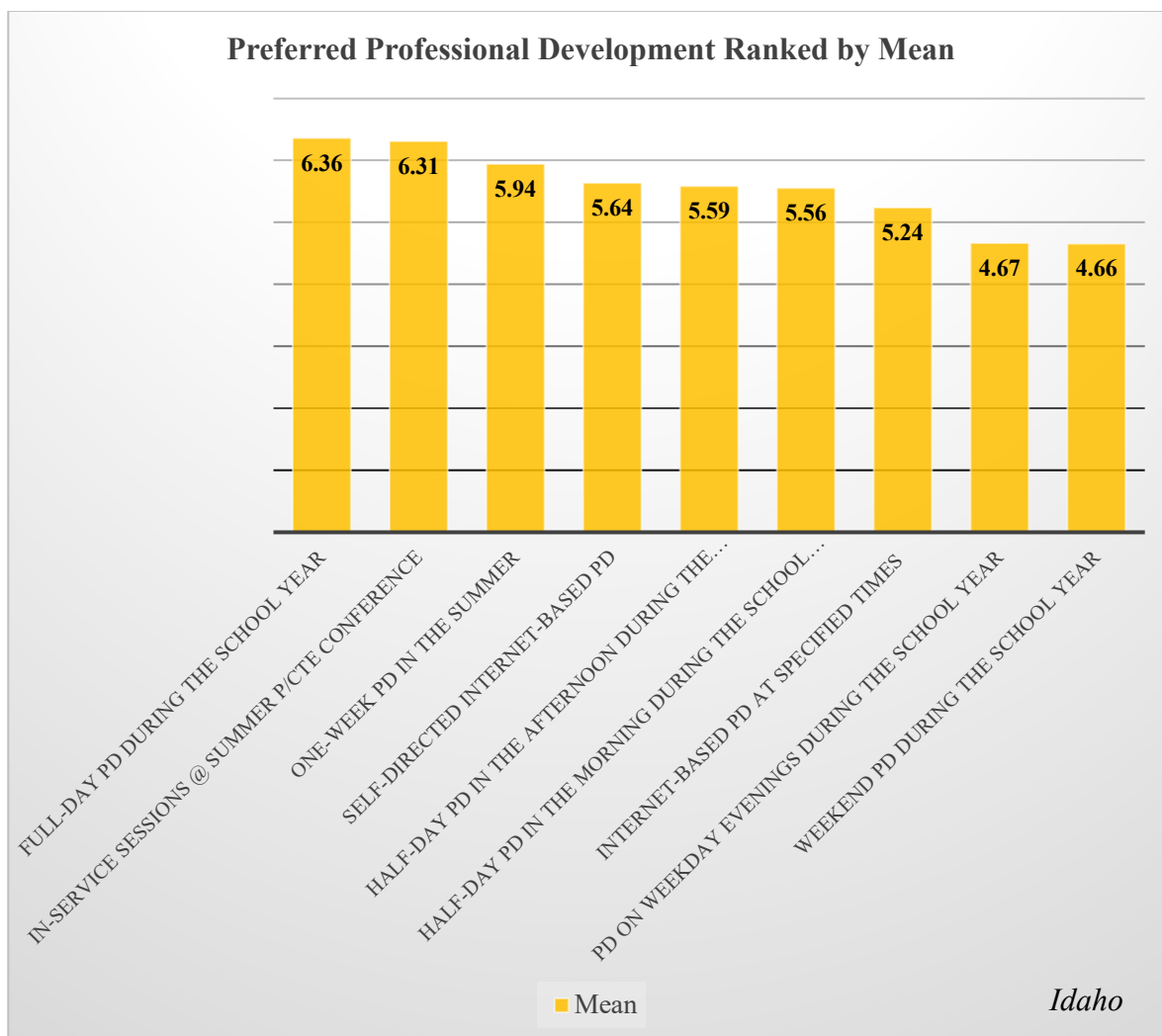
Figure G.25

See Appendix I for breakdown of statistics for Figures G16-G25.

Professional Development Content Needed

Professional Development Content Needed

Category	Number of Responses
FINANCE	2
MIDDLE SCHOOL CURRICULUM	1
LAB IDEAS	1
LEADERSHIP FOR STUDENTS	2
INTERIOR DESIGN	2
TECHNOLOGY	6
TEACHING STRATEGIES	8
FUNDING	2
FCCLA	1
FASHION & TEXTILES	8
UPDATED CONTENT RELATED TO COURSES TAUGHT	11
HOSPITALITY	2
CHILD DEVELOPMENT	3
PARENTING	1
CULINARY	12
NUTRITION	8
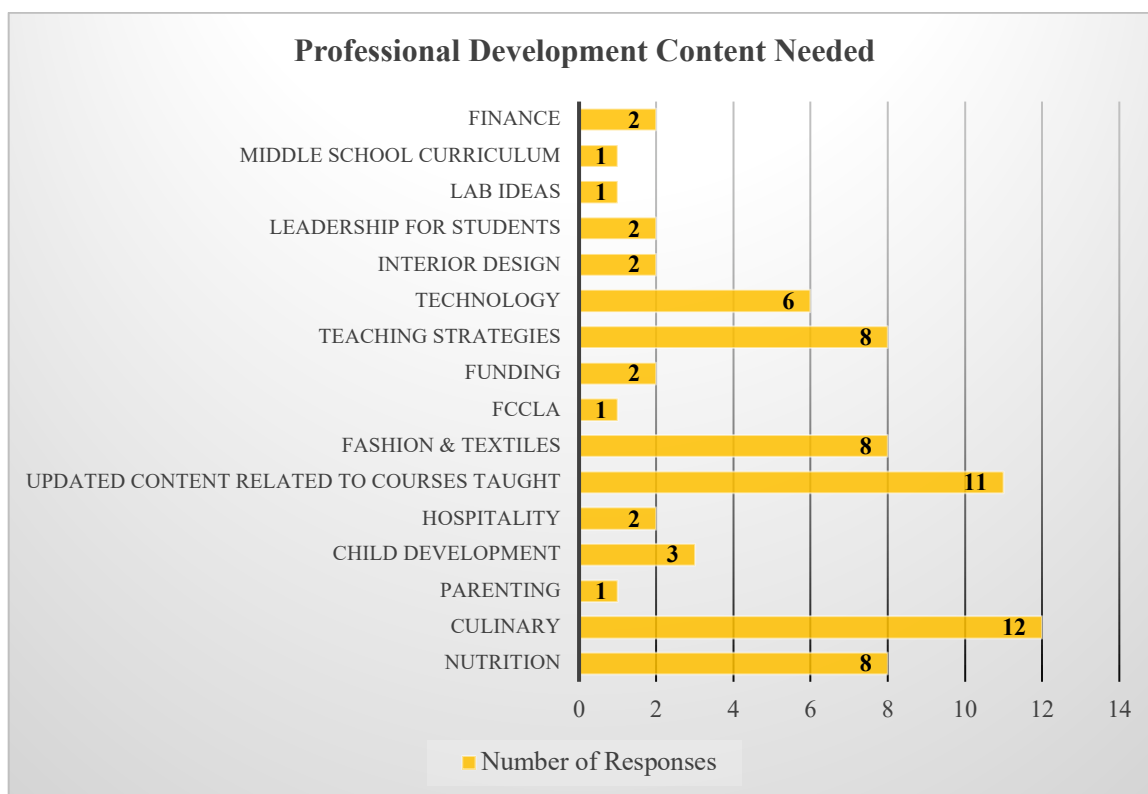
Figure G.26

See Appendix I for detailed responses.

Standards & Curriculum Confidence

Idaho participants were asked to rate five statements relating to professional development currently offered to the level they agreed or disagreed with them. They ranked each statement using a 4-point Likert scale: 4 strongly agree, 3 somewhat agree, 2 somewhat disagree, 1 strongly disagree. The statement they most agreed with was: *You use authentic assessment in your classroom more often than traditional assessment* ($M = 3.38$, $SD = 0.718$). The subsequent ranking for agreement followed as: *You are confident your students will leave your course knowing information and skills that ready them to enter a competitive workforce* ($M = 3.34$, $SD = 0.708$); *You are confident your curriculum includes the most current and relevant information available related to your content area* ($M = 3.21$, $SD = 0.664$); *The current national standards reflect relevant and updated information* ($M = 3.15$, $SD = 0.643$); and, *Your current state standards reflect relevant and updated information* ($M = 3.15$, $SD = 0.702$).

Figure G.27: M = 3.38, SD = 0.718

You use authentic assessment in your classroom more often than traditional assessment

- Strongly disagree
- Somewhat disagree
- Somewhat agree
- Strongly agree

2%
9%
50%
39%

Idaho

Figure G.29: M = 3.21, SD = 0.664

You are confident your curriculum includes the most current and relevant information available related to your content area

- Strongly disagree
- Somewhat disagree
- Somewhat agree
- Strongly agree

3%
5%
31%
61%

Idaho

Figure G.28: M = 3.34, SD = 0.708

You are confident your students will leave your course knowing information and skills that ready them to enter a competitive workforce

- Strongly disagree
- Somewhat disagree
- Somewhat agree
- Strongly agree

2%
9%
46%
43%

Idaho

Figure G.30: M = 3.15, SD = 0.643

The current national standards reflect relevant and updated information

- Strongly disagree
- Somewhat disagree
- Somewhat agree
- Strongly agree

1%
9%
28%
62%

Idaho

Your current state standards reflect relevant and updated information

- ■ Strongly disagree
- ■ Somewhat disagree
- ■ Somewhat agree
- ■ Strongly agree

Idaho

Figure G.31: M = 3.15, SD = 0.702

Personal Demographics

Idaho survey participants responded that 2 (2.41%) participants identified as male; 65 (78.31%) participants identified as female; 1 (1.20%) participants preferred to not answer; and 15 (18.07%) participants chose to not respond. See Figure G.32.

Gender

- ■ Male
- ■ Female
- ■ Prefer to not answer
- ■ No answer
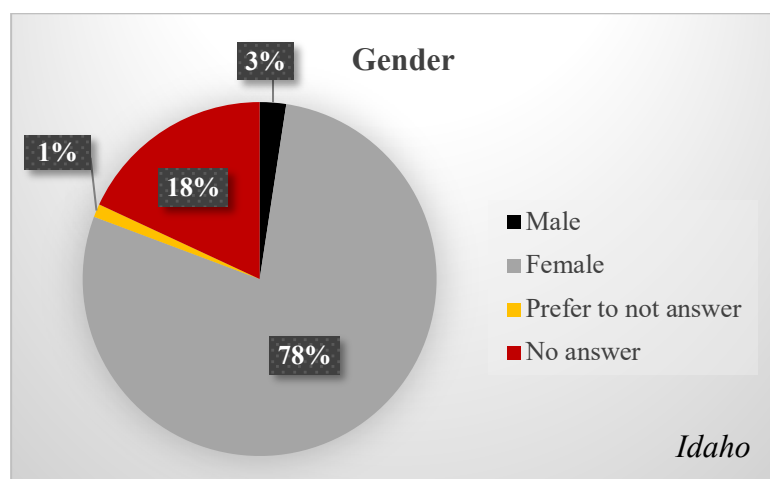
Idaho

Figure G.32

Idaho survey participants responded that 2 (2.41%) participants were between the ages of 18-24; 1 (1.20%) participant was between the ages of 25-29; 8 (9.64%) participants were between the ages of 30-34; 6 (7.23%) participants were between the ages of 35-39; 9 (10.84%) participants were between the ages of 40-44; 6 (7.23%) participants were between the ages of 45-49; 7 (8.43%) participants were between the ages of 50-54; 20 (24.10%) participants were

between the ages of 55-59; 5 (6.02%) participants were between the ages of 60-64; and, 3 (3.61%) were 65+. See Figure G.33.

Age in Years

Age	Number of Responses
65+	3
60-64	5
55-59	20
50-54	7
45-49	6
40-44	9
35-39	6
30-34	8
25-29	1
18-24	2

■ Number of Responses   *Idaho*
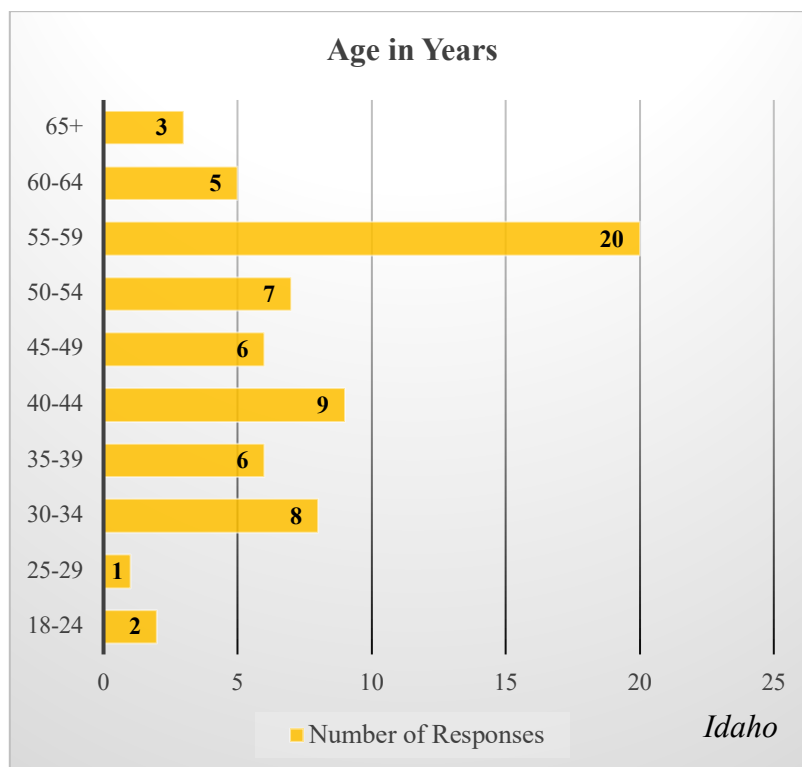
Figure G.33

Idaho survey participants responded that 1 (1.20%) participant identified as African American; 66 (79.52%) participants identified as White; and 16 (19.28%) chose to not answer. See Figure G.34.

Race/Ethnicity

- 1% African American
- 80% White
- 19% No Answer

Idaho
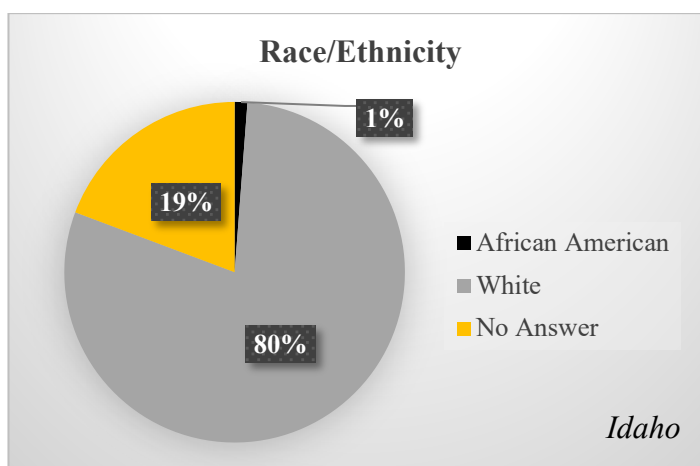
Figure G.34

MONTANA

RESPONSE RATE

There were 81 responses completed 50% or more; 51 completed 100%, 26 completed 97%, 2 completed 71%, 1 completed 65%, and 1 completed 55%. All 81 of the FCS teachers who took the survey submitted it, though not all of them answered all of the questions. The survey was taken through Qualtrics and then analyzed through SPSS and Excel.

DATA

Professional Demographics

Montana survey participants responded that 39 participants (48.15%) taught in a city/town with a population of less than 2,500 people; 27 participants (33.33%) taught in a city/town with a population of 2,500 to 50,000 people; and, 15 (18.52%) taught in a city/town with a population of over 50,000 people. See Figure G.35.

Population of City/Town

19%

48%

33%

■ Less than 2,500 people

■ 2,500 - 50,000 people

■ Over 50,000 people
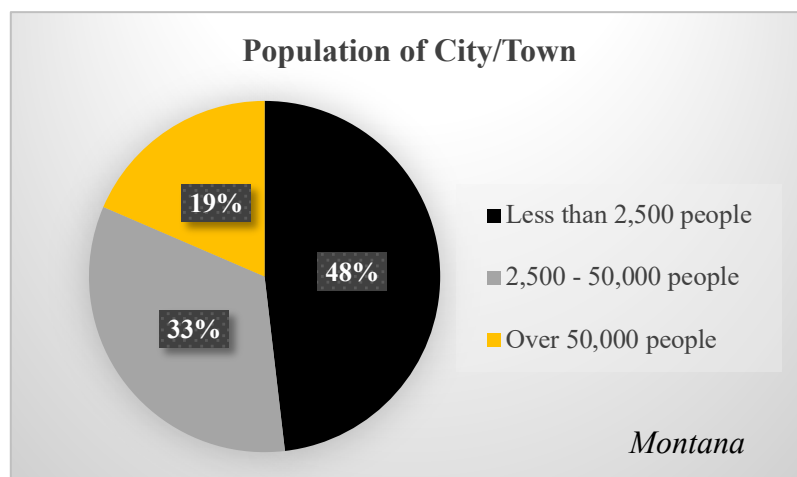
Montana

Figure G.35

Montana survey participants responded that 2 (2.41%) participants had less than 50 students in their school; 12 (14.81%) participants had 50-100 students in their school; 30 (37.04%) participants had 101-300 students in their school; 12 (14.81%) participants had 301-500 students in their school; 5 (6.17%) participants had 501-750 students in their school; 4 (4.94%) participants had 751-1000 students in their school; 5 (6.17%) participants had 1001-1200 students in their school; and 11 (13.58%) participants had 1200+ students in their school. See Figure G.36.

Student Population

Student Population	Number of Responses
1201+	11
1001 - 1200	5
751 - 1000	4
501 - 750	5
301 - 500	12
101 - 300	30
50 - 100	12
LESS THAN 50	2

■ Number of Responses   *Montana*
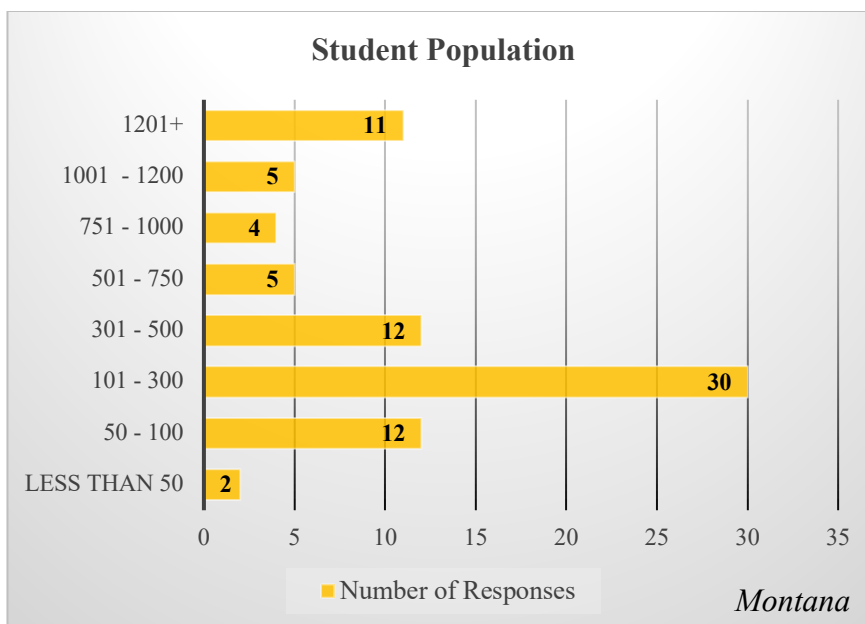
Figure G.36

Montana survey participants responded that 2 (2.47%) participants had an average class size of less than 5 students; 20 (24.69%) participants had an average class size of 6-10 students; 17 (20.99%) participants had an average class size of 11-15 students; 20 (24.69%) participants had an average class size of 16-20 students; 13 (16.05%) participants had an average class size of 21-25 students; 7 (8.64%) participants had an average class size of 26-30 students; 0 (0.00%) participants had an average class size of 31-35 students; and, 0 (0.00%) participants had an average class size of 36+ students. See Figure G.37.

Average Class Size

Average Class Size	Number of Responses
NO ANSWER	2
26 - 30 STUDENTS	7
21 - 25 STUDENTS	13
16 - 20 STUDENTS	20
11-15 STUDENTS	17
6 - 10 STUDENTS	20
LESS THAN 5 STUDENTS	2

■ Number of Responses   *Montana*
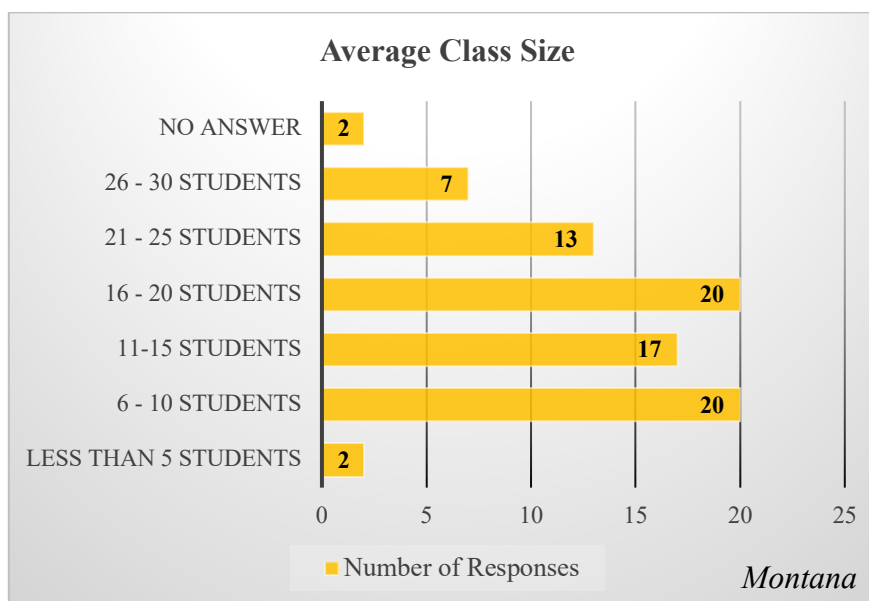
Figure G.37

Montana survey participants responded that 5 (6.17%) participants have taught FCS for less than 1 year; 0 (0.00%) participants have taught FCS for 1 year; 4 (4.94%) participants have taught FCS for 2 years; 5 (6.02%) participants have taught FCS for 3 years; 4 (4.82%) participants have taught FCS for 4 years; 4 (4.82%) participants have taught FCS for 5 years; 6 (7.41%) participants have taught FCS for 6 years; 3 (3.70%) participants have taught FCS for 7 years; 3 (3.70%) participants have taught FCS for 8 years; 3 (3.61%) participants have taught FCS for 9 years; 2 (2.47%) participants have taught FCS for 10 years; 4 (4.94%) participants have taught FCS for 11 years; 1 (1.23%) participant has taught FCS for 12 years; 1 (1.23%) participant has taught FCS for 13 years; 0 (0.00%) participants have taught FCS for 14 years; 2 (2.47%) participants have taught FCS for 15 years; 2 (2.41%) participants have taught FCS for 16 years; 2 (2.41%) participants have taught FCS for 17 years; 2 (2.47%) participants have taught FCS for 18 years; 3 (3.70%) participants have taught FCS for 19 years; 3 (3.70%) participants have taught FCS for 20 years; 2 (2.47%) participants have taught FCS for 21 years; 1 (1.23%) participant has taught FCS for 22 years; 0 (0.00%) participants have taught FCS for 23, 24, 25, or 26 years; 1 (1.20%) participant has taught FCS for 27 years; 2 (2.47%) participants have taught FCS for 28 years; 2 (2.47%) participants have taught FCS for 29 years; 3 (3.70%) participants have taught FCS for 30 years; and, 11 (13.58%) participants have taught FCS for 31+ years. See Figure G.38.
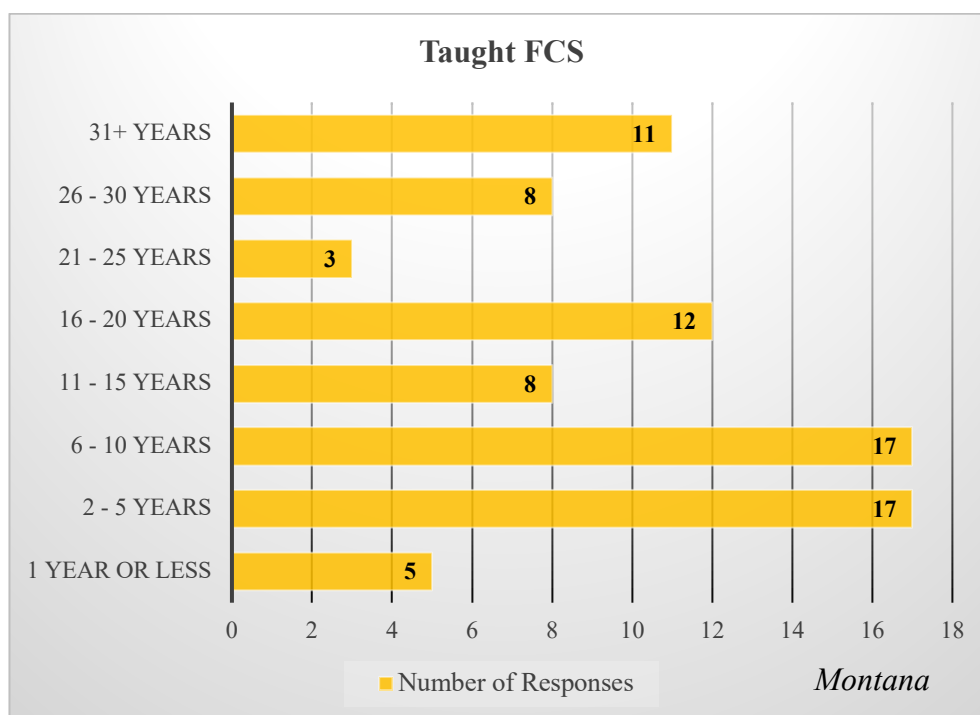
Figure G.38

There were 16 areas of study chosen by 81 Montana participants. 61 (75.31%) participants teach or have taught Nutrition and Wellness; 58 (71.60%) participants teach or have taught Food Production and Services; 57 (70.37%) participants teach or have taught Textiles, Fashion, and Apparel; 56 (69.14%) participants teach or have taught Food Science, Dietetics, and Nutrition; 54 (66.67%) teach or have taught Education and Early Childhood; 46 (56.79%) teach or have taught Parenting; 46 (56.79%) teach or have taught Housing and Interior Design; 41 (50.62%) teach or have taught Career, Community, and Family Connections; 40 (49.38%) teach or have taught Human Development; 38 (46.91%) teach or have taught Interpersonal Relationships; 35 (43.21%) teach or have taught Family; 33 (40.74%) teach or have taught Consumer and Family Resources; 32 (39.51%) teach or have taught Hospitality, Tourism, and Recreation; 22 (27.16%) teach or have taught Consumer Services; 20 (24.69%) teach or have taught Family and Human Services; 4 (4.94%) are unsure of which area(s) of study they teach or have taught; and, 1 (1.23%) participant teaches or has taught Facilities and Property Management. See Figure G.39.
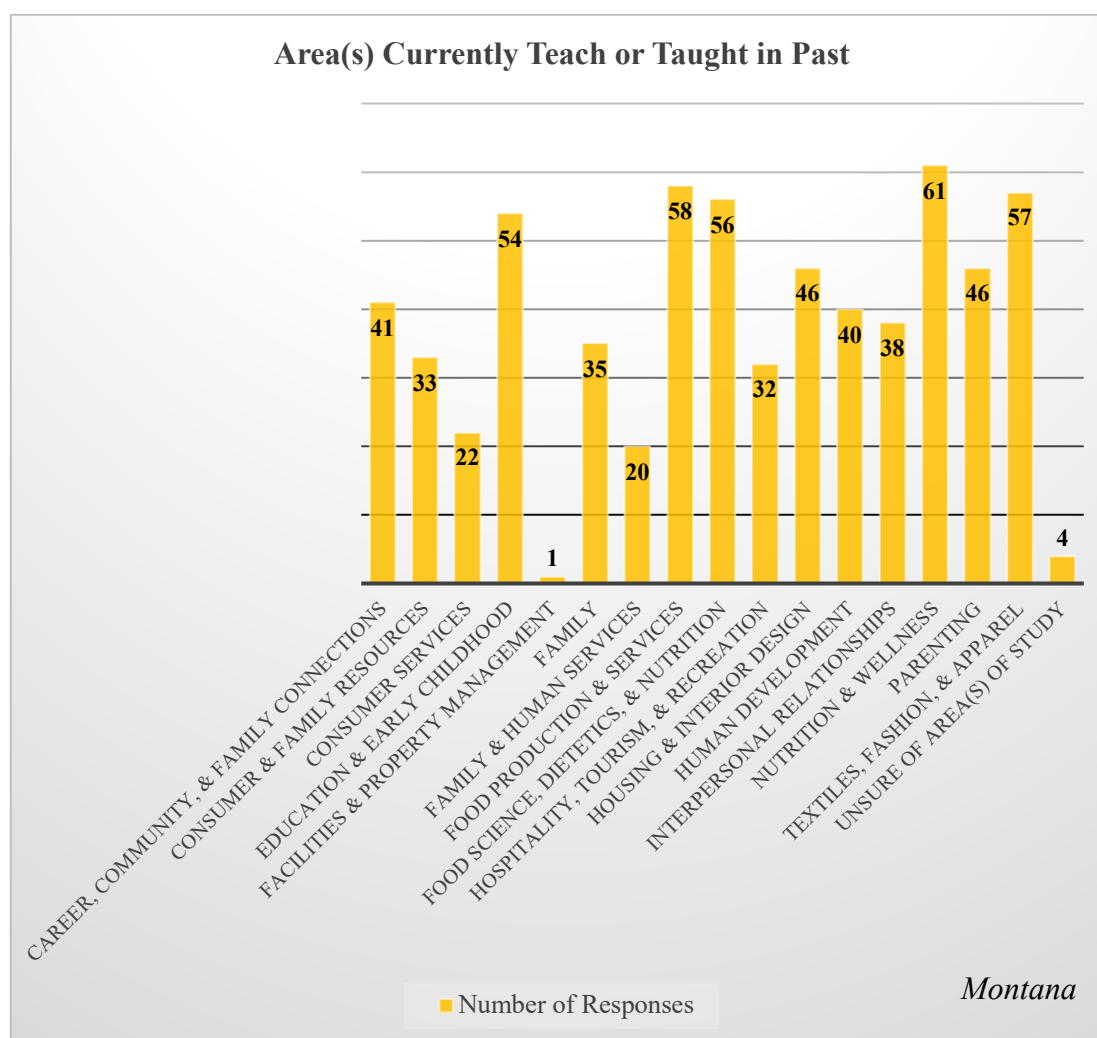
Figure G.39

Of the 81 participants, 58 responded that they were prepared in one of the following ways, 21 responded that they were prepared in two of the following ways, 1 responded that they were prepared in three of the following ways, and 1 responded that they were prepared in five of the following ways.

Montana survey participants responded that 44 (54.32%) participants were prepared through an undergraduate traditional FCS teacher education program (graduated with teaching certification with endorsement in FCS); 28 (34.57%) participants were prepared through an undergraduate teacher education program (graduated with teaching certification and bachelor's in education or related major); 18 (22.22%) participants were prepared through a graduate program relating to education at least one year beyond a bachelor's degree; 7 (8.64%) participants were prepared through ways that were not listed in this survey; 4 (4.94%) participants were prepared through substitute teaching that resulted in permanent position; 2 (2.47%) participants were prepared through no prior teaching experience but have a degree and career experience in an FCS-related field; 2 (2.47%) participants were prepared through no prior teaching experience or a degree in a FCS-related field but have career experience in a FCS-related field; 2 (2.47%) participants were prepared through no prior teaching experience but have a degree and no career experience in a FCS-related field; 1 (1.23%) participants were prepared through an alternative route; 0 (0.00%) participants were prepared through a Standard Occupational Specialist Certification; and, 0 (0.00%) participants were prepared through a Limited Occupational Specialist Certification.

This shows the many different routes which were available and utilized to become an FCS teacher in Montana. See Figure G.40.
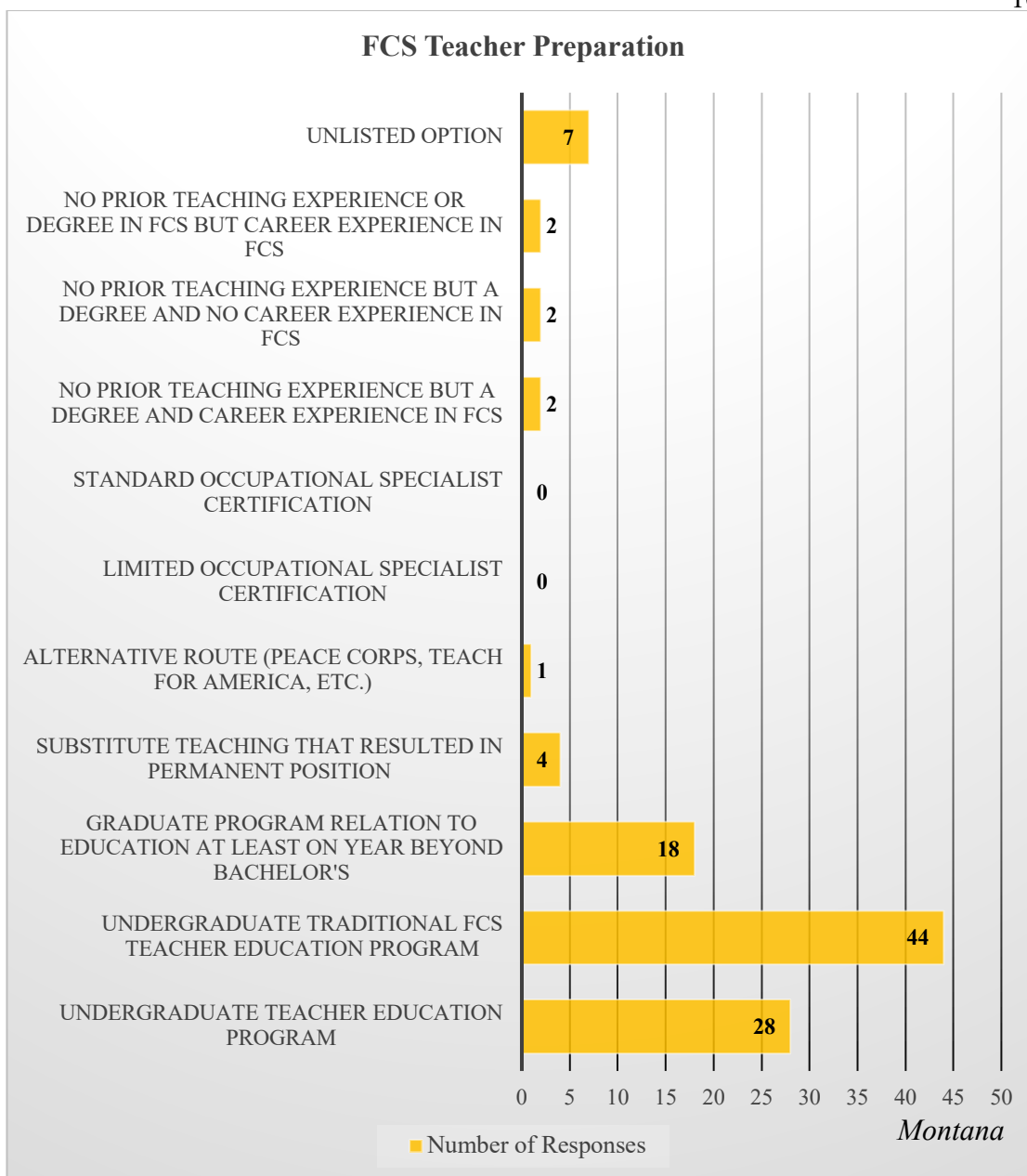
Figure G.40

Montana survey participants responded that 0 (0.00%) participants' highest level of formal education was a High School Diploma; 1 (1.23%) participant's highest level of formal education was an Associate Degree; 18 (22.22%) participants' highest level of formal education was a Bachelor's Degree; 10 (12.35%) participants' highest level of formal education was 1-18 graduate hours; 9 (11.11%) participants' highest level of formal education was 19-36 graduate hours; 14 (17.28%) participants' highest level of formal education was 37+ graduate hours; 12 (14.81%) participants' highest level of formal education was a Master's Degree; 17 (20.99%)

participants' highest level of formal education was a Master's Degree + more graduate hours; 0 (0.00%) participants' highest level of formal education was a Specialist; and, 0 (0.00%) participants' highest level of formal education was a Doctorate. See Figure G.41.

Highest Level of Education

Category	Number of Responses
MASTER'S DEGREE + GRADUATE HOURS	17
MASTER'S DEGREE	12
37 GRADUATE HOURS	14
19 - 36 GRADUATE HOURS	9
1 - 18 GRADUATE HOURS	10
BACHELOR'S DEGREE	18
ASSOCIATE DEGREE	1

■ Number of Responses   *Montana*
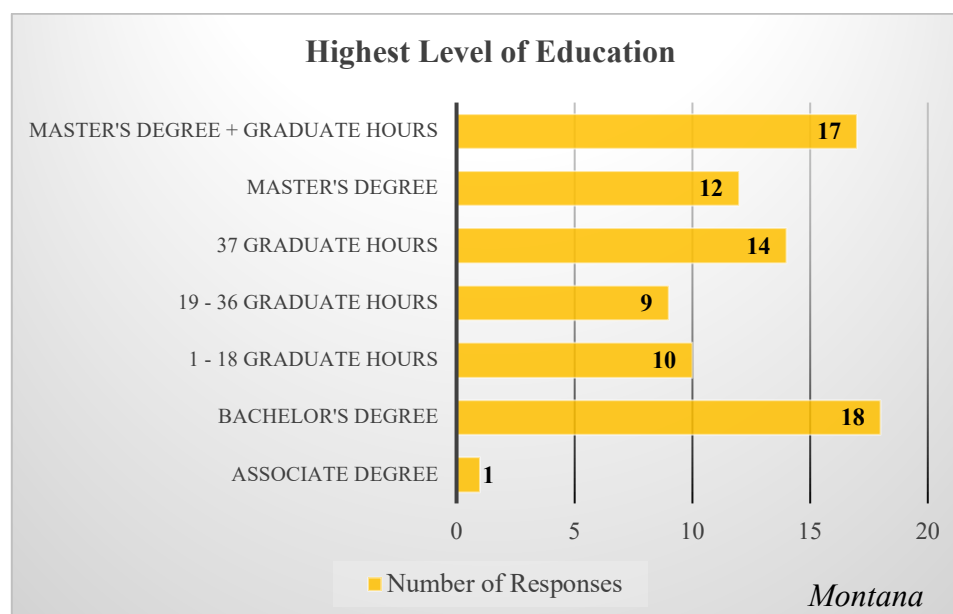
Figure G.41

Montana survey participants responded that 62 (76.54%) participants taught FCS courses at their school alone; 10 (12.35%) participants taught FCS courses at their school with another FCS teacher; 7 (8.64%) participants taught FCS courses at their school with two other FCS teachers; 2 (2.47%) participant taught FCS courses at their school with three other FCS teachers; 0 (0.00%) participants taught FCS courses at their school with four other FCS teachers; and, 0 (0.00%) participants taught FCS courses at their school with five or more other FCS teachers. See Figure G.42.

Number of FCS Teachers at School

Category	Number of Responses
3 OTHER FCS TEACHERS	2
2 OTHER FCS TEACHERS	7
1 OTHER FCS TEACHER	10
1 (YOURSELF)	62

■ Number of Responses   *Montana*
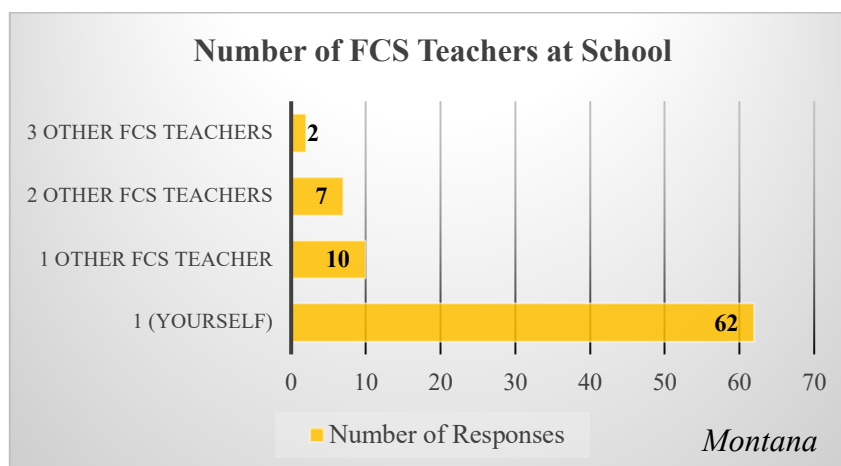
Figure G.42

Montana survey participants responded that 5 (6.17%) participants met with other FCS teachers in their school/district once a week; 6 (7.41%) participants met once a month; 4 (4.94%) participants met once a quarter; 9 (11.11%) participants met once a semester; 10 (12.35%) participants met once a year; 6 (7.41%) participants never met with other FCS teachers in their school/district; 3 (3.70%) participants met irregularly; 17 (20.99%) participants did not have other FCS teachers in their district to meet with; 7 (8.64%) participants met daily or regularly; 5 (6.17%) participants believed this question was not applicable to them; 8 (9.88%) participants chose to not answer; and 1 (1.23%) participant met weekly via technology. See Figure G.43.

Frequency of Meetings with FCS Teachers in School/District

■ Number of Responses
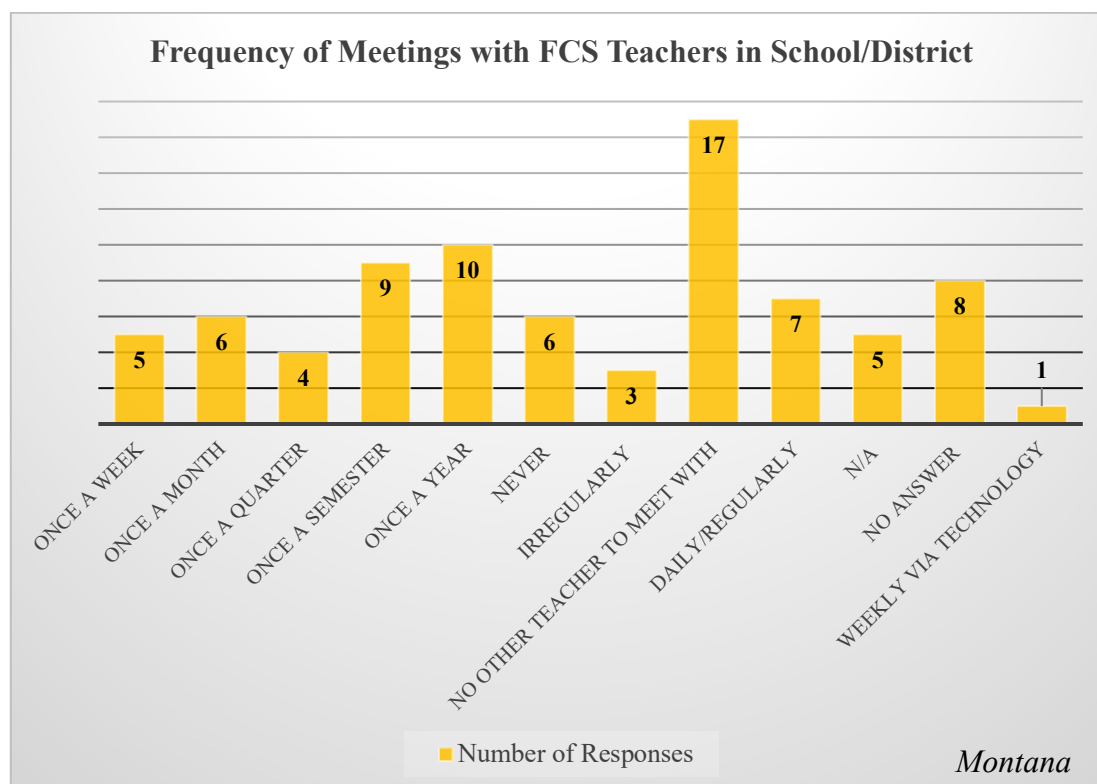
Montana

Figure G.43

Montana survey participants responded that 45 (55.56%) participants held membership in the American Association of Family and Consumer Sciences (AAFCS/NAFCS); 43 (53.09%) participants held membership in the Association for Career and Technical Education (ACTE/FCSTN); 2 (2.47%) participants held membership in the Montana Association of Teachers of Family and Consumer Sciences (MAFACS); 2 (2.47%) participants held membership in Montana Career and Technical Education (MACTE); 1 (1.23%) participant held membership in the National Association for the Education of Young Children (NAEYC); 1 (1.23%) participant held membership in the Family, Career and Community Leaders of America (FCCLA); 1 (1.20%) participant held membership in the Montana Cattlewomen; 1 (1.20%)

participant held membership in the Montana Education Association (MEA); 18 (22.22%) participants did not hold membership in any professional organization; 1 (1.20%) participant chose to not answer. See Figure G.44.
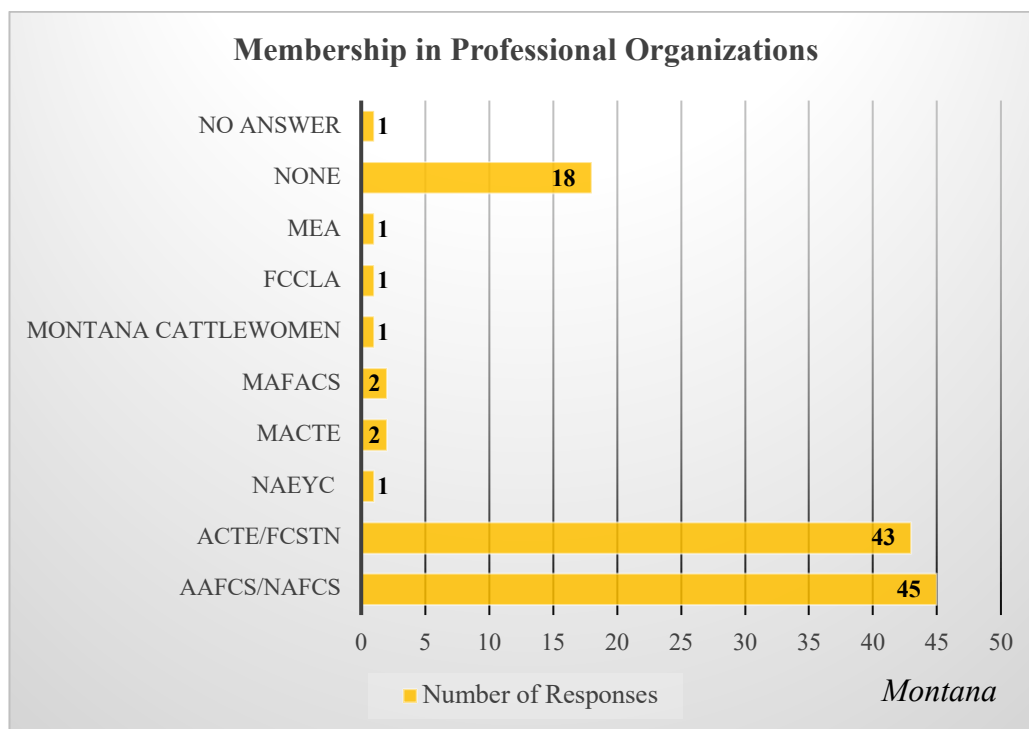
Figure G.44

Montana survey participants responded that 51 (62.96%) participants advised a chapter of FCCLA at their school; and, 20 (37.04%) participants did not advise a chapter of FCCLA at their school. See Figure G.45.
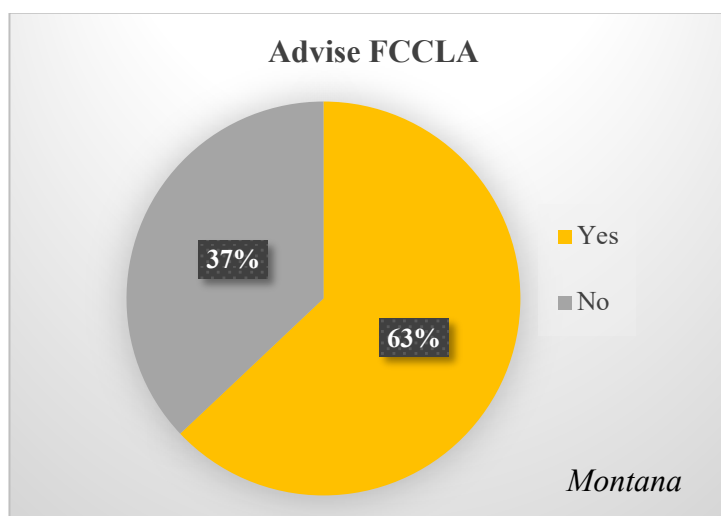
Figure G.45

Montana survey participants responded that 76 (93.83%) participants knew where to find **state** standards for the FCS course(s) they teach/taught; and, 5 (6.17%) participants did not know where to find **state** standards for the FCS course(s) they teach/taught. See Figure G.46.

Locate State Standards

6%

94%

Yes
No
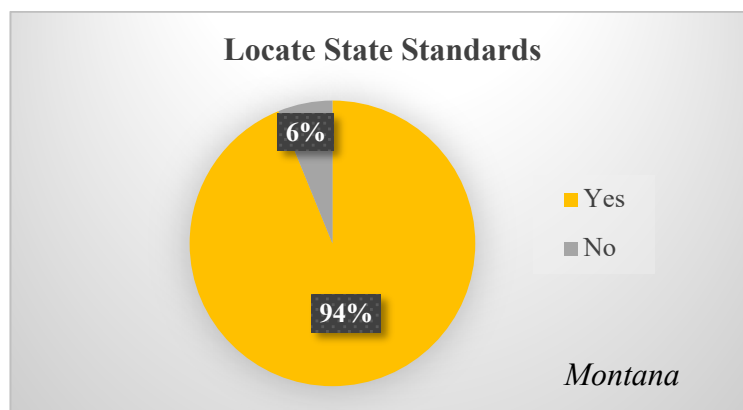
Montana

Figure G.46

Montana survey participants responded that 78 (96.30%) participants knew where to find **national** standards for the FCS course(s) they teach/taught; and, 3 (3.70%) participants did not know where to find **national** standards for the FCS course(s) they teach/taught. See Figure G.47.

Locate National Standards

4%

96%

Yes
No
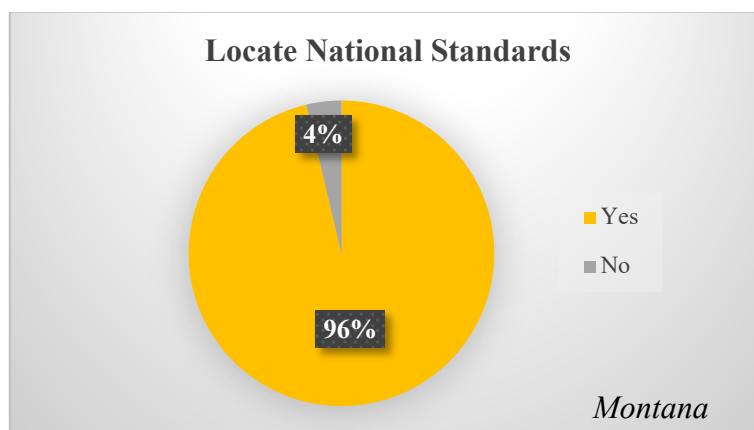
Montana

Figure G.47

Montana survey participants responded that 2 (2.47%) participants thought **state** standards for FCS courses need to be updated every year; 5 (6.17%) participants thought **state** standards for FCS courses need to be updated every other year; 26 (32.10%) participants thought **state** standards for FCS courses need to be updated every three years; 31 (38.27%) participants thought **state** standards for FCS courses need to be updated every four years; 8 (9.88%) participants thought **state** standards for FCS courses need to be updated every five years; 3 (3.70%) participants thought **state** standards for FCS courses need to be updated every five to ten years; 4 (4.94%) participants did not specify how often they think **state** standards for FCS

courses need to be updated; 1 (1.23%) participant thought **state** standards should be updated when national standards are updated; and, 1 (1.23%) participant chose to not answer. See Figure G.48.

Update State Standards, Frequency

Category	Number of Responses
NO ANSWER	1
WHEN NAT'L STANDARDS ARE UPDATED	1
NO SPECIFICATION	4
EVERY 5-10 YEARS	3
EVERY FIVE YEARS	8
EVERY FOUR YEARS	31
EVERY THREE YEARS	26
EVERY OTHER YEAR	5
EVERY YEAR	2
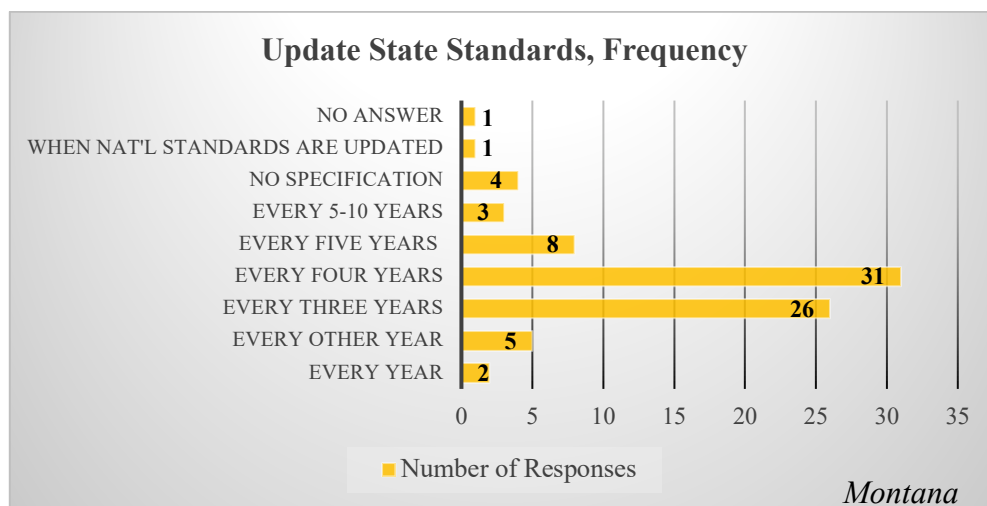
Montana

Figure G.48

Montana survey participants responded that 2 (2.47%) participants thought **national** standards for FCS courses need to be updated every year; 7 (8.64%) participants thought **national** standards for FCS courses need to be updated every other year; 24 (29.63%) participants thought **national** standards for FCS courses need to be updated every three years; 34 (41.98%) participants thought **national** standards for FCS courses need to be updated every four years; 8 (9.88%) participants thought **national** standards for FCS courses need to be updated every five to six years; 3 (3.70%) participants thought **state** standards for FCS courses need to be updated every five to ten years; 2 (2.47%) participants did not specify how often they think **state** standards for FCS courses need to be updated; and, 2 (2.47%) participants chose to not answer. See Figure G.49.

Update National Standards, Frequency

Category	Number of Responses
NO ANSWER	1
NO SPECIFICATION	2
EVERY 5-10 YEARS	3
EVER 5-6 YEARS	8
EVERY FOUR YEARS	34
EVERY THREE YEARS	24
EVERY OTHER YEAR	7
EVERY YEAR	2
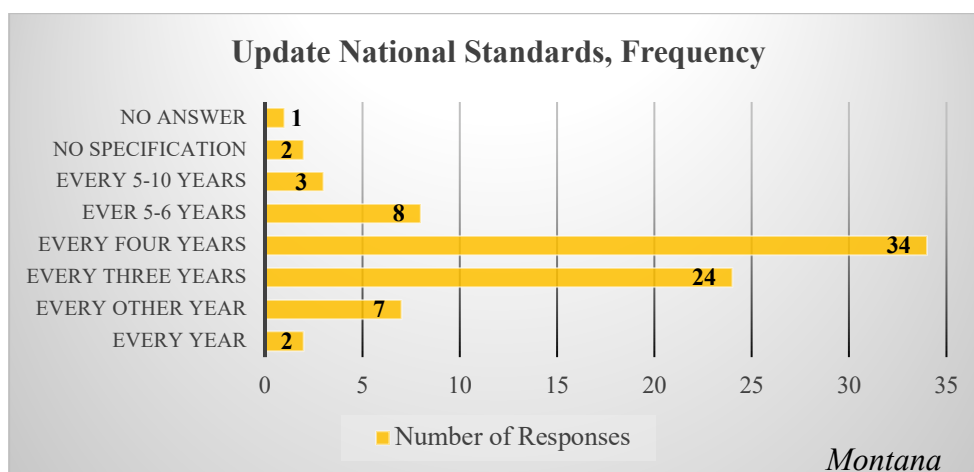
Montana

Figure G.49

Perceived Needs for Professional Development

 This section contains the analysis of the responses of Montana secondary FCS teachers relating to the twelve competencies this study focuses on. The twelve competencies are broken down into four sections: Technology; Course, Curriculum, and Standards Development; Teaching; Professional Development, Programs, and Organizations.

 To determine professional development needs in addressing research question 1, the Mean Weighted Discrepancy scores were used to rank the list of competencies. To determine discrepancy scores, weighted discrepancy scores, and MWDS the following procedures were followed. A discrepancy score was calculated for each individual on each competency by taking the importance rating minus the ability (competency) rating. Next, a weighted discrepancy score was then calculated on each individual for each of the professional competencies by multiplying the discrepancy score by the mean importance rating. A Mean Weighted Discrepancy Score (MWDS) for each of the competencies was then calculated by taking the sum of the weighted discrepancy scores and dividing by the number of observations. Using the MWDS, the competencies were ranked. The competencies with the highest MWDS were those with the highest perceived need and priority for professional development (Erwin, 2018, pg. 83).

See Tables G.5 and G.6.

Table G.5: Montana Q19-22	Importance			Competence		
	n	*Mean*	*SD*	*n*	*Mean*	*SD*
Q19 Technology						
Using current and relevant **computer/internet technology** to teach interactive lessons on content or career-specific tasks	80	3.53	0616	79	3.30	3.32
Using current and relevant **non-computer technology** to teach interactive lessons on content or career-specific tasks (such as up-to-date kitchen equipment, up-to-date sewing/design equipment, etc.)	80	3.71	0.482	79	3.32	0.567
Q20 Course, Curriculum, and Standards Development						
Determining the content that should be taught in your specific course(s)	80	3.90	0.302	78	3.56	0.594
Keeping current on trends and issues in your area of content	80	3.81	0.393	77	3.30	0.630
Reporting your program information to your district and state Department of Education	80	3.14	0.868	78	2.95	0.771
Q21 Teaching						
Selecting current/relevant student references, materials, and textbooks	77	3.73	0.477	75	3.36	0.607
Educating students and maintaining required health and safety standards (state/federal/OSHA)	77	3.91	0.332	74	3.50	0.603
Q22 Professional Development, Programs, and Organizations						
Organizing activities for students with local organizations relating to your content area	77	3.30	0.670	76	3.13	0.772
Providing information to students related to furthering their education in your content area	77	3.71	0.483	75	3.35	0.604
Establishing opportunities or creating connections for student work internships or jobs	77	3.57	0.498	74	3.00	0.759
Developing a variety of School-to-Work/Career activities in your curriculum	77	3.44	0.618	74	2.92	0.790
Integrating life skills into your curriculum	76	3.96	0.196	76	3.75	0.520

Table G.6: Montana Competencies MWDS

<u>List of Montana Competencies Ranked by MWDS[7]</u>

Competency	n	MWDS	Rank
22.3 Establishing opportunities or creating connections for student work internships or jobs *(Professional Development, Programs, and Organizations)*	74	2.0262	1
20.2 Keeping current on trends and issues in your area of content *(Course, Curriculum and Standards Development)*	77	1.9792	2
22.4 Developing a variety of School-to-Work/Career activities in your curriculum *(Professional Development, Programs, and Organizations)*	74	1.8130	3
21.2 Educating students and maintaining required health and safety standards (state/federal/OSHA) *(Teaching)*	74	1.5851	4
19.2 Using current and relevant **non-computer technology** to teach interactive lessons on content or career-specific tasks (such as up-to-date kitchen equipment, up-to-date sewing/design equipment, etc.) *(Technology)*	79	1.5028	5
22.2 Providing information to students related to furthering their education in your content area *(Professional Development, Programs, and Organizations)*	75	1.3851	6
21.1 Selecting current/relevant student references, materials, and textbooks *(Teaching)*	75	1.3428	7
20.1 Determining the content that should be taught in your specific course(s) *(Course, Curriculum and Standards Development)*	78	1.3000	8
22.5 Integrating life skills into your curriculum *(Professional Development, Programs, and Organizations)*	75	0.8448	9
19.1 Using current and relevant **computer/internet technology** to teach interactive lessons on content or career-specific tasks *(Technology)*	79	0.8043	10

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[7] *Incomplete/missing data excluded in Q19 – Q22 analysis*

20.3 Reporting your program information to your district and state Department of Education *(Course, Curriculum and Standards Development)*	78	0.6038	11
22.1 Organizing activities for students with local organizations relating to your content area *(Professional Development, Programs, and Organizations)*	76	0.5645	12

The range of means of importance was 3.14 to 3.96 on a four-point Likert scale. This shows that all of the competencies listed were seen as important competencies for Montana secondary FCS teachers. The range of means of competence was 2.92 to 3.75 on a four-point Likert scale. Two competencies scored below 3.00: *20.3 Reporting your program information to your district and state*

Department of Education (M = 2.95); and, *22.4 Developing a variety of School-to-Work/Career activities in your curriculum* (M = 2.92). This shows that the majority of Montana secondary FCS teachers perceived themselves competent in most competencies.

The competencies were scored as followed, the higher the MWDS, the higher the professional development need priority: *22.3 Establishing opportunities or creating connections for student work internships or jobs* (MWDS = 2.0262); *20.2 Keeping current on trends and issues in your area of content* (MWDS = 1.9792); *22.4 Developing a variety of School-to-Work/Career activities in your curriculum* (MWDS = 1.8130); *21.2 Educating students and maintaining required health and safety standards (state/federal/OSHA)* (MWDS = 1.5851); *19.2 Using current and relevant* **non-computer technology** *to teach interactive lessons on content or career-specific tasks (such as up-to-date kitchen equipment, up-to-date sewing/design equipment, etc.)* (MWDS = 1.5028); *22.2 Providing information to students related to furthering their education in your content area* (MWDS = 1.3851); *21.1 Selecting current/relevant student references, materials, and textbooks* (MWDS = 1.3428); *20.1 Determining the content that should be taught in your specific course(s)* (MWDS = 1.3000); *22.5 Integrating life skills into your curriculum* (MWDS = 0.8448); *19.1 Using current and relevant* **computer/internet technology** *to teach interactive lessons on content or career-specific tasks* (MWDS = 0.8043); 20.3 *Reporting your program information to your district and state Department of Education* (MWDS = 0.6038); and, *22.1 Organizing activities for students with local organizations relating to your content area* (MWDS = 0.5645).

Professional Development Motivations & Deterrents

Participants were asked to rate four statements to the level it motivated or deterred them from participating in professional development. They ranked each statement using a 4-point Likert scale: 4 strongly motivates, 3 somewhat motivates, 2 somewhat deters, and 1 strongly deters. The strongest motivator in Montana for participating in professional development was: The professional development is specifically related to your content area ($M = 3.73$, $SD = 0.502$). The subsequent ranking for motivators followed as: The professional development is offered at different times or in multiple sessions to allows for flexibility in scheduling ($M = 3.49$, $SD = 0.705$); The professional development is related to updated or new technology ($M = 3.43$, $SD = 0.720$); and, The professional development will allow you to gain college credit ($M = 3.22$, $SD = 0.798$). None of the statements were seen as deterrents. See Table 7.

Table G.7: Montana PD Motivation/Deterrent	*n*	*Mean*	*SD*
Rate each statement to the level it motivates or deters you from participating in professional development.			
The professional development is specifically related to your content area	75	3.73	0.502
The professional development is related to updated or new technology	75	3.43	0.720
The professional development will allow you to gain college credit	74	3.22	0.798
The professional development is offered at different times or in multiple sessions to allow for flexibility in scheduling	75	3.49	0.705

See Appendix I for breakdown of statistics of Table G.7.

Professional Development Offered

Participants were asked to rate five statements relating to professional development currently offered to the level they agreed or disagreed with them. They ranked each statement using a 4-point Likert scale: 4 strongly agree, 3 somewhat agree, 2 somewhat disagree, 1 strongly disagree. The statement Montana participants most agreed with was: Professional development is offered that teaches current or updated information ($M = 3.43$, $SD = 0.661$). The subsequent ranking for agreement followed as: Professional development is offered that is related to the content you teach ($M = 3.43$, $SD = 0.738$); Professional development is offered that is affordable for you to participate in ($M = 3.29$, $SD = 0.802$); Professional development if offered at times you are available to attend ($M = 3.24$, $SD = 0.803$); and, Professional development is offered at locations that are close enough to your school or home for you to attend ($M = 3.05$, $SD = 0.957$). See Table G.8.

Table G.8: Montana PD Offered

	n	Mean	SD

Rate each statement to the level it you
agree or disagree with it.

	n	Mean	SD
Professional development is offered that teaches current or updated information	75	3.43	0.661
Professional development is offered that is related to the content you teach	75	3.43	0.738
Professional development is offered at times you are available to attend	75	3.24	0.803
Professional development is offered that is affordable for you to participate in	75	3.29	0.802
Professional development is offered at locations that are close enough to your school or home for you to attend	75	3.05	0.957

See Appendix I for breakdown of statistics of Table G.8.

Professional Development Preferences

Professional development preferences were ranked on a 4-point Likert scale: 7 strongly prefer, 6 somewhat prefer, 5 somewhat do not prefer, 4 strongly do not prefer. The highest ranked preferences were: *Full-day professional development during the school year* ($M = 6.11$, $SD = 0.973$); *One-week professional development in the summer* ($M = 5.91$, $SD = 1.009$); and, *In-service sessions at summer PTE/CTE Conference* ($M = 5.89$, $SD = 0.949$). The lowest ranked preferences were: *Half-day professional development in the morning during the school year* ($M = 5.12$, $SD = 1.066$); *Weekend professional development during the school year* ($M = 4.88$, $SD = 0.957$); and, *Professional development on weekday evenings during the school year* ($M = 4.86$, $SD = 1.018$). See Figures G.50 – G.59 for complete professional development rankings.

Full-day professional development during the school year

- Strongly do not prefer — 11%
- Somewhat do not prefer — 9%
- Somewhat prefer — 38%
- Strongly prefer — 42%

Montana

Figure G.50: M = 6.11, SD = 0.973

One-week professional development in the summer

- 14% ■ Strongly do not prefer
- 15% ■ Somewhat do not prefer
- 39% ■ Somewhat prefer
- 32% ■ Strongly prefer

Montana

Figure G.51: M = 5.91, SD = 1.009

Self-directed internet-based professional development courses

- 18% ■ Strongly do not prefer
- 23% ■ Somewhat do not prefer
- 31% ■ Somewhat prefer
- 28% ■ Strongly prefer

Montana

Figure G.53: M = 5.68, SD = 1.080

In-service sessions at Summer PTE/CTE Conference

- 58% ■ Strongly do not prefer
- 23% ■ Somewhat do not prefer
- 10% ■ Somewhat prefer
- 9% ■ Strongly prefer

Montana

Figure G.52: M = 5.89, SD = 0.949

Internet-based professional development courses at specified times

- 25% ■ Strongly do not prefer
- 23% ■ Somewhat do not prefer
- 36% ■ Somewhat prefer
- 16% ■ Strongly prefer

Montana

Figure G.54: M = 5.44, SD = 1.041

Half-day professional development in the afternoon during the school year

- Strongly do not prefer — 33%
- Somewhat do not prefer — 27%
- Somewhat prefer — 25%
- Strongly prefer — 15%

Montana

Figure G.55: M = 5.22, SD = 1.070

Weekend professional development during the school year

- Strongly do not prefer — 48%
- Somewhat do not prefer — 30%
- Somewhat prefer — 20%
- Strongly prefer — 2%

Montana

Figure G.57: M = 4.88, SD = 0.957

Half-day professional development in the morning during the school year

- Strongly do not prefer — 37%
- Somewhat do not prefer — 27%
- Somewhat prefer — 22%
- Strongly prefer — 14%

Montana

Figure G.56: M = 5.12, SD = 1.066

Professional development on weekday evenings during the school year

- Strongly do not prefer — 52%
- Somewhat do not prefer — 16%
- Somewhat prefer — 25%
- Strongly prefer — 7%

Montana

Figure G.58: M = 4.86, SD = 1.018

Preferred Professional Development Ranked by Mean

Category	Mean
FULL-DAY PD DURING THE SCHOOL YEAR	6.11
ONE-WEEK PD IN THE SUMMER	5.91
IN-SERVICE SESSIONS @ SUMMER P/CTE CONFERENCE	5.89
SELF-DIRECTED INTERNET-BASED PD	5.68
INTERNET-BASED PD AT SPECIFIED TIMES	5.44
HALF-DAY PD IN THE AFTERNOON DURING THE SCHOOL YEAR	5.22
HALF-DAY PD IN THE MORNING DURING THE SCHOOL YEAR	5.12
WEEKEND PD DURING THE SCHOOL YEAR	4.88
PD ON WEEKDAY EVENINGS DURING THE SCHOOL YEAR	4.86

■ Mean

Montana

Figure G.59

See Appendix I for breakdown of statistics for Figures G.50 – G.59.

Professional Development Content Needed

Figure G.60

See Appendix I for detailed responses.

Standards & Curriculum Confidence

Montana participants were asked to rate five statements relating to professional development currently offered to the level they agreed or disagreed with them. They ranked each statement using a 4-point Likert scale: 4 strongly agree, 3 somewhat agree, 2 somewhat disagree, 1 strongly disagree. The statement they most agreed with was: *You use authentic assessment in your classroom more often than traditional assessment* ($M = 3.31$, $SD = 0.639$). The subsequent ranking for agreement followed as: *You are confident your students will leave your course knowing information and skills that ready them to enter a competitive workforce* ($M = 3.26$, $SD = 0.550$); *The current national standards reflect relevant and updated information* ($M = 3.18$, $SD = 0.609$); *You are confident your curriculum includes the most current and relevant information*

available related to your content area (*M* = 3.05, *SD* = 0.700); and, *Your current state standards reflect relevant and updated information* (*M* = 2.99, *SD* = 0.842).

You use authentic assessment in your classroom more often than traditional assessment

- 0%
- 9%
- 41%
- 50%

Legend:
- ■ Strongly disagree
- ■ Somewhat disagree
- ■ Somewhat agree
- ■ Strongly agree

Montana

Figure G.61: M = 3.31, SD = 0.639

You are confident your students will leave your course knowing information and skills that ready them to enter a competitive workforce

- 0%
- 5%
- 31%
- 64%

Legend:
- ■ Strongly disagree
- ■ Somewhat disagree
- ■ Somewhat agree
- ■ Strongly agree

Montana

Figure G.62: M = 3.26, SD = 0.550

The current national standards reflect relevant and updated information

- 0%
- 11%
- 29%
- 60%

Legend:
- ■ Strongly disagree
- ■ Somewhat disagree
- ■ Somewhat agree
- ■ Strongly agree

Montana

Figure G.63: M = 3.18, SD = 0.609

You are confident your curriculum includes the most current and relevant information available related to your content area

- Strongly disagree
- Somewhat disagree
- Somewhat agree
- Strongly agree

3%
14%
24%
59%

Montana

Figure G.64: M = 3.05, SD = 0.700

Your current state standards reflect relevant and updated information

- Strongly disagree
- Somewhat disagree
- Somewhat agree
- Strongly agree

7%
15%
27%
51%

Montana

Figure G.65: M = 2.99, SD = 0.842

Personal Demographics

Montana survey participants responded that 1 (1.23%) participants identified as male; 76 (93.83%) participants identified as female; and, 4 (4.94%) participants chose to not respond. See Figure G.66.

Gender

- Male
- Female
- No answer

5%
1%
94%
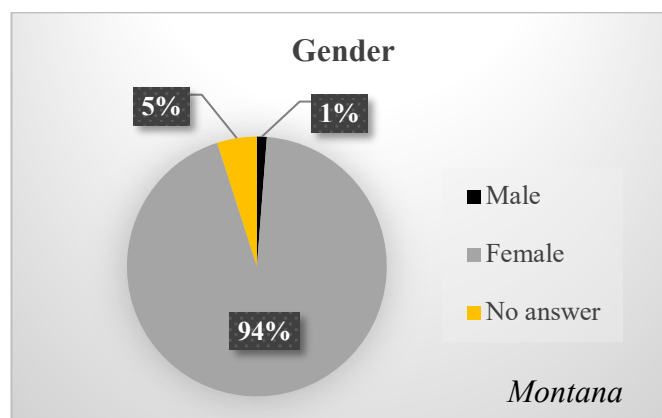
Montana

Figure G.66

Montana survey participants responded that 1 (1.23%) participants were between the ages of 18-24; 6 (7.41%) participant was between the ages of 25-29; 6 (7.41%) participants were between the ages of 30-34; 12 (14.81%) participants were between the ages of 35-39; 5 (6.17%) participants were between the ages of 40-44; 5 (6.17%) participants were between the ages of 45-49; 7 (8.64%) participants were between the ages of 50-54; 13 (16.05%) participants were between the ages of 55-59; 14 (17.28%) participants were between the ages of 60-64; 8 (9.88%) were 65+; and, 4 (4.94%) chose to not answer. See Figure G.67.
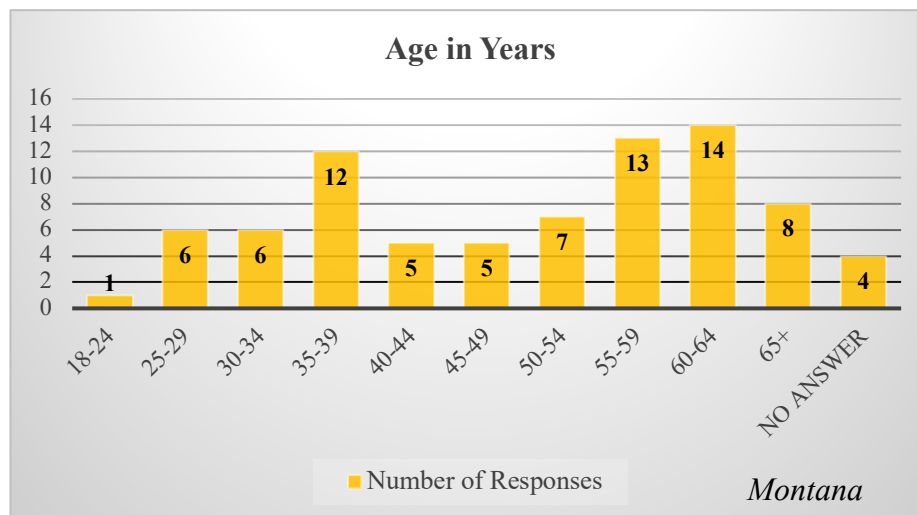
Figure G.67

Montana survey participants responded that 2 (2.47%) participants identified as American Indian/Alaskan Native; 75 (92.59%) participants identified as White; 1 (1.24%) participant identified as Other; 1 (1.24%) participant identified as unspecified; and, 2 (2.47%) chose to not answer. See Figure G.68.
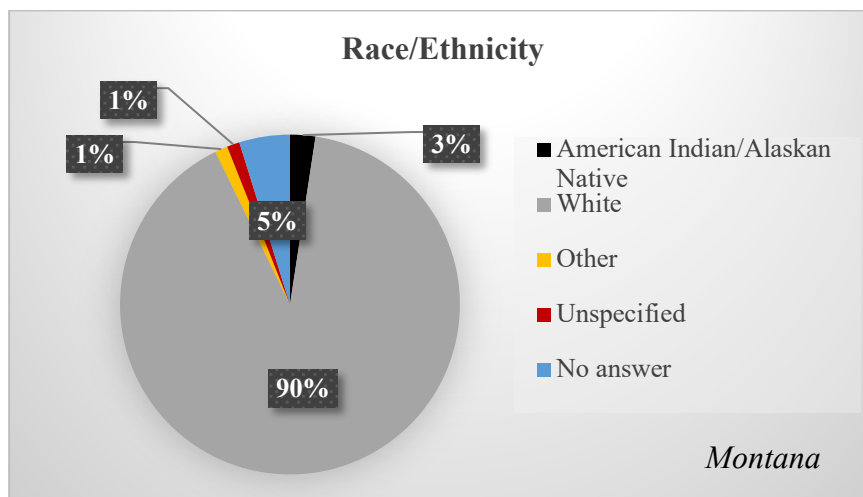
Figure G.68: Two participants identified as two races/ethnicities – Total percentage will be more than 100%..

OREGON

RESPONSE RATE

There were 26 responses completed 50% or more; 17 completed 100%, 8 completed 97%, and 1 completed 71%. All 26 of the FCS teachers who took the survey submitted it, though not all of them answered all of the questions. The survey was taken through Qualtrics and then analyzed through SPSS and Excel.

DATA

Professional Demographics

Oregon survey participants responded that 2 participants (7.69%) taught in a city/town with a population of less than 2,500 people; 15 participants (57.69%) taught in a city/town with a population of 2,500 to 50,000 people; and, 9 (34.62%) taught in a city/town with a population of over 50,000 people. See Figure G.69.
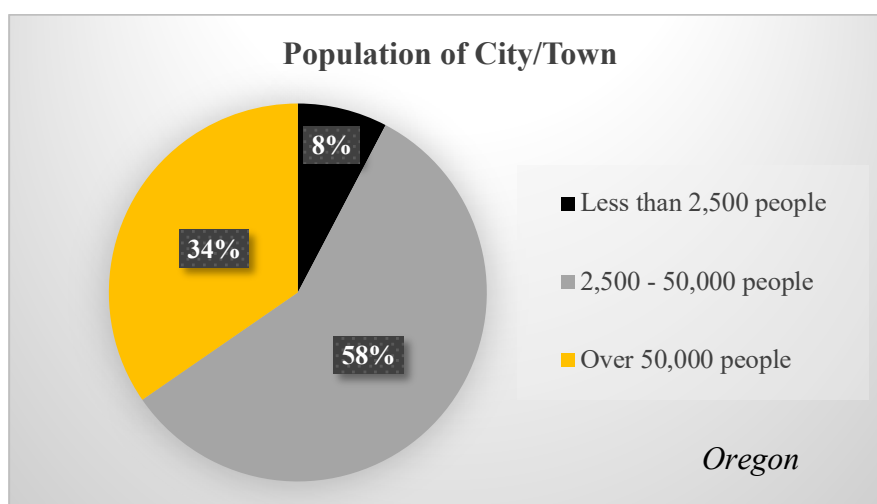
Figure G.69

Oregon survey participants responded that 0 (0.00%) participants had less than 50 students in their school; 0 (0.00%) participants had 50-100 students in their school; 1 (3.85%) participant had 101-300 students in their school; 2 (7.69%) participants had 301-500 students in their school; 4 (15.38%) participants had 501-750 students in their school; 4 (15.38%) participants had 751-1000 students in their school; 5 (19.23%) participants had 1001-1200 students in their school; and, 10 (38.46%) participants had 1200+ students in their school. See Figure G.70.

Student Population

1201+	10
1001 - 1200	5
751 - 1000	4
501 - 750	4
301 - 500	2
101 - 300	1

■ Number of Responses   *Oregon*
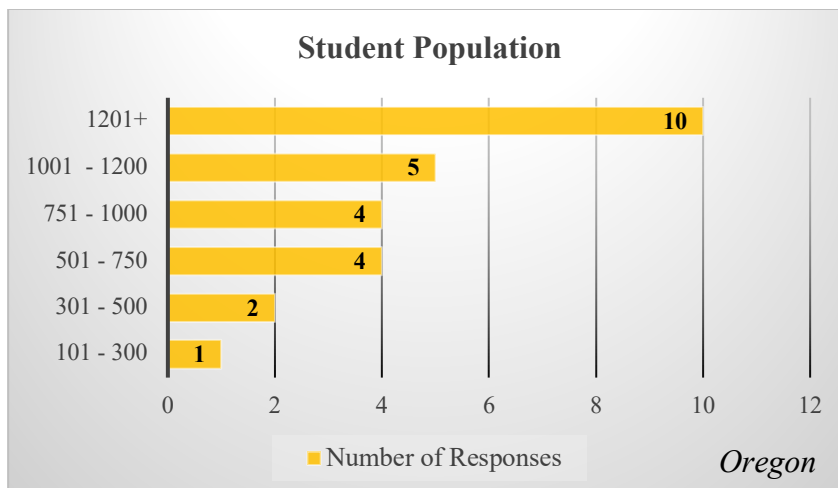
Figure G.70

Oregon survey participants responded that 0 (0.00%) participants had an average class size of less than 5 students; 0 (0.00%) participants had an average class size of 6-10 students; 0 (0.00%) participants had an average class size of 11-15 students; 2 (7.69%) participants had an average class size of 16-20 students; 2 (7.69%) participants had an average class size of 21-25 students; 6 (23.08%) participants had an average class size of 26-30 students; 11 (42.31%) participants had an average class size of 31-35 students; 4 (15.38%) participants had an average class size of 36+ students; and, 1 (3.85%) chose to not respond. See Figure G.71.

Average Class Size

NO ANSWER	1
36+ STUDENTS	4
31 - 35 STUDENTS	11
26 - 30 STUDENTS	6
21 - 25 STUDENTS	2
16 - 20 STUDENTS	2

■ Number of Responses   *Oregon*
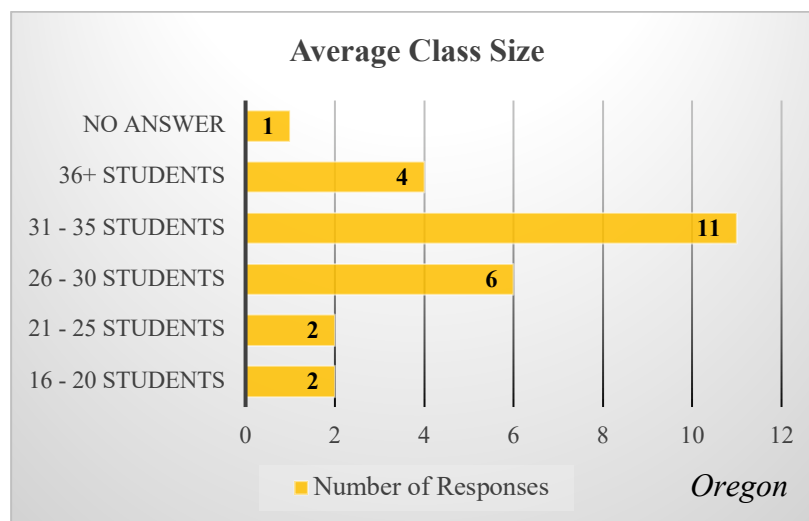
Figure G.71

Oregon survey participants responded that 1 (3.85%) participant has taught FCS for less than 1 year; 2 (7.69%) participants have taught FCS for 1 year; 4 (15.38%) participants have taught FCS for 2 years; 0 (0.00%) participants have taught FCS for 3 years; 1 (3.85%) participant has

taught FCS for 4 years; 2 (7.69%) participants have taught FCS for 5 years; 2 (7.69%) participants have taught FCS for 6 years; 0 (0.00%) participants have taught FCS for 7 years; 0 (0.00%) participants have taught FCS for 8 years; 0 (0.00%) participants have taught FCS for 9 years; 0 (0.00%) participants have taught FCS for 10 years; 1 (3.85%) participant has taught FCS for 11 years; 0 (0.00%) participant has taught FCS for 12 years; 1 (3.85%) participant has taught FCS for 13 years; 2 (7.69%) participants have taught FCS for 14 years; 0 (0.00%) participants have taught FCS for 15 years; 2 (7.69%) participants have taught FCS for 16 years; 1 (3.85%) participant has taught FCS for 17 years; 2 (7.69%) participants have taught FCS for 18 years; 0 (0.00%) participants have taught FCS for 19 years; 0 (0.00%) participants have taught FCS for 20 years; 0 (0.00%) participants have taught FCS for 21 years; 1 (3.85%) participant has taught FCS for 22 years; 0 (0.00%) participants have taught FCS for 23, 24, 25, 26, or 27 years; 1 (3.85%) participant has taught FCS for 28 years; 0 (0.00%) participants have taught FCS for 29 or 30 years; and, 3 (11.54%) participants have taught FCS for 31+ years. See Figure G.72.
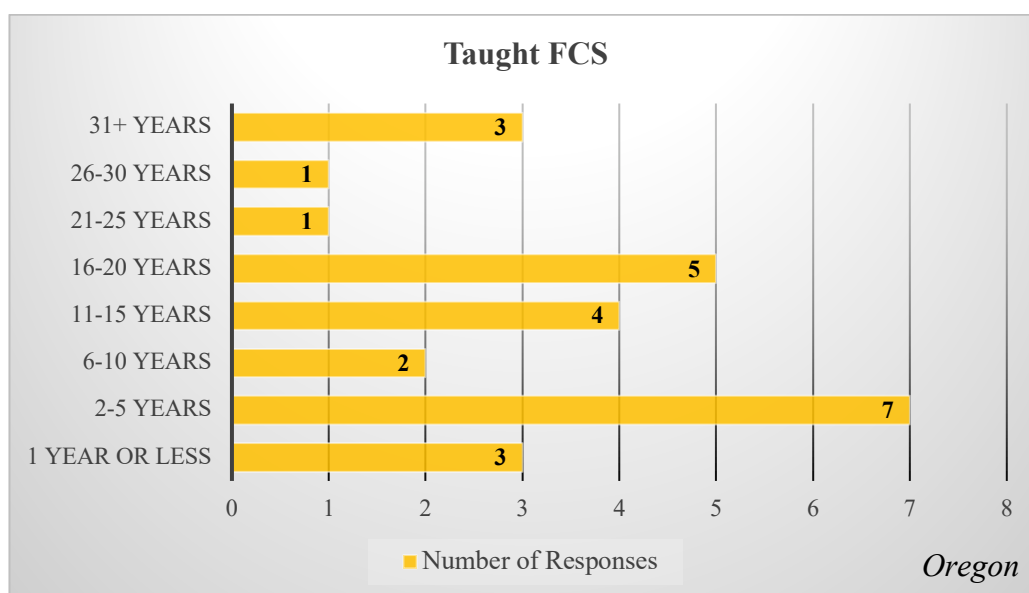
Figure G.72

There were 15 areas of study chosen by 26 Oregon participants. 11 (42.31%) participants teach or have taught Nutrition and Wellness; 17 (65.38%) participants teach or have taught Food Production and Services; 17 (65.38%) participants teach or have taught Education and Early Childhood; 13 (50.00%) participants teach or have taught Parenting; 12 (46.15%) participants teach or have taught Human Development; 11 (42.31%) participants teach or have taught Nutrition and Wellness; 11 (42.31%) participants teach or have taught Food Science, Dietetics, and Nutrition; 11 (42.31%) participants teach or have taught Career, Community, and Family

Connections; 11 (42.31%) teach or have taught Family; 9 (34.62%) participants teach or have taught Family and Human Services; 9 (34.62%) participants teach or have taught Interpersonal Relationships; 9 (34.62%) participants teach or have taught Hospitality, Tourism, and Recreation; 8 (30.77%) participants teach or have taught Consumer and Family Resources; 6 (23.08%) teach or have taught Textiles, Fashion, and Apparel; 3 (11.54%) teach or have taught Housing and Interior Design; 1 (3.85%) participant teaches or has taught Consumer Services; 0 (0.00%) participants teach or have taught Facilities and Property Management; 0 (0.00%) participants are unsure of which area(s) of study they teach or have taught; 0 (0.00%) participants gave no answer. See Figure G.73.
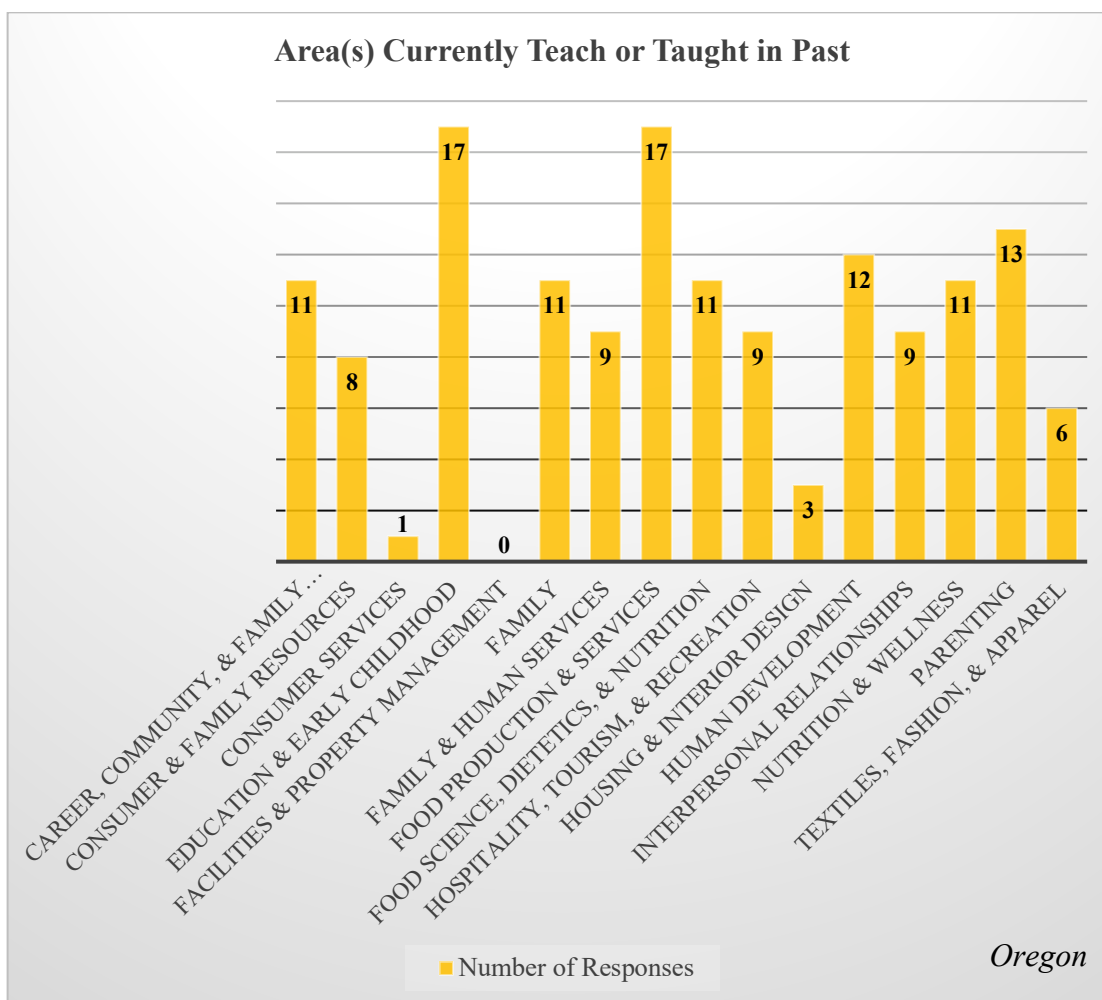
Figure G.73

Of the 26 participants, 13 responded that they were prepared in one of the above ways, 9 responded that they were prepared in two of the above ways, and 4 responded that they were prepared in three of the above ways.

Oregon survey participants responded that 11 (42.31%) participants were prepared through an undergraduate teacher education program (graduated with teaching certification and bachelor's in education or related major); 11 (42.31%) participants were prepared through a graduate program relating to education at least one year beyond a bachelor's degree; 10 (38.46%) participants were prepared through an undergraduate traditional FCS teacher education program (graduated with teaching certification with endorsement in Family & Consumer Sciences); 4 (15.38%) participants were prepared through ways that were not listed in this survey; 3 (11.54%) participants were prepared through substitute teaching that resulted in permanent position; 2 (7.69%) participants were prepared through no prior teaching experience but have a degree and career experience in an FCS-related field; 1 (3.85%) participants were prepared through no prior teaching experience or a degree in a FCS-related field but have career experience in a FCS-related field; 1 (3.85%) participant was prepared through an alternative route (Peace Corps, Teach for America, etc.); 0 (0.00%) participants were prepared through no prior teaching experience but have a degree and no career experience in a FCS-related field; 0 (0.00%) participants were prepared through a Standard Occupational Specialist Certification; and, 0 (0.00%) participants were prepared through a Limited Occupational Specialist Certification.

This shows the many different routes which were available and utilized to become an FCS teacher in Oregon. See Figure G.74.

FCS Teacher Preparation

Category	Number of Responses
UNLISTED OPTION	4
NO PRIOR TEACHING EXPERIENCE OR DEGREE IN FCS BUT CAREER EXPERIENCE IN FCS	1
NO PRIOR TEACHING EXPERIENCE BUT A DEGREE AND NO CAREER EXPERIENCE IN FCS	0
NO PRIOR TEACHING EXPERIENCE BUT A DEGREE AND CAREER EXPERIENCE IN FCS	2
STANDARD OCCUPATIONAL SPECIALIST CERTIFICATION	0
LIMITED OCCUPATIONAL SPECIALIST CERTIFICATION	0
ALTERNATIVE ROUTE (PEACE CORPS, TEACH FOR AMERICA, ETC.)	1
SUBSTITUTE TEACHING THAT RESULTED IN PERMANENT POSITION	3
GRADUATE PROGRAM RELATION TO EDUCATION AT LEAST ONE YEAR BEYOND BACHELOR'S	11
UNDERGRADUATE TRADITIONAL FCS TEACHER EDUCATION PROGRAM	10
UNDERGRADUATE TEACHER EDUCATION PROGRAM	11

Oregon

■ Number of Responses

Figure G.74

Oregon survey participants responded that 0 (0.00%) participants' highest level of formal education was a High School Diploma; 1 (3.85%) participant's highest level of formal education was an Associate Degree; 3 (11.54%) participants' highest level of formal education was a Bachelor's Degree; 1 (3.85%) participants' highest level of formal education was 1-18 graduate hours; 0 (0.00%) participants' highest level of formal education was 19-36 graduate hours; 2 (7.69%) participants' highest level of formal education was 37+ graduate hours; 5 (19.23%) participants' highest level of formal education was a Master's Degree; 14 (53.85%) participants' highest level of formal education was a Master's Degree + more graduate hours; 0

(0.00%) participants' highest level of formal education was a Specialist; and, 0 (0.00%) participants' highest level of formal education was a Doctorate. See Figure G.75.

Highest Level of Education

Category	Number of Responses
MASTER'S DEGREE + GRADUATE HOURS	14
MASTER'S DEGREE	5
37 GRADUATE HOURS	2
19 - 36 GRADUATE HOURS	0
1 - 18 GRADUATE HOURS	1
BACHELOR'S DEGREE	3
ASSOCIATE DEGREE	1
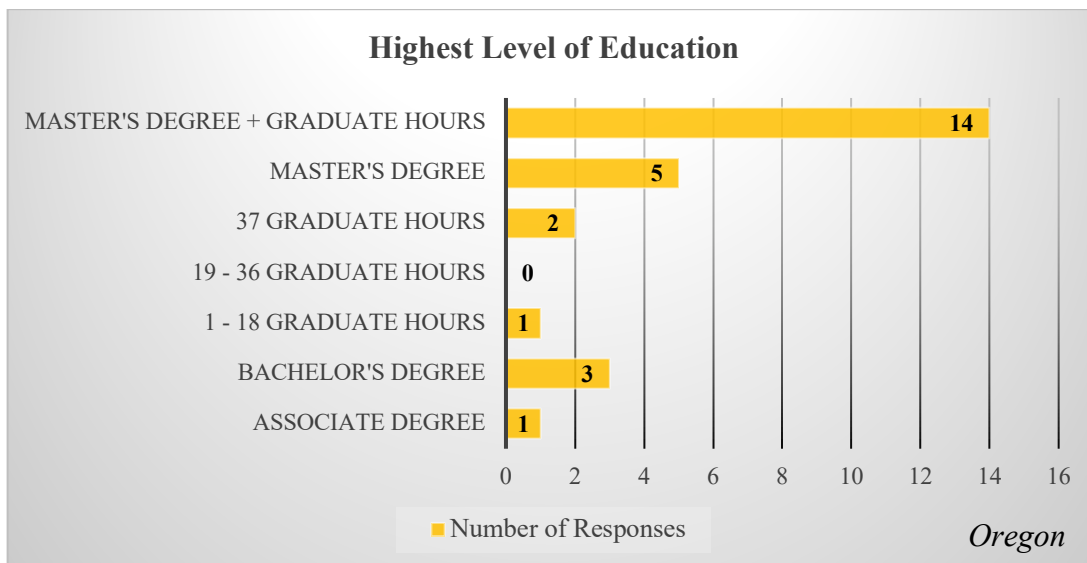
Oregon

Figure G.75

Oregon survey participants responded that 13 (50.00%) participants taught FCS courses at their school alone; 7 (26.92%) participants taught FCS courses at their school with another FCS teacher; 4 (15.38%) participants taught FCS courses at their school with two other FCS teachers; 1 (3.85%) participant taught FCS courses at their school with three other FCS teachers; 0 (0.00%) participants taught FCS courses at their school with four other FCS teachers; and, 1 (3.85%) participants taught FCS courses at their school with five or more other FCS teachers. See Figure G.76.

Number of FCS Teachers at School

Category	Number of Responses
5 OR MORE OTHER FCS TEACHERS	1
4 OTHER FCS TEACHERS	0
3 OTHER FCS TEACHERS	1
2 OTHER FCS TEACHERS	4
1 OTHER FCS TEACHER	7
1 (YOURSELF)	13
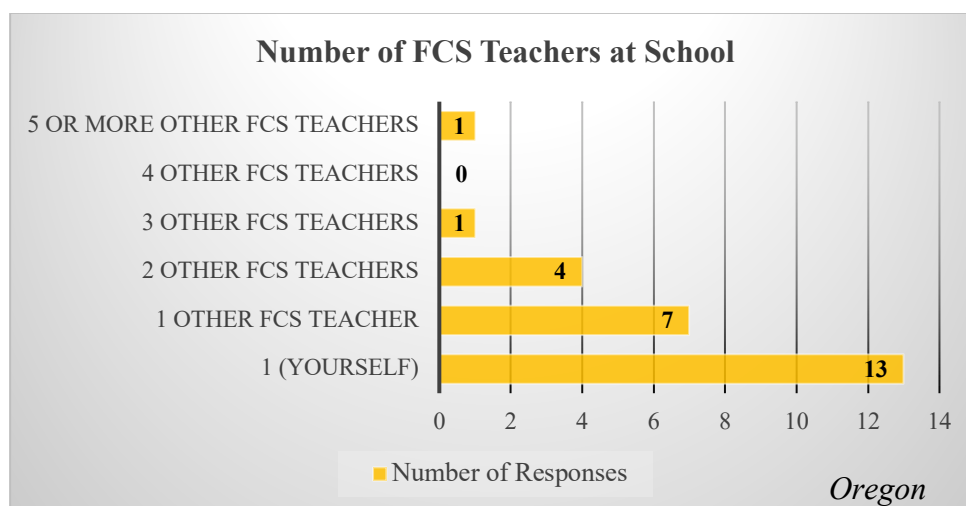
Oregon

Figure G.76

Oregon survey participants responded that 3 (11.54%) participants met with other FCS teachers in their school/district once a week; 4 (15.38%) participants met once a month; 3 (11.54%) participants met once a quarter; 3 (11.54%) participants met once a semester; 4 (15.38%) participants met once a year; 3 (11.54%) participants never met with other FCS teachers in their school/district; 1 (3.85%) participants met irregularly; 2 (7.69%) participants met daily or regularly; 1 (1.23%) participant met every 2 weeks; 1 (1.23%) participant met twice a month; and, 1 (3.85%) participant chose to not answer. See Figure G.77.

Frequency of Meetings with FCS Teachers in School/District
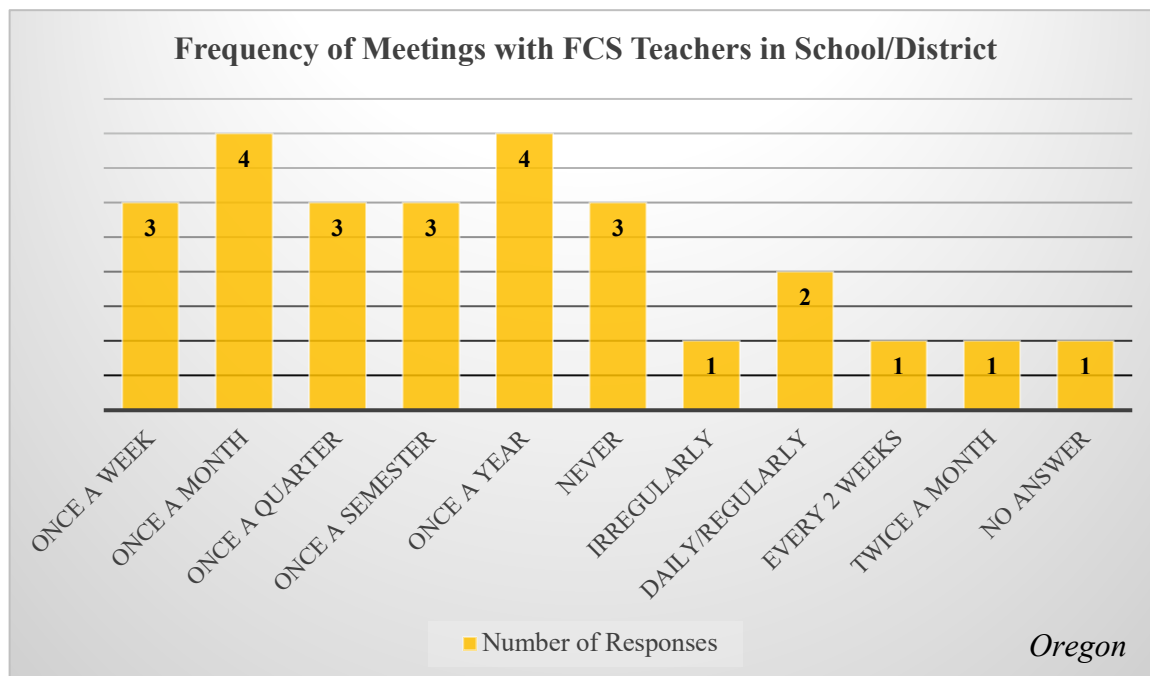
Figure G.77

Oregon survey participants responded that 11 (42.31%) participants held membership in the American Association of Family and Consumer Sciences (AAFCS/NAFCS); 7 (26.92%) participants held membership in the Association for Career and Technical Education (ACTE/FCSTN); 3 (11.54%) participants held membership in the Oregon Association of Teachers of Family and Consumer Sciences (ORAFACS); 3 (11.54%) participant held membership in the National Association for the Education of Young Children (NAEYC); 1 (3.85%) participant held membership in the Council on Family; 1 (3.85%) participant held membership in the National Education Association (NEA); 9 (34.82%) participants did not hold membership in any professional organization; 0 (0.00%) participant chose to not answer. See Figure G.78.

Membership in Professional Organizations

Organization	Number of Responses
NONE	9
NAEYC	3
COUNCIL ON FAMILY	1
NEA	1
ORAFCS	3
ACTE/FCSTN	7
AAFCS/NAFCS	11

Oregon

Figure G.78

Oregon survey participants responded that 6 (23.08%) participants advised a chapter of FCCLA at their school; and, 20 (76.92%) participants did not advise a chapter of FCCLA at their school. See Figure G.79.

Advise FCCLA

Yes 23%
No 77%
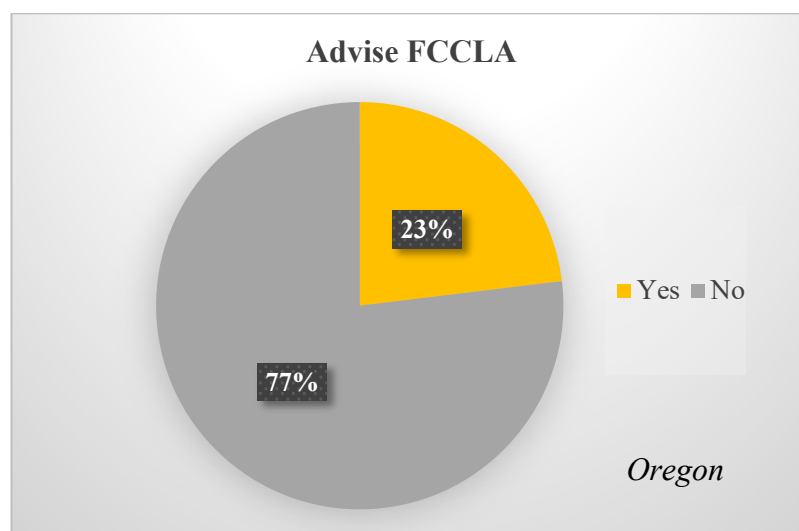
Oregon

Figure G.79

Oregon survey participants responded that 21 (80.77%) participants knew where to find **state** standards for the FCS course(s) they teach; and, 5 (19.23%) participants did not know where to find **state** standards for the FCS course(s) they teach. See Figure G.80.

Locate State Standards
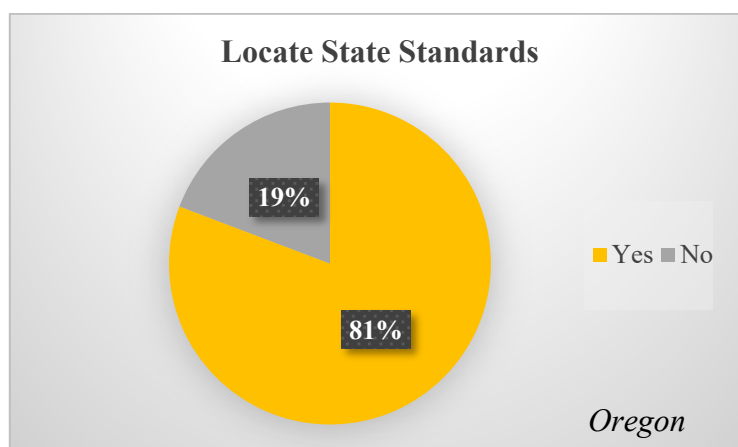
Figure G.80

Oregon survey participants responded that 24 (92.31%) participants knew where to find **national** standards for the FCS course(s) they teach; and, 2 (7.69%) participants did not know where to find **national** standards for the FCS course(s) they teach. See Figure G.81.

Locate National Standards
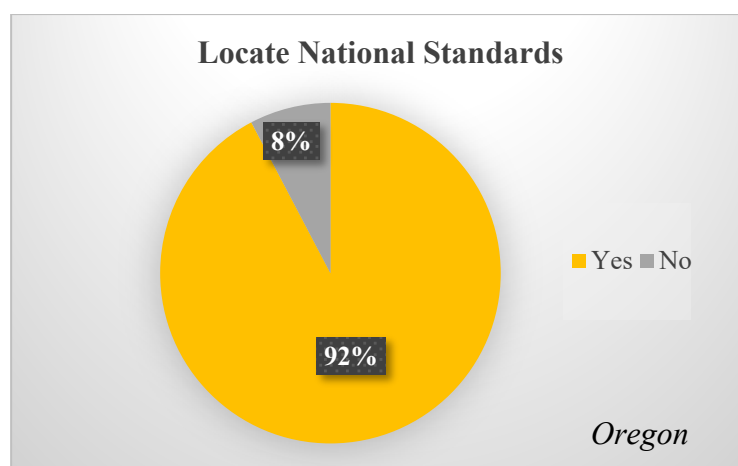
Figure G.81

Oregon survey participants responded that 2 (7.69%) participants thought **state** standards for FCS courses need to be updated every year; 0 (0.00%) participants thought **state** standards for FCS courses need to be updated every other year; 10 (38.46%) participants thought **state** standards for FCS courses need to be updated every three years; 9 (34.62%) participants thought **state** standards for FCS courses need to be updated every four years; 1 (3.85%) participant thought **state** standards for FCS courses need to be updated every five years; 1 (3.85%)

participant thought **state** standards for FCS courses need to be updated every five to ten years; 2 (7.69%) participants did not specify how often they thought **state** standards for FCS courses need to be updated; and, 1 (3.85%) participant chose to not answer. See Figure G.82.

Update State Standards, Frequency

Category	Number of Responses
NO ANSWER	1
NO SPECIFICATION	2
EVERY 5 YEARS	1
EVERY 5 - 10 YEARS	1
EVERY FOUR YEARS	9
EVERY THREE YEARS	10
EVERY OTHER YEAR	0
EVERY YEAR	2

■ Number of Responses
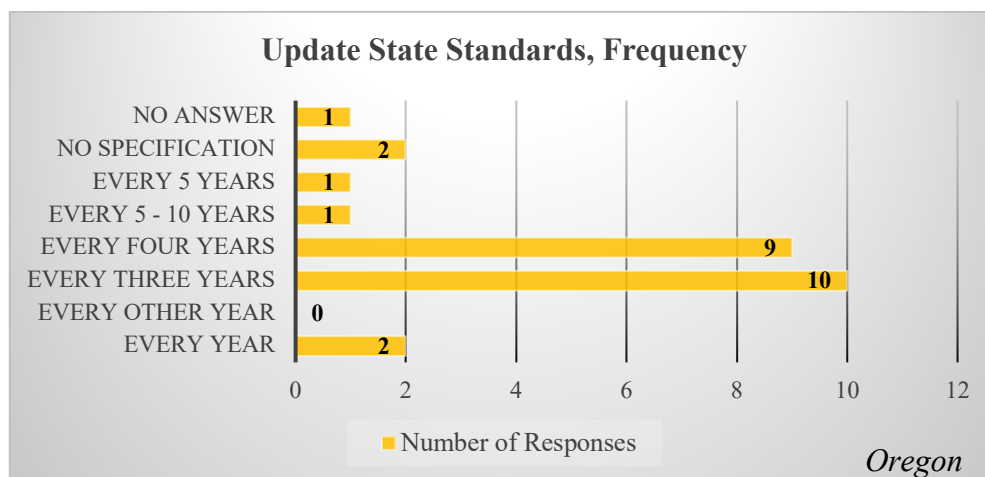
Oregon

Figure G.82

Oregon survey participants responded that 1 (3.85%) participants thought **national** standards for FCS courses need to be updated every year; 1 (3.85%) participants thought **national** standards for FCS courses need to be updated every other year; 9 (34.62%) participants thought **national** standards for FCS courses need to be updated every three years; 10 (38.46%) participants thought **national** standards for FCS courses need to be updated every four years; 1 (3.85%) participants thought **national** standards for FCS courses need to be updated every five years; 1 (3.85%) participants thought **national** standards for FCS courses need to be updated every five to ten years; 2 (7.69%) participants did not specify how often they thought **national** standards for FCS courses need to be updated; and, 1 (3.85%) participants chose to not answer. See Figure G.83.

Update National Standards, Frequency

Category	Number of Responses
NO ANSWER	1
NO SPECIFICATION	2
EVERY 5 YEARS	1
EVERY 5 - 10 YEARS	1
EVERY FOUR YEARS	10
EVERY THREE YEARS	9
EVERY OTHER YEAR	1
EVERY YEAR	1

■ Number of Responses
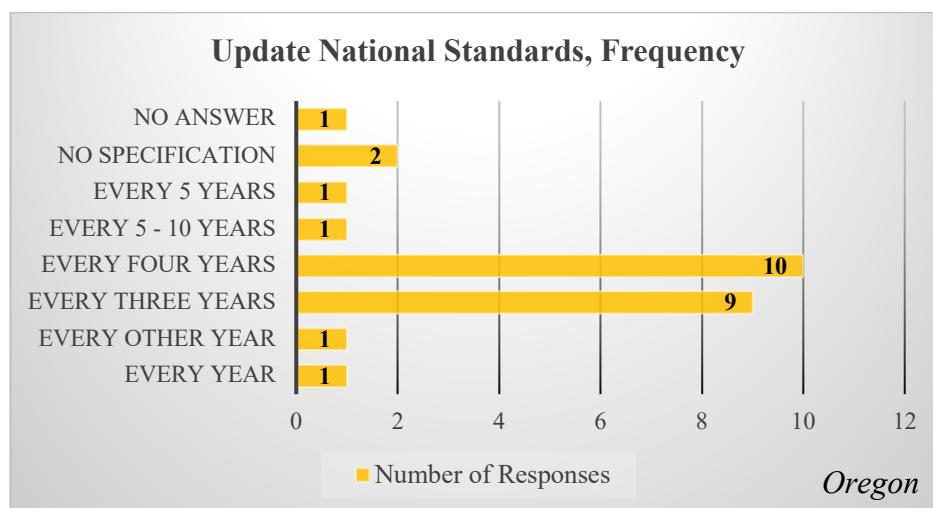
Oregon

Figure G.83

Perceived Needs for Professional Development

This section contains the analysis of the responses of Oregon secondary FCS teachers relating to the twelve competencies this study focuses on. The twelve competencies are broken down into four sections: Technology; Course, Curriculum, and Standards Development; Teaching; Professional Development, Programs, and Organizations.

To determine professional development needs in addressing research question 1, the Mean Weighted Discrepancy scores were used to rank the list of competencies. To determine discrepancy scores, weighted discrepancy scores, and MWDS the following procedures were followed. A discrepancy score was calculated for each individual on each competency by taking the importance rating minus the ability (competency) rating. Next, a weighted discrepancy score was then calculated on each individual for each of the professional competencies by multiplying the discrepancy score by the mean importance rating. A Mean Weighted Discrepancy Score (MWDS) for each of the competencies was then calculated by taking the sum of the weighted discrepancy scores and dividing by the number of observations. Using the MWDS, the competencies were ranked. The competencies with the highest MWDS were those with the highest perceived need and priority for professional development (Erwin, 2018, pg. 83).

See Tables G.9 and G.10.

Table G.9: Oregon Q19-22		Importance			Competence	
	n	*Mean*	*SD*	*n*	*Mean*	*SD*
Q19 Technology						
Using current and relevant **computer/internet technology** to teach interactive lessons on content or career-specific tasks	26	3.35	0.629	26	3.12	0.516
Using current and relevant **non-computer technology** to teach interactive lessons on content or career-specific tasks (such as up-to-date kitchen equipment, up-to-date sewing/design equipment, etc.)	26	3.58	0.703	26	3.65	0.689
Q20 Course, Curriculum, and Standards Development						
Determining the content that should be taught in your specific course(s)	26	3.85	0.368	25	3.60	0.577
Keeping current on trends and issues in your area of content	26	3.88	0.326	25	3.28	0.737
Reporting your program information to your district and state Department of Education	26	3.15	0.834	25	2.92	0.997
Q21 Teaching						
Selecting current/relevant student references, materials, and textbooks	25	3.76	0.436	24	3.42	0.776
Educating students and maintaining required health and safety standards (state/federal/OSHA)	25	3.92	0.227	24	3.50	0.659
Q22 Professional Development, Programs, and Organizations						
Organizing activities for students with local organizations relating to your content area	25	3.16	0.554	23	2.91	0.848
Providing information to students related to furthering their education in your content area	24	3.67	0.482	23	3.35	0.647
Establishing opportunities or creating connections for student work internships or jobs	24	3.63	0.576	23	3.13	0.757
Developing a variety of School-to-Work/Career activities in your curriculum	24	3.54	0.721	23	3.00	0.953
Integrating life skills into your curriculum	24	3.96	0.204	23	3.87	0.344

Table G.10: Oregon Competencies MWDS

List of Oregon Competencies Ranked by MWDS[8]

Competency	n	MWDS	Rank
20.2 Keeping current on trends and issues in your area of content *(Course, Curriculum and Standards Development)*	25	2.3280	1
22.3 Establishing opportunities or creating connections for student work internships or jobs *(Professional Development, Programs, and Organizations)*	23	1.8939	2
22.4 Developing a variety of School-to-Work/Career activities in your curriculum *(Professional Development, Programs, and Organizations)*	23	1.8470	3
22.2 Providing information to students related to furthering their education in your content area *(Professional Development, Programs, and Organizations)*	23	1.1170	4
21.2 Educating students and maintaining required health and safety standards (state/federal/OSHA) *(Teaching)*	24	1.6333	5
21.1 Selecting current/relevant student references, materials, and textbooks *(Teaching)*	24	1.2533	6
20.1 Determining the content that should be taught in your specific course(s) *(Course, Curriculum and Standards Development)*	25	0.9240	7
22.1 Organizing activities for students with local organizations relating to your content area *(Professional Development, Programs, and Organizations)*	23	0.8243	8
19.1 Using current and relevant **computer/internet technology** to teach interactive lessons on content or career-specific tasks *(Technology)*	26	0.7731	9
20.3 Reporting your program information to your district and state Department of Education *(Course, Curriculum and Standards Development)*	25	0.6300	10

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[8] *Incomplete/missing data excluded in Table 9 analysis*

22.5 Integrating life skills into your curriculum *(Professional Development, Programs, and Organizations)*	23	0.3443	11
19.2 Using current and relevant **non-computer technology** to teach interactive lessons on content or career-specific tasks (such as up-to-date kitchen equipment, up-to-date sewing/design equipment, etc.) *(Technology)*	26	-0.2754	12

The range of means of importance was 3.15 to 3.96 on a four-point Likert scale. This shows that all of the competencies listed were seen as important competencies for Montana secondary FCS teachers. The range of means of competence was 2.91 to 3.87 on a four-point Likert scale. Two competencies scored below 3.00: *20.3 Reporting your program information to your district and state Department of Education* ($M = 2.92$); and, *22. Organizing activities for students with local organizations relating to your content area* ($M = 2.91$). This shows that the majority of Oregon secondary FCS teachers perceived themselves competent in most competencies.

The competencies were scored as followed, the higher the MWDS, the higher the professional development need priority: *20.2 Keeping current on trends and issues in your area of* content (MWDS = 2.3280); *22.3 Establishing opportunities or creating connections for student work internships or jobs* (MWDS = 1.8939); *22.4 Developing a variety of School-to-Work/Career activities in your curriculum* (MWDS = 1.8470);*22.2 Providing information to students related to furthering their education in your content* area (MWDS = 1.1170); *21.2 Educating students and maintaining required health and safety standards (state/federal/OSHA)* (MWDS = 1.6333); *21.1 Selecting current/relevant student references, materials, and textbooks* (MWDS = 1.2533); *20.1 Determining the content that should be taught in your specific course(s)* (MWDS = 0.9240); *22.1 Organizing activities for students with local organizations relating to your content area* (MWDS = 0.8243); *19.1 Using current and relevant* **computer/internet technology** *to teach interactive lessons on content or career-specific tasks* (MWDS = 0.7731); *20.3 Reporting your program information to your district and state Department of Education* (MWDS = 0.6300); *22.5 Integrating life skills into your curriculum* (MWDS = 0.3443); and, *19.2 Using current and relevant* **non-computer technology** *to teach interactive lessons on content or career-specific tasks (such as up-to-date kitchen equipment, up-to-date sewing/design equipment, etc.)* (MWDS = -0.2754).

Professional Development Motivations & Deterrents

Participants were asked to rate four statements to the level it motivated or deterred them from participating in professional development. They ranked each statement using a 4-point Likert scale: 4 strongly motivates, 3 somewhat motivates, 2 somewhat deters, and 1 strongly deters. The strongest motivator in Montana for participating in professional development was: The professional development is specifically related to your content area (M = 3.84, SD = 0.473). The subsequent ranking for motivators followed as: The professional development is offered at different times or in multiple sessions to allows for flexibility in scheduling (M = 3.72, SD = 0.458); The professional development will allow you to gain college credit (M = 3.46, SD = 0.588); and, The professional development is related to updated or new technology (M = 3.44, SD = 0.583). None of the statements were seen as deterrents. See Table G.11.

Table G.11: Oregon PD Motivation/Deterrent

Rate each statement to the level it motivates or deters you from participating in professional development.	*n*	*Mean*	*SD*
The professional development is specifically related to your content area	25	3.84	0.473
The professional development is related to updated or new technology	25	3.44	0.583
The professional development will allow you to gain college credit	24	3.46	0.588
The professional development is offered at different times or in multiple sessions to allow for flexibility in scheduling	25	3.72	0.458

See Appendix I for breakdown of statistics of Table G.11.

Professional Development Offered

Participants were asked to rate five statements relating to professional development currently offered to the level they agreed or disagreed with them. They ranked each statement using a 4-point Likert scale: 4 strongly agree, 3 somewhat agree, 2 somewhat disagree, 1 strongly disagree. The statement Oregon participants most agreed with was: Professional development is offered that teaches current or updated information (M = 3.32, SD = 0.748). The subsequent ranking for agreement followed as: Professional development if offered at times you are available to attend (M = 3.28, SD = 0.843); Professional development is offered that is affordable for you to participate in (M = 3.16, SD = 0.746); Professional development is offered that is related to the content you teach (M = 3.12, SD = 1.166); and, Professional development is offered at locations that are close enough to your school or home for you to attend (M = 3.00, SD = 0.780). See Table G.12.

Table G.12: Oregon PD Offered

Rate each statement to the level it you agree or disagree with it.	n	Mean	SD
Professional development is offered that teaches current or updated information	25	3.32	0.748
Professional development is offered that is related to the content you teach	25	3.12	1.166
Professional development is offered at times you are available to attend	25	3.28	0.843
Professional development is offered that is affordable for you to participate in	25	3.16	0.746
Professional development is offered at locations that are close enough to your school or home for you to attend	24	3.00	0.780

See Appendix I for breakdown of statistics of Table G.12.

Professional Development Preferences

Professional development preferences were ranked on a 4-point Likert scale: 7 strongly prefer, 6 somewhat prefer, 5 somewhat do not prefer, 4 strongly do not prefer.

The highest ranked preferences were: *Full-day professional development during the school year* ($M = 6.36$, $SD = 0.810$); *In-service sessions at Summer PTE/CTE Conference* ($M = 6.00$, $SD = 0.905$); and, *One week professional development in the summer* ($M = 5.58$, $SD = 1.100$). The lowest ranked preferences were: *Weekend professional development during the school year* ($M = 5.04$, $SD = 1.096$); *Internet-based professional development at specified times* ($M = 4.91$, $SD = 0.996$); and, *Professional development on weekday evenings during the school* year ($M = 4.44$, $SD = 0.821$). See Figures G.84 – G.92 for complete professional development rankings.

Figure G.84: M = 6.36, SD = 0.810

In-service sessions at Summer PTE/CTE Conference

Strongly do not prefer 9%
Somewhat do not prefer 13%
Somewhat prefer 48%
Strongly prefer 30%

Oregon

Figure G.85: M = 6.00, SD = 0.905

Half-day professional development in the afternoon during the school year

Strongly do not prefer 16%
Somewhat do not prefer 32%
Somewhat prefer 44%
Strongly prefer 8%

Oregon

Figure G.87: M = 5.44, SD = 0.870

One-week professional development in the summer

Strongly do not prefer 21%
Somewhat do not prefer 25%
Somewhat prefer 29%
Strongly prefer 25%

Oregon

Figure G.86: M = 5.58, SD = 1.100

Half-day professional development in the morning during the school year

Strongly do not prefer 29%
Somewhat do not prefer 25%
Somewhat prefer 25%
Strongly prefer 21%

Oregon

Figure G.88: M = 5.38, SD = 1.135

Self-directed internet-based professional development courses

- Strongly do not prefer — 24%
- Somewhat do not prefer — 44%
- Somewhat prefer — 20%
- Strongly prefer — 12%

Oregon

Figure G.89: M = 5.20, SD = 0.957

Internet-based professional development courses at specified times

- Strongly do not prefer — 39%
- Somewhat do not prefer — 44%
- Somewhat prefer — 4%
- Strongly prefer — 13%

Oregon

Figure G.91: M = 4.91, SD = 0.996

Weekend professional development during the school year

- Strongly do not prefer — 44%
- Somewhat do not prefer — 20%
- Somewhat prefer — 24%
- Strongly prefer — 12%

Oregon

Figure G.90: M = 5.04, SD = 1.096

Professional development on weekday evenings during the school year

- Strongly do not prefer — 72%
- Somewhat do not prefer — 16%
- Somewhat prefer — 8%
- Strongly prefer — 4%

Oregon

Figure G.92: M = 4.44, SD = 0.821

197

Figure G.93

See Appendix I for breakdown of statistics of Figures G.84 – G.93.

Professional Development Content Needed
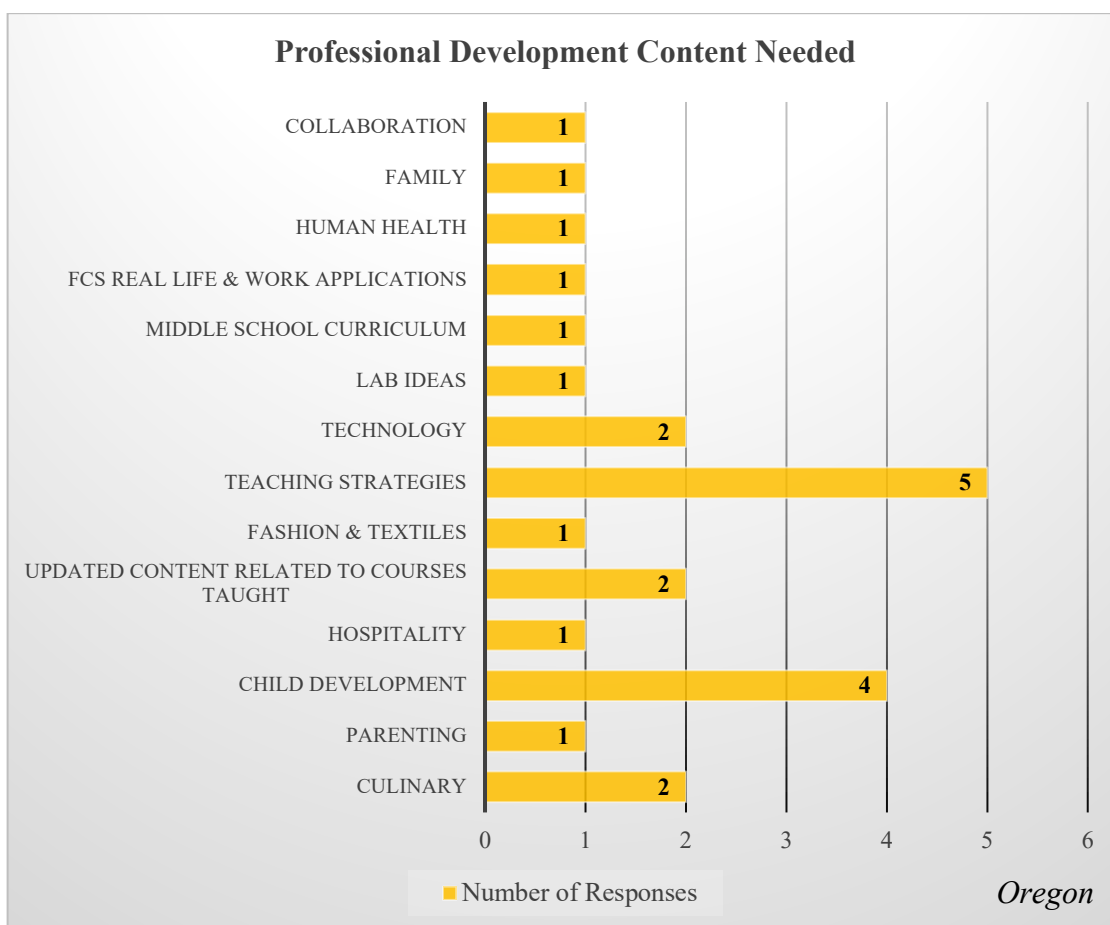
Figure G.94

See Appendix I for detailed responses.

Standards & Curriculum Confidence

Oregon participants were asked to rate five statements relating to professional development currently offered to the level they agreed or disagreed with them. They ranked each statement using a 4-point Likert scale: 4 strongly agree, 3 somewhat agree, 2 somewhat disagree, 1 strongly disagree. The statement they most agreed with was: *You use authentic assessment in your classroom more often than traditional assessment* ($M = 3.64$, $SD = 0.490$). The subsequent ranking for agreement followed as: *You are confident your students will leave your course knowing information and skills that ready them to enter a competitive workforce* ($M = 3.28$, $SD = 0.792$); *You are confident your curriculum includes the most current and relevant information available related to your content area* ($M = 3.24$, $SD = 0.723$); *The current national standards reflect relevant and updated information* ($M = 2.92$, $SD = 0.572$); and, *Your current state*

standards reflect relevant and updated information (M = 2.71, *SD* = 0.690). See Figures G.95 –

G.99.

You use authentic assessment in your classroom more often than traditional assessment

Strongly disagree: 0%
Somewhat disagree: 0%
Somewhat agree: 36%
Strongly agree: 64%

Oregon

Figure G.95: M = 3.64, SD = 0.490

You are confident your students will leave your course knowing information and skills that ready them to enter a competitive workforce

Strongly disagree: 0%
Somewhat disagree: 20%
Somewhat agree: 32%
Strongly agree: 48%

Oregon

Figure G.96: M = 3.28, SD = 0.792

You are confident your curriculum includes the most current and relevant information available related to your content area

Strongly disagree: 0%
Somewhat disagree: 16%
Somewhat agree: 44%
Strongly agree: 40%

Oregon

Figure G.97: M = 3.24, SD = 0.723

The current national standards reflect relevant and updated information

- Strongly disagree
- Somewhat disagree
- Somewhat agree
- Strongly agree

0%
12% 20%
68%

Oregon

Figure G.98: M = 2.92, SD = 0.572

Your current state standards reflect relevant and updated information

- Strongly disagree
- Somewhat disagree
- Somewhat agree
- Strongly agree

4% 8%
17%
71%

Oregon

Figure G.99: M = 2.71, SD = 0.690

Personal Demographics

Oregon survey participants responded that 1 (3.85%) participants identified as male; 24 (92.31%) participants identified as female; and, 1 (3.85%) participant chose to not respond. See Figure G.100.
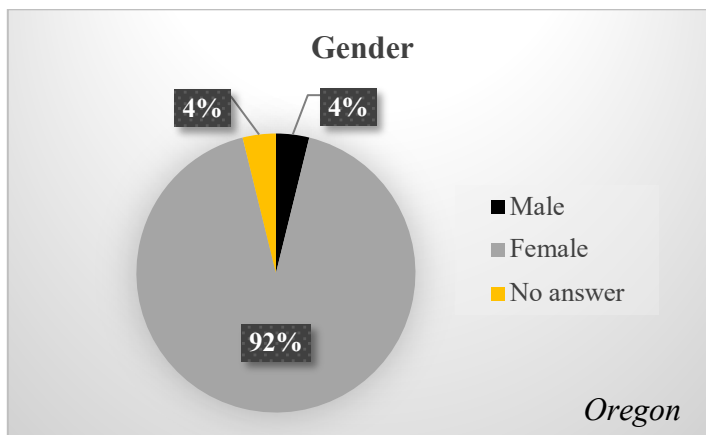
Figure G.100

Oregon survey participants responded that 1 (3.85%) participant was between the ages of 18-24; 2 (7.69%) participant was between the ages of 25-29; 2 (7.69%) participants were between the ages of 30-34; 4 (15.39%) participants were between the ages of 35-39; 2 (7.69%) participants were between the ages of 40-44; 2 (7.69%) participants were between the ages of 45-49; 6 (23.08%) participants were between the ages of 50-54; 3 (11.54%) participants were between the ages of 55-59; 2 (7.69%) participants were between the ages of 60-64; 1 (3.85%) was 65+; and, 1 (3.85%) chose to not answer. See Figure G.101.
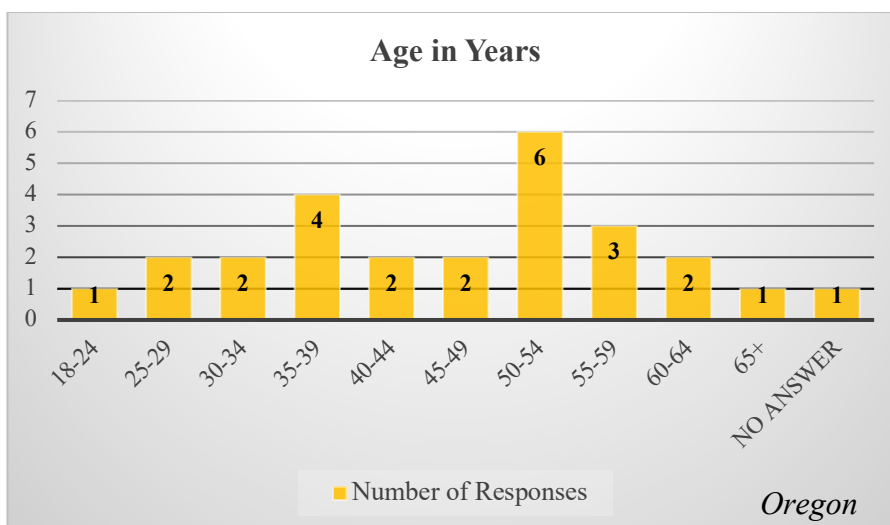
Figure G.101

Oregon survey participants responded that 1 (3.85%) participant identified as American Indian/Alaskan Native; 24 (92.31%) participants identified as White; 1 (3.85%) participant identified as unspecified; and, 1 (3.85%) chose to not answer. See Figure G.102.
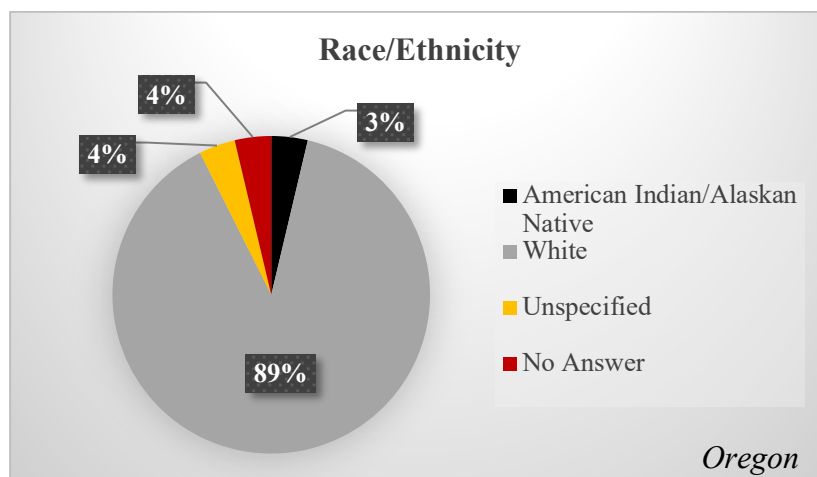
Figure G.102: One participant identified as two races/ethnicities – Total percentage will be more than 100%.

WASHINGTON

RESPONSE RATE

There were 99 responses completed 50% or more; 57 completed 100%, 30 completed 97%, 1 completed 84%, 1 completed 71%, 4 completed 65%, and 6 completed 55%. All 99 of the FCS teachers who took the survey submitted it, though not all of them answered all of the questions. The survey was taken through Qualtrics and then analyzed through SPSS and Excel.

DATA

Professional Demographics

Washington survey participants responded that 33 participants (33.33%) taught in a city/town with a population of less than 2,500 people; 8 participants (8.08%) taught in a city/town with a population of 2,500 to 50,000 people; and, 57 (57.58%) taught in a city/town with a population of over 50,000 people. See Figure G.103.
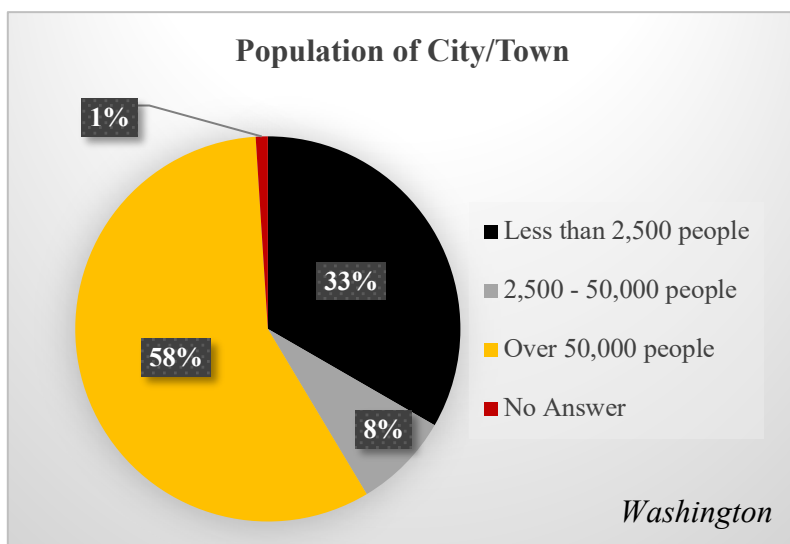
Figure G.103

Washington survey participants responded that 0 (0.00%) participants had less than 50 students in their school; 3 (3.03%) participants had 50-100 students in their school; 7 (7.07%) participant had 101-300 students in their school; 8 (8.08%) participants had 301-500 students in their school; 10 (10.10%) participants had 501-750 students in their school; 10 (10.10%) participants had 751-1000 students in their school; 13 (13.13%) participants had 1001-1200 students in their school; and 48 (48.48%) participants had 1200+ students in their school. See Figure G.104.

Student Population

Population	Number of Responses
1201+	48
1001 - 1200	13
751 - 1000	10
501 - 750	10
301 - 500	8
101 - 300	7
50 - 100	3

■ Number of Responses   *Washington*
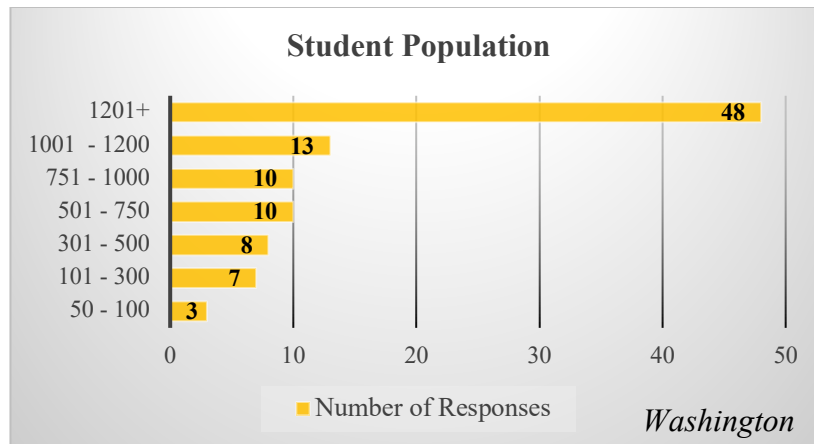
Figure G.104

Washington survey participants responded that 0 (0.00%) participants had an average class size of less than 5 students; 0 (0.00%) participants had an average class size of 6-10 students; 4 (4.04%) participants had an average class size of 11-15 students; 10 (10.10%) participants had an average class size of 16-20 students; 15 (15.15%) participants had an average class size of 21-25 students; 53 (53.54%) participants had an average class size of 26-30 students; 17 (17.17%) participants had an average class size of 31-35 students; and, 0 (0.00%) participants had an average class size of 36+ students. See Figure G.105.

Average Class Size

Class Size	Number of Responses
31 - 35 STUDENTS	17
26 - 30 STUDENTS	53
21 - 25 STUDENTS	15
16 - 20 STUDENTS	10
11-15 STUDENTS	4

■ Number of Responses   *Washington*
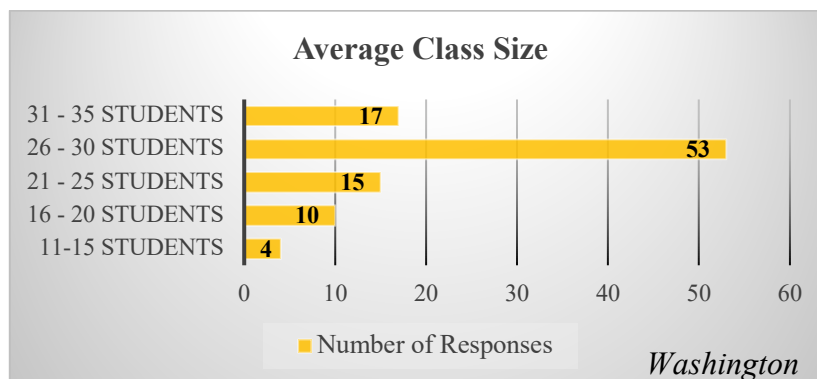
Figure G.105

Washington survey participants responded that 1 (1.01%) participant has taught FCS for less than 1 year; 2 (2.02%) participants have taught FCS for 1 year; 0 (0.00%) participants have taught FCS for 2 years; 8 (8.08%) participants have taught FCS for 3 years; 0 (0.00%) participants have taught FCS for 4 years; 5 (5.05%) participants have taught FCS for 5 years; 7 (7.07%) participants have taught FCS for 6 years; 4 (4.04%) participants have taught FCS for 7 years; 5 (5.05%) participants have taught FCS for 8 years; 0 (0.00%) participants have taught FCS for 9 years; 5 (5.05%) participants have taught FCS for 10 years; 2 (2.02%) participants

have taught FCS for 11 years; 3 (3.03%) participant has taught FCS for 12 years; 0 (0.00%)
participant has taught FCS for 13 years; 2 (2.02%) participants have taught FCS for 14 years; 4
(4.04%) participants have taught FCS for 15 years; 5 (5.05%) participants have taught FCS for
16 years; 3 (3.03%) participants have taught FCS for 17 years; 5 (5.05%) participants have
taught FCS for 18 years; 0 (0.00%) participants have taught FCS for 19 years; 9 (9.09%)
participants have taught FCS for 20 years; 2 (2.02%) participants have taught FCS for 21 years;
1 (1.01%) participant has taught FCS for 22 years; 0 (0.00%) participants have taught FCS for 23
or 24 years; 3 (3.03%) participants have taught FCS for 25; 1 (1.01%) participant has taught FCS
for 26; 2 (2.02%) participants have taught FCS for 27 years; 1 (1.01%) participant has taught
FCS for 28 years; 2 (2.02%) participants have taught FCS for 29 years; 3 (3.03%) participants
have taught FCS for 30 years; and, 14 (14.14%) participants have taught FCS for 31+ years. See
Figure G.106.
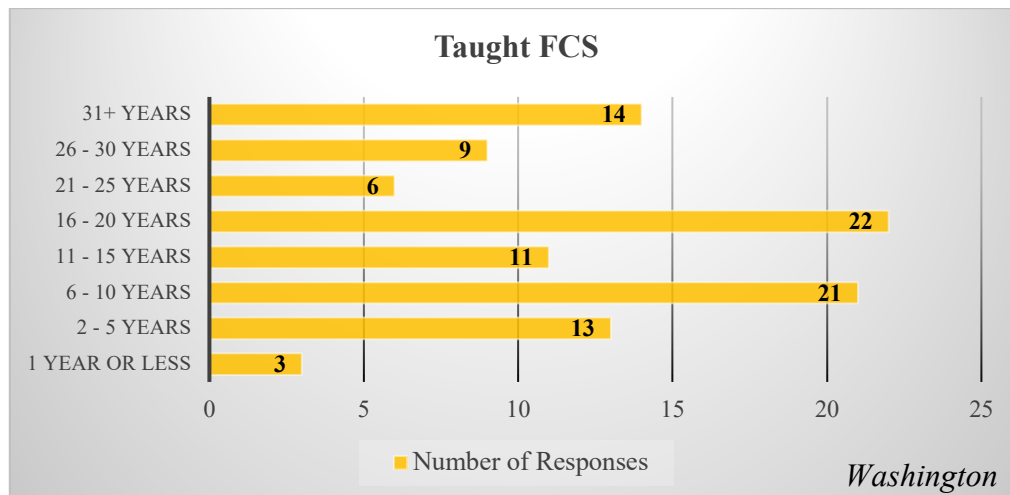
Figure G.106

There were 16 areas of study chosen by 99 Washington participants. 77 (77.78%)
participants teach or have taught Nutrition and Wellness; 68 (68.69%) participants teach or have
taught Human Development; 59 (59.60%) participants teach or have taught Education and Early
Childhood; 54 (54.55%) participants teach or have taught Food Production and Services; 48
(48.48%) participants teach or have taught Parenting; 47 (47.47%) participants teach or have
taught Interpersonal Relationships; 44 (44.44%) participants teach or have taught Housing and
Interior Design; 43 (43.43%) participants teach or have taught Textiles, Fashion, and Apparel; 42
(42.42%) participants teach or have taught Family and Human Services; 41 (41.41%)
participants teach or have taught Food Science, Dietetics, and Nutrition; 40 (40.40%)
participants teach or have taught Career, Community, and Family Connections; 39 (39.39%)

participants teach or have taught Consumer and Family Resources; 34 (34.34%) participants teach or have taught Family; 22 (22.22%) participants teach or have taught Consumer Services. 17 (17.17%) participants teach or have taught Hospitality, Tourism, and Recreation; 2 (2.02%) participants teach or have taught Facilities and Property Management; and, 2 (2.02%) participants are unsure of which area(s) of study they teach or have taught. See Figure G.107.

Area(s) Currently Teach or Taught in Past

Washington

■ Number of Responses
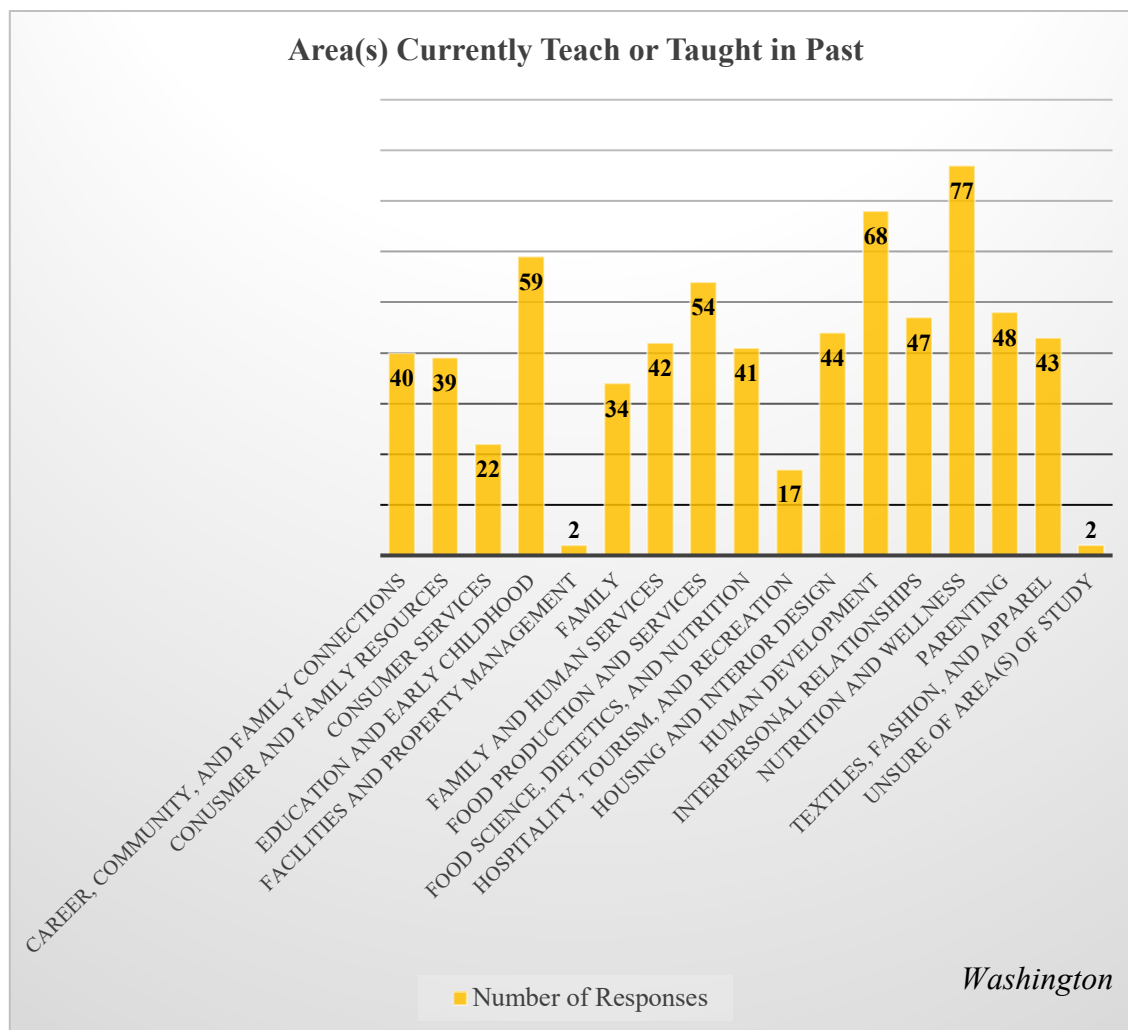
Figure G.107

Of the 99 participants, 63 responded that they were prepared in one of the following ways, 27 responded that they were prepared in two of the following ways, 7 responded that they were prepared in three of the following ways, and 2 responded that they were prepared in four of the following ways.

Washington survey participants responded that 59 (59.60%) participants were prepared through an undergraduate traditional FCS teacher education program (graduated with teaching certification with endorsement in Family & Consumer Sciences); 28 (28.28%) participants were

prepared through an undergraduate teacher education program (graduated with teaching certification and bachelor's in education or related major); 26 (26.26%) participants were prepared through a graduate program relating to education at least one year beyond a bachelor's degree; 13 (13.13%) participants were prepared through ways that were not listed in this survey; 5 (5.05%) participants were prepared through substitute teaching that resulted in permanent position; 5 (5.05%) participants were prepared through an alternative route (Peace Corps, Teach for America, etc.); 4 (4.04%) participants were prepared through no prior teaching experience but have a degree and career experience in an FCS-related field; 0 (0.00%) participants were prepared through no prior teaching experience or a degree in a FCS-related field but have career experience in a FCS-related field; 3 (3.03%) participants were prepared through no prior teaching experience but have a degree and no career experience in a FCS-related field; 3 (3.03%) participants were prepared through a Standard Occupational Specialist Certification; and, 0 (0.00%) participants were prepared through a Limited Occupational Specialist Certification.

This shows the many different routes which were available and utilized to become an FCS teacher in Washington. See Figure G.108.
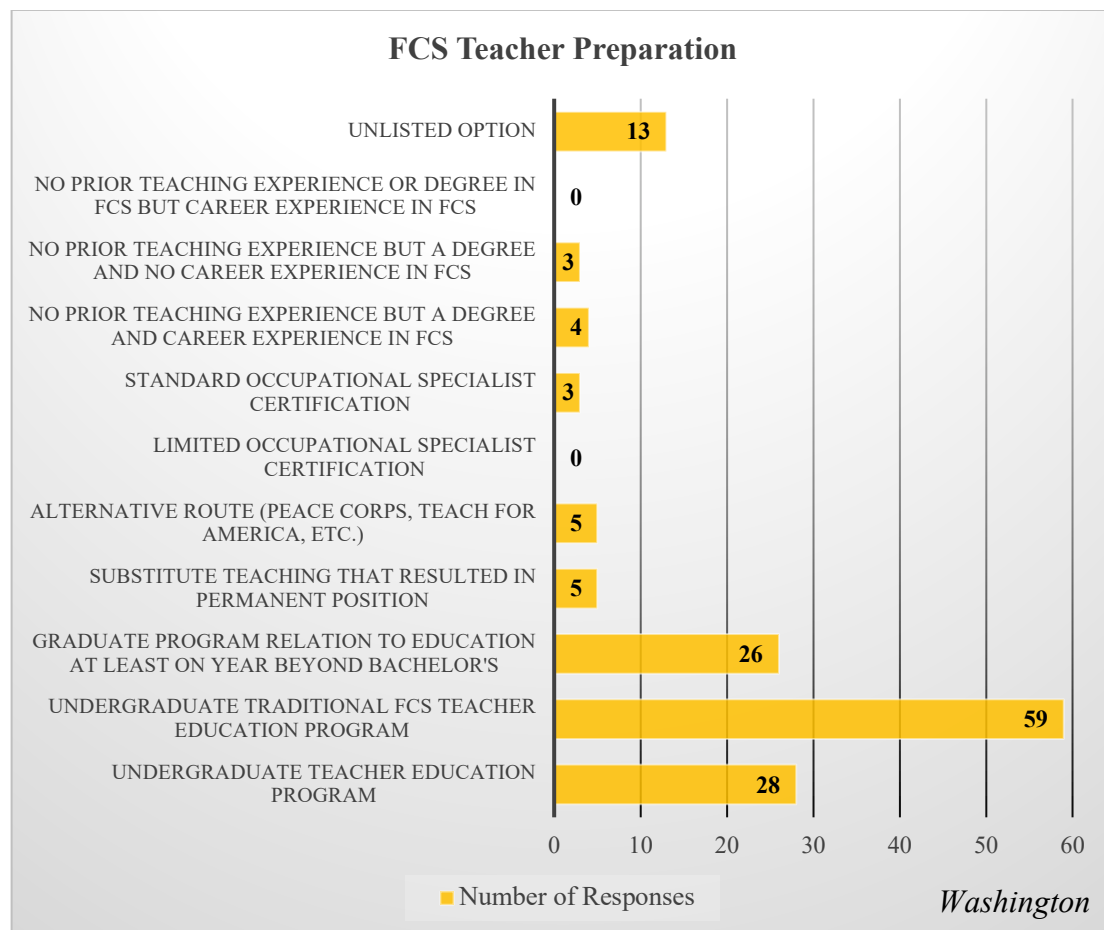
Figure G.108

Washington survey participants responded that 0 (0.00%) participants' highest level of formal education was a High School Diploma; 1 (1.01%) participant's highest level of formal education was an Associate Degree; 6 (6.06%) participants' highest level of formal education was a Bachelor's Degree; 1 (1.01%) participants' highest level of formal education was 1-18 graduate hours; 4 (4.04%) participants' highest level of formal education was 19-36 graduate hours; 9 (9.09%) participants' highest level of formal education was 37+ graduate hours; 21 (21.21%) participants' highest level of formal education was a Master's Degree; 56 (56.56%) participants' highest level of formal education was a Master's Degree + more graduate hours; 0 (0.00%) participants' highest level of formal education was a Specialist; and, 1 (1.01%) participants' highest level of formal education was a Doctorate. See Figure G.109.
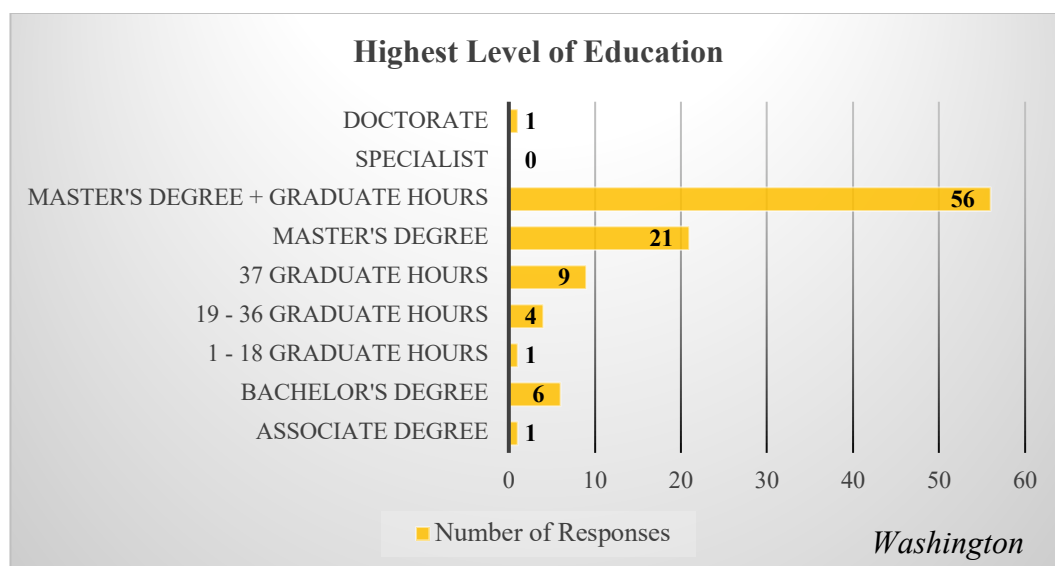
Figure G.109

Washington survey participants responded that 42 (42.42%) participants taught FCS courses at their school alone; 21 (21.21%) participants taught FCS courses at their school with another FCS teacher; 20 (20.20%) participants taught FCS courses at their school with two other FCS teachers; 8 (8.08%) participant taught FCS courses at their school with three other FCS teachers; 4 (4.04%) participants taught FCS courses at their school with four other FCS teachers; and, 4 (3.85%) participants taught FCS courses at their school with five or more other FCS teachers. See Figure G.110.
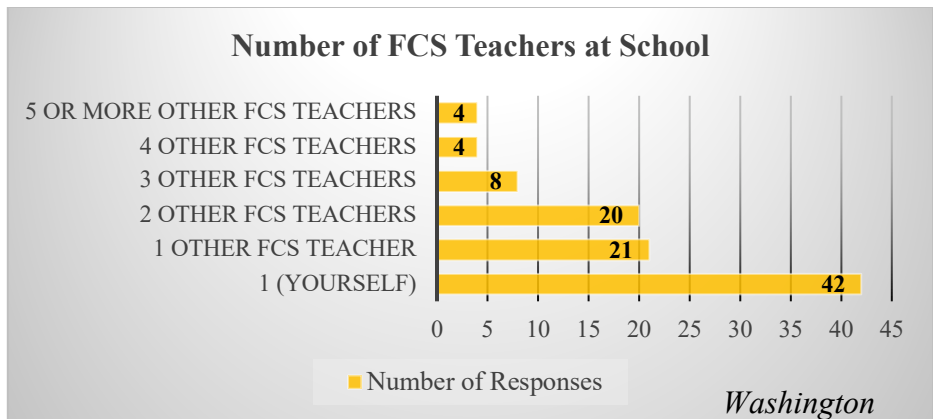
Figure G.110

Washington survey participants responded that 26 (26.26%) participants met once a month; 18 (18.18%) participants met with other FCS teachers in their school/district once a week; 16 (16.16%) participants met once a quarter; 12 (12.12%) participants met once a semester; 12 (12.12%) participants never met with other FCS teachers in their school/district; 5 (5.05%) participants met daily or regularly; 4 (4.04%) participants met once a year; 2 (2.02) participants met three times a year; 1 (1.01%) participants met irregularly; 1 (1.01%) participant met every 2 weeks; and, 1 (1.01%) participant met twice a month. See Figure G.111.
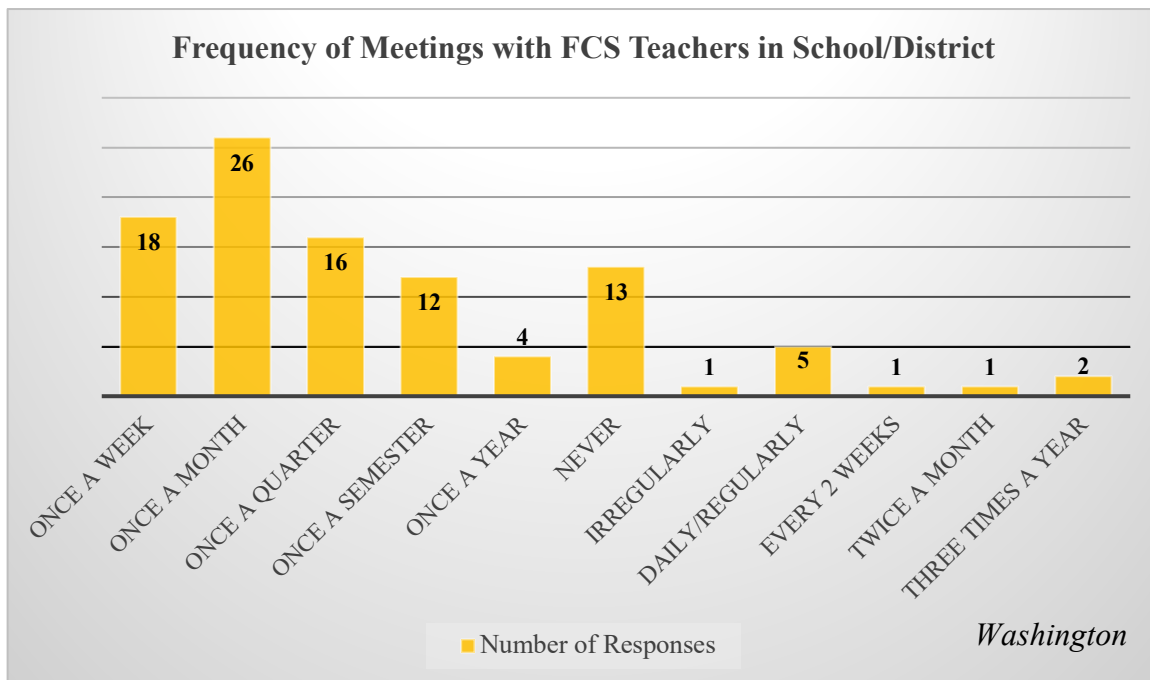
Figure G.111

Washington survey participants responded that 61 (61.62%) participants held membership in the Association for Career and Technical Education (ACTE/FCSTN); 43 (43.43%) participants held membership in the American Association of Family and Consumer Sciences (AAFCS/NAFCS); 20 (20.20%) participants held membership in the Washington Association of Teachers of Family and Consumer Sciences (WAFACS); 14 (14.14%) participants held membership in WA-ACTE; 7 (7.07%) participants did not hold membership in any professional organization; 1 (1.01%) participant held membership in the FCCLA; 1 (1.01%) participant was unsure in which professional organizations they held membership; and, 1 (1.01%) participant chose to not answer. See Figure G.112.

Figure G.112

Washington survey participants responded that 70 (70.71%) participants advised a chapter of FCCLA at their school; and, 29 (29.29%) participants did not advise a chapter of FCCLA at their school. See Figure G.113.
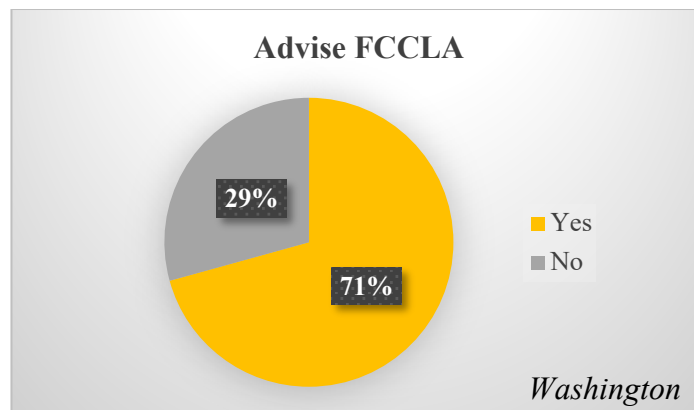
Figure G.113

Washington survey participants responded that 90 (90.91%) participants knew where to find **state** standards for the FCS course(s) they teach; and, 9 (9.09%) participants did not know where to find **state** standards for the FCS course(s) they teach. See Figure G.114.

Locate State Standards

9%

91%

- Yes
- No
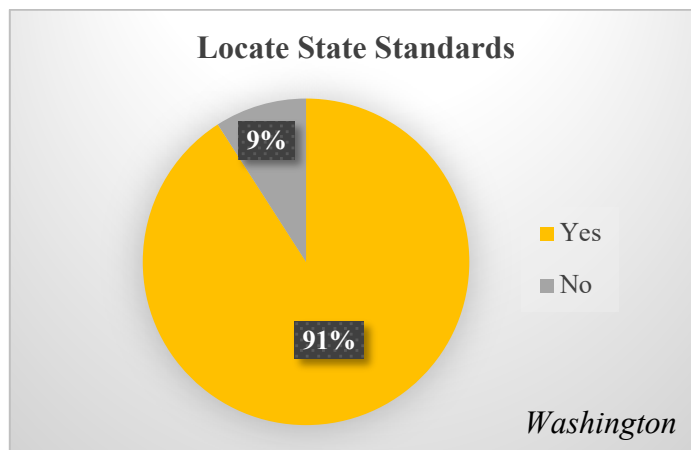
Washington

Figure G.114

Washington survey participants responded that 97 (97.98%) participants knew where to find **national** standards for the FCS course(s) they teach; and, 2 (2.02%) participants did not know where to find **national** standards for the FCS course(s) they teach. See Figure G.115.

Locate National Standards

2%

98%

- Yes
- No
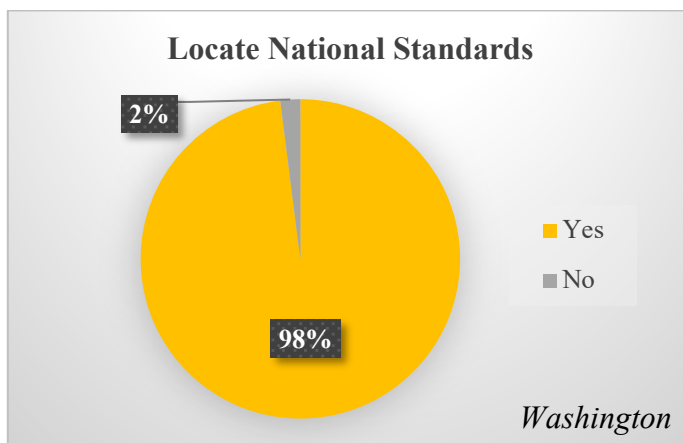
Washington

Figure G.115

Washington survey participants responded that 44 (44.44%) participants thought **state** standards for FCS courses need to be updated every four years; 30 (30.30%) participants thought **state** standards for FCS courses need to be updated every three years; 8 (8.08%) participants thought **state** standards for FCS courses need to be updated every other year; 6 (6.06%) participants thought **state** standards for FCS courses need to be updated every year; 4 (4.04%) participant thought **state** standards for FCS courses need to be updated every five years; 3

(3.03%) participant thought **state** standards for FCS courses should be updated as needed; 3 (3.30%) participants expressed dislike for their current state standards; and, 1 (1.01%) participant thought there is only a need for national standards. See Figure G.116.

Update State Standards, Frequency

Category	Number of Responses
EXPRESSED DISLIKE TOWARD CURRENT STANDARDS	3
ONLY NEED NATIONAL STANDARDS	1
UPDATE AS NEEDED	3
EVERY FIVE YEARS	4
EVERY FOUR YEARS	44
EVERY THREE YEARS	30
EVERY OTHER YEAR	8
EVERY YEAR	6
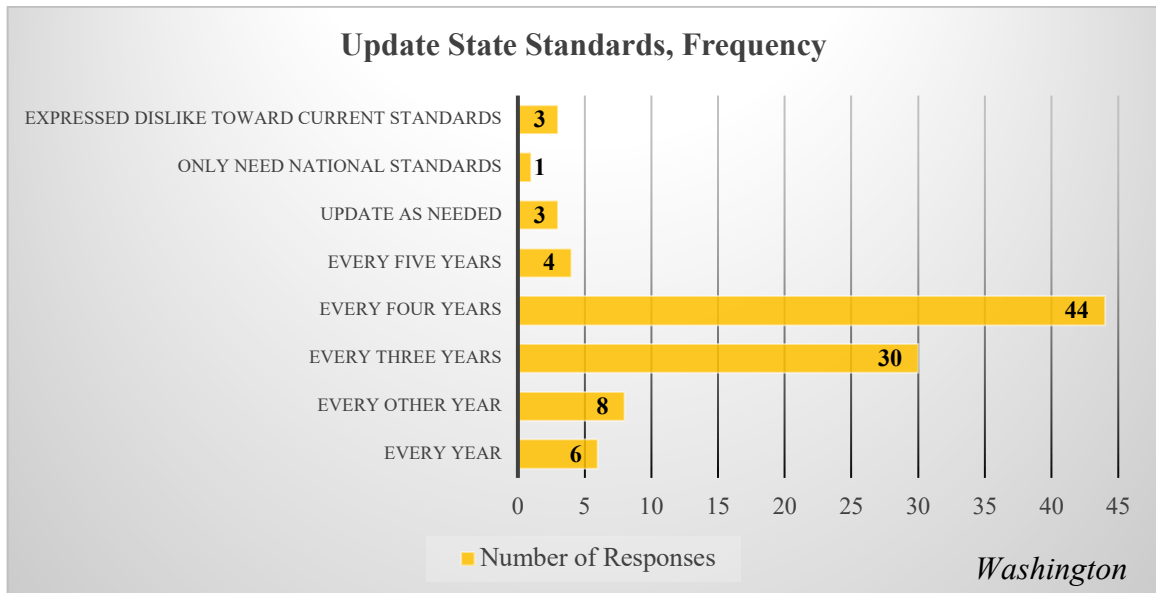
Washington

Figure G.116

Washington survey participants responded that 49 (49.49%) participants thought **national** standards for FCS courses need to be updated every four years; 25 (23.23%) participants thought **national** standards for FCS courses need to be updated every three years; 8 (8.08%) participants thought **national** standards for FCS courses need to be updated every other year; 6 (3.85%) participants thought **national** standards for FCS courses need to be updated every year; 6 (6.06%) participants thought **national** standards for FCS courses need to be updated every five years; 2 (2.02%) participants did not specify how often they thought **national** standards for FCS courses need to be updated; 2 (2.02%) participants thought **national** standards should never be updated and that it sounded like more work for teachers; 1 (1.01%) participant thought **national** standards for FCS courses should be updated as needed; and, 1 (1.01%) participant thought **national** standards for FCS courses should be updated the same as they are currently being updated. See Figure G.117.

Update National Standards, Frequency

Category	Number of Responses
NEVER/SOUNDS LIKE MORE WORK FOR TEACHERS	2
NO SPECIFICATION	1
SAME AS CURRENT	1
UPDATE AS NEEDED	1
EVERY 5 YEARS	6
EVERY FOUR YEARS	49
EVERY THREE YEARS	25
EVERY OTHER YEAR	8
EVERY YEAR	6

Washington
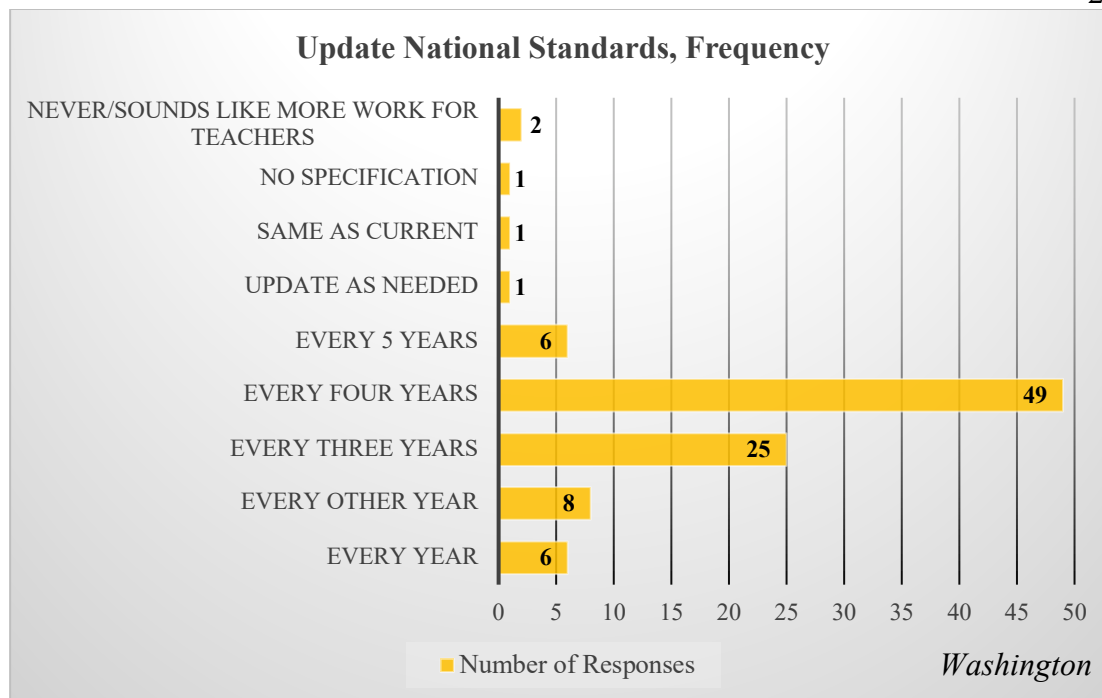
Figure G.117

Perceived Needs for Professional Development

This section contains the analysis of the responses of Oregon secondary FCS teachers relating to the twelve competencies this study focuses on. The twelve competencies are broken down into four sections: Technology; Course, Curriculum, and Standards Development; Teaching; Professional Development, Programs, and Organizations.

To determine professional development needs in addressing research question 1, the Mean Weighted Discrepancy scores were used to rank the list of competencies. To determine discrepancy scores, weighted discrepancy scores, and MWDS the following procedures were followed. A discrepancy score was calculated for each individual on each competency by taking the importance rating minus the ability (competency) rating. Next, a weighted discrepancy score was then calculated on each individual for each of the professional competencies by multiplying the discrepancy score by the mean importance rating. A Mean Weighted Discrepancy Score (MWDS) for each of the competencies was then calculated by taking the sum of the weighted discrepancy scores and dividing by the number of observations. Using the MWDS, the competencies were ranked. The competencies with the highest MWDS were those with the highest perceived need and priority for professional development (Erwin, 2018, pg. 83).

See Tables 13 and 14.

Table G.13: Washington Q19-22	Importance			Competence		
	n	*Mean*	*SD*	*n*	*Mean*	*SD*
Q19 Technology						
Using current and relevant **computer/internet technology** to teach interactive lessons on content or career-specific tasks	92	3.49	0.602	88	3.33	0.582
Using current and relevant **non-computer technology** to teach interactive lessons on content or career-specific tasks (such as up-to-date kitchen equipment, up-to-date sewing/design equipment, etc.)	91	3.70	0.587	88	3.55	0.605
Q20 Course, Curriculum, and Standards Development						
Determining the content that should be taught in your specific course(s)	91	3.88	0.328	88	3.77	0.448
Keeping current on trends and issues in your area of content	91	3.90	0.300	88	3.59	0.580
Reporting your program information to your district and state Department of Education	91	3.00	0.795	87	3.22	0.754
Q21 Teaching						
Selecting current/relevant student references, materials, and textbooks	85	3.67	0.521	83	3.61	0.537
Educating students and maintaining required health and safety standards (state/federal/OSHA)	85	3.88	0.324	83	3.67	0.497
Q22 Professional Development, Programs, and Organizations						
Organizing activities for students with local organizations relating to your content area	86	3.34	0.644	83	3.12	0.755
Providing information to students related to furthering their education in your content area	86	3.66	0.523	84	3.43	0.587
Establishing opportunities or creating connections for student work internships or jobs	86	3.37	0.669	84	2.96	0.783
Developing a variety of School-to-Work/Career activities in your curriculum	86	3.43	0.712	83	3.07	0.808
Integrating life skills into your curriculum	86	3.95	0.212	82	3.85	0.356

Table G.14: Washington Competencies MWDS

List of Washington Competencies Ranked by MWDS

Competency	n	MWDS	Rank
22.3 Establishing opportunities or creating connections for student work internships or jobs *(Professional Development, Programs, and Organizations)*	84	1.3239	1
22.4 Developing a variety of School-to-Work/Career activities in your curriculum *(Professional Development, Programs, and Organizations)*	83	1.1984	2
20.2 Keeping current on trends and issues in your area of content *(Course, Curriculum and Standards Development)*	88	1.1966	3
22.2 Providing information to students related to furthering their education in your content area *(Professional Development, Programs, and Organizations)*	84	0.8279	4
21.2 Educating students and maintaining required health and safety standards (state/federal/OSHA) *(Teaching)*	83	0.7947	5
22.1 Organizing activities for students with local organizations relating to your content area *(Professional Development, Programs, and Organizations)*	83	0.6439	6
19.1 Using current and relevant **computer/internet technology** to teach interactive lessons on content or career-specific tasks *(Technology)*	88	0.5949	7
19.2 Using current and relevant **non-computer technology** to teach interactive lessons on content or career-specific tasks (such as up-to-date kitchen equipment, up-to-date sewing/design equipment, etc.) *(Technology)*	88	0.5886	8
22.5 Integrating life skills into your curriculum *(Professional Development, Programs, and Organizations)*	82	0.4335	9

20.1 Determining the content that should be taught in your specific course(s) *(Course, Curriculum and Standards Development)*	88	0.3968	10
21.1 Selecting current/relevant student references, materials, and textbooks *(Teaching)*	83	0.1769	11
20.3 Reporting your program information to your district and state Department of Education *(Course, Curriculum and Standards Development)*	87	-0.3448	12

The range of means of importance was 3.00 to 3.95 on a four-point Likert scale. This shows that all of the competencies listed were seen as important competencies for Montana secondary FCS teachers. The range of means of competence was 2.96 to 3.85 on a four-point Likert scale. One competency scored below 3.00: *22.3 Establishing opportunities or creating connections for student work internships or jobs* ($M = 2.96$). This shows that the majority of Washington secondary FCS teachers perceived themselves competent in most competencies.

The competencies were scored as followed, the higher the MWDS, the higher the professional development need priority: *22.3 Establishing opportunities or creating connections for student work internships or jobs* (MWDS = 1.3239); *22.4 Developing a variety of School-to-Work/Career activities in your curriculum* (MWDS = 1.1984); *20.2 Keeping current on trends and issues in your area of content* (MWDS = 1.1966); *22.2 Providing information to students related to furthering their education in your content area* (MWDS = 0.8279); *21.2 Educating students and maintaining required health and safety standards (state/federal/OSHA)* (MWDS = 0.7947); *22.1 Organizing activities for students with local organizations relating to your content area* (MWDS = 0.6439); *19.1 Using current and relevant **computer/internet technology** to teach interactive lessons on content or career-specific tasks* (MWDS = 0.5949)**;** *19.2 Using current and relevant **non-computer technology** to teach interactive lessons on content or career-specific tasks (such as up-to-date kitchen equipment, up-to-date sewing/design equipment, etc.)* (MWDS = 0.5886); *22.5 Integrating life skills into your curriculum* (MWDS = 0.4335); *20.1 Determining the content that should be taught in your specific course(s)* (MWDS = 0.3968); *21.1 Selecting current/relevant student references, materials, and textbooks* (MWDS = 0.1769); and, *20.3 Reporting your program information to your district and state Department of Education* (MWDS = -0.3448).

Professional Development Motivations & Deterrents

Participants were asked to rate four statements to the level it motivated or deterred them from participating in professional development. They ranked each statement using a 4-point Likert scale: 4 strongly motivates, 3 somewhat motivates, 2 somewhat deters, and 1 strongly deters. The strongest motivator in Montana for participating in professional development was: The professional development is specifically related to your content area ($M = 3.79$, $SD = 0.486$). The subsequent ranking for motivators followed as: The professional development is offered at different times or in multiple sessions to allows for flexibility in scheduling ($M = 3.57$, $SD = 0.660$); The professional development will allow you to gain college credit ($M = 3.45$, $SD = 0.643$); and, The professional development is related to updated or new technology ($M = 3.22$, $SD = 0.726$). None of the statements were seen as deterrents. See Table G.15.

Table G.15: Washington PD Motivation/Deterrent

Rate each statement to the level it motivates or deters you from participating in professional development.	*n*	*Mean*	*SD*
The professional development is specifically related to your content area	87	3.79	0.486
The professional development is related to updated or new technology	87	3.45	0.643
The professional development will allow you to gain college credit	86	3.22	0.726
The professional development is offered at different times or in multiple sessions to allow for flexibility in scheduling	86	3.57	0.660

See Appendix I for breakdown of statistics of Table G.15.

Professional Development Offered

Participants were asked to rate five statements relating to professional development currently offered to the level they agreed or disagreed with them. They ranked each statement using a 4-point Likert scale: 4 strongly agree, 3 somewhat agree, 2 somewhat disagree, 1 strongly disagree. The statement Washington participants most agreed with was: Professional development is offered that teaches current or updated information ($M = 3.41$, $SD = 0.788$). The subsequent ranking for agreement followed as: Professional development is offered that is related to the content you teach ($M = 3.22$, $SD = 1.005$); Professional development if offered at times you are available to attend ($M = 3.21$, $SD = 0.869$); Professional development is offered that is affordable for you to participate in ($M = 3.19$, $SD = 0.875$); and, Professional development is offered at locations that are close enough to your school or home for you to attend ($M = 2.99$, $SD = 1.006$). See Table G.16.

Table G.16: Washington PD Offered

Rate each statement to the level it you agree or disagree with it.	n	Mean	SD
Professional development is offered that teaches current or updated information	86	3.41	0.788
Professional development is offered that is related to the content you teach	87	3.22	1.005
Professional development is offered at times you are available to attend	86	3.21	0.869
Professional development is offered that is affordable for you to participate in	86	3.19	0.875
Professional development is offered at locations that are close enough to your school or home for you to attend	85	2.99	1.006

See Appendix I for breakdown of statistics of Table G.16.

Professional Development Preferences

Professional development preferences were ranked on a 4-point Likert scale: 7 strongly prefer, 6 somewhat prefer, 5 somewhat do not prefer, 4 strongly do not prefer. The highest ranked preferences were: *Full-day professional development during the school year* ($M = 6.27$, $SD = 0.993$); *In-service sessions at Summer PTE/CTE Conference* ($M = 6.13$, $SD = 0.968$); and, *One week professional development in the summer* ($M = 5.73$, $SD = 0.956$). The lowest ranked preferences were: *Half-day professional development in the morning during the school year* ($M = 5.16$, $SD = 1.131$); *Weekend professional development during the school year* ($M = 5.02$, $SD = 1.053$); and, *Professional development on weekday evenings during the school* year ($M = 4.88$, $SD = 0.974$). See Figures G.118 – G.127 for complete professional development rankings.

Figure G.118: M = 6.27, SD = 0.993

In-service sessions at Summer PTE/CTE Conference

- Strongly do not prefer
- Somewhat do not prefer
- Somewhat prefer
- Strongly prefer

Washington

Figure G.119: M = 6.13, SD = 0.968

Self-directed internet-based professional development courses

- Strongly do not prefer
- Somewhat do not prefer
- Somewhat prefer
- Strongly prefer

Washington

Figure G.121: M = 5.45, SD = 1.006

One-week professional development in the summer

- Strongly do not prefer
- Somewhat do not prefer
- Somewhat prefer
- Strongly prefer

Washington

Figure G.120: M = 5.73, SD = 0.956

Half-day professional development in the afternoon during the school year

- Strongly do not prefer
- Somewhat do not prefer
- Somewhat prefer
- Strongly prefer

Washington

Figure G.122: M = 5.37, SD = 0.988

Internet-based professional development courses at specified times

- Strongly do not prefer — 31%
- Somewhat do not prefer — 27%
- Somewhat prefer — 29%
- Strongly prefer — 13%

Washington

Figure G.123: M = 5.26, SD = 1.040

Weekend professional development during the school year

- Strongly do not prefer — 43%
- Somewhat do not prefer — 22%
- Somewhat prefer — 24%
- Strongly prefer — 11%

Washington

Figure G.125: M = 5.02, SD = 1.053

Half-day professional development in the morning during the school year

- Strongly do not prefer — 40%
- Somewhat do not prefer — 21%
- Somewhat prefer — 22%
- Strongly prefer — 17%

Washington

Figure G.124: M = 5.16, SD = 1.131

Professional development on weekday evenings during the school year

- Strongly do not prefer — 46%
- Somewhat do not prefer — 27%
- Somewhat prefer — 20%
- Strongly prefer — 7%

Washington

Figure G.126: M = 4.88, SD = 0.974

Preferred Professional Development Ranked by Mean

- FULL-DAY PD DURING THE SCHOOL YEAR — 6.27
- IN-SERVICE SESSIONS @ SUMMER P/CTE CONFERENCE — 6.13
- ONE-WEEK PD IN THE SUMMER — 5.73
- SELF-DIRECTED INTERNET-BASED PD — 5.45
- HALF-DAY PD IN THE AFTERNOON DURING THE SCHOOL YEAR — 5.37
- INTERNET-BASED PD AT SPECIFIED TIMES — 5.26
- HALF-DAY PD IN THE MORNING DURING THE SCHOOL YEAR — 5.16
- WEEKEND PD DURING THE SCHOOL YEAR — 5.02
- PD ON WEEKDAY EVENINGS DURING THE SCHOOL YEAR — 4.88

Mean

Washington

Figure G.127

See Appendix I for breakdown of statistics of Figures G.118 – G.127.

Professional Development Content Needed

Figure G.128

See Appendix I for detailed responses.

Standards & Curriculum Confidence

Washington participants were asked to rate five statements relating to professional development currently offered to the level they agreed or disagreed with them. They ranked each statement using a 4-point Likert scale: 4 strongly agree, 3 somewhat agree, 2 somewhat disagree, 1 strongly disagree. The statement they most agreed with was: *You are confident your students will leave your course knowing information and skills that ready them to enter a competitive workforce* ($M = 3.46$, $SD = 0.547$). The subsequent ranking for agreement followed as: *You use authentic assessment in your classroom more often than traditional assessment* ($M = 3.40$, $SD = 0.710$); *You are confident your curriculum includes the most current and relevant information available related to your content area* ($M = 3.33$, $SD = 0.565$); *The current national standards*

reflect relevant and updated information (*M* = 3.19, *SD* = 0.645); and, *Your current state standards reflect relevant and updated information* (*M* = 3.13, *SD* = 0.757). See Figures G.129-G.133.

You are confident your students will leave your course knowing information and skills that ready them to enter a competitive workforce

- 0%
- 2%
- 48%
- 50%

- Strongly disagree
- Somewhat disagree
- Somewhat agree
- Strongly agree

Washington

Figure G.129: M = 3.46, SD = 0.547

You use authentic assessment in your classroom more often than traditional assessment

- 1%
- 9%
- 52%
- 38%

- Strongly disagree
- Somewhat disagree
- Somewhat agree
- Strongly agree

Washington

Figure G.130: M = 3.40, SD = 0.710

You are confident your curriculum includes the most current and relevant information available related to your content area

- 0%
- 5%
- 38%
- 57%

- Strongly disagree
- Somewhat disagree
- Somewhat agree
- Strongly agree

Washington

Figure G.131: M = 3.33, SD = 0.565

The current national standards reflect relevant and updated information

- Strongly disagree
- Somewhat disagree
- Somewhat agree
- Strongly agree

2%
6%
30%
62%

Washington

Figure G.132: M = 3.19, SD = 0.645

Your current state standards reflect relevant and updated information

- Strongly disagree
- Somewhat disagree
- Somewhat agree
- Strongly agree

5%
8%
31%
56%

Washington

Figure G.133: M = 3.13, SD = 0.757

Personal Demographics

Washington survey participants responded that 3 (3.03%) participants responded that they identified as male; 83 (83.84%) participants responded that they identified as female; and, 13 (13.13%) participants chose to not respond. See Figure G.134.

Gender

- Male
- Female
- No answer

13%
3%
84%
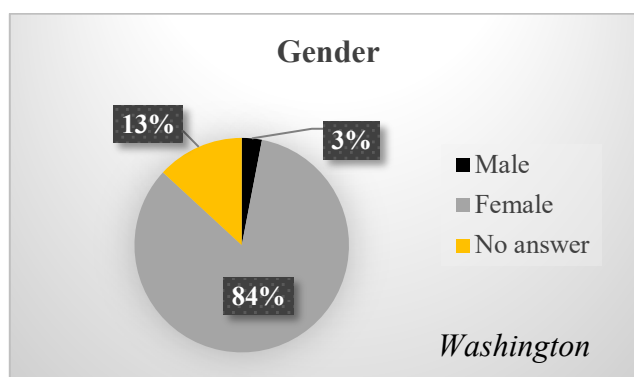
Washington

Figure G.134

Washington survey participants responded that 1 (1.01%) participant was between the ages of 18-24; 9 (9.09%) participant was between the ages of 25-29; 4 (4.04%) participants were between the ages of 30-34; 9 (9.09%) participants were between the ages of 35-39; 6 (6.06%) participants were between the ages of 40-44; 11 (11.11%) participants were between the ages of 45-49; 13 (13.13%) participants were between the ages of 50-54; 15 (15.15%) participants were between the ages of 55-59; 16 (16.16%) participants were between the ages of 60-64; 2 (2.02%) was 65+; and, 13 (13.13%) chose to not answer. See Figure G.135.
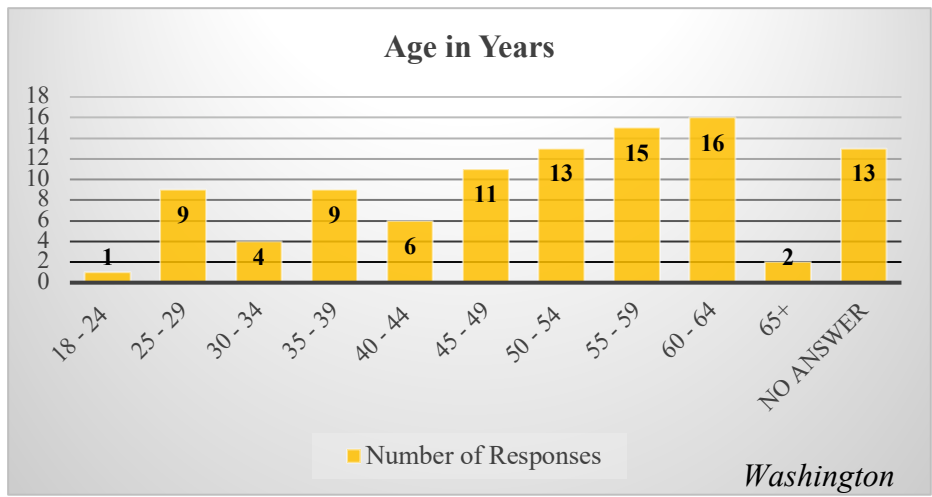
Figure G.135

Washington survey participants responded that 75 (75.76%) participants identified as White; 14 (14.14%) participants chose to not respond; 6 (6.06%) participants identified as other; 3 (3.03%) participants chose to not specify their race/ethnicity; 2 (2.02%) participants identified as Hispanic; 1 (1.01%) participant identified as American Indian/Alaskan Native; and, 1 (1.01%) participant identified as Asian. See Figure G.136.
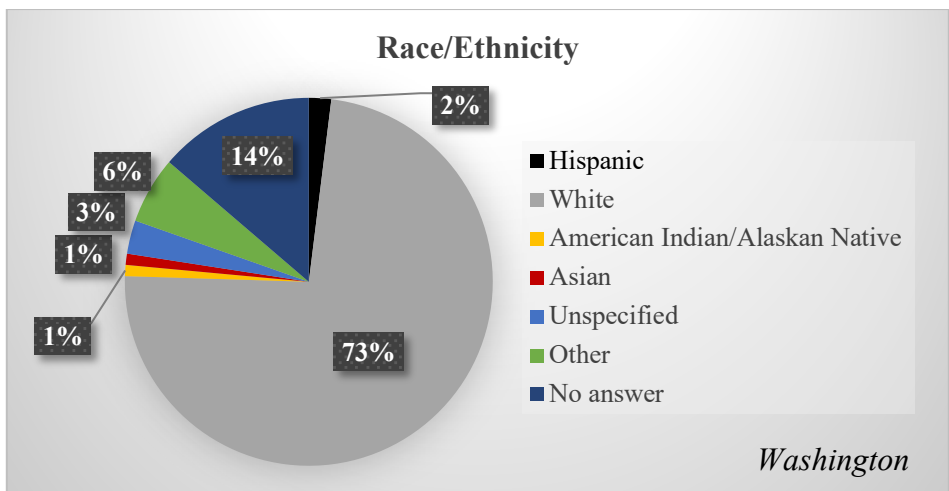
Figure G.136: Three participants identified as more than one race/ethnicity – Total percentage will be more than 100%.

WYOMING

RESPONSE RATE

There were 39 responses completed 50% or more; 18 completed 100%, 19 completed 97%, 1 completed 71%, and 1 completed 55%. All 39 of the FCS teachers who took the survey submitted it, though not all of them answered all of the questions. The survey was taken through Qualtrics and then analyzed through SPSS and Excel.

DATA

Professional Demographics

Wyoming survey participants responded that 6 participants (15.38%) taught in a city/town with a population of less than 2,500 people; 18 participants (46.15%) taught in a city/town with a population of 2,500 to 50,000 people; and, 15 (38.46%) taught in a city/town with a population of over 50,000 people. See Figure G.137.
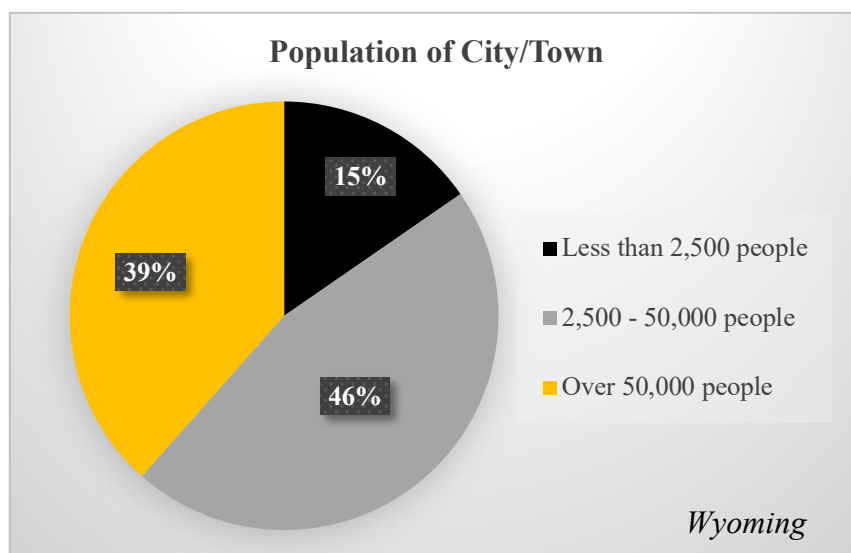
Figure G.137

Wyoming survey participants responded that 0 (0.00%) participants had less than 50 students in their school; 0 (0.00%) participants had 50-100 students in their school; 8 (20.51%) participant had 101-300 students in their school; 3 (7.69%) participants had 301-500 students in their school; 6 (15.38%) participants had 501-750 students in their school; 12 (30.77%) participants had 751-1000 students in their school; 1 (2.56%) participants had 1001-1200 students in their school; and 9 (23.08%) participants had 1200+ students in their school. See Figure G.138.

Student Population
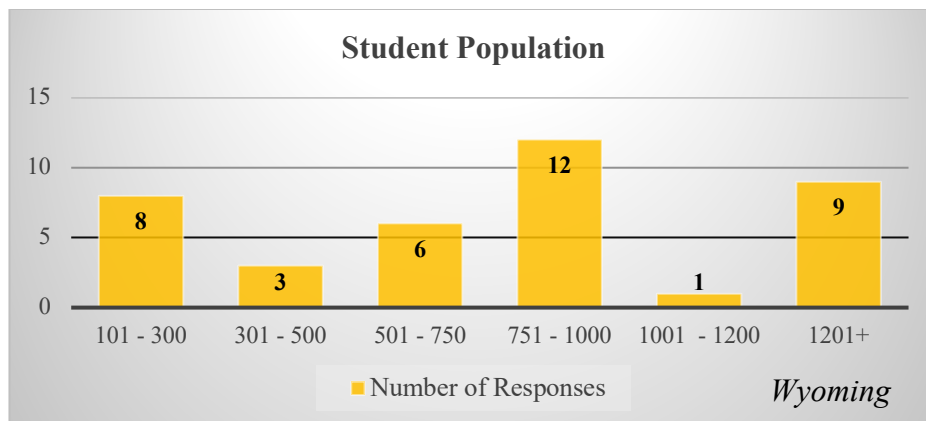
Figure G.138

Wyoming survey participants responded that 0 (0.00%) participants had an average class size of less than 5 students; 2 (5.13%) participants had an average class size of 6-10 students; 6 (15.38%) participants had an average class size of 11-15 students; 9 (23.08%) participants had an average class size of 16-20 students; 18 (46.15%) participants had an average class size of 21-25 students; 4 (10.26%) participants had an average class size of 26-30 students; 0 (0.00%) participants had an average class size of 31-35 students; and, 0 (0.00%) participants had an average class size of 36+ students. See Figure G.139.

Average Class Size
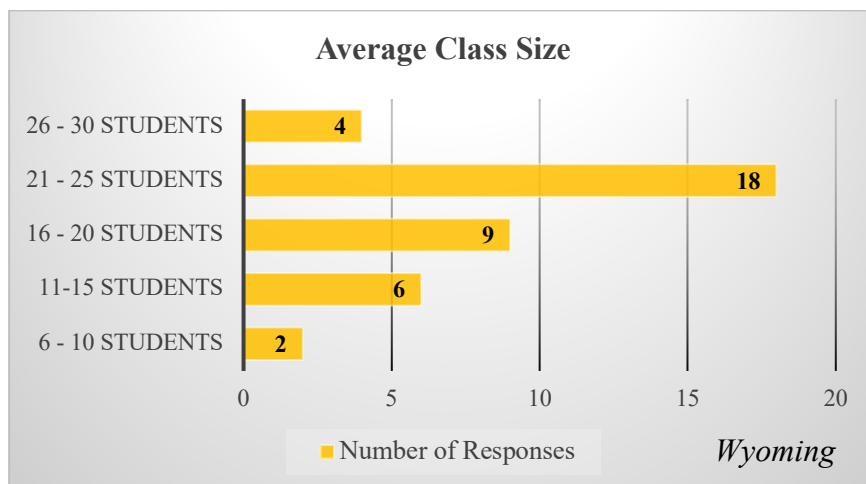
Figure G.139

Washington survey participants responded that 5 (12.82%) participants have taught FCS for 31+ years; 3 (7.69%) participants have taught FCS for 4 years; 3 (7.69%) participants have taught FCS for 5 years; 3 (7.69%) participant has taught FCS for 12 years; 2 (5.13%) participants have taught FCS for 1 year; 2 (5.13%) participants have taught FCS for 6 years; 2 (5.13%) participant has taught FCS for 13 years; 2 (5.13%) participants have taught FCS for 14 years; 2

(5.13%) participant has taught FCS for 26; 1 (2.56%) participants have taught FCS for 2 years; 1 (2.56%) participants have taught FCS for 3 years; 1 (2.56%) participants have taught FCS for 8 years; 1 (2.56%) participants have taught FCS for 9 years; 1 (2.56%) participants have taught FCS for 10 years; 1 (2.56%) participants have taught FCS for 11 years; 1 (2.56%) participants have taught FCS for 15 years; 1 (2.56%) participants have taught FCS for 16 years; 1 (2.56%) participants have taught FCS for 20 years; 1 (2.56%) participants have taught FCS for 23 or 24 years; 1 (2.56%) participants have taught FCS for 25; 1 (2.56%) participants have taught FCS for 27 years; 1 (2.56%) participant has taught FCS for 28 years; 1 (2.56%) participants have taught FCS for 30 years; 0 (0.00%) participant has taught FCS for less than 1 year; 0 (0.00%) participants have taught FCS for 7 years; 0 (0.00%) participants have taught FCS for 17 years; 0 (0.00%) participants have taught FCS for 18 years; 0 (0.00%) participants have taught FCS for 19 years; 0 (0.00%) participants have taught FCS for 21 years; 0 (0.00%) participant has taught FCS for 22 years; and 0 (0.00%) participants have taught FCS for 29 years. See Figure G.140.
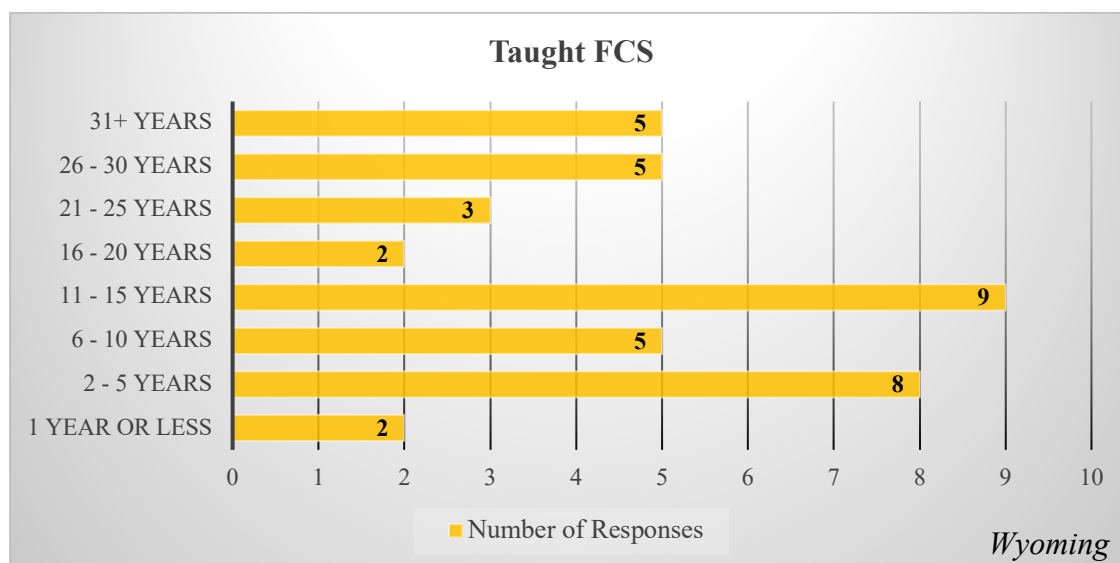
Figure G.140

There were 16 areas of study chosen by 39 Wyoming participants. 33 (84.62%) participants teach or have taught Food Production and Services; 32 (82.05%) participants teach or have taught Education and Early Childhood; 25 (64.10%) participants teach or have taught Nutrition and Wellness; 25 (64.10%) participants teach or have taught Textiles, Fashion, and Apparel; 25 (64.10%) participants teach or have taught Food Science, Dietetics, and Nutrition; 25 (64.10%) participants teach or have taught Parenting; 24 (61.54%) participants teach or have taught Housing and Interior Design; 21 (53.85%) participants teach or have taught Human Development; 20 (51.28%) participants teach or have taught Interpersonal Relationships; 18

(46.15%) participants teach or have taught Career, Community, and Family Connections; 15 (38.46%) participants teach or have taught Family; 14 (35.90%) participants teach or have taught Hospitality, Tourism, and Recreation; 13 (33.33%) participants teach or have taught Consumer and Family Resources; 10 (25.64%) participants teach or have taught Family and Human Services; 8 (20.51%) participants teach or have taught Consumer Services; and, 1 (2.56%) participant teaches or has taught Facilities and Property Management. See Figure G.141.
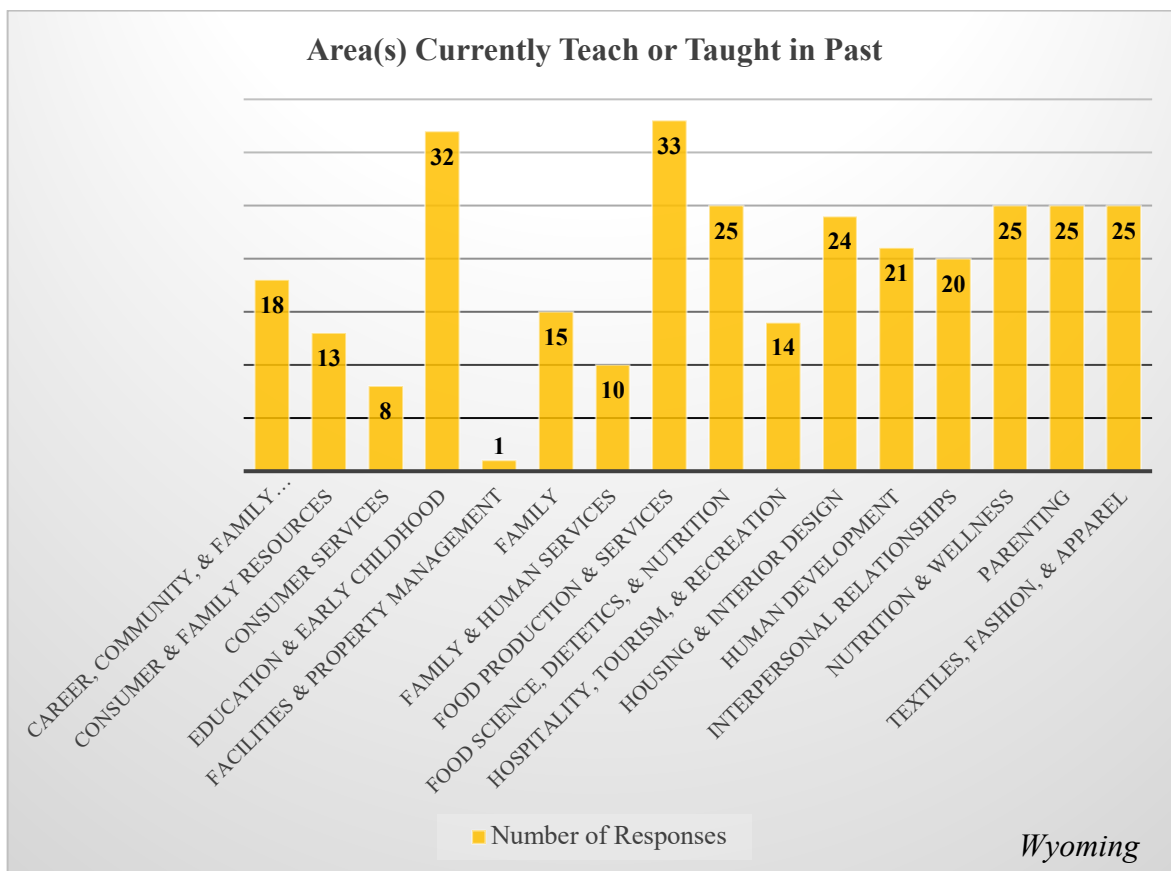
Figure G.141

Of the 39 participants, 24 responded that they were prepared in one of the above ways, 8 responded that they were prepared in two of the above ways, 5 responded that they were prepared in three of the above ways, 1 responded that they were prepared in four of the above ways, and 1 responded that they were prepared in six of the above ways.

Wyoming survey participants responded that 25 (64.10%) participants were prepared through an undergraduate traditional FCS teacher education program (graduated with teaching certification with endorsement in Family & Consumer Sciences); 12 (30.77%) participants were prepared through an undergraduate teacher education program (graduated with teaching certification and bachelor's in education or related major); 12 (30.77%) participants were

prepared through a graduate program relating to education at least one year beyond a bachelor's degree; 8 (20.51%) participants were prepared through ways that were not listed in this survey; 3 (7.69%) participants were prepared through substitute teaching that resulted in permanent position; 2 (5.13%) participants were prepared through an alternative route (Peace Corps, Teach for America, etc.); 2 (5.13%) participants were prepared through no prior teaching experience but have a degree and career experience in an FCS-related field; 1 (2.56%) participants were prepared through no prior teaching experience but have a degree and no career experience in a FCS-related field; 0 (0.00%) participants were prepared through no prior teaching experience or a degree in a FCS-related field but have career experience in a FCS-related field; 0 (0.00%) participants were prepared through a Standard Occupational Specialist Certification; and, 0 (0.00%) participants were prepared through a Limited Occupational Specialist Certification. This shows the many different routes which were available and utilized to become an FCS teacher in Wyoming. See Figure G.142.
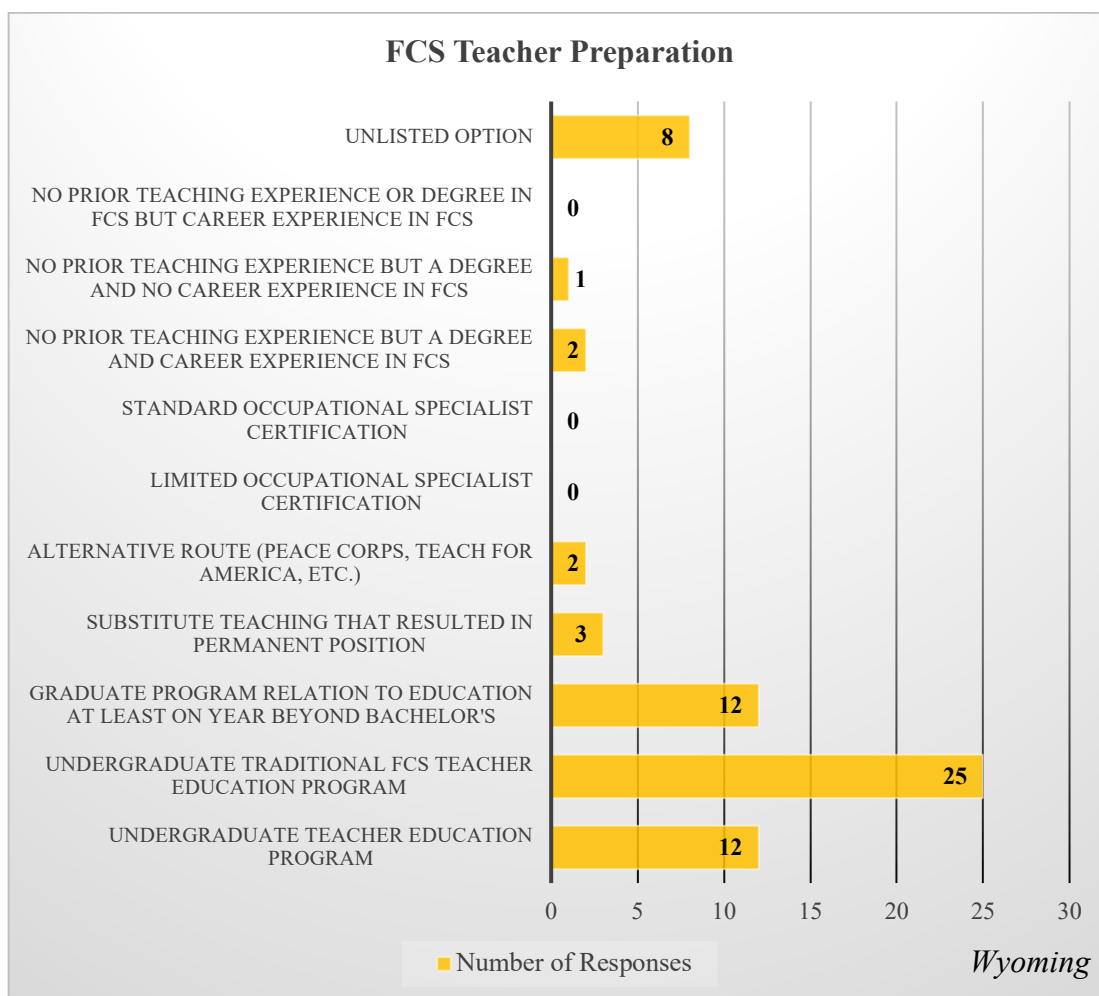
Figure G.142

Wyoming survey participants responded that 12 (30.77%) participants' highest level of formal education was a Master's degree + more graduate hours; 8 (20.51%) participants' highest level of formal education was 37+ graduate hours; 7 (17.95%) participants' highest level of formal education was a Bachelor's Degree; 5 (12.82%) participants' highest level of formal education was 1-18 graduate hours; 4 (10.26%) participants' highest level of formal education was a Master's Degree; 2 (5.13%) participants' highest level of formal education was 19-36 graduate hours; 1 (2.56%) participants' highest level of formal education was a Doctorate; 0 (0.00%) participants' highest level of formal education was a High School Diploma; 0 (0.00%) participants' highest level of formal education was an Associate Degree; and, 0 (0.00%) participants' highest level of formal education was a Specialist. See Figure G.143.
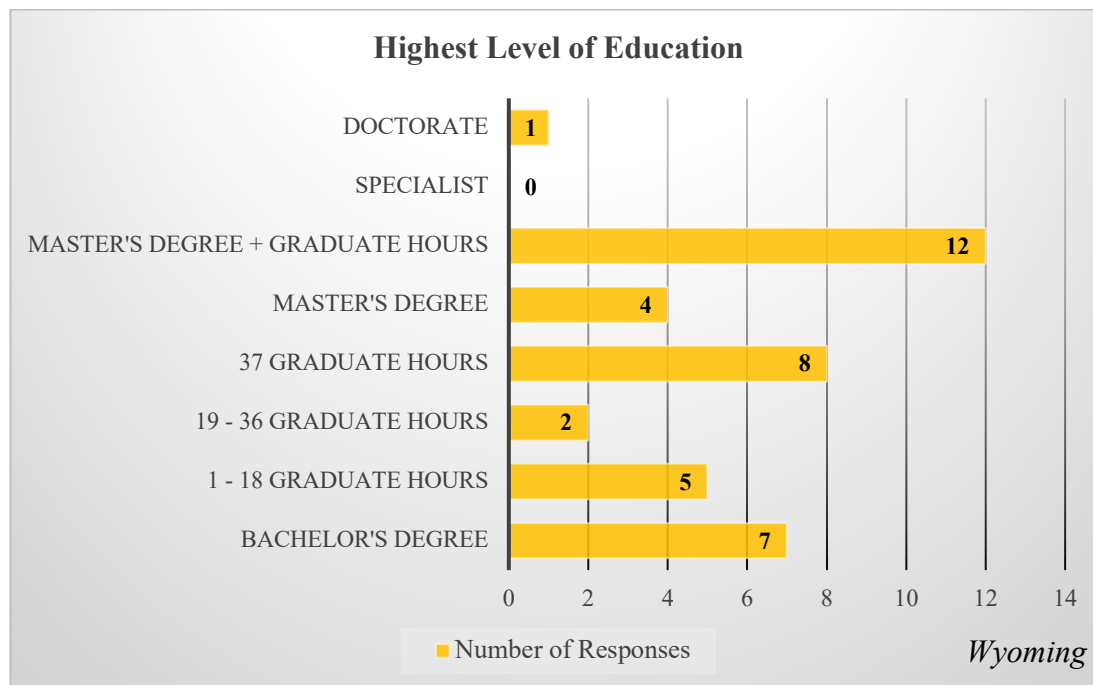
Figure G.143

Wyoming survey participants responded that 14 (35.90%) participants taught FCS courses at their school alone; 14 (35.90%) participants taught FCS courses at their school with another FCS teacher; 6 (15.38%) participants taught FCS courses at their school with two other FCS teachers; 3 (7.69%) participant taught FCS courses at their school with three other FCS teachers; 2 (5.13%) participants taught FCS courses at their school with five or more other FCS teachers; and, 0 (0.00%) participants taught FCS courses at their school with four other FCS teachers. See Figure G.144.

Number of FCS Teachers at School

Category	Number of Responses
5 OR MORE OTHER FCS TEACHERS	2
4 OTHER FCS TEACHERS	0
3 OTHER FCS TEACHERS	3
2 OTHER FCS TEACHERS	6
1 OTHER FCS TEACHER	14
1 (YOURSELF)	14

■ Number of Responses   *Wyoming*
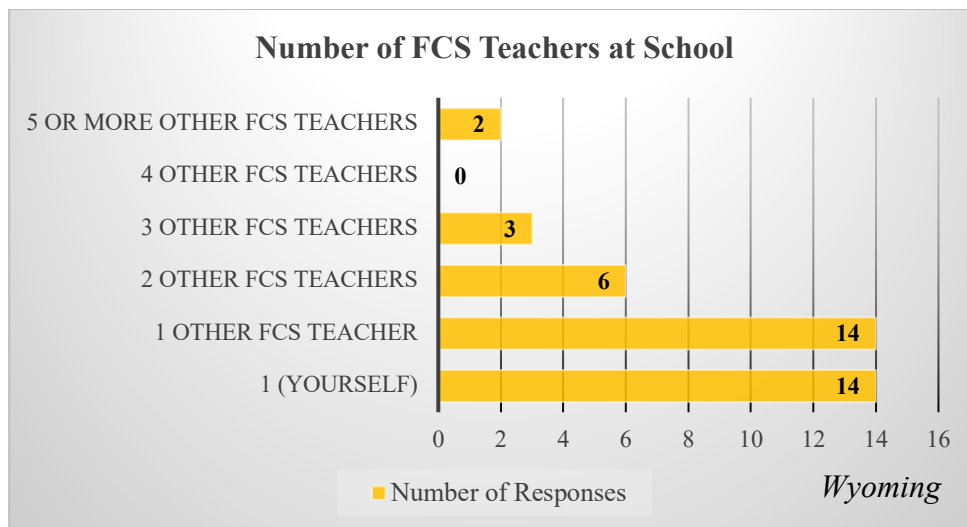
Figure G.144

Wyoming survey participants responded that 11 (28.21%) participants met once a month; 9 (23.08%) participants met with other FCS teachers in their school/district once a week; 8 (20.51%) participants met once a year; 4 (10.26%) participants met once a quarter; 3 (7.69%) participants met once a semester; 1 (2.56%) participant has never met with other FCS teachers in their school/district; 1 (2.56%) participants met daily or regularly; 1 (2.56%) participant met every 2 weeks; and, 1 (2.56%) participant met twice a month. See Figure G.145.

Frequency of Meetings with FCS Teachers in School/District

Category	Number of Responses
ONCE A WEEK	9
ONCE A MONTH	11
ONCE A QUARTER	4
ONCE A SEMESTER	3
ONCE A YEAR	8
NEVER	1
DAILY/REGULARLY	1
TWO TIMES/WEEK	1
TWICE A MONTH	1

■ Number of Responses   *Wyoming*
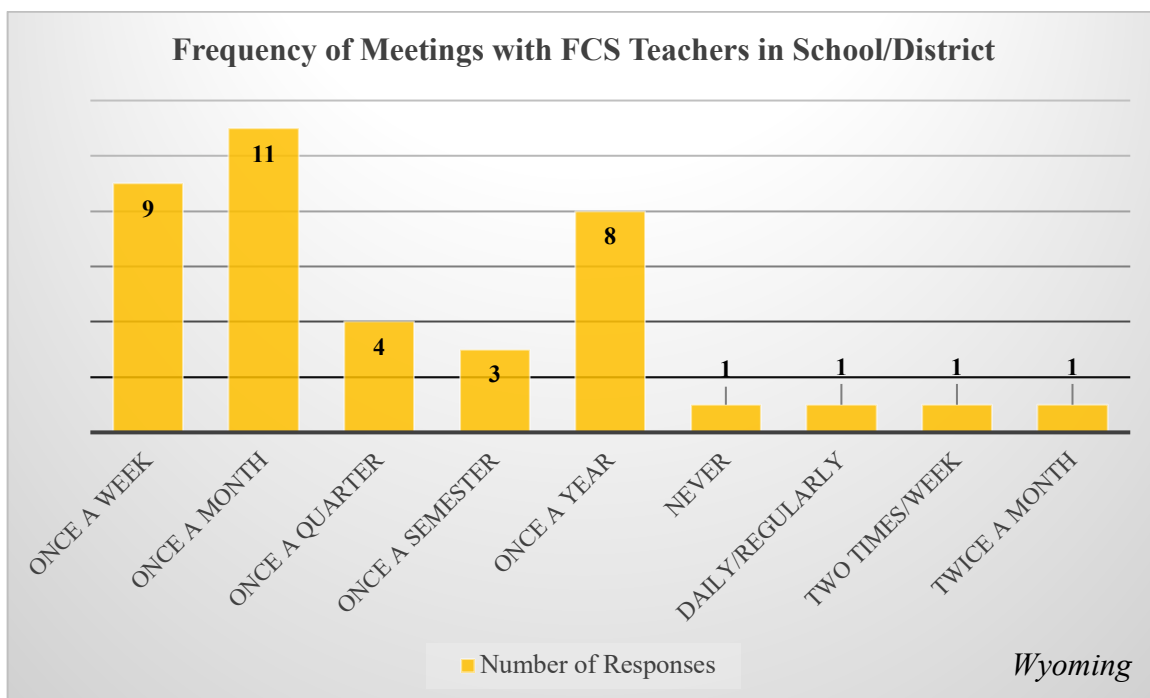
Figure G.145

Wyoming survey participants responded that 16 (41.03%) participants did not hold membership in any professional organization; 14 (35.90%) participants held membership in the American Association of Family and Consumer Sciences (AAFCS/NAFCS); 9 (23.08%) participants held membership in the Association for Career and Technical Education (ACTE/FCSTN); 3 (7.69%) participants held membership in the Wyoming Association of Teachers of Family and Consumer Sciences (WATFACS); 3 (7.69%) participant held membership in the National/Wyoming Education Association (NEA/WEA); 2 (5.13%) participant held membership in the National Association of Extension 4-H Extension (NAE4-HE); 2 (5.13%) participant held membership in the National Association County Agricultural Agents (NACAA); 2 (5.13%) participant held membership in the ESP; and, 1 (2.56%) participants held membership in WACTE. See Figure G.146.

Figure G.146

Wyoming survey participants responded that 8 (20.51%) participants advised a chapter of FCCLA at their school; and, 31 (79.49%) participants did not advise a chapter of FCCLA at their school. See Figure G.147.

Advise FCCLA

- Yes
- No

21%

79%
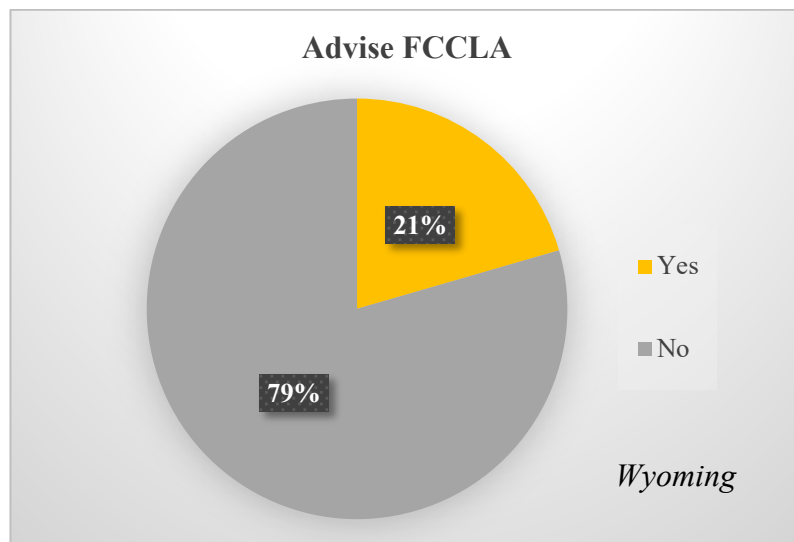
Wyoming

Figure G.147

Wyoming survey participants responded that 36 (92.31%) participants knew where to find **state** standards for the FCS course(s) they teach; and, 3 (7.69%) participants did not know where to find **state** standards for the FCS course(s) they teach. See Figure G.148.

Locate State Standards

- Yes
- No

8%

92%
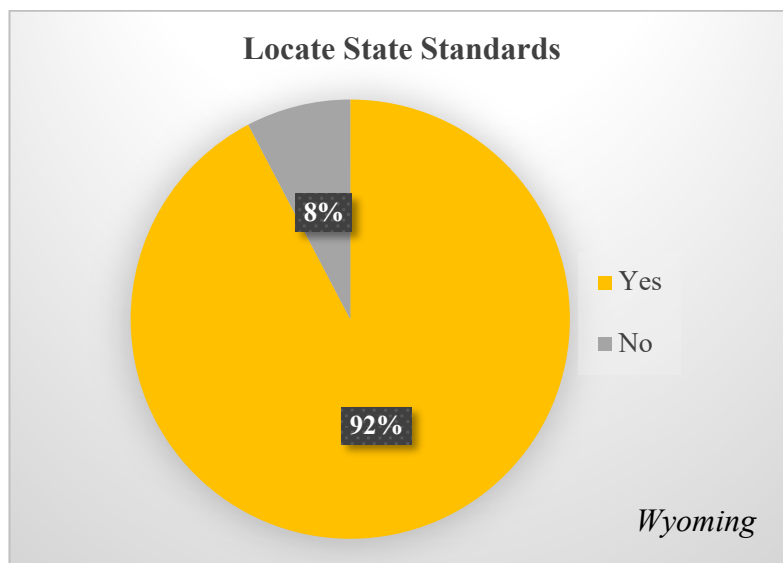
Wyoming

Figure G.148

Wyoming survey participants responded that 28 (71.79%) participants knew where to find **national** standards for the FCS course(s) they teach; 10 (25.64%) participants did not know where to find **national** standards for the FCS course(s) they teach; and, 1 (2.56%) chose to not answer. See Figure G.149.

Locate National Standards

2%

26%

72%

- Yes
- No
- No Answer
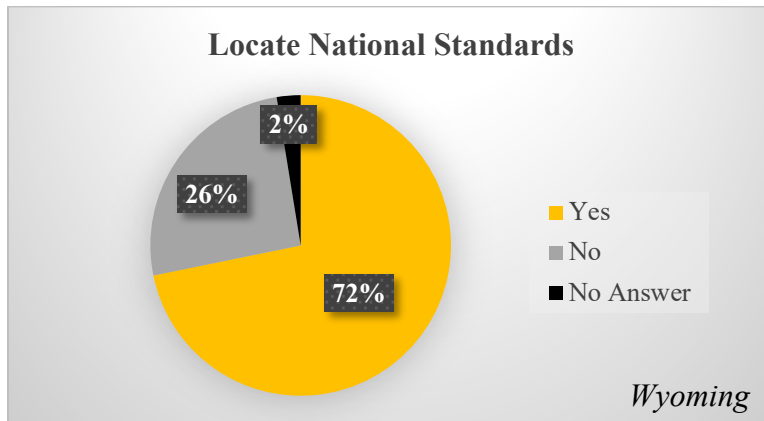
Wyoming

Figure G.149

Wyoming survey participants responded that 17 (43.59%) participants thought **state** standards for FCS courses need to be updated every four years; 10 (25.64%) participants thought **state** standards for FCS courses need to be updated every three years; 5 (12.82%) participants thought **state** standards for FCS courses need to be updated every five years; 4 (10.26%) participants expressed no preference in how often **state** standards for FCS courses need to be updated; 3 (7.69%) participants thought **state** standards for FCS courses need to be updated every other year; and, 0 (0.00%) participants thought **state** standards for FCS courses need to be updated every year. See Figure G.150.

Update State Standards, Frequency

Category	Number of Responses
NO PREFERENCE	4
EVERY 5 YEARS	5
EVERY FOUR YEARS	17
EVERY THREE YEARS	10
EVERY OTHER YEAR	3
EVERY YEAR	0

- Number of Responses
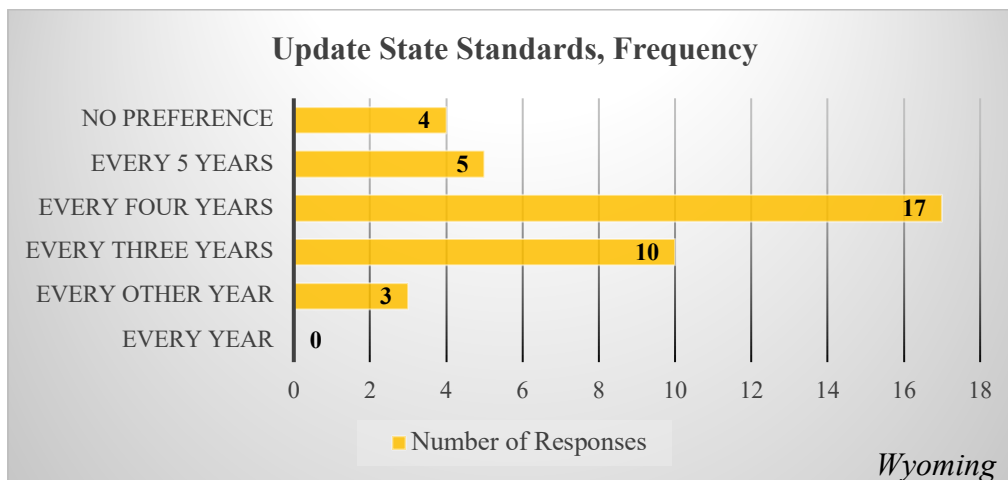
Wyoming

Figure G.150

Wyoming survey participants responded that 17 (43.59%) participants thought **national** standards for FCS courses need to be updated every four years; 10 (25.64%) participants thought **national**

standards for FCS courses need to be updated every three years; 7 (17.95%) participants thought **national** standards for FCS courses need to be updated every five years; 2 (5.13%) participants thought **national** standards for FCS courses need to be updated every other year; 2 (5.13%) participants have no preference for how often **national** standards for FCS courses need to be updated; and, 1 (2.56%) participants thought **national** standards for FCS courses need to be updated every year. See Figure G.151.
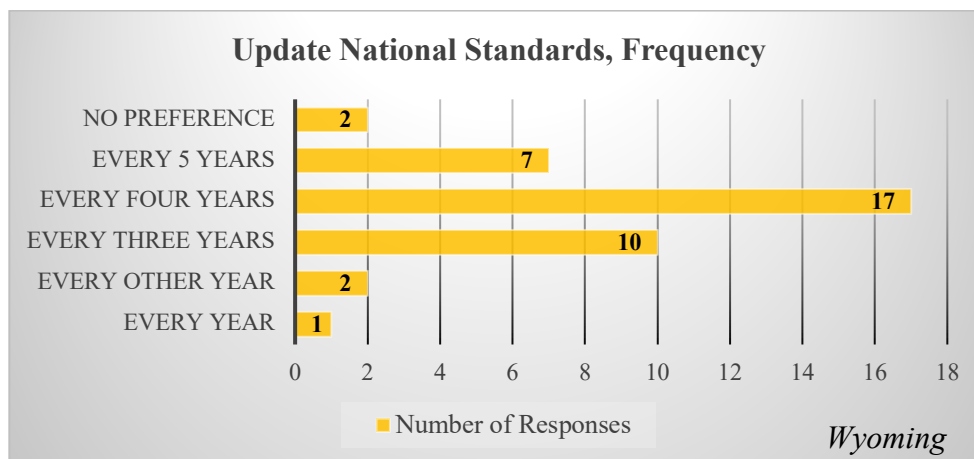
Figure G.151

Perceived Needs for Professional Development

This section contains the analysis of the responses of Wyoming secondary FCS teachers relating to the twelve competencies this study focuses on. The twelve competencies are broken down into four sections: Technology; Course, Curriculum, and Standards Development; Teaching; Professional Development, Programs, and Organizations.

To determine professional development needs in addressing research question 1, the Mean Weighted Discrepancy scores were used to rank the list of competencies. To determine discrepancy scores, weighted discrepancy scores, and MWDS the following procedures were followed. A discrepancy score was calculated for each individual on each competency by taking the importance rating minus the ability (competency) rating. Next, a weighted discrepancy score was then calculated on each individual for each of the professional competencies by multiplying the discrepancy score by the mean importance rating. A Mean Weighted Discrepancy Score (MWDS) for each of the competencies was then calculated by taking the sum of the weighted discrepancy scores and dividing by the number of observations. Using the MWDS, the competencies were ranked. The competencies with the highest MWDS were those with the highest perceived need and priority for professional development (Erwin, 2018, pg. 83).

See Tables G.17 and G.18.

Table G.17: Wyoming Q19-22

	n	Importance Mean	SD	n	Competence Mean	SD
Q19 Technology						
Using current and relevant **computer/internet technology** to teach interactive lessons on content or career-specific tasks	37	3.54	0.650	36	3.17	0.697
Using current and relevant **non-computer technology** to teach interactive lessons on content or career-specific tasks (such as up-to-date kitchen equipment, up-to-date sewing/design equipment, etc.)	37	3.86	0.347	36	3.61	0.494
Q20 Course, Curriculum, and Standards Development						
Determining the content that should be taught in your specific course(s)	37	3.84	0.442	36	3.64	0.543
Keeping current on trends and issues in your area of content	37	3.81	0.397	36	3.42	0.554
Reporting your program information to your district and state Department of Education	35	3.20	0.632	35	3.23	0.490
Q21 Teaching						
Selecting current/relevant student references, materials, and textbooks	37	3.73	0.508	36	3.61	0.549
Educating students and maintaining required health and safety standards (state/federal/OSHA)	37	3.92	0.277	36	3.69	0.467
Q22 Professional Development, Programs, and Organizations						
Organizing activities for students with local organizations relating to your content area	36	3.19	0.668	34	3.03	0.717
Providing information to students related to furthering their education in your content area	35	3.66	0.539	34	3.50	0.663
Establishing opportunities or creating connections for student work internships or jobs	35	3.37	0.770	34	2.91	0.668
Developing a variety of School-to-Work/Career activities in your curriculum	35	3.29	0.667	34	2.82	0.673
Integrating life skills into your curriculum	35	3.97	0.169	34	3.79	0.410

Table G.18: Wyoming Competencies MWDS

List of Wyoming Competencies Ranked by MWDS

Competency	n	MWDS	Rank
22.3 Establishing opportunities or creating connections for student work internships or jobs *(Professional Development, Programs, and Organizations)*	34	1.4868	1
20.2 Keeping current on trends and issues in your area of content *(Course, Curriculum and Standards Development)*	36	1.4817	2
19.1 Using current and relevant **computer/internet technology** to teach interactive lessons on content or career-specific tasks *(Technology)*	36	1.4750	3
22.4 Developing a variety of School-to-Work/Career activities in your curriculum *(Professional Development, Programs, and Organizations)*	34	1.4515	4
19.2 Using current and relevant **non-computer technology** to teach interactive lessons on content or career-specific tasks (such as up-to-date kitchen equipment, up-to-date sewing/design equipment, etc.) *(Technology)*	36	0.9650	5
21.2 Educating students and maintaining required health and safety standards (state/federal/OSHA) *(Teaching)*	36	0.8711	6
20.1 Determining the content that should be taught in your specific course(s) *(Course, Curriculum and Standards Development)*	36	0.7467	7
22.5 Integrating life skills into your curriculum *(Professional Development, Programs, and Organizations)*	34	0.7006	8
22.1 Organizing activities for students with local organizations relating to your content area *(Professional Development, Programs, and Organizations)*	34	0.5629	9

22.2 Providing information to students related to furthering their education in your content area *(Professional Development, Programs, and Organizations)*	34	0.5382	10
21.1 Selecting current/relevant student references, materials, and textbooks *(Teaching)*	36	0.4144	11
20.3 Reporting your program information to your district and state Department of Education *(Course, Curriculum and Standards Development)*	35	-0.0914	12

The range of means of importance was 3.20 to 3.97 on a four-point Likert scale. This shows that all of the competencies listed were seen as important competencies for Montana secondary FCS teachers. The range of means of competence was 2.82 to 3.79 on a four-point Likert scale. Two competencies scored below 3.00: *22.3 Establishing opportunities or creating connections for student work internships or jobs* ($M = 2.91$); and, *22.4 Developing a variety of School-to-Work/Career activities in your curriculum* ($M = 2.82$). This shows that the majority of Wyoming secondary FCS teachers perceived themselves competent in most competencies.

The competencies were scored as followed, the higher the MWDS, the higher the professional development need priority: *22.3 Establishing opportunities or creating connections for student work internships or jobs* (MWDS = 1.4868); *20.2 Keeping current on trends and issues in your area of content* (MWDS = 1.4817); *19.1 Using current and relevant* **computer/internet technology** *to teach interactive lessons on content or career-specific tasks* (MWDS = 1.4750); *22.4 Developing a variety of School-to-Work/Career activities in your curriculum* (MWDS = 1.4515); *19.2 Using current and relevant* **non-computer technology** *to teach interactive lessons on content or career-specific tasks (such as up-to-date kitchen equipment, up-to-date sewing/design equipment, etc.)* (MWDS = 0.9650); *21.2 Educating students and maintaining required health and safety standards (state/federal/OSHA)* (MWDS = 0.8711); *20.1 Determining the content that should be taught in your specific course(s)* (MWDS = 0.7467); *22.5 Integrating life skills into your curriculum* (MWDS = 0.7006); *22.1 Organizing activities for students with local organizations relating to your content area* (MWDS = 0.5629); *22.2 Providing information to students related to furthering their education in your content area* (MWDS = 0.5382); *21.1 Selecting current/relevant student references, materials, and textbooks* (MWDS = 0.4144); and, *20.3 Reporting your program information to your district and state Department of Education* (MWDS = -0.0914).

Professional Development Motivations & Deterrents

Participants were asked to rate four statements to the level it motivated or deterred them from participating in professional development. They ranked each statement using a 4-point Likert scale: 4 strongly motivates, 3 somewhat motivates, 2 somewhat deters, and 1 strongly deters. The strongest motivator in Montana for participating in professional development was: The professional development is specifically related to your content area ($M = 3.74$, $SD = 0.505$). The subsequent ranking for motivators followed as: The professional development is offered at different times or in multiple sessions to allows for flexibility in scheduling ($M = 3.57$, $SD = 0.558$); The professional development will allow you to gain college credit ($M = 3.29$, $SD = 0.667$); and, The professional development is related to updated or new technology ($M = 3.26$, $SD = 0.657$). None of the statements were seen as deterrents. See Table 19.

Table G.19: Wyoming PD Motivation/Deterrent *Rate each statement to the level it motivates or deters you from participating in professional development.*	*n*	*Mean*	*SD*
The professional development is specifically related to your content area	35	3.74	0.505
The professional development is related to updated or new technology	35	3.26	0.657
The professional development will allow you to gain college credit	35	3.29	0.667
The professional development is offered at different times or in multiple sessions to allow for flexibility in scheduling	35	3.57	0.558

See Appendix I for breakdown of statistics of Table G.19.

Professional Development Offered

Participants were asked to rate five statements relating to professional development currently offered to the level they agreed or disagreed with them. They ranked each statement using a 4-point Likert scale: 4 strongly agree, 3 somewhat agree, 2 somewhat disagree, 1 strongly disagree. The statement Washington participants most agreed with was: Professional development is offered that teaches current or updated information ($M = 3.26$, $SD = 0.886$). The subsequent ranking for agreement followed as: Professional development if offered at times you are available to attend ($M = 3.11$, $SD = 0.993$); Professional development is offered that is affordable for you to participate in ($M = 3.03$, $SD = 1.027$); Professional development is offered that is related to the content you teach ($M = 2.89$, $SD = 1.051$); and, Professional development is offered at locations that are close enough to your school or home for you to attend ($M = 2.80$, $SD = 1.023$). See Table G.20.

Table G.20: Wyoming PD Offered	n	Mean	SD

Rate each statement to the level it you
agree or disagree with it.

	n	Mean	SD
Professional development is offered that teaches current or updated information	35	3.26	0.886
Professional development is offered that is related to the content you teach	35	2.89	1.051
Professional development is offered at times you are available to attend	35	3.11	0.993
Professional development is offered that is affordable for you to participate in	35	3.06	1.027
Professional development is offered at locations that are close enough to your school or home for you to attend	35	2.80	1.023

See Appendix I for breakdown of statistics of Table G.20.

Professional Development Preferences

Professional development preferences were ranked on a 4-point Likert scale: 7 strongly prefer, 6 somewhat prefer, 5 somewhat do not prefer, 4 strongly do not prefer. The highest ranked preferences were: *Full-day professional development during the school year* ($M = 6.26$, $SD = 0.657$); *In-service sessions at Summer PTE/CTE Conference* ($M = 5.85$, $SD = 0.989$); and, *Self-directed internet-based PD with no face-to-face meetings* ($M = 5.69$, $SD = 1.022$). The lowest ranked preferences were: *Half-day professional development in the morning during the school year* ($M = 5.03$, $SD = 1.045$); *Professional development on weekday evenings during the school* year ($M = 4.70$, $SD = 0.847$); and, *Weekend professional development during the school year* ($M = 4.56$, $SD = 0.657$). See Figures 152-161 for complete professional development rankings.

Figure G.152: M = 6.26, SD = 0.657

In-service sessions at Summer PTE/CTE Conference

- Strongly do not prefer
- Somewhat do not prefer
- Somewhat prefer
- Strongly prefer

12%
21%
38%
29%

Figure G.153: M = 5.85, SD = 0.989

Half-day professional development in the afternoon during the school year

- Strongly do not prefer
- Somewhat do not prefer
- Somewhat prefer
- Strongly prefer

12%
33%
40%
15%

Figure G.155: M = 5.58, SD = 0.902

Self-directed internet-based professional development courses

- Strongly do not prefer
- Somewhat do not prefer
- Somewhat prefer
- Strongly prefer

12%
15%
29%
44%

Figure G.154: M = 5.69, SD = 1.022

One-week professional development in the summer

- Strongly do not prefer
- Somewhat do not prefer
- Somewhat prefer
- Strongly prefer

26%
26%
24%
24%

Figure G.156: M = 5.50, SD = 1.161

Internet-based professional development courses at specified times

- ■ Strongly do not prefer
- ■ Somewhat do not prefer
- ■ Somewhat prefer
- ■ Strongly prefer

27%, 32%, 32%, 9%

Wyoming

Figure G.157: M = 5.24, SD = 0.955

Professional development on weekday evenings during the school year

- ■ Strongly do not prefer
- ■ Somewhat do not prefer
- ■ Somewhat prefer
- ■ Strongly prefer

3%, 15%, 52%, 30%

Wyoming

Figure G.159: M = 4.70, SD = 0.847

Half-day professional development in the morning during the school year

- ■ Strongly do not prefer
- ■ Somewhat do not prefer
- ■ Somewhat prefer
- ■ Strongly prefer

12%, 18%, 40%, 30%

Wyoming

Figure G.158: M = 5.03, SD = 1.045

Weekend professional development during the school year

- ■ Strongly do not prefer
- ■ Somewhat do not prefer
- ■ Somewhat prefer
- ■ Strongly prefer

3%, 20%, 6%, 71%

Wyoming

Figure G.160: M = 4.56, SD = 0.657

Preferred Professional Development Ranked by Mean

Figure G.161

See Appendix I for breakdown of statistics of Figures G.152 – G.161.

Professional Development Content Needed
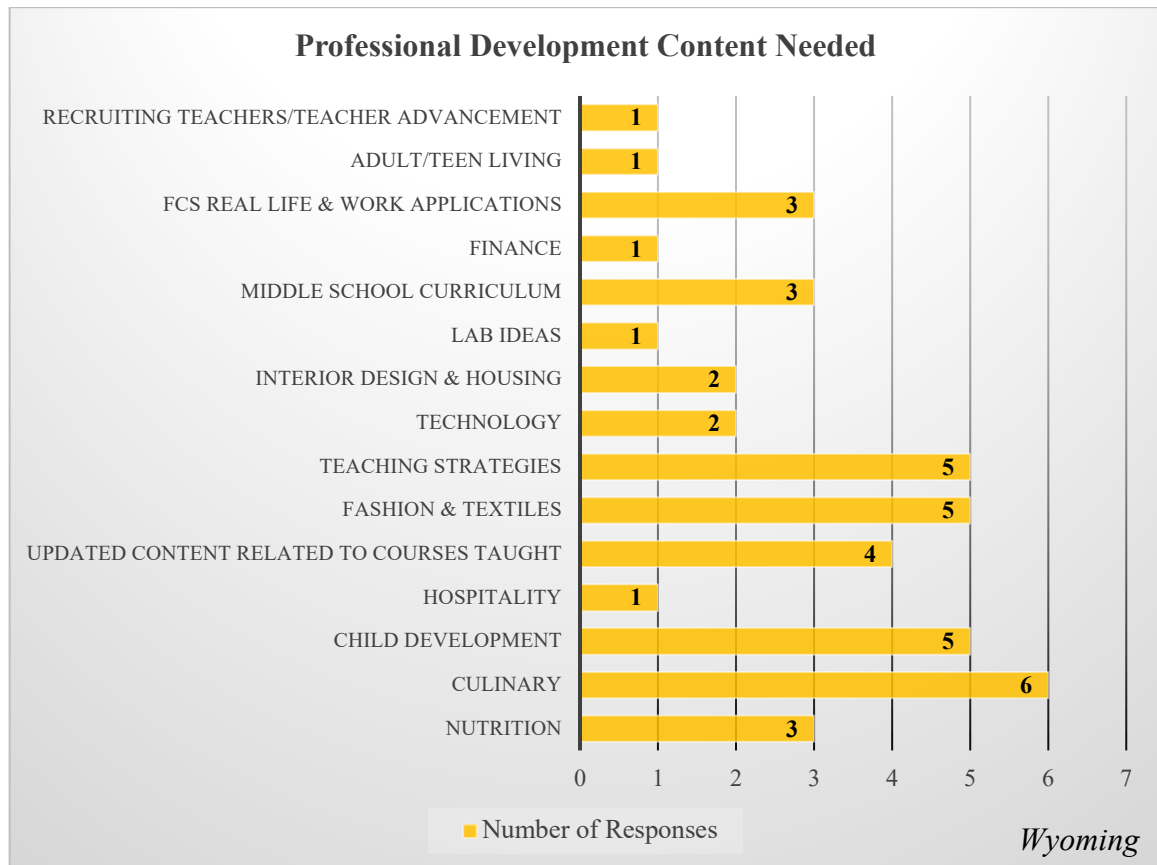
Figure G.162

See Appendix I for detailed responses.

Standards & Curriculum Confidence

Wyoming participants were asked to rate five statements relating to professional development currently offered to the level they agreed or disagreed with them. They ranked each statement using a 4-point Likert scale: 4 strongly agree, 3 somewhat agree, 2 somewhat disagree, 1 strongly disagree. The statement they most agreed with was: *You use authentic assessment in your classroom more often than traditional assessment* ($M = 3.43$, $SD = 0.698$). The subsequent ranking for agreement followed as: *You are confident your students will leave your course knowing information and skills that ready them to enter a competitive workforce* ($M = 3.34$, $SD = 0.725$); *The current national standards reflect relevant and updated information* ($M = 3.09$, $SD = 0.658$); *You are confident your curriculum includes the most current and relevant information*

available related to your content area (*M* = 2.97, *SD* = 0.618); and, *Your current state standards reflect relevant and updated information* (*M* = 2.71, *SD* = 0.987). See Figures G.163 – G.167.
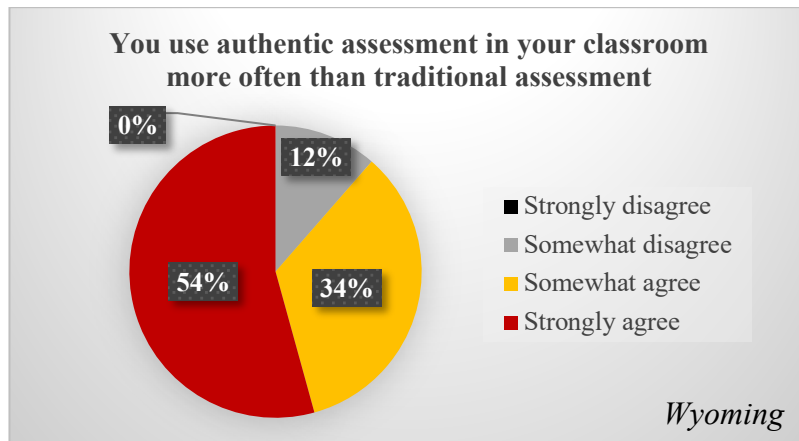
Figure G.163: M = 3.43, SD = 0.698
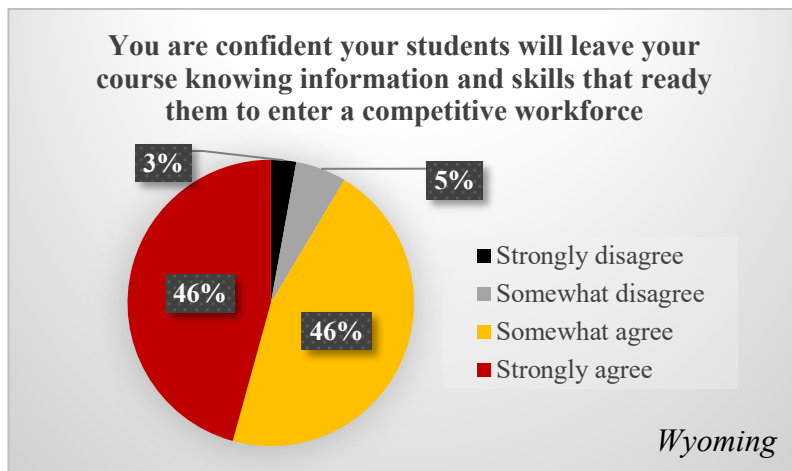
Figure G.164: M = 3.34, SD = 0.725

Figure G.165: M = 3.09, SD = 0.658

You are confident your curriculum includes the most current and relevant information available related to your content area

- ■ Strongly disagree
- ■ Somewhat disagree
- ■ Somewhat agree
- ■ Strongly agree

3%

14% 11%

72%

Wyoming

Figure G.166: M = 2.97, SD = 0.618

Your current state standards reflect relevant and updated information

- ■ Strongly disagree
- ■ Somewhat disagree
- ■ Somewhat agree
- ■ Strongly agree

20% 17%

14%

49%
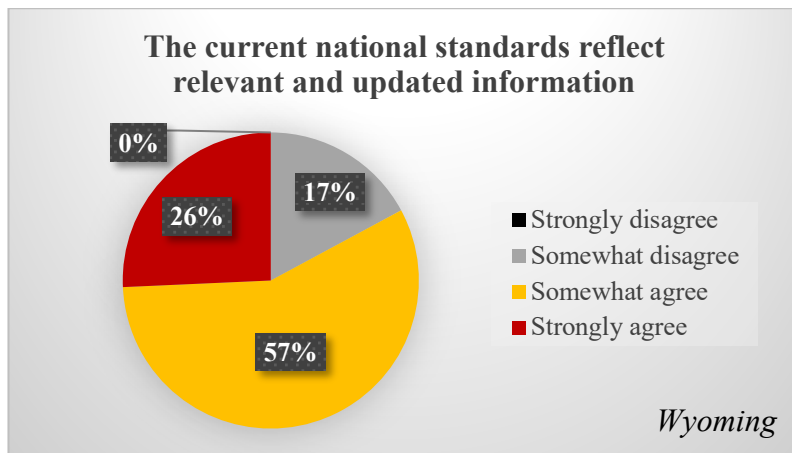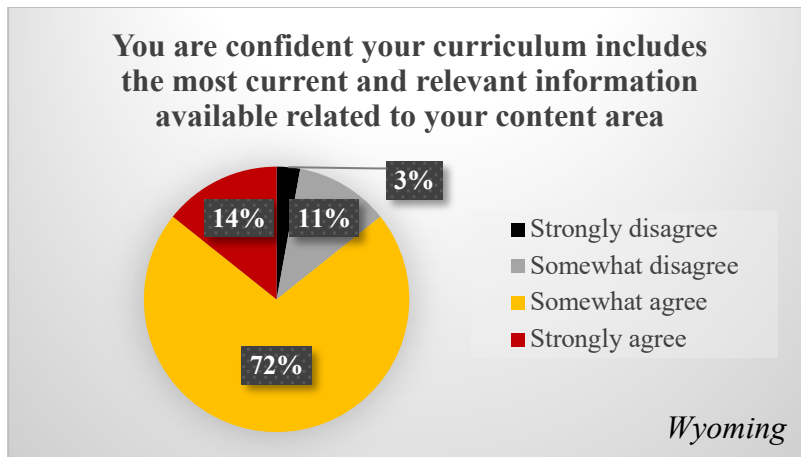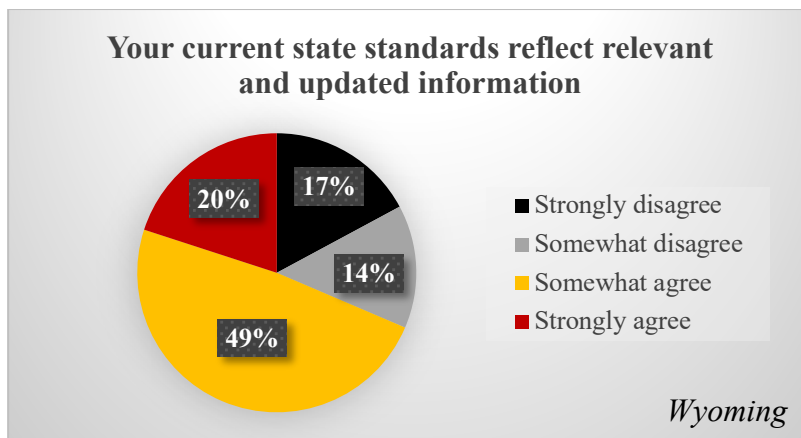
Wyoming

Figure G.167: M = 2.71, SD = 0.987

Personal Demographics

Wyoming survey participants responded that 36 (92.31%) participants identified as female; and, 3 (7.69%) participant chose to not respond. See Figure G.168.

Gender

8%

92%

- ■ Female
- ■ No Answer
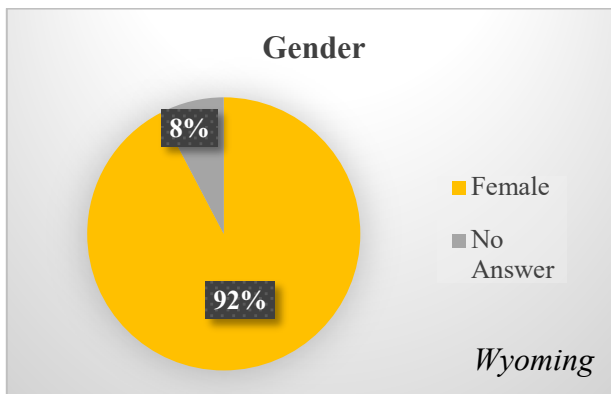
Wyoming

Figure G.168

Wyoming survey participants responded that 0 (0.00%) participant was between the ages of 18-24; 2 (5.13%) participant was between the ages of 25-29; 6 (15.39%) participants were between the ages of 30-34; 6 (15.39%) participants were between the ages of 35-39; 3 (7.69%) participants were between the ages of 40-44; 3 (7.69%) participants were between the ages of 45-49; 5 (12.82%) participants were between the ages of 50-54; 6 (15.39%) participants were between the ages of 55-59; 4 (10.26%) participants were between the ages of 60-64; 2 (5.13%) was 65+; and, 2 (5.13%) chose to not answer. See Figure G.169.
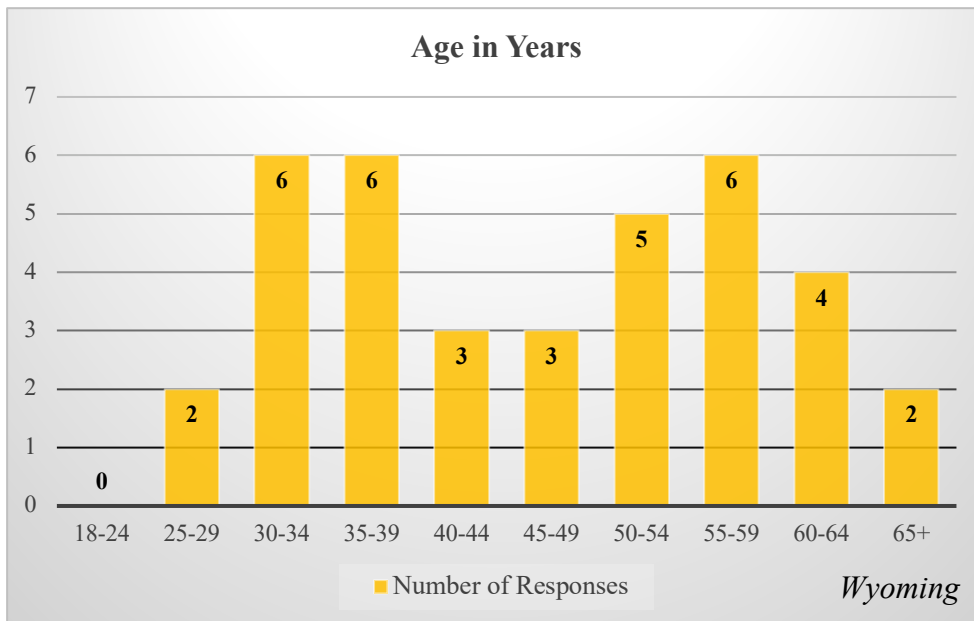
Figure G.169

Wyoming survey participants responded that 37 (94.87%) participants identified as White; and, 2 (5.13%) chose to not answer. See Figure G.170.
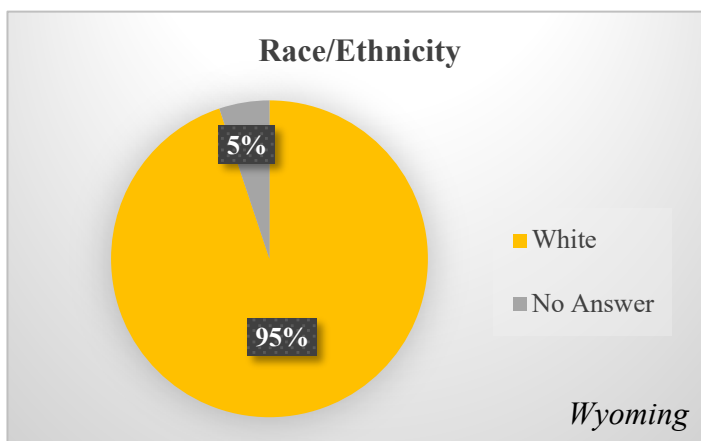
Figure G.170

APPENDIX H

IRB APPROVAL

University *of* **Idaho**
Office of Research Assurances

Institutional Review Board
875 Perimeter Drive, MS 3010
Moscow, ID 83844-3010
Phone: 208-885-6162
Fax: 208-885-6014
Email: irb@uidaho.edu

To: Sonya Sue Meyer

Cc: Elizabeth Ropski

From: University of Idaho Institutional Review Board

Approval Date: September 03, 2019

Title: 2019 National Secondary Family & Consumer Science Teachers Needs Assessment Survey

Project: 19-125
Certified: Certified as exempt under category 2 at 45 CFR 46.104(d)(2).

On behalf of the Institutional Review Board at the University of Idaho, I am pleased to inform you that the protocol for this research project has been certified as exempt under the category listed above.

This certification is valid only for the study protocol as it was submitted. Studies certified as Exempt are not subject to continuing review and this certification does not expire. However, if changes are made to the study protocol, you must submit the changes through VERAS for review before implementing the changes. Amendments may include but are not limited to, changes in study population, study personnel, study instruments, consent documents, recruitment materials, sites of research, etc.

As Principal Investigator, you are responsible for ensuring compliance with all applicable FERPA regulations, University of Idaho policies, state and federal regulations. Every effort should be made to ensure that the project is conducted in a manner consistent with the three fundamental principles identified in the Belmont Report: respect for persons; beneficence; and justice. The Principal Investigator is responsible for ensuring that all study personnel have completed the online human subjects training requirement. Please complete the *Study Status Check and Closure Form* in VERAS when the project is completed.

You are required to timely notify the IRB if any unanticipated or adverse events occur during the study, if you experience and increased risk to the participants, or if you have participants withdraw or register complaints about the study.

APPENDIX I

STATISTICS

IDAHO DATA

Q1 Survey Introduction

Q2 You currently teach in (state)

Q3 What is the population of the city/town where you currently teach?

Population	Frequency	Percentage
Less than 2500 people	32	38.55
2,500 - 50,000 people	12	14.46
Over 50,000 people	38	45.78
No Answer	1	1.20

See Figure G.1.

Q4 The number of students in your school is

# of Students	Frequency	Percentage
less than 50	2	2.41
50-100	2	2.41
101-300	15	18.07
301-500	4	4.82
501-750	12	14.46
751-1000	8	9.64
1001-1200	12	14.46
1200+	28	33.73

See Figure G.2.

Q5 Your average class size is

# of Students	Frequency	Percentage
less than 5 students	0	0.00
6-10 students	3	3.61
11-15 students	9	10.84
16-20 students	10	12.05
21-25 students	24	28.92
26-30 students	29	34.94
31-35 students	8	9.64
36+ students	0	0.00

See Figure G.3.

Q6 You have taught Family and Consumer Science for ____ years. (round up half year)

# of Years	Frequency	Percentage
less than 1 year	4	4.82
1 year	6	7.23
2 years	3	3.61
3 years	5	6.02
4 years	4	4.82
5 years	4	4.82
6 years	3	3.61
7 years	4	4.82
8 years	4	4.82
9 years	3	3.61
10 years	3	3.61
11 years	2	2.41
12 years	5	6.02
13 years	2	2.41
14 years	1	1.20
15 years	1	1.20
16 years	2	2.41
17 years	2	2.41
18 years	1	1.20
19 years	2	2.41
20 years	2	2.41
21 years	0	0.00
22 years	2	2.41
23 years	0	0.00
24 years	0	0.00
25 years	1	1.20
26 years	5	6.02
27 years	1	1.20
28 years	1	1.20
29 years	1	1.20
30 years	3	3.61
31+ years	5	6.02
No Answer	1	1.20

See Figure G.4.

Q7 Based on the 16 nationally recognized FCS areas of study, which area(s) do you currently teach or have taught in the past? Mark all that apply.

Area of Study	Frequency	Percentage
Career, Community, and Family Connections	32	38.55
Consumer and Family Resources	31	37.35
Consumer Services	9	10.84
Education and Early Childhood	41	49.40
Facilities and Property Management	1	1.20
Family	36	43.37
Family and Human Services	13	15.66
Food Production and Services	48	57.83
Food Science, Dietetics, and Nutrition	30	36.14
Hospitality, Tourism, and Recreation	11	13.25
Housing and Interior Design	37	44.58
Human Development	38	45.78
Interpersonal Relationships	29	34.94
Nutrition and Wellness	60	72.29
Parenting	37	44.58
Textiles, Fashion, and Apparel	46	55.42
Unsure of area(s) of study	4	4.82
No Answer	1	1.20

Total may equal more than 100% as participants can select more than one professional organization.

See Figure G.5.

Q8 How were you prepared to teach FCS? Mark all that apply.

FCS Education Preparation	Frequency	Percentage
Undergraduate teacher education program (graduated with teaching certification and bachelor's in education or related major)	24	28.92
Undergraduate traditional FCS teacher education program (graduated with teaching certification with endorsement in Family & Consumer Sciences)	48	57.83
Graduate program relating to education at least one year beyond bachelor's degree	13	15.66
Substitute teaching that resulted in permanent position	3	3.61
Alternative route (Peace Corps, Teach for America, Teacher Opportunity Corps, US Military, other) – please note the route you took if this applies	4	4.82

    Open Answer
- FCS graduate without certificate. I went back 8 years later and got my certification
- PTE Idaho
- Industry experience in this field

FCS Education Preparation	Frequency	Percentage
Limited Occupational Specialist Certification	3	3.61
Standard Occupational Specialist Certification	6	7.23
No prior teaching experience but have a degree and career experience in a FCS-related field	7	8.43
No prior teaching experience but have a degree and no career experience in a FCS-related field	2	2.41
No prior teaching experience or a degree in a FCS-related field but have career experience in a FCS-related field	3	3.61
Please share any further information on how you were prepared to teach that you feel necessary.	7	8.43

    Open Answer
- Alternative Endorsement, 20 years teaching in other content not working to get endorsement on a temporary license
- I know how to cook and sew a little
- I was hired as a content specialist on the alternative authorization track. I completed my education classes in a post-bac program at ISU
- Advanced Occupational Specialist
- 90+ credit beyond BA
- Undergraduate degree in nutrition, was a PE teacher, and then changed curriculums to teach FCS and currently completing endorsement qualifications through U of Idaho
- I also substitute taught for eight years and was a kitchen manager for an elementary school

Total may equal more than 100% as participants can select more than one professional organization.

See Figure G.6.

Q9 Your highest level of formal education is

Level	Frequency	Percentage
High School Diploma	0	0.00
Associate Degree	2	2.41
Bachelor's Degree	29	34.94
1-18 graduate hours	9	10.84
19-36 graduate hours	9	10.84
37+ graduate hours	11	13.25
Master's Degree	7	8.43
Master's Degree + more graduate hours	13	15.66
Specialist	1	1.20
Doctorate	0	0.00
No Answer	2	2.41

See Figure G.7.

Q10 How many teachers teach Family & Consumer Science courses at your school, including yourself?

Teachers	Frequency	Percentage
1 (self)	42	50.60
2	28	33.72
3	11	13.25
4	1	1.20
5	1	1.20
6+	0	0.00

See Figure G.8.

Q11 How often do you meet with other Family & Consumer Science teachers in your school/district?

Meet	Frequency	Percentage
Once a week	22	26.51
Once a month	13	15.66
Once a quarter	15	18.07
Once a semester	8	9.64
Once a year	4	4.82
Other		
Never	5	6.02
Irregularly	1	1.20
No other teacher to meet with	6	7.23
Daily/Regularly	4	4.82
N/A	3	3.61
Unsure	1	1.20
Weekly via tech	1	1.20
No Answer	0	0.00

See Figure G.9.

Q12 In which professional organization(s) do you hold membership?

Organization	Frequency	Percentage
American Association of Family and Consumer Sciences (AAFCS/NAFCS)	19	24.10
Association for Career and Technical Education (ACTE/FCSTN)	34	40.96
Other		
NAEYC	4	4.82
CTEI	12	14.46
IATFACS	16	19.28
Idaho AEYC	1	1.20
FCCLA	2	2.41
American Culinary Federation	1	1.20
NEA	2	2.41
None	29	34.94
No Answer	5	6.02

Total may equal more than 100% as participants can select more than one professional organization.

See Figure G.10.

Q13 Do you advise a chapter of Family, Career, and Community Leaders of America (FCCLA) at your school?

Advise FCCLA	Frequency	Percentage
Yes	57	68.67
No	25	30.12
No Answer	1	1.20

See Figure G.11.

Q14 Do you know where to find the *state* standards for the FCS course(s) you teach?

State Standards	Frequency	Percentage
Yes	83	100.00
No	0	0.00
No Answer	0	0.00

See Figure G.12.

Q15 Do you know where to find the *national* standards for the FCS course(s) you teach?

State Standards	Frequency	Percentage
Yes	68	81.93
No	15	18.07
No Answer	0	0.00

See Figure G.13.

Q16 How often do you think that *state* standards for FCS courses need to be updated?

Update State Standards	Frequency	Percentage
Every year	1	1.20
Every other year	11	13.25
Every three years	34	40.96
Every four years	28	33.73
Other		
Every five to six years	3	3.61
Depends on subject	3	3.61
No specification	2	2.41
No Answer	1	1.20

See Figure G.14.

Q17 How often do you think that *national* standards for FCS courses need to be updated?

Update National Standards	Frequency	Percentage
Every year	1	1.20
Every other year	9	10.84
Every three years	28	33.73
Every four years	33	39.76
Other		
Every five to six years	6	7.23
Depends	2	2.41
No specification	1	1.20
No Answer	3	3.61

See Figure G.15.

Q25 Which of these best reflect your personal preferences for scheduling of professional development opportunities? (Choose as many as apply.)

Preferred Professional Development Ranked by Mean

Professional Development (PD)	Mean	Rank
Full-day PD during the school year	6.36	1
In-service sessions at Summer PTE/CTE Conference	6.31	2
One-week PD in the summer	5.94	3
Self-directed internet-based PD with no face-to-face meetings	5.64	4
Half-day PD in the afternoon during the school year	5.59	5
Half-day PD in the morning during the school year	5.56	6
Internet-based PD at specified times	5.24	7
PD on weekday evenings during the school year	4.67	8
Weekend PD during the school year	4.66	9

See Figures G.16 - G.25

Q26 What content would you be interested in learning in a professional development course?

- Foods
- Sport nutrition
- Parenting
- Child development
- Nutrition, culinary, hospitality
- Updated content material and techniques related to courses taught
- Nutrition
- Areas that help teaching the standards for the TSA in my content area. Culinary.
- Culinary arts
- I love textile and interior design but fashion design as well
- How to deal with feeling overwhelmed and to still do a good job teaching.
- Best practices. FCCLA advising. Fundraising ideas.
- FCS
- Updates in fcs related topics. What is happening in industry
- backwards design but at the end have an outstanding unit in place to use in the classroom
- Running a play school in Early Childhood Ed.
- Content area
- Classroom Management
- All... Culinary, textile/sewing, child development, finance
- Culinary best practices
- Technology options and how to best utilize them in the classroom
- Fashion and Textiles and Interior Design
- interior design
- classroom management, technology

- Leadership
- Current trends
- More tech courses - coding, robotics, etc
- Apparel and Textiles pertinent information... Nutrition and Foods, International cuisine
- CULINARY, FASHION/TEXTILES, CHILD DEVELOPMENT
- Leadership activities for high school students. Anything that helps with Food Service and Production.
- nutrition and foods
- Culinary
- Utilizing technology to help kids monitor diet/food intake. I used to use USDA's "Super Tracker" but they discontinued it.
- food trends, food science & nutrition, lab ideas that work
- Culinary, specifically more about making the kitchen brigade concept work in a non-professional kitchen
- Funding and grants
- Skills I can take back and use in my classes
- Sewing or Nutrition
- Culinary Skills
- Hospitality opportunities for high school students
- Course specific classes
- Differentiated instruction, middle school curriculum, money management
- Anything FCS related
- Anything for now, I'm new. Everything helps.
- I love when I can choose classes to attend, where I can learn things that I can actually use in my classes and with my students.
- not sure
- Hospitality Development and Services, Sewing for Teens, Financial Programs online for Teens, Student engagement. Mastery programs.
- Technology, culinary skills
- machine embroidery, technology in a variety of areas

See Figure G.26 for qualitative analysis of Q26

Q27 Rate each statement to the level you personally agree or disagree with it.
See Figures G.27 - G.31

Statistics

		Q27_1	Q27_2	Q27_3	Q27_4	Q27_5
N	Valid	67	67	65	67	66
	Missing	16	16	18	16	17
Mean		3.21	3.34	3.15	3.15	3.38
Std. Deviation		.664	.708	.643	.702	.718
Range		3	3	3	3	3

MONTANA DATA

Q1 Survey Introduction

Q2 You currently teach in (state)

Q3 What is the population of the city/town where you currently teach?

Population	Frequency	Percentage
Less than 2500 people	39	48.15
2,500 - 50,000 people	27	33.33
Over 50,000 people	15	18.52
No Answer	0	0.00

See Figure G.35.

Q4 The number of students in your school is

# of Students	Frequency	Percentage
less than 50	2	2.47
50-100	12	14.81
101-300	30	37.04
301-500	12	14.81
501-750	5	6.17
751-1000	4	4.94
1001-1200	5	6.17
1200+	11	13.58
No Answer	0	0.00

See Figure G.36.

Q5 Your average class size is

# of Students	Frequency	Percentage
less than 5 students	2	2.47
6-10 students	20	24.69
11-15 students	17	20.99
16-20 students	20	24.69
21-25 students	13	16.05
26-30 students	7	8.64
31-35 students	0	0.00
36+ students	0	0.00
No Answer	2	2.47

See Figure G.37.

Q6 You have taught Family and Consumer Science for _____ years. (round up half year)

# of Years	Frequency	Percentage
less than 1	5	6.17
1	0	0.00
2	4	4.94
3	5	6.17
4	4	4.94
5	4	4.94
6	6	7.41
7	3	3.70
8	3	3.70
9	3	3.70
10	2	2.47
11	4	4.94
12	1	1.23
13	1	1.23
14	0	0.00
15	2	2.47
16	2	2.47
17	2	2.47
18	2	2.47
19	3	3.70
20	3	3.70
21	2	2.47
22	1	1.23
23	0	0.00
24	0	0.00
25	0	0.00
26	0	0.00
27	1	1.23
28	2	2.47
29	2	2.47
30	3	3.70
31+	11	13.58
No Answer	0	0.00

See Figure G.38.

Q7 Based on the 16 nationally recognized FCS areas of study, which area(s) do you currently teach or have taught in the past? Mark all that apply.

Area of Study	Frequency	Percentage
Career, Community, and Family Connections	41	50.62
Consumer and Family Resources	33	40.74
Consumer Services	22	27.16
Education and Early Childhood	54	66.67
Facilities and Property Management	1	1.23
Family	35	43.21
Family and Human Services	20	24.69
Food Production and Services	58	71.60
Food Science, Dietetics, and Nutrition	56	69.14
Hospitality, Tourism, and Recreation	32	39.51
Housing and Interior Design	46	56.79
Human Development	40	49.38
Interpersonal Relationships	38	46.91
Nutrition and Wellness	61	75.31
Parenting	46	56.79
Textiles, Fashion, and Apparel	57	70.37
Unsure of area(s) of study	4	4.94

Total may equal more than 100% as participants can select more than one professional organization.

See Figure G.39.

Q8 How were you prepared to teach FCS? Mark all that apply.

FCS Education Preparation	Frequency	Percentage
Undergraduate teacher education program (graduated with teaching certification and bachelor's in education or related major)	28	34.57
Undergraduate traditional FCS teacher education program (graduated with teaching certification with endorsement in Family & Consumer Sciences)	44	54.32
Graduate program relating to education at least one year beyond bachelor's degree	18	22.22
Substitute teaching that resulted in permanent position	4	4.94
Alternative route (Peace Corps, Teach for America, Teacher Opportunity Corps, US Military, other) – please note the route you took if this applies	1	1.23

> *Open Answer*
> - received certification while teaching

Limited Occupational Specialist Certification	0	0.00
Standard Occupational Specialist Certification	0	0.00
No prior teaching experience but have a degree and career experience in a FCS-related field	2	2.47
No prior teaching experience but have a degree and no career experience in a FCS-related field	2	2.47
No prior teaching experience or a degree in a FCS-related field but have career experience in a FCS-related field	2	2.47
Please share any further information on how you were prepared to teach that you feel necessary.	7	8.64

> *Open Answer*
> - I was an elementary teacher for 10 years. I currently own and operate a B&B and a Food Truck. The school district hired me on an emergency credential as my Montana Teaching Certificate is lapsed and is only K-8
> - Bachelors in Science in Health and Human Development (K-12 Health Enhancement Teaching) School needed FCS so completed minor through program that was based out of Montana State University but required at the time I take online classes from different schools that I found to cover classes they wanted me to take.
> - I have a BFA of Art Education and then completed the 3-year internship program earning a minor in FCS.
> - I am certified in English, but my district needs a FACS teacher and they asked me if I would do it. I agreed with the stipulation that they pay for the classes.
> - Certified in math and am in the internship program through MSU-Bozeman
> - Professional Chef

Total may equal more than 100% as participants can select more than one professional organization.

See Figure G.40.

Q9 Your highest level of formal education is

Level	Frequency	Percentage
High School Diploma	0	0.00
Associate Degree	1	1.23
Bachelor's Degree	18	22.22
1-18 graduate hours	10	12.35
19-36 graduate hours	9	11.11
37+ graduate hours	14	17.28
Master's Degree	12	14.81
Master's Degree + more graduate hours	17	20.99
Specialist	0	0.00
Doctorate	0	0.00
No Answer	0	0.00

See Figure G.41.

Q10 How many teachers teach Family & Consumer Science courses at your school, including yourself?

Teachers	Frequency	Percentage
1	62	76.54
2	10	12.35
3	7	8.64
4	2	2.47
5	0	0.00
6+	0	0.00

See Figure G.42.

Q11 How often do you meet with other Family & Consumer Science teachers in your school/district?

Meet	Frequency	Percentage
Once a week	5	6.17
Once a month	6	7.41
Once a quarter	4	4.94
Once a semester	9	11.11
Once a year	10	12.35
Other		
Never	6	7.41
Irregularly	3	3.70
No other teacher to meet with	17	20.99
Daily/Regularly	7	8.64
N/A	5	6.17
No Answer	8	9.88
Weekly via tech	1	1.23

See Figure G.43.

Q12 In which professional organization(s) do you hold membership?

Organization	Frequency	Percentage
American Association of Family and Consumer Sciences (AAFCS/NAFCS)	45	55.56
Association for Career and Technical Education (ACTE/FCSTN)	43	53.09
Other		
NAEYC	1	1.23
MACTE	2	2.47
MAFACS	2	2.47
Montana Cattlewomen	1	1.23
FCCLA	1	1.23
MEA	1	1.23
None	18	22.22
No Answer	1	1.23

Total may equal more than 100% as participants can select more than one professional organization.
See Figure G.44.

Q13 Do you advise a chapter of Family, Career, and Community Leaders of America (FCCLA) at your school?

Advise FCCLA	Frequency	Percentage
Yes	51	62.96
No	30	37.04
No Answer	0	0.00

See Figure G.45.

Q14 Do you know where to find the *state* standards for the FCS course(s) you teach?

State Standards	Frequency	Percentage
Yes	76	93.83
No	5	6.17
No Answer	0	0.00

See Figure G.46.

Q15 Do you know where to find the *national* standards for the FCS course(s) you teach?

State Standards	Frequency	Percentage
Yes	78	96.30
No	3	3.70
No Answer	0	0.00

See Figure G.47.

Q16 How often do you think that *state* standards for FCS courses need to be updated?

Update State Standards	Frequency	Percentage
Every year	2	2.47
Every other year	5	6.17
Every three years	26	32.10
Every four years	31	38.27
Other		
Every five years	8	9.88
Every five to ten years	3	3.70
No specification	4	4.94
When Nat'l Standards are updated	1	1.23
No Answer	1	1.23

See Figure G.48.

Q17 How often do you think that *national* standards for FCS courses need to be updated?

Update National Standards	Frequency	Percentage
Every year	2	2.47
Every other year	7	8.64
Every three years	24	29.63
Every four years	34	41.98
Other		
Every five to six years	8	9.88
Every five to ten years	3	3.70
No specification	2	2.47
No Answer	2	1.23

See Figure G.49.

Q25 Which of these best reflect your personal preferences for scheduling of professional development opportunities? (Choose as many as apply.)

Preferred Professional Development Ranked by Mean

Professional Development (PD)	Mean	Rank
Full-day PD during the school year	6.11	1
One-week PD in the summer	5.91	2
In-service sessions at Summer PTE/CTE Conference	5.89	3
Self-directed internet-based PD with no face-to-face meetings	5.68	4
Internet-based PD at specified times	5.44	5
Half-day PD in the afternoon during the school year	5.22	6
Half-day PD in the morning during the school year	5.12	7
Weekend PD during the school year	4.88	8
PD on weekday evenings during the school year	4.86	9

See Figures G.50 - G.59.

Statistics

		Q25_1	Q25_2	Q25_3	Q25_4	Q25_5	Q25_6	Q25_7	Q25_8	Q25_9
N	Valid	73	73	73	74	73	74	71	75	73
	Missing	9	9	9	8	9	8	11	7	9
Mean		5.12	5.22	4.86	6.11	4.88	5.91	5.89	5.68	5.44
Std. Deviation		1.066	1.070	1.018	.973	.957	1.009	.949	1.080	1.041
Range		3	3	3	3	3	3	3	3	3

Q26 What content would you be interested in learning in a professional development course?

- Interpersonal Relationships
- Personal finance, interior design, sewing quilting or basic knitting, crocheting, etc.
- FCS Content
- applying FCS to workplace and everyday skills
- Early Childhood Education
- Travel and Tourism
- Interior Design training
- Culinary Arts training
- Trends in content areas - updates.
- draping for dressmaking
- Teaching human development beyond child development.
- Technology in the FCS classroom. Using technology for student success.
- Current research in nutrition and human disease.
- Health issues, addiction information, human skills for mental health intervention, suicide prevention
- Anything about teaching interior design

- Marketing
- Culinary Arts
- Child Development/Child Care
- How other teachers are teaching sewing.
- More on textiles and sewing.
- Honestly, I am brand new to this content area, so I would be happy to learn many things.
- Work Based Learning
- Content related to one of the various FCS areas I teach.
- mental health and selfcare
- Anything FCS related - Foods, Nutrition, Sewing
- More Computer related programs.
- Hospitality and Tourism
- Housing & Interior Design
- Travel & Tourism
- Life skills
- financial education
- FCS updates, curriculum development, trends,
- How to differentiate assessments in FCS
- updated trends and careers
- Financial Literacy
- Nutrition and Wellness or classroom management ideas
- Serv-Safe
- hands-on activities, project-based learning, service-learning opportunities
- Managing a successful and vital FCCLA chapter while maintaining attention to classes and still having time for a life outside of school activities. FCCLA is the best and most time and energy-consuming part of my job. I have not yet managed to find balance in building a successful chapter and avoiding burnout.
- Basic sewing, textiles
- Integrated approach to careers instead of a unit on Careers in FCS areas
- upper level professional content
- unsure at this time. Maybe something on motivating the students to care, it seems we have a generation that is somewhat disrespectful of adults and have no concern for anyone's feelings.
- All areas of FCS
- Nutrition
- Hospitality and Tourism
- I would like to learn more about the trends toward gaming in the classrooms and how to develop that atmosphere. I would like more help with course development as far as obtaining quality resources for the course and a variety of teaching approaches to make the course more interesting and engaging for students. How do we make classes engaging without total game atmosphere and still meet the standards we need to reach for those classes. The balance in making things engaging without crossing over into the total fun zone is a difficult one with this generation of students.
- "Intro to FCS, junior high classes
- HS culinary "
- Textiles, Prostart, Family
- Perkins guidelines, OPI guidelines
- Fashion Design
- Culinary course
- Hospitality and Tourism
- Sewing for a business
- Interior Design
- Time & Resource Management-Organization, Step by Step Pathway Setup, Class Organization, FCCLA Adviser Role Management, Integrating FCCLA into FCS Classes

- Foods and Nutrition updates as this subject area seem to change so frequently. It can be difficult to give our students current information as our textbooks are often outdated before we can get them in our classrooms. I'm a 40-year veteran here, so I don't have too many classroom management issues, but I see younger teachers in all subjects struggling with that issue and too many leave the profession because of those struggles. FACS has its own unique set of classroom management issues to deal with, and having new teachers better prepared for the daily frustration that will inevitably come up, would help build some resiliency in younger teachers.
- Child Development- 0-preschool
- Textiles (projects)
- Entrepreneurship
- Making workplace connections for our students in small rural communities with limited business and industry.
- How to implement school to work in the curriculum areas of FCS.
- Trends and update motivating students in clothing, textiles and construction skills and opportunities.
- Food Science
- Tourism and Hospitality
- Just a comment, I would love to have my students participate in more intern type activities. We are in a very rural area. We have very few options

See Figure G.60 for qualitative analysis of Q26.

Q27 Rate each statement to the level you personally agree or disagree with it.

		Q27_1	Q27_2	Q27_3	Q27_4	Q27_5
N	Valid	74	74	73	73	74
	Missing	8	8	9	9	8
Mean		3.05	3.26	3.18	2.99	3.31
Std. Deviation		.700	.550	.609	.842	.639
Range		3	2	2	3	2

See Figures G.61 - G.65.

Q28 Gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	1	1.2	1.3	1.3
	2	76	92.7	98.7	100.0
	Total	77	93.9	100.0	
Missing	System	5	6.1		
Total		82	100.0		

See Figure G.66

Q29 Age

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	1	1.2	1.3	1.3
	2	6	7.3	7.8	9.1
	3	6	7.3	7.8	16.9
	4	12	14.6	15.6	32.5
	5	5	6.1	6.5	39.0
	6	5	6.1	6.5	45.5
	7	7	8.5	9.1	54.5
	8	13	15.9	16.9	71.4
	9	14	17.1	18.2	89.6
	10	8	9.8	10.4	100.0

		77	93.9	100.0	
Missing	System	5	6.1		
Total		82	100.0		

		77	93.9	100.0	
	Total	77	93.9	100.0	
Missing	System	5	6.1		
Total		82	100.0		

See Figure G.67

Q30 The race/ethnicity you identify with is (choose as many as apply)

		Frequency	Percent
Valid	missing	4	4.9
	12	73	89.0
	12,13	1	1.2
	14	1	1.2
	5	1	1.2
	5,12	1	1.2
	The race/ethnicity you identify with is (choose as many as apply) - Selected Choice	1	1.2
	Total	82	100.0

See Figure G.68

Comments/Questions/Concerns:

- I would love to have more work-based activities. We are very limited by location.
- I teach middle school so I am not expected to report to my school district. I also cannot receive Carl Perkins funds so any in-service I attend is on "my dime."

OREGON DATA

Q1 Survey Introduction

Q2 You currently teach in (state)

Q3 What is the population of the city/town where you currently teach?

Population	Frequency	Percentage
Less than 2500 people	2	7.69
2,500 - 50,000 people	15	57.69
Over 50,000 people	9	34.62
No Answer	0	0.00

See Figure G.69.

Q4 The number of students in your school is

# of Students	Frequency	Percentage
less than 50	0	0.00
50-100	0	0.00
101-300	1	3.85
301-500	2	7.69
501-750	4	15.38
751-1000	4	15.38
1001-1200	5	19.23
1200+	10	38.46
No Answer	0	0.00

See Figure G.70.

Q5 Your average class size is

# of Students	Frequency	Percentage
less than 5 students	0	0.00
6-10 students	0	0.00
11-15 students	0	0.00
16-20 students	2	7.69
21-25 students	2	7.69
26-30 students	6	23.08
31-35 students	11	42.31
36+ students	4	15.38
No Answer	1	3.85

See Figure G.71.

Q6 You have taught Family and Consumer Science for _____ years. (round up half year)

# of Years	Frequency	Percentage
less than 1	1	3.85
1	2	7.69
2	4	15.38
3	0	0.00
4	1	3.85
5	2	7.69
6	2	7.69
7	0	0.00
8	0	0.00
9	0	0.00
10	0	0.00
11	1	3.85
12	0	0.00
13	1	3.85
14	2	7.69
15	0	0.00
16	2	7.69
17	1	3.85
18	2	7.69
19	0	0.00
20	0	0.00
21	0	0.00
22	1	3.85
23	0	0.00
24	0	0.00
25	0	0.00
26	0	0.00
27	0	0.00
28	1	3.85
29	0	0.00
30	0	0.00
31+	3	11.54
No Answer	0	0.00

See Figure G.72.

Q7 Based on the 16 nationally recognized FCS areas of study, which area(s) do you currently teach or have taught in the past? Mark all that apply.

Area of Study	Frequency	Percentage
Career, Community, and Family Connections	11	42.31
Consumer and Family Resources	8	30.77
Consumer Services	1	3.85
Education and Early Childhood	17	65.38
Facilities and Property Management	0	0.00
Family	11	42.31
Family and Human Services	9	34.62
Food Production and Services	17	65.38
Food Science, Dietetics, and Nutrition	11	42.31
Hospitality, Tourism, and Recreation	9	34.62
Housing and Interior Design	3	11.54
Human Development	12	46.15
Interpersonal Relationships	9	34.62
Nutrition and Wellness	11	42.31
Parenting	13	50.00
Textiles, Fashion, and Apparel	6	23.08
Unsure of area(s) of study	0	0.00
No Answer	0	0.00

Total may equal more than 100% as participants can select more than one professional organization.

See Figure G.73.

Q8 How were you prepared to teach FCS? Mark all that apply.

FCS Education Preparation	Frequency	Percentage
Undergraduate teacher education program (graduated with teaching certification and bachelor's in education or related major)	11	42.31
Undergraduate traditional FCS teacher education program (graduated with teaching certification with endorsement in Family & Consumer Sciences)	10	38.46
Graduate program relating to education at least one year beyond bachelor's degree	11	42.31
Substitute teaching that resulted in permanent position	3	11.54
Alternative route (Peace Corps, Teach for America, Teacher Opportunity Corps, US Military, other) -- please note the route you took if this applies	1	3.85

    Open Answer
    - BA in Clothing Textiles and Design w/some education classes

Limited Occupational Specialist Certification	0	0.00
Standard Occupational Specialist Certification	0	0.00
No prior teaching experience but have a degree and career experience in a FCS-related field	2	7.69
No prior teaching experience but have a degree and no career experience in a FCS-related field	0	0.00
No prior teaching experience or a degree in a FCS-related field but have career experience in a FCS-related field	1	3.85
Please share any further information on how you were prepared to teach that you feel necessary.	4	15.38

    Open Answer
    - Currently in a Master of Teaching program
    - BS - Health & Human Development
    - Degree in Home economics (apparel design)
      and a MAT FCS
    -No training or experience in teaching FCS.
     I was a LA/SS teacher by training. Took state
     test to get endorsement in FCS.

Total may equal more than 100% as participants can select more than one professional organization.
See Figure G.74.

Q9 Your highest level of formal education is

Level	Frequency	Percentage
High School Diploma	0	0.00
Associate Degree	1	3.85
Bachelor's Degree	3	11.54
1-18 graduate hours	1	3.85
19-36 graduate hours	0	0.00
37+ graduate hours	2	7.69
Master's Degree	5	19.23
Master's Degree + more graduate hours	14	53.85
Specialist	0	0.00
Doctorate	0	0.00

See Figure G.75.

Q10 How many teachers teach Family & Consumer Science courses at your school, including yourself?

Teachers	Frequency	Percentage
1	13	50.00
2	7	26.92
3	4	15.38
4	1	3.85
5	0	0.00
6+	1	3.85

See Figure G.76.

Q11 How often do you meet with other Family & Consumer Science teachers in your school/district?

Meet	Frequency	Percentage
Once a week	3	11.54
Once a month	4	15.38
Once a quarter	3	11.54
Once a semester	3	11.54
Once a year	4	15.38
Other		
Never	3	11.54
Irregularly	1	3.85
Daily/Regularly	2	7.69
Every 2 weeks	1	3.85
Twice a month	1	3.85
No Answer	1	3.85

See Figure G.77.

Q12 In which professional organization(s) do you hold membership?

Organization	Frequency	Percentage
American Association of Family and Consumer Sciences (AAFCS/NAFCS)	11	42.31
Association for Career and Technical Education (ACTE/FCSTN)	7	26.92
Other		
ORAFCS	3	11.54
NEA	1	3.85
Council on Family	1	3.85
NAEYC	3	11.54
None	9	34.62

Total may equal more than 100% as participants can select more than one professional organization.

See Figure G.78.

Q13 Do you advise a chapter of Family, Career, and Community Leaders of America (FCCLA) at your school?

Advise FCCLA	Frequency	Percentage
Yes	6	23.08
No	20	76.92
No Answer	0	0.00

See Figure G.79.

Q14 Do you know where to find the *state* standards for the FCS course(s) you teach?

State Standards	Frequency	Percentage
Yes	21	80.77
No	5	19.23
No Answer	0	0.00

See Figure G.80.

Q15 Do you know where to find the *national* standards for the FCS course(s) you teach?

State Standards	Frequency	Percentage
Yes	24	92.31
No	2	7.69
No Answer	0	0.00

See Figure G.81.

Q16 How often do you think that *state* standards for FCS courses need to be updated?

Update State Standards	Frequency	Percentage
Every year	2	7.69
Every other year	0	0.00
Every three years	10	38.46
Every four years	9	34.62
Other		
Every five years	1	3.85
Every five to ten years	1	3.85
No specification	2	7.69
No Answer	1	3.85

See Figure G.82.

Q17 How often do you think that *national* standards for FCS courses need to be updated?

Update National Standards	Frequency	Percentage
Every year	1	3.85
Every other year	1	3.85
Every three years	9	34.62
Every four years	10	38.46
Other		
Every five years	1	3.85
Every five to ten years	1	3.85
No specification	2	7.69
No Answer	1	3.85

See Figure G.83.

Q25 Which of these best reflect your personal preferences for scheduling of professional development opportunities? (Choose as many as apply.)

Preferred Professional Development Ranked by Mean

Professional Development (PD)	Mean	SD	Rank
Full-day PD during the school year	6.36	0.810	1
In-service sessions at Summer PTE/CTE Conference	6.00	0.905	2
One-week PD in the summer	5.58	1.100	3
Half-day PD in the afternoon during the school year	5.44	0.870	4
Half-day PD in the morning during the school year	5.38	1.135	5
Self-directed internet-based PD with no face-to-face meetings	5.20	0.957	6
Weekend PD during the school year	5.04	1.096	7
Internet-based PD at specified times	4.91	0.996	8
PD on weekday evenings during the school year	4.44	0.821	9

See Figures G.84 – G.93.

Q26 What content would you be interested in learning in a professional development course?

- Standards based grading
- Early Childhood Development
- How to make FACS classes mandatory for graduation. We are teaching life skills that are all things that students need to know and many are no longer being taught these skills at home and many of their parents do not know how to live a healthy lifestyle, and how to manage money, so how can they teach their children. Many do not know how the development of young children is or how to raise children in a healthy and safe environment. Many of these students end up in the Culinary and/or Hospitality Industry and are behind, if they were never able to take a class in high school. Also, many students want to become teachers, but again, they are behind things if they are not able to get into our class. Both of the FACS programs that we offer at the high school allow for students to receive college credit, if they choose. Also, we have FCCLA, which provides for those Leadership opportunities that will be helpful as the students go into industry and/or further their education.
- content specific trends and expert mentoring
- Ways to collaborate more in schools and engaging families
- Integrating basic skills into students everyday life.
- Mental Heath issues and dealing with them within the family and in the classroom.
- new technologically available content, perhaps that students may access
- Education
- Classroom management, getting students to buy in to workplace skills and experiences/life skills, getting activities for culinary and hospitality that keep kids interested when we are not in the kitchen.
- How to manage culinary classrooms. Ideas for keeping all students engaged during labs. How to prepare students for workplace.
- Trends and how to use technology specifically in our FACS content areas.
- teaching methods for middle school culinary
- lab setting assessment methods
- food science topics (fermentation, food preservation, etc...)
- CTE teaching.
- ECE & parenting/family
- New and emerging trends in child development and child psychology. How can we increase the popularity and interest early childhood educational careers
- clothing textile updates; early childhood topics; working with students with special needs

See Figure G.94 for qualitative analysis of Q26.

Q27 Rate each statement to the level you personally agree or disagree with it.

		27_1	27_2	27_3	27_4	27_5
N	Valid	25	25	25	24	25
	Missing	1	1	1	2	1
Mean		3.24	3.28	2.92	2.71	3.64
Std. Deviation		.723	.792	.572	.690	.490
Range		2	2	2	3	1

See Figures G.94 – G.99.

Q28 You identify as (gender)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	1	3.8	4.0	4.0
	2	24	92.3	96.0	100.0
	Total	25	96.2	100.0	
Missing	System	1	3.8		
Total		26	100.0		

See Figure G.100.

Q29 You are (age)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	1	3.8	4.0	4.0
	2	2	7.7	8.0	12.0
	3	2	7.7	8.0	20.0
	4	4	15.4	16.0	36.0
	5	2	7.7	8.0	44.0
	6	2	7.7	8.0	52.0
	7	6	23.1	24.0	76.0
	8	3	11.5	12.0	88.0
	9	2	7.7	8.0	96.0
	10	1	3.8	4.0	100.0
	Total	25	96.2	100.0	
Missing	System	1	3.8		
Total		26	100.0		

See Figure G.101.

Q30 The race/ethnicity you identify with is (choose as many as apply)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid		1	3.8	3.8	3.8
	12	23	88.5	88.5	92.3
	14	1	3.8	3.8	96.2
	5,12	1	3.8	3.8	100.0
	Total	26	100.0	100.0	

See Figure G.102.

WASHINGTON DATA

Q1 Survey Introduction

Q2 You currently teach in (state)

Q3 What is the population of the city/town where you currently teach?

Population	Frequency	Percentage
Less than 2500 people	33	33.33
2,500 – 50,000 people	8	8.08
Over 50,000 people	57	57.58
No Answer	1	1.01

See Figure G.103.

Q4 The number of students in your school is

# of Students	Frequency	Percentage
less than 50	0	0.00
50-100	3	3.03
101-300	7	7.07
301-500	8	8.08
501-750	10	10.10
751-1000	10	10.10
1001-1200	13	13.13
1200+	48	48.48
No Answer	0	0.00

See Figure G.104.

Q5 Your average class size is

# of Students	Frequency	Percentage
less than 5 students	0	0.00
6-10 students	0	0.00
11-15 students	4	4.04
16-20 students	10	10.10
21-25 students	15	15.15
26-30 students	53	53.54
31-35 students	17	17.17
36+ students	0	0.00
No Answer	0	0.00

See Figure G.105.

Q6 You have taught Family and Consumer Science for _____ years. (round up half year)

# of Years	Frequency	Percentage
less than 1	1	1.01
1	2	2.02
2	0	0.00
3	8	8.08
4	0	0.00
5	5	5.05
6	7	7.07
7	4	4.04
8	5	5.05
9	0	0.00
10	5	5.05
11	2	2.02
12	3	3.03
13	0	0.00
14	2	2.02
15	4	4.04
16	5	5.05
17	3	3.03
18	5	5.05
19	0	0.00
20	9	9.09
21	2	2.02
22	1	1.01
23	0	0.00
24	0	0.00
25	3	3.03
26	1	1.01
27	2	2.02
28	1	1.01
29	2	2.02
30	3	3.03
31+	14	14.14
No Answer	0	0.00

See Figure G.106.

Q7 Based on the 16 nationally recognized FCS areas of study, which area(s) do you currently teach or have taught in the past? Mark all that apply.

Area of Study	Frequency	Percentage
Career, Community, and Family Connections	40	40.40
Consumer and Family Resources	39	39.39
Consumer Services	22	22.22
Education and Early Childhood	59	59.60
Facilities and Property Management	2	2.02
Family	34	34.34
Family and Human Services	42	42.42
Food Production and Services	54	54.55
Food Science, Dietetics, and Nutrition	41	41.41
Hospitality, Tourism, and Recreation	17	17.17
Housing and Interior Design	44	44.44
Human Development	68	68.69
Interpersonal Relationships	47	47.47
Nutrition and Wellness	77	77.78
Parenting	48	48.48
Textiles, Fashion, and Apparel	43	43.43
Unsure of area(s) of study	2	2.02
No Answer	0	0.00

Total may equal more than 100% as participants can select more than one professional organization.

See Figure G.107.

Q8 How were you prepared to teach FCS? Mark all that apply.

FCS Education Preparation	Frequency	Percentage
Undergraduate teacher education program (graduated with teaching certification and bachelor's in education or related major)	28	28.28
Undergraduate traditional FCS teacher education program (graduated with teaching certification with endorsement in Family & Consumer Sciences)	59	59.60
Graduate program relating to education at least one year beyond bachelor's degree	26	26.26
Substitute teaching that resulted in permanent position	5	5.05
Alternative route (Peace Corps, Teach for America, Teacher Opportunity Corps, US Military, other) -- please note the route you took if this applies	5	5.05

> *Open Answer*
> - Industry
> - Industry
> - taught 17 years in another field and then switched to FCS

FCS Education Preparation	Frequency	Percentage
Limited Occupational Specialist Certification	0	0.00
Standard Occupational Specialist Certification	3	3.03
No prior teaching experience but have a degree and career experience in a FCS-related field	4	4.04
No prior teaching experience but have a degree and no career experience in a FCS-related field	3	3.03
No prior teaching experience or a degree in a FCS-related field but have career experience in a FCS-related field	0	0.00
Please share any further information on how you were prepared to teach that you feel necessary.	13	13.13

Total may equal more than 100% as participants can select more than one professional organization.

See Figure G.108.

Q9 Your highest level of formal education is

Level	Frequency	Percentage
High School Diploma	0	0.00
Associate Degree	1	1.01
Bachelor's Degree	6	6.06
1-18 graduate hours	1	1.01
19-36 graduate hours	4	4.04
37+ graduate hours	9	9.09
Master's Degree	21	21.21
Master's Degree + more graduate hours	56	56.57
Specialist	0	0.00
Doctorate	1	1.01
No Answer	0	0.00

See Figure G.109.

Q10 How many teachers teach Family & Consumer Science courses at your school, including yourself?

Teachers	Frequency	Percentage
1	42	42.42
2	21	21.21
3	20	20.20
4	8	8.08
5	4	4.04
6+	4	4.04

See Figure G.110.

Q11 How often do you meet with other Family & Consumer Science teachers in your school/district?

Meet	Frequency	Percentage
Once a week	18	18.18
Once a month	26	26.26
Once a quarter	16	16.16
Once a semester	12	12.12
Once a year	4	4.04
Other		
Never	13	13.13
Irregularly	1	1.01
Daily/Regularly	5	5.05
Every 2 weeks	1	1.01
Twice a month	1	1.01
Three times a year	2	2.02
No Answer	0	0.00

See Figure G.111.

Q12 In which professional organization(s) do you hold membership?

Organization	Frequency	Percentage
American Association of Family and Consumer Sciences (AAFCS/NAFCS)	43	43.43
Association for Career and Technical Education (ACTE/FCSTN)	61	61.62
Other		
WA FACSE	20	20.20
WA-ACTE	14	14.14
FCCLA	1	1.01
Unsure	1	1.01
None	7	7.07
No Answer	1	1.01

Total may equal more than 100% as participants can select more than one professional organization.

See Figure G.112.

Q13 Do you advise a chapter of Family, Career, and Community Leaders of America (FCCLA) at your school?

Advise FCCLA	Frequency	Percentage
Yes	70	70.71
No	29	29.29
No Answer	0	0.00

See Figure G.113.

Q14 Do you know where to find the *state* standards for the FCS course(s) you teach?

State Standards	Frequency	Percentage
Yes	90	90.91
No	9	9.09
No Answer	0	0.00

See Figure G.114.

Q15 Do you know where to find the *national* standards for the FCS course(s) you teach?

State Standards	Frequency	Percentage
Yes	97	97.98
No	2	2.02
No Answer	0	0.00

See Figure G.115.

Q16 How often do you think that *state* standards for FCS courses need to be updated?

Update State Standards	Frequency	Percentage
Every year	6	6.06
Every other year	8	8.08
Every three years	30	30.30
Every four years	44	44.44
Other		
Every five years	4	4.04
Updated as needed	3	3.03
Only need national standards	1	1.01
Expressed dislike for current standards	3	3.03
No Answer	0	0.00

See Figure G.116.

Q17 How often do you think that *national* standards for FCS courses need to be updated?

Update National Standards	Frequency	Percentage
Every year	6	6.06
Every other year	8	8.08
Every three years	25	25.25
Every four years	49	49.49
Other		
Every five years	6	6.06
Update as needed	1	1.01
Same as current	1	1.01
No specification	1	1.01
Never/Sounds like more work for teachers	2	2.02
No Answer	0	0.00

See Figure G.117.

Q18 Prompt for Q19-22

Q25 Which of these best reflect your personal preferences for scheduling of professional development opportunities? (Choose as many as apply.)

Preferred Professional Development Ranked by Mean

Professional Development (PD)	Mean	SD	Rank
Full-day PD during the school year	6.27	0.993	1
In-service sessions at Summer PTE/CTE Conference	6.13	0.968	2
One-week PD in the summer	5.73	0.956	3
Self-directed internet-based PD with no face-to-face meetings	5.45	1.006	4
Half-day PD in the afternoon during the school year	5.37	0.988	5
Internet-based PD at specified times	5.26	1.040	6
Half-day PD in the morning during the school year	5.16	1.131	7
Weekend PD during the school year	5.02	1.053	8
PD on weekday evenings during the school year	4.88	0.974	9

See Figures G.118 - G.127.

Statistics

		Q25_1	Q25_2	Q25_3	Q25_4	Q25_5	Q25_6	Q25_7	Q25_8	Q25_9
N	Valid	83	82	82	85	84	85	86	85	82
	Missing	16	17	17	14	15	14	13	14	17
Mean		5.16	5.37	4.88	6.27	5.02	5.73	6.13	5.45	5.26
Std. Deviation		1.131	.988	.974	.993	1.053	.956	.968	1.006	1.040
Range		3	3	3	3	3	3	3	3	3

Q26 What content would you be interested in learning in a professional development course?
- Technology integration within FCS
- gamifying curriculum
- Interactive, connecting classroom learning to community
- Interior design and child development
- Technology in the FACSE classroom.
- Updated sexual health education
- Anything with updated, new information... I am always interested in the latest information in our field.
- Nutrition
- Safety
- FCCLA integration
- Projects to inspire students
- Building relationships with students

- Creating inclusive classrooms
- Reaching high achievers
- Creating more content-related activities in the classroom
- Networking with Chefs and career-related professionals
- Offering career-related opportunities to students
- Family Health
- interior design/floor plans
- digital breakouts
- open to any cooking, middle school FCS curriculum
- Topics taught in Health class
- new technology (apps, etc.) for teachers
- updated career information to use in classes.
- 21st century skills and how to assess them using a rubric
- IB Psychology
- gastronomy and or science in the kitchen
- Child Development and Interior Design.
- IB Psychology!!!! I am required to go to all these meetings yet there is never anything about what I teach. There are no state or national standards. i follow IB standards and curriculum.
- Anything related to culinary!
- Health, Food Science, Independent Living
- how to teach relationships
- sewing
- Science of foods
- Current research-based information around nutrition.
- Nutrition and food safety
- Relevant sewing projects
- Racial/Social Justice and LGBTQ
- Recruiting WA Teachers
- Careers in Education
- Health Curriculum -Summers only.
- How to use Canvas or Google Classroom or Office 365 to reduce paper consumption and have students complete assignments and turn in digitally
- Careers
- Culinary
- How to progress in the next step from classroom teacher to TOSA or administration to become a leader
- Technology integration as it specifically pertains to the FCS classroom.
- Interior Design
- Current trends in the various subjects I teach
- ways to access lessons for classes that are easily streamlined without having to buy programs that are outdated
- classroom management, student motivation, how to disengage students from their phone
- Culinary practice in a professional kitchen, integrating technology into classroom (Google products and Chromebooks)
- Culinary
- Updated Culinary Techniques
- Careers in Education lessons
- More on Child Development and Human Development.
- Also on basic Foods and Nutrition (not advanced programs.)
- interior design
- Integrating social emotional learning with our content
- Building strong advisory committees

- more technology
- Updates in ECE or Careers in Education. However, I am retiring in 2020, so I would not be the participant. My department might participate, though.
- Interior Design
- Human Development/Child Development/Parenting
- Culinary
- Creative or innovative FACS ideas to use in the classroom that keep students engaged.
- Culinary / Food science
- Building relationships
- Framework building
- FCCLA leadership
- Integrating FCCLA
- Financial concepts
- Trends in Culinary; Updates in Nutrition
- How to articulate with colleges for dual credit. We have struggled at our school.
- Any content that falls into the classes I teach: nutrition, fashion, health.
- Lessons in Nutrition/Wellness
- Culinary skills; trends and technology; nutrition and food science.
- How to start an FCCLA middle school chapter.
- Setting up functional student kitchen lab spaces.
- How to update a STEM Foods middle school curriculum.
- actual lessons, strategies that I may implement in the classroom now. Content. Resources.
- How to be more effective with my time due to the demands of teaching
- Child Development, Careers in Education (Teaching Academy), Health, Relationships, Nutrition and Fitness
- independent living or adulting information for 9-12 grade students
- Apparel and Textiles
- Interior Design
- Teaching basics, such as grade book training or google classroom training.
- Adding financial information into all content area
- A lesson to do when the internet goes down in your district
- Lesson the sub can do that kid really learn from.
- Culinary focused, or technology focused sessions, workshops on new curriculum. and ways to implement in classroom, workshops or work-place tours to enhance school to work internships or preparation or understanding so application in classroom is relevant, true, vibrant & useful
- I think that FCS teachers needs more racial and social justice trainings. We need to support students of color, disabled students, LGBTQ+ students, etc in the classroom.
- Food Science & Dual Credit for Science
- Family health and personal finance
- Family health, mental health, nutrition
- Nutrition
- sewing as a business
- foods lab instruction
- gamification of classroom
- Technology
- Food science
- healthy relationships
- kitchen lab classroom management
- interactive nutrition lessons
- sewing review hands on instruction

See Figure G.128.

Q27 Rate each statement to the level you personally agree or disagree with it.

		Q27_1	Q27_2	Q27_3	Q27_4	Q27_5
N	Valid	85	85	85	84	85
	Missing	14	14	14	15	14
Mean		3.33	3.46	3.19	3.13	3.40
Std. Deviation		.565	.547	.645	.757	.710
Range		2	2	3	3	3

See Figures G.129 – G.133.

Q28 You identify as (gender)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	3	3.0	3.5	3.5
	2	83	83.8	96.5	100.0
	Total	86	86.9	100.0	
Missing	System	13	13.1		
Total		99	100.0		

See Figure G.134..

Q29 You are (age)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	1	1.0	1.2	1.2
	2	9	9.1	10.5	11.6
	3	4	4.0	4.7	16.3
	4	9	9.1	10.5	26.7
	5	6	6.1	7.0	33.7
	6	11	11.1	12.8	46.5
	7	13	13.1	15.1	61.6
	8	15	15.2	17.4	79.1
	9	16	16.2	18.6	97.7
	10	2	2.0	2.3	100.0
	Total	86	86.9	100.0	
Missing	System	13	13.1		
Total		99	100.0		

See Figure G.135.

Q30 The race/ethnicity you identify with is (choose as many as apply)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid		14	14.1	14.1	14.1
	12	72	72.7	72.7	86.9
	12,13	1	1.0	1.0	87.9
	13	5	5.1	5.1	92.9
	14	3	3.0	3.0	96.0
	2	2	2.0	2.0	98.0
	5,12	1	1.0	1.0	99.0
	7,12	1	1.0	1.0	100.0
	Total	99	100.0	100.0	

See Figure G.136.

WYOMING DATA

Q1 Survey Introduction

Q2 You currently teach in (state)

Q3 What is the population of the city/town where you currently teach?

Population	Frequency	Percentage
Less than 2500 people	6	15.38
2,500 - 50,000 people	18	46.15
Over 50,000 people	15	38.46
No Answer	0	0.00

See Figure G.137.

Q4 The number of students in your school is

# of Students	Frequency	Percentage
less than 50	0	0.00
50-100	0	0.00
101-300	8	20.51
301-500	3	7.69
501-750	6	15.38
751-1000	12	30.77
1001-1200	1	2.56
1200+	9	23.08
No Answer	0	0.00

See Figure G.138.

Q5 Your average class size is

# of Students	Frequency	Percentage
less than 5 students	0	0.00
6-10 students	2	5.13
11-15 students	6	15.38
16-20 students	9	23.08
21-25 students	18	46.15
26-30 students	4	10.26
31-35 students	0	0.00
36+ students	0	0.00
No Answer	0	0.00

See Figure G.139.

Q6 You have taught Family and Consumer Science for _____ years. (round up half year)

# of Years	Frequency	Percentage
less than 1	0	0.00
1	2	5.13
2	1	2.56
3	1	2.56
4	3	7.69
5	3	7.69
6	2	5.13
7	0	0.00
8	1	2.56
9	1	2.56
10	1	2.56
11	1	2.56
12	3	7.69
13	2	5.13
14	2	5.13
15	1	2.56
16	1	2.56
17	0	0.00
18	0	0.00
19	0	0.00
20	1	2.56
21	0	0.00
22	0	0.00
23	1	2.56
24	1	2.56
25	1	2.56
26	2	5.13
27	1	2.56
28	1	2.56
29	0	0.00
30	1	2.56
31+	5	12.82
No Answer	0	0.00

See Figure G.140.

Q7 Based on the 16 nationally recognized FCS areas of study, which area(s) do you currently teach or have taught in the past? Mark all that apply.

Area of Study	Frequency	Percentage
Career, Community, and Family Connections	18	46.15
Consumer and Family Resources	13	33.33
Consumer Services	8	20.51
Education and Early Childhood	32	82.05
Facilities and Property Management	1	2.56
Family	15	38.46
Family and Human Services	10	25.64
Food Production and Services	33	84.62
Food Science, Dietetics, and Nutrition	25	64.10
Hospitality, Tourism, and Recreation	14	35.90
Housing and Interior Design	24	61.54
Human Development	21	53.85
Interpersonal Relationships	20	51.28
Nutrition and Wellness	25	64.10
Parenting	25	64.10
Textiles, Fashion, and Apparel	25	64.10
Unsure of area(s) of study	0	0.00
No Answer	0	0.00

Total may equal more than 100% as participants can select more than one professional organization.

See Figure G.141.

Q8 How were you prepared to teach FCS? Mark all that apply.

FCS Education Preparation	Frequency	Percentage
Undergraduate teacher education program (graduated with teaching certification and bachelor's in education or related major)	12	30.77
Undergraduate traditional FCS teacher education program (graduated with teaching certification with endorsement in Family & Consumer Sciences)	25	64.10
Graduate program relating to education at least one year beyond bachelor's degree	12	30.77
Substitute teaching that resulted in permanent position	3	7.69
Alternative route (Peace Corps, Teach for America, Teacher Opportunity Corps, US Military, other) -- please note the route you took if this applies	2	5.13
Limited Occupational Specialist Certification	0	0.00
Standard Occupational Specialist Certification	0	0.00
No prior teaching experience but have a degree and career experience in a FCS-related field	2	5.13
No prior teaching experience but have a degree and no career experience in a FCS-related field	1	2.56
No prior teaching experience or a degree in a FCS-related field but have career experience in a FCS-related field	0	0.00
Please share any further information on how you were prepared to teach that you feel necessary.	8	20.51
No Answer	0	0.00

Total may equal more than 100% as participants can select more than one professional organization.
See Figure G.142.

Q9 Your highest level of formal education is

Level	Frequency	Percentage
High School Diploma	0	0.00
Associate Degree	0	0.00
Bachelor's Degree	7	17.95
1-18 graduate hours	5	12.82
19-36 graduate hours	2	5.13
37+ graduate hours	8	20.51
Master's Degree	4	10.26
Master's Degree + more graduate hours	12	30.77
Specialist	0	0.00
Doctorate	1	2.56
No Answer	0	0.00

See Figure G.143.

Q10 How many teachers teach Family & Consumer Science courses at your school, including yourself?

Teachers	Frequency	Percentage
1	14	35.90
2	14	35.90
3	6	15.38
4	3	7.69
5	0	0.00
6+	2	5.13

See Figure G.144.

Q11 How often do you meet with other Family & Consumer Science teachers in your school/district?

Meet	Frequency	Percentage
Once a week	9	23.08
Once a month	11	28.21
Once a quarter	4	10.26
Once a semester	3	7.69
Once a year	8	20.51
Other		
Never	1	2.56
Daily/Regularly	1	2.56
Two times per week	1	2.56
Twice a month	1	2.56

See Figure G.145.

Q12 In which professional organization(s) do you hold membership?

Organization	Frequency	Percentage
American Association of Family and Consumer Sciences (AAFCS/NAFCS)	9	23.08
Association for Career and Technical Education (ACTE/FCSTN)	14	35.90
Other		
WATFACS	3	7.69
WACTE	1	2.56
NEA/WEA	3	7.69
NAE4-HE	2	5.13
NACAA	2	5.13
ESP	2	5.13
None	16	41.03
No Answer	0	0.00

Total may equal more than 100% as participants can select more than one professional organization.
See Figure G.146.

Q13 Do you advise a chapter of Family, Career, and Community Leaders of America (FCCLA) at your school?

Advise FCCLA	Frequency	Percentage
Yes	8	20.51
No	31	79.49
No Answer	0	0.00

See Figure G.147.

Q14 Do you know where to find the *state* standards for the FCS course(s) you teach?

State Standards	Frequency	Percentage
Yes	36	92.31
No	3	7.69
No Answer	0	0.00

See Figure G.148.

Q15 Do you know where to find the *national* standards for the FCS course(s) you teach?

State Standards	Frequency	Percentage
Yes	28	71.79
No	10	25.64
No Answer	1	2.56

See Figure G.149.

Q16 How often do you think that *state* standards for FCS courses need to be updated?

Update State Standards	Frequency	Percentage
Every year	0	0.00
Every other year	3	7.69
Every three years	10	25.64
Every four years	17	43.59
Other		
Every five years	5	12.82
No preference	4	10.26
No Answer	0	0.00

See Figure G.150.

Q17 How often do you think that *national* standards for FCS courses need to be updated?

Update National Standards	Frequency	Percentage
Every year	1	2.56
Every other year	2	5.13
Every three years	10	25.64
Every four years	17	43.59
Other		
Every five years	7	17.95
No preference	2	5.13
No Answer	0	0.00

See Figure G.151.

Q18 Prompt for Q19-22

Q25 Which of these best reflect your personal preferences for scheduling of professional development opportunities? (Choose as many as apply.)

Preferred Professional Development Ranked by Mean

Professional Development (PD)	Mean	SD	Rank
Full-day PD during the school year	6.26	0.657	1
In-service sessions at Summer PTE/CTE Conference	5.85	0.989	2
Self-directed internet-based PD with no face-to-face meetings	5.69	1.022	3
Half-day PD in the afternoon during the school year	5.58	0.902	4
One-week PD in the summer	5.50	1.161	5
Internet-based PD at specified times	5.24	0.955	6
Half-day PD in the morning during the school year	5.03	1.045	7
PD on weekday evenings during the school year	4.70	0.847	8
Weekend PD during the school year	4.56	0.657	9

See Figures G.152 - G.161.

Statistics

		25_1	25_2	25_3	25_4	25_5	25_6	25_7	25_8	25_9	25_10
N	Valid	33	33	33	35	34	34	34	35	34	4
	Missing	6	6	6	4	5	5	5	4	5	35
Mean		5.03	5.58	4.70	6.26	4.56	5.50	5.85	5.69	5.24	6.00
Std. Deviation		1.045	.902	.847	.657	.927	1.161	.989	1.022	.955	.816

Q26 What content would you be interested in learning in a professional development course?

- Skills needed to work with large groups of students without enough equipment for all students. The nuts and bolts of pulling off the classes we teach. Less theory, less technology, more teaching skills.
- Aligning with other Middle Schools
- Nutrition and school to work
- Early Childhood Education
- Apparel and Textiles
- Housing and Interiors
- Up and coming trends
- Culinary Arts in general or more about nutrition or how to teach labs more efficiently.
- Use of computer programs for digitizing embroidery designs, updated use of new technology for new sewing and overlock machines, new trends in culinary arts.
- Human relationships, child development
- Anything that relates to the courses I teach or how to be a more effective teacher.
- Culinary topics, child development topics, and hospitality topics that are current
- How to EASILY stay up to date on the trends of FACS.
- How to do more with less time and more students.
- Strategies for working with students who have behavioral and social problems.
- Latest technology, job research and career practices to educate and advance my students in. Certifications and how to best promote community involvement and job shadows as well already established programs that can be partnered with.
- It needs to be relevant to what I am teaching. I teach junior high so sometimes the high school directed content doesn't fit. Foods and sewing are the areas I teach.
- Varied; maybe something in child development or the fashion industry.
- Culinary Arts
- Child Development
- Consumerism
- classroom management, school to work programs, STEM based career training, assessment & grading
- Professional baking; Homes & Interiors
- Junior High appropriate for sewing and foods

See Figure G.162.

Q27 Rate each statement to the level you personally agree or disagree with it.

		27_1	27_2	27_3	27_4	27_5
N	Valid	35	35	35	35	35
	Missing	4	4	4	4	4
Mean		2.97	3.34	3.09	2.71	3.43
Std. Deviation		.618	.725	.658	.987	.698
Range		3	3	2	3	2

See Figures G.163 – G.167.

Q28 You identify as (gender)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2	36	92.3	100.0	100.0
Missing	System	3	7.7		
Total		39	100.0		

See Figure G.168.

Q29 You are (age)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2	2	5.1	5.4	5.4
	3	6	15.4	16.2	21.6
	4	6	15.4	16.2	37.8
	5	3	7.7	8.1	45.9
	6	3	7.7	8.1	54.1
	7	5	12.8	13.5	67.6
	8	6	15.4	16.2	83.8
	9	4	10.3	10.8	94.6
	10	2	5.1	5.4	100.0
	Total	37	94.9	100.0	
Missing	System	2	5.1		
Total		39	100.0		

See Figure G.169.

Q30 The race/ethnicity you identify with is (choose as many as apply)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid		2	5.1	5.1	5.1
	12	37	94.9	94.9	100.0
	Total	39	100.0	100.0	

See Figure G.170.

Comments/Questions/Concerns:
None.

ALL NW STATES DATA

Q1 Survey Introduction

Q2 You currently teach in (state)

Q3 What is the population of the city/town where you currently teach?

Population	Frequency	Percentage
Less than 2500 people	67	20.43
2,500 - 50,000 people	155	47.26
Over 50,000 people	104	31.71
No Answer	2	0.61

See Figure 4.1.

Q4 The number of students in your school is

# of Students	Frequency	Percentage
less than 50	4	1.22
50-100	17	5.18
101-300	61	18.60
301-500	29	8.84
501-750	37	11.28
751-1000	38	11.59
1001-1200	36	10.98
1200+	106	32.32
No Answer	0	0.00

See Figure 4.2.

Q5 Your average class size is

# of Students	Frequency	Percentage
less than 5 students	2	0.61
6-10 students	25	7.62
11-15 students	36	10.98
16-20 students	51	15.55
21-25 students	72	21.95
26-30 students	99	30.18
31-35 students	36	10.98
36+ students	4	1.22
No Answer	3	0.91

See Figure 4.3.

Q6 You have taught Family and Consumer Science for _____ years. (round up half year)

# of Years	Frequency	Percentage
less than 1	11	3.35
1	12	3.66
2	12	3.66
3	19	5.79
4	12	3.66
5	18	5.49
6	20	6.10
7	11	3.35
8	13	3.96
9	7	2.13
10	11	3.35
11	10	3.05
12	12	3.66
13	6	1.83
14	7	2.13
15	8	2.44
16	12	3.66
17	8	2.44
18	10	3.05
19	5	1.52
20	15	4.57
21	4	1.22
22	5	1.52
23	1	0.30
24	1	0.30
25	5	1.52
26	8	2.44
27	5	1.52
28	6	1.83
29	5	1.52
30	10	3.05
31+	38	11.59
No Answer	1	0.30

See Figure 4.4.

Q7 Based on the 16 nationally recognized FCS areas of study, which area(s) do you currently teach or have taught in the past? Mark all that apply.

Area of Study	Frequency	Percentage
Career, Community, and Family Connections	142	43.29
Consumer and Family Resources	124	37.80
Consumer Services	62	18.90
Education and Early Childhood	203	61.89
Facilities and Property Management	5	1.52
Family	131	39.94
Family and Human Services	94	28.66
Food Production and Services	210	64.02
Food Science, Dietetics, and Nutrition	163	49.70
Hospitality, Tourism, and Recreation	83	25.30
Housing and Interior Design	154	46.95
Human Development	179	54.57
Interpersonal Relationships	143	43.60
Nutrition and Wellness	234	71.34
Parenting	169	51.52
Textiles, Fashion, and Apparel	177	53.96
Unsure of area(s) of study	10	3.05
No Answer	1	0.30

Total may equal more than 100% as participants can select more than one professional organization.

See Figure 4.5.

Q8 How were you prepared to teach FCS? Mark all that apply.

FCS Education Preparation	Frequency	Percentage
Undergraduate teacher education program (graduated with teaching certification and bachelor's in education or related major)	103	31.40
Undergraduate traditional FCS teacher education program (graduated with teaching certification with endorsement in Family & Consumer Sciences)	186	56.71
Graduate program relating to education at least one year beyond bachelor's degree	80	24.39
Substitute teaching that resulted in permanent position	18	5.49
Alternative route (Peace Corps, Teach for America, Teacher Opportunity Corps, US Military, other) -- please note the route you took if this applies	13	3.96
Limited Occupational Specialist Certification	3	0.91
Standard Occupational Specialist Certification	9	2.74
No prior teaching experience but have a degree and career experience in a FCS-related field	17	5.18
No prior teaching experience but have a degree and no career experience in a FCS-related field	8	2.44
No prior teaching experience or a degree in a FCS-related field but have career experience in a FCS-related field	6	1.83
Please share any further information on how you were prepared to teach that you feel necessary.	39	11.89
No Answer	0	0.00

Total may equal more than 100% as participants can select more than one professional organization.
See Figure 4.6.

Q9 Your highest level of formal education is

Level	Frequency	Percentage
High School Diploma	0	0.00
Associate Degree	5	1.52
Bachelor's Degree	63	19.21
1-18 graduate hours	26	7.93
19-36 graduate hours	24	7.32
37+ graduate hours	44	13.41
Master's Degree	49	14.94
Master's Degree + more graduate hours	112	34.15
Specialist	1	0.30
Doctorate	2	0.61
No Answer	2	0.61

See Figure 4.6.

Q10 How many teachers teach Family & Consumer Science courses at your school, including yourself?

Teachers	Frequency	Percentage
1 (only you)	173	52.74
2	80	24.39
3	48	14.63
4	15	4.57
5	5	1.52
6+	7	2.13

See Figure 4.8.

Q11 How often do you meet with other Family & Consumer Science teachers in your school/district?

Meet	Frequency	Percentage
Once a week	57	17.38
Once a month	60	18.29
Once a quarter	42	12.80
Once a semester	35	10.67
Once a year	30	9.15
Other		
Never	28	8.54
Daily/Regularly	19	5.79
Two times per week	1	0.30
Twice a month	5	1.52
Three times/year	2	0.61
Irregularly	6	1.83
No other teacher to meet with	23	7.01
Unsure	1	0.30
N/A	8	2.44
Weekly via Video Chat	2	0.61
No Answer	9	2.74

See Figure 4.9.

Q12 In which professional organization(s) do you hold membership?

Organization	Frequency	Percentage
American Association of Family and Consumer Sciences (AAFCS/NAFCS)	172	52.44
Association for Career and Technical Education (ACTE/FCSTN)	188	57.32
Other		
Nat'l/State AEYC	9	2.74
Montana Cattlewomen	1	0.30
FCCLA	4	1.22
NEA/MEA/WEA	7	2.13
American Culinary Federation	1	0.30
Council on Family	1	0.30
NAE4-HE	2	0.61
NACAA	2	0.61
ESP	2	0.61
Unsure	1	0.30
None (4)	79	24.09
No answer	7	2.13

Total may equal more than 100% as participants can select more than one professional organization.

See Figure 4.10.

Q13 Do you advise a chapter of Family, Career, and Community Leaders of America (FCCLA) at your school?

Advise FCCLA	Frequency	Percentage
Yes	192	58.54
No	135	41.16
No Answer	1	0.30

See Figure 4.11.

Q14 Do you know where to find the *state* standards for the FCS course(s) you teach?

State Standards	Frequency	Percentage
Yes	306	93.29
No	22	6.71
No Answer	0	0.00

See Figure 4.12.

Q15 Do you know where to find the *national* standards for the FCS course(s) you teach?

State Standards	Frequency	Percentage
Yes	295	89.94
No	32	9.76
No Answer	1	0.30

See Figure 4.13.

Q16 How often do you think that *state* standards for FCS courses need to be updated?

Update State Standards	Frequency	Percentage
Every year	11	3.35
Every other year	27	8.23
Every three years	110	33.54
Every four years	129	39.33
Other		
Every 5 years	21	6.40%
Every 5-10 years	4	1.22%
Depends on subject	3	0.91%
Update as needed	3	0.91%
Only need Nat'l Standards	1	0.30%
When Nat'l Standards are updated	1	0.30%
Expressed dislike toward current standards	3	0.91%
No specification	8	2.44%
No preference	4	1.22%
No Answer	3	0.91%

See Figure 4.14.

Q17 How often do you think that *national* standards for FCS courses need to be updated?

Update National Standards	Frequency	Percentage
Every year	11	3.35
Every other year	27	8.23
Every three years	96	29.27
Every four years	143	43.60
Other		
Every 5 years	28	8.54%
Every 5-10 years	4	1.22%
As needed/Depends	3	0.91%
Same as current	1	0.30%
No specification	6	1.83%
Never/Sounds like more work for teachers	2	0.61%
No preference	2	0.61%
No Answer	5	1.52%

See Figure 4.15.

Q18 Prompt for Q19-22

Q25 Which of these best reflect your personal preferences for scheduling of professional development opportunities? (Choose as many as apply.)

Preferred Professional Development Ranked by Mean

Professional Development (PD)	Mean	SD	Rank
Full-day PD during the school year	6.26	0.897	1
In-service sessions at Summer PTE/CTE Conference	6.07	0.933	2
One-week PD in the summer	5.79	1.024	3
Self-directed internet-based PD with no face-to-face meetings	5.56	1.021	4
Half-day PD in the afternoon during the school year	5.41	0.987	5
Internet-based PD at specified times	5.27	0.985	6
Half-day PD in the morning during the school year	5.25	1.084	7
Weekend PD during the school year	4.84	0.988	8
PD on weekday evenings during the school year	4.76	0.936	9

See Figures 4.16 – 4.25.

		25_1	25_2	25_3	25_4	25_5	25_6	25_7	25_8	25_9
N	Valid	283	283	283	288	286	287	284	290	278
	Missing	45	45	45	40	42	41	44	38	50
Mean		5.25	5.41	4.76	6.26	4.84	5.79	6.07	5.56	5.27
Std. Deviation		1.084	.987	.936	.897	.988	1.024	.933	1.021	.985
Range		3	3	3	3	3	3	3	3	3

Q27 Rate each statement to the level you personally agree or disagree with it.

		Q27_1	Q27_2	Q27_3	Q27_4	Q27_5
N	Valid	286	286	283	283	285
	Missing	42	42	45	45	43
Mean		3.18	3.35	3.14	3.01	3.40
Std. Deviation		.654	.635	.631	.805	.677

See Figures 4.26 – 4.30.

Q28 You identify as (gender)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	7	2.1	2.4	2.4
	2	284	86.6	97.3	99.7
	4	1	.3	.3	100.0
	Total	292	89.0	100.0	
Missing	System	36	11.0		
Total		328	100.0		

See Figure 4.31.

Q29 You are (age)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	5	1.5	1.7	1.7
	2	20	6.1	6.8	8.6
	3	26	7.9	8.9	17.5
	4	37	11.3	12.7	30.1
	5	25	7.6	8.6	38.7
	6	27	8.2	9.2	47.9
	7	38	11.6	13.0	61.0
	8	57	17.4	19.5	80.5
	9	41	12.5	14.0	94.5
	10	16	4.9	5.5	100.0
	Total	292	89.0	100.0	
Missing	System	36	11.0		
Total		328	100.0		

See Figure 4.32.

Q30 The race/ethnicity you identify with is (choose as many as apply)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid		37	11.3	11.3	11.3
	12	271	82.6	82.6	93.9
	12,13	2	.6	.6	94.5
	13	5	1.5	1.5	96.0
	14	5	1.5	1.5	97.6
	2	2	.6	.6	98.2
	5	1	.3	.3	98.5
	5,12	3	.9	.9	99.4
	6	1	.3	.3	99.7
	7,12	1	.3	.3	100.0
	Total	328	100.0	100.0	

See Figure 4.33.

Comments/Questions/Concerns:
*See individual states

APPENDIX I

T-Test Statistics

3. <u>Years Participant has Taught FCS (Q6) & Determining the content that should be taught in your specific course(s) (Q20.1)</u>

Group Statistics

	Years Taught	N	Mean	Std. Deviation	Std. Error Mean
WDS	14 years or less	160	1.4234	2.47262	.19548
	15 years or more	129	.0299	1.89937	.16723

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means					95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
WDS	Equal variances assumed	44.195	.000	5.268	287	.000	1.39345	.26449	.87287	1.91404
	Equal variances not assumed			**5.417**	**286.365**	**.000**	**1.39345**	**.25725**	**.88711**	**1.89979**

0.000 < 0.05, therefore the difference is statistically significant.

4. <u>Years Participant has Taught FCS (Q6) & Keeping current on trends and issues in your area of content (Q20.2)</u>

Group Statistics

	Years Taught	N	Mean	Std. Deviation	Std. Error Mean
WDS	14 years or less	159	2.1011	2.68759	.21314
	15 years or more	130	1.1815	2.18305	.19147

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means					95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
WDS	Equal variances assumed	8.878	.003	3.144	287	.002	.91959	.29249	.34391	1.49528
	Equal variances not assumed			3.210	286.990	.001	.91959	.28651	.35567	1.48352

0.001 < 0.05, therefore the difference is statistically significant.

5. <u>Years Participant has Taught FCS (Q6) & Reporting your program information to your district and state Department of Education (Q20.3)</u>

Group Statistics

	Years Taught	N	Mean	Std. Deviation	Std. Error Mean
WDS	14 years or less	158	.8200	2.67328	.21267
	15 years or more	129	-.5389	2.62382	.23101

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means					95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
WDS	Equal variances assumed	1.684	.195	4.320	285	.000	1.35891	.31460	.73968	1.97815
	Equal variances not assumed			4.328	275.544	.000	1.35891	.31400	.74076	1.97707

0.000 < 0.05, therefore the difference is statistically significant.

6. <u>Years Participant has Taught FCS (Q6)</u> & <u>Selecting current/relevant student references, materials, and textbooks (Q21.1)</u>

Group Statistics

	Years Taught	N	Mean	Std. Deviation	Std. Error Mean
WDS	14 years or less	149	1.0620	2.78213	.22792
	15 years or more	128	.40250	2.07733	.18361

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means					95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
WDS	Equal variances assumed	17.648	.000	2.205	275	.028	.65951	.29908	.070744	1.24828
	Equal variances not assumed			2.253	269.940	.025	.65951	.29268	.08329	1.23574

0.025 < 0.05, therefore the difference is statistically significant.

7. <u>Years Participant has Taught FCS (Q6) & Educating students and maintaining required health and safety standards (state/federal/OSHA) (Q21.2)</u>

Group Statistics

	Years Taught	N	Mean	Std. Deviation	Std. Error Mean
WDS	14 years or less	148	1.6033	2.31046	.18992
	15 years or more	126	.6792	1.91074	.17022

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means					95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
WDS	Equal variances assumed	27.456	.000	3.569	272	.000	.92410	.25893	.41435	1.43386
	Equal variances not assumed			3.623	271.783	.000	.92410	.25504	.42200	1.42621

0.000 < 0.05, therefore the difference is statistically significant.

8. Years Participant has Taught FCS (Q6) & Organizing activities for students with local organizations relating to your content area (Q22.1)

Group Statistics

	Years Taught	N	Mean	Std. Deviation	Std. Error Mean
WDS	14 years or less	151	.9123	2.48816	.20248
	15 years or more	125	.2099	2.38366	.21320

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means					95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
WDS	Equal variances assumed	8.006	.005	2.379	274	.018	.70240	.29523	.12120	1.28360
	Equal variances not assumed			2.389	268.198	.018	.70240	.29403	.12350	1.28130

0.018 < 0.05, therefore the difference is statistically significant.

9. Years Participant has Taught FCS (Q6) & Providing information to students related to furthering their education in your content area (Q22.2)

Group Statistics

	Years Taught	N	Mean	Std. Deviation	Std. Error Mean
WDS	14 years or less	151	1.5395	2.67307	.21753
	15 years or more	126	.7321	2.51440	.22400

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means					95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
WDS	Equal variances assumed	2.089	.150	2.572	275	.011	.80739	.31398	.18929	1.42550
	Equal variances not assumed			2.586	271.051	.010	.80739	.31224	.19266	1.42212

0.011 < 0.05, therefore the difference is statistically significant.

10. <u>Years Participant has Taught FCS (Q6) & Establishing opportunities or creating connections for student work internships or jobs (Q22.3)</u>

Group Statistics

	Years Taught	N	Mean	Std. Deviation	Std. Error Mean
WDS	14 years or less	149	2.3891	2.89979	.23756
	15 years or more	126	1.1079	2.52251	.22472

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means					95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
WDS	Equal variances assumed	5.542	.019	3.873	273	.000	1.28119	.33083	.62988	1.93250
	Equal variances not assumed			3.918	272.773	.000	1.28119	.32701	.63741	1.92497

0.000 < 0.05, therefore the difference is statistically significant.

11. <u>Years Participant has Taught FCS (Q6) & Developing a variety of School-to-Work activities in your curriculum (Q22.4)</u>

Group Statistics

	Years Taught	N	Mean	Std. Deviation	Std. Error Mean
WDS	14 years or less	148	2.1028	2.57057	.21130
	15 years or more	125	1.0397	2.34801	.21001

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
WDS	Equal variances assumed	2.189	.140	3.542	271	.000	1.06316	.30020	.47214	1.65417
	Equal variances not assumed			3.569	269.317	.000	1.06316	.29791	.47662	1.64969

0.000 < 0.05, therefore the difference is statistically significant.

2. <u>Participants' highest level of education (Q9) & Using current and relevant *non-computer technology* to teach interactive lessons on content or career-specific tasks (such as up-to-date kitchen equipment, up-to-date sewing/design equipment, etc.) (Q19.2)</u>

Group Statistics

	Level of Education	N	Mean	Std. Deviation	Std. Error Mean
WDS	Less than Master's	143	1.2554	2.46906	.20647
	Master's or above	150	.5236	2.52769	.20639

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means					95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
WDS	Equal variances assumed	5.661	.018	2.505	291	.013	.73178	.29210	.15689	1.30668
	Equal variances not assumed			2.507	290.826	.013	.73178	.29193	.15721	1.30636

0.013 < 0.05, therefore the difference is statistically significant.

4. Participants' highest level of education (Q9) & Keeping current on trends and issues in your area of content (Q20.2)

Group Statistics

	Level of Education	N	Mean	Std. Deviation	Std. Error Mean
WDS	Less than Master's	139	2.0443	2.66774	.22627
	Master's or above	150	1.4080	2.32949	.19020

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means					95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
WDS	Equal variances assumed	2.946	.087	2.164	287	.031	.63632	.29408	.05749	1.21514
	Equal variances not assumed			2.153	274.831	.032	.63632	.29560	.05440	1.21824

0.031 < 0.05, therefore the difference is statistically significant.

5. <u>Participants' highest level of education (Q9) & Reporting your program information to your district and state Department of Education (Q20.3)</u>

Group Statistics

	Level of Education	N	Mean	Std. Deviation	Std. Error Mean
WDS	Less than Master's	137	.7381	2.63446	.22508
	Master's or above	150	-.2317	2.74206	.22389

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means					95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
WDS	Equal variances assumed	.825	.364	3.049	285	.003	.96984	.31805	.34382	1.59585
	Equal variances not assumed			3.055	284.262	.002	.96984	.31747	.34495	1.59472

0.003 < 0.05, therefore the difference is statistically significant.

6. Participants' highest level of education (Q9) & Selecting current/relevant student references, materials, and textbooks (Q21.1)

Group Statistics

	Level of Education	N	Mean	Std. Deviation	Std. Error Mean
WDS	Less than Master's	134	1.2358	2.7429	.2370
	Master's or above	143	.3346	2.1797	.1823

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means					95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
WDS	Equal variances assumed	18.589	.000	3.037	275	.003	.90128	.29675	.31708	1.4855
	Equal variances not assumed			**3.015**	**253.754**	**.003**	**.90128**	**.29895**	**.31254**	**1.4900**

0.003 < 0.05, therefore the difference is statistically significant.

11. <u>Participants' highest level of education (Q9) & Developing a variety of School-to-Work activities in your curriculum (Q22.4)</u>

Group Statistics

	Level of Education	N	Mean	Std. Deviation	Std. Error Mean
WDS	Less than Master's	132	2.0209	2.56885	.22359
	Master's or above	141	1.2855	2.40233	.20231

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means					95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
WDS	Equal variances assumed	.686	.408	2.444	271	.015	.73538	.30087	.14304	1.32771
	Equal variances not assumed			2.439	266.293	.015	.73538	.30153	.14168	1.32907

0.015 < 0.05, therefore the difference is statistically significant.

8. Frequency of FCS collaboration (Q11) & Organizing activities for students with local organizations relating to your content area (Q22.1)

Group Statistics

	Freq of FCS Collab	N	Mean	Std. Deviation	Std. Error Mean
WDS	Less than once a week	200	.3608	2.54259	.17979
	Once a week or more	65	1.2111	2.21318	.27451

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means					95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
WDS	Equal variances assumed	.231	.631	-2.415	263	.016	-.85028	.35215	-1.54367	-.15688
	Equal variances not assumed			-2.591	123.380	.011	-.85028	.32815	-1.49980	-.20075

0.016 < 0.05, therefore the difference is statistically significant.

11. Frequency of FCS collaboration (Q11) & Developing a variety of School-to-Work activities in your curriculum (Q22.4)

Group Statistics

	Freq of FCS Collab	N	Mean	Std. Deviation	Std. Error Mean
WDS	Less than once a week	198	1.3991	2.55399	.18150
	Once a week or more	66	2.1245	2.38195	.29320

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means					95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
WDS	Equal variances assumed	.194	.660	-2.032	262	.043	-.72545	.35710	-1.42860	-.02231
	Equal variances not assumed			-2.104	118.617	.038	-.72545	.34483	-1.40828	-.04263

0.043 < 0.05, therefore the difference is statistically significant.

12. Frequency of FCS collaboration (Q11) & Integrating life skills into your curriculum (Q22.5)

Group Statistics

	Freq of FCS Collab	N	Mean	Std. Deviation	Std. Error Mean
WDS	Less than once a week	197	.50127	1.48835	.10604
	Once a week or more	64	.98750	1.72392	.21549

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means					95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
WDS	Equal variances assumed	11.634	**.001**	-2.182	259	.030	-.48623	.22286	-.92508	-.04738
	Equal variances not assumed			**-2.025**	**95.407**	**.046**	**-.48623**	**.24017**	**-.96300**	-.00946

0.046 < 0.05, therefore the difference is statistically significant.

3. <u>Professional Organization Membership (Q12) & Determining the content that should be taught in your specific course(s) (Q20.1)</u>

Group Statistics

	Prof Org	N	Mean	Std. Deviation	Std. Error Mean
WDS	Membership in no professional organization	68	1.4759	2.75210	.33374
	Membership in at least one professional organization	216	.6076	2.14913	.14623

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means					95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
WDS	Equal variances assumed	9.266	**.003**	2.707	282	.007	.86829	.32075	.23692	1.49966
	Equal variances not assumed			**2.383**	**94.113**	**.019**	**.86829**	**.36437**	**.14483**	**1.59175**

0.019 < 0.05, therefore the difference is statistically significant.

5. <u>FCCLA Advisor Status (Q13) & Reporting your program information to your district and state Department of Education (Q20.3)</u>

Group Statistics

	FCCLA Advisor	N	Mean	Std. Deviation	Std. Error Mean
WDS	Not an FCCLA Advisor	123	-.2826	2.88963	.26055
	FCCLA Advisor	165	.5937	2.55454	.19887

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means					95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
WDS	Equal variances assumed	.013	.908	-2.722	286	.007	-.87630	.32194	-1.50998	-.24262
	Equal variances not assumed			-2.673	243.963	.008	-.87630	.32777	-1.52193	-.23067

0.007 < 0.05, therefore the difference is statistically significant.

8. <u>FCCLA Advisor Status (Q13) & Organizing activities for students with local organizations relating to your content area (Q22.1)</u>

Group Statistics

	FCCLA Advisor	N	Mean	Std. Deviation	Std. Error Mean
WDS	Not an FCCLA Advisor	119	.1929	2.50068	.22924
	FCCLA Advisor	158	.8927	2.38913	.19007

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means					95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
WDS	Equal variances assumed	1.742	.188	-2.365	275	.019	-.69972	.29587	-1.28218	-.11726
	Equal variances not assumed			-2.350	247.940	.020	-.69972	.29778	-1.28623	-.11321

0.019 < 0.05, therefore the difference is statistically significant.

1. <u>Participants' Age (Q29) & Using current and relevant *computer/internet technology* to teach interactive lessons on content or career-specific tasks (Q19.1)</u>

Group Statistics

	Age	N	Mean	Std. Deviation	Std. Error Mean
WDS	Aged 18 - 39	87	.2006	2.62662	.28160
	Aged 40+	192	1.1452	2.50408	.18072

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means					95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
WDS	Equal variances assumed	2.303	.130	-2.874	277	.004	-.94458	.32862	-1.59149	-.29767
	Equal variances not assumed			-2.823	159.259	.005	-.94458	.33460	-1.60541	-.28375

0.004 < 0.05, therefore the difference is statistically significant.

3. Participants' Age (Q29) & Determining the content that should be taught in your specific course(s) (Q20.1)

Group Statistics

	Age	N	Mean	Std. Deviation	Std. Error Mean
WDS	Aged 18 - 39	85	1.3624	2.50623	.27184
	Aged 40+	190	.6704	2.26834	.16456

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means					95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
WDS	Equal variances assumed	7.609	.006	2.262	273	.024	.69193	.30588	.08974	1.29412
	Equal variances not assumed			2.177	148.013	.031	.69193	.31777	.06398	1.31988

0.031 < 0.05, therefore the difference is statistically significant.

4. Participants' Age (Q29) & Keeping current on trends and issues in your area of content (Q20.2)

Group Statistics

	Age	N	Mean	Std. Deviation	Std. Error Mean
WDS	Aged 18 - 39	85	2.3100	2.46377	.26723
	Aged 40+	189	1.4667	2.55151	.18559

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means					95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
WDS	Equal variances assumed	.001	.972	2.558	272	.011	.84333	.32972	.19420	1.49247
	Equal variances not assumed			2.592	167.195	.010	.84333	.32536	.20099	1.48568

0.011 < 0.05, therefore the difference is statistically significant.

5. Participants' Age (Q29) & Reporting your program information to your district and state Department of Education (Q20.3)

Group Statistics

	Age	N	Mean	Std. Deviation	Std. Error Mean
WDS	Aged 18 - 39	84	1.0533	2.61103	.28489
	Aged 40+	189	-.1170	2.77270	.20168

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means					95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
WDS	Equal variances assumed	2.106	.148	3.276	271	.001	1.17037	.35723	.46707	1.87367
	Equal variances not assumed			3.353	168.374	.001	1.17037	.34905	.48129	1.85945

0.001 < 0.05, therefore the difference is statistically significant.

7. Participants' Age (Q29) & Educating students and maintaining required health and safety standards (state/federal/OSHA) (Q21.2)

Group Statistics

	Age	N	Mean	Std. Deviation	Std. Error Mean
WDS	Aged 18 - 39	85	1.8764	2.44643	.26535
	Aged 40+	182	.8549	1.94411	.14411

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means					95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
WDS	Equal variances assumed	19.962	.000	3.674	265	.000	1.02141	.27803	.47399	1.56883
	Equal variances not assumed			3.383	135.390	.001	1.02141	.30196	.42424	1.61857

0.001 < 0.05, therefore the difference is statistically significant.

8. <u>Participants' Age (Q29) & Organizing activities for students with local organizations relating to your content area (Q22.1)</u>

Group Statistics

	Age	N	Mean	Std. Deviation	Std. Error Mean
WDS	Aged 18 - 39	78	1.1774	2.47800	.28058
	Aged 40+	175	.2249	2.37434	.17948

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means					95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
WDS	Equal variances assumed	7.595	**.006**	2.907	251	.004	.95252	.32764	.30724	1.59780
	Equal variances not assumed			**2.860**	**142.362**	**.005**	**.95252**	**.33307**	**.29411**	**1.61093**

0.005 < 0.05, therefore the difference is statistically significant.