



Survey of Financial Education in Ohio's High Schools:

Assessment of Teachers, Programs, and Legislative Efforts

A Research Project funded by The Ohio State University P-12 Project

Report prepared by

Căzilia Loibl, Ph.D., CFP®

Assistant Professor

The Ohio State University

Department of Consumer Sciences

1787 Neil Avenue, 265 N Campbell Hall

Columbus, Ohio 43210

Phone: 614-292-4226, E-mail: loibl.3@osu.edu



Executive Summary

This research contributes to the understanding of the scope and determinants of financial education in Ohio high schools. It was conducted at the time when the legislative body in Ohio decided to mandate financial education in Ohio high schools. Specifically, the study objectives were to provide:

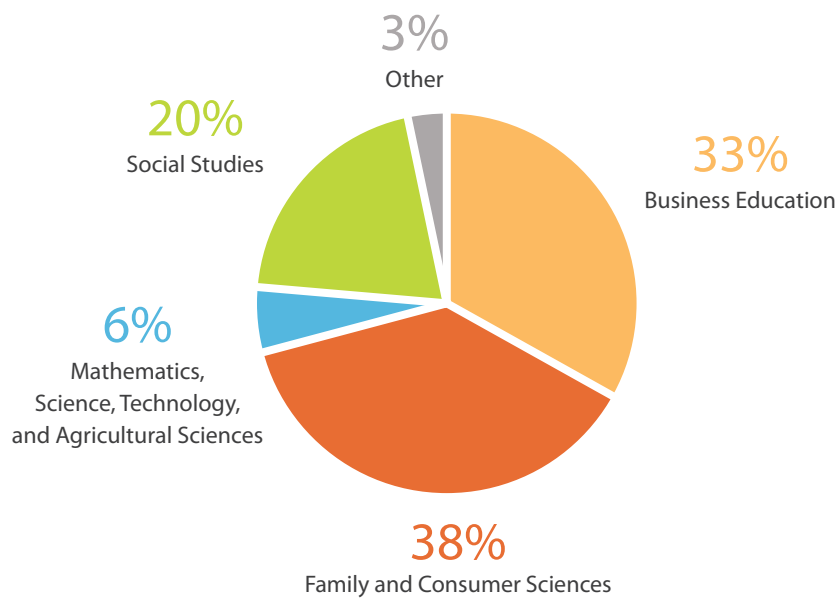
1. Quantitative information about the *when, where, who*, and *how* of personal finance instruction in Ohio high schools;
2. Quantitative information about the student population attending personal finance courses;
3. Knowledge of Ohio high school teachers' personal finance knowledge and the sources they use to stay informed of personal finance topics;
4. A comprehensive manual of financial literacy programs used by high school teachers in Ohio and organizations which offer train-the-teacher programs across Ohio; and
5. Knowledge of the key actors and status of legislative efforts to achieve legislation mandating effective financial education in schools.

Funded by a grant of *The Ohio State University P to 12 Project*, an Ohio-wide survey of high school teachers who teach personal finance was conducted.

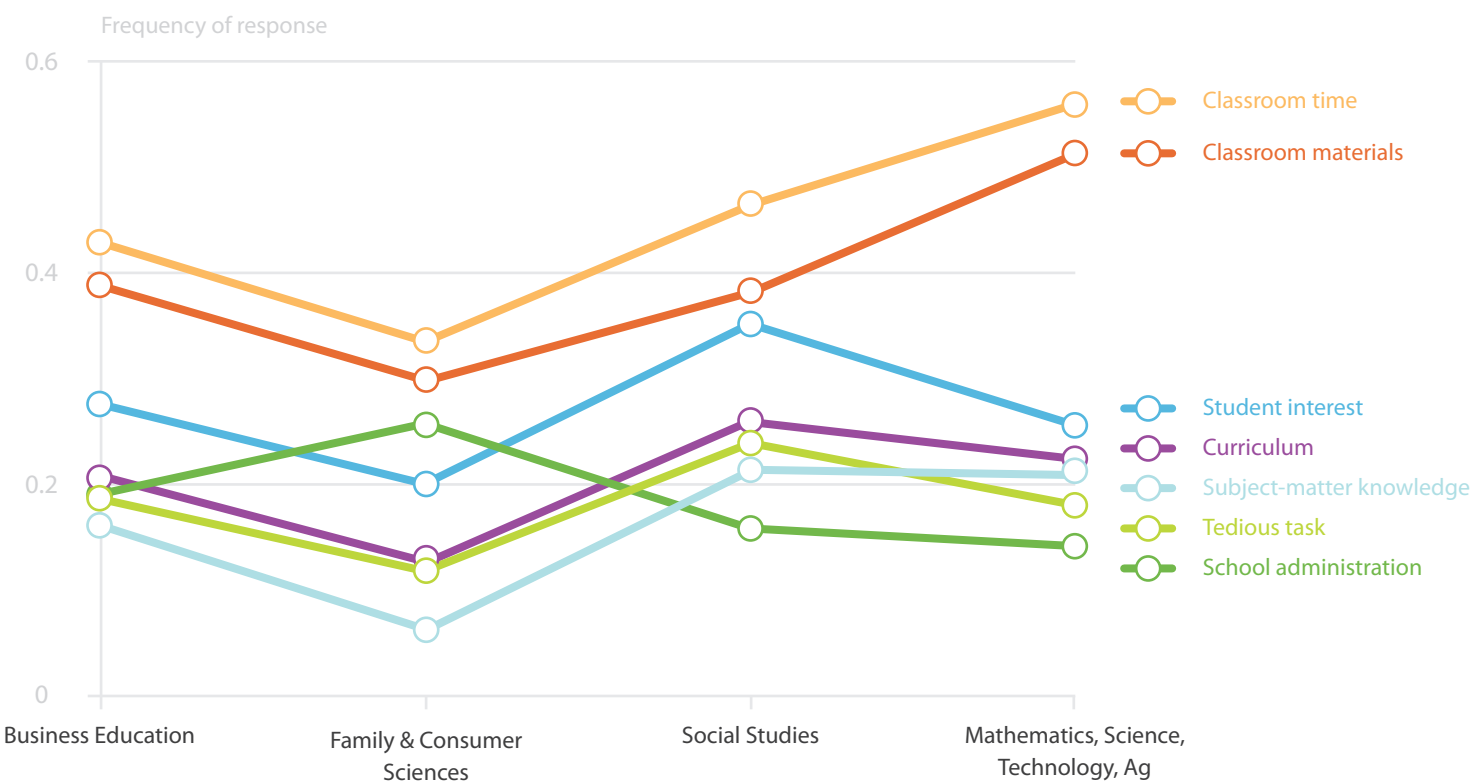
- Qualified participants were high school teachers who actually teach personal finance in the 2006/2007 academic year.
- Business Education, Family and Consumer Sciences, and Social Studies teachers in 1,145 high schools in Ohio were contacted by mail and invited to participate in the survey.
- The questionnaire consisted of 54 questions and was administered online from February 26 to April 7, 2007.
- A total of 710 respondents completed the survey.

Major survey findings by study objectives

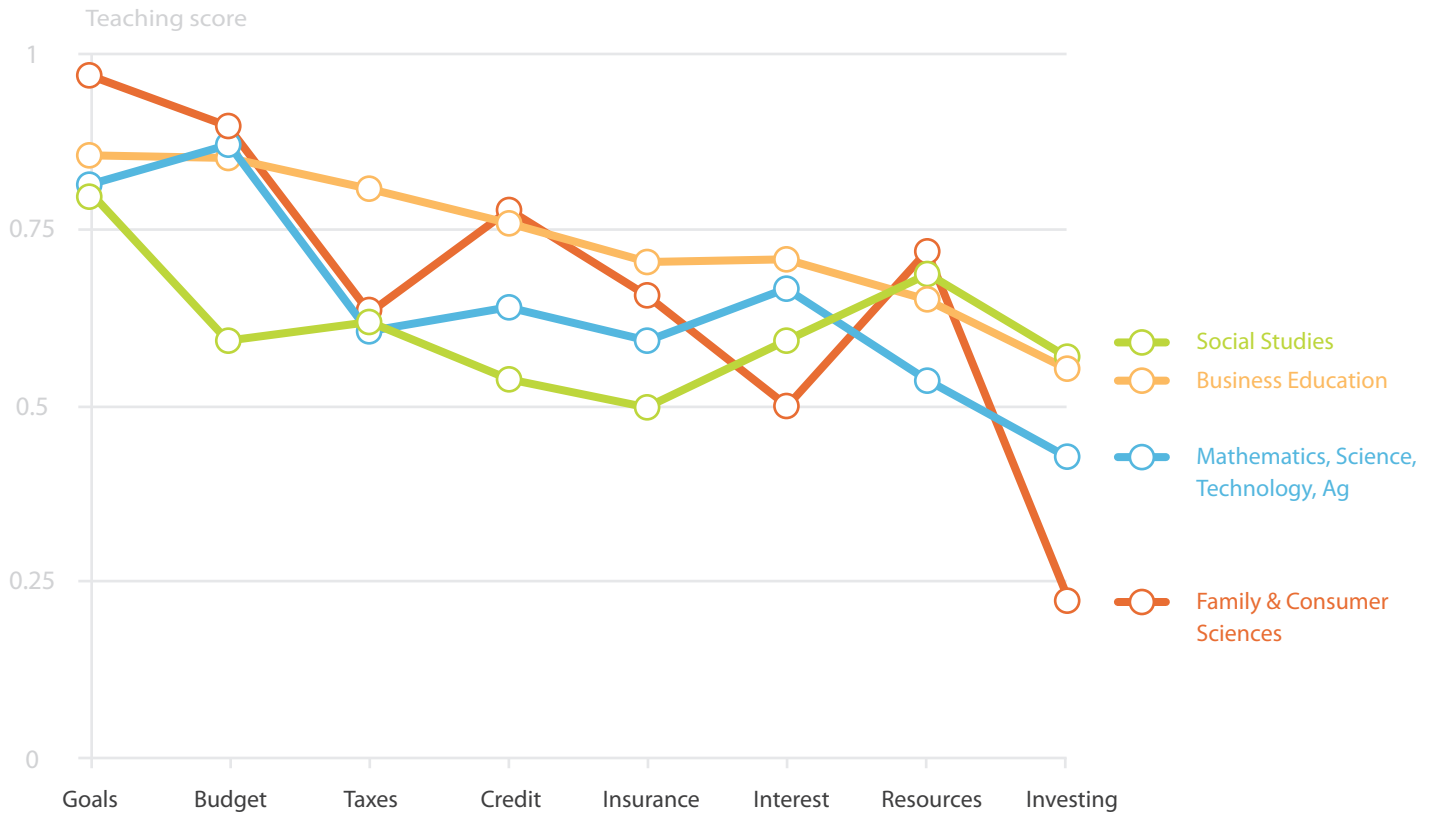
The majority of personal finance instruction was offered by three academic content areas: Family and Consumer Sciences, Business Education, and Social Studies.



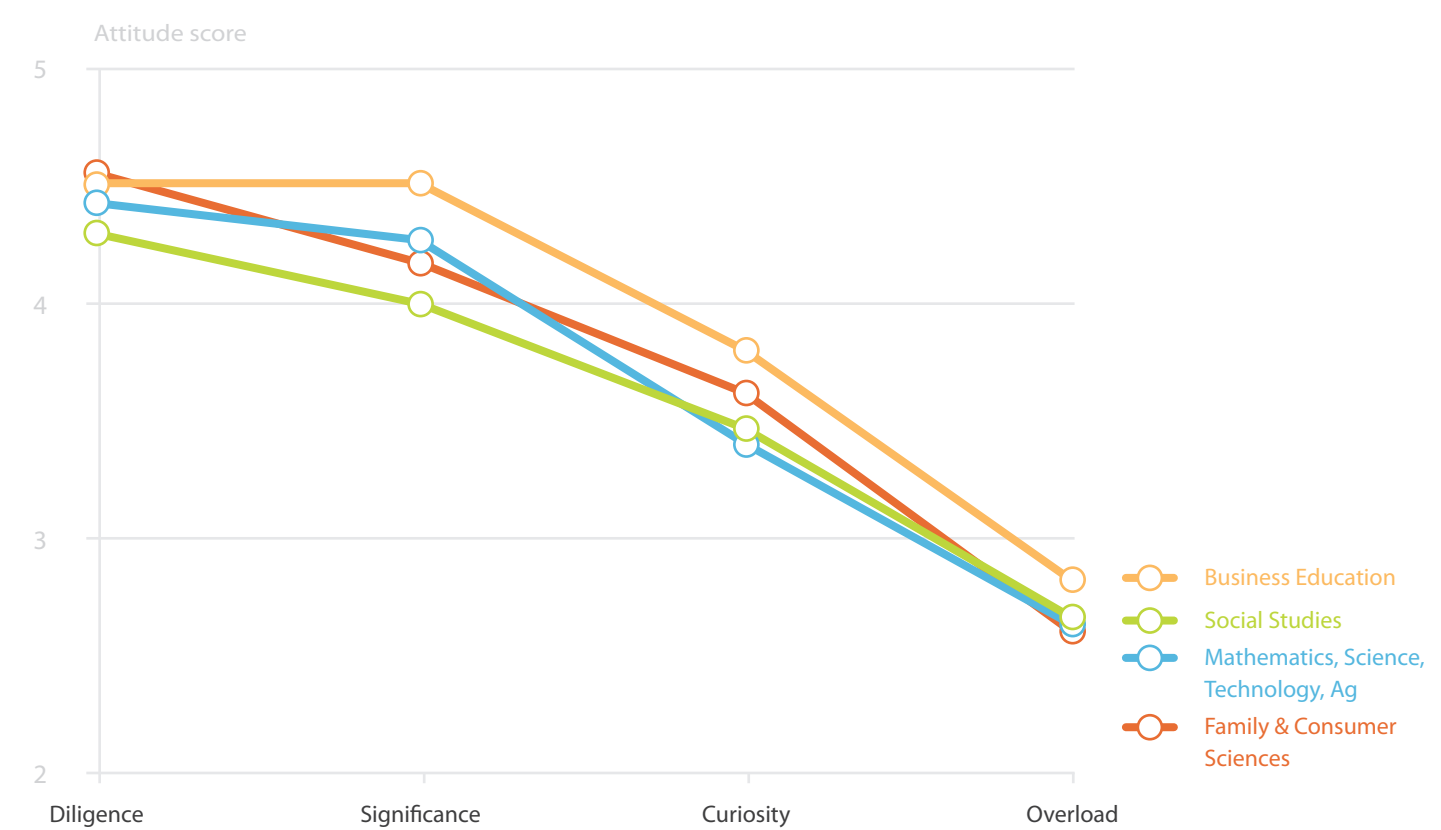
The lack of classroom time to properly teach personal finance topics and the lack of classroom materials were the top challenges for teaching personal finance across academic content areas.



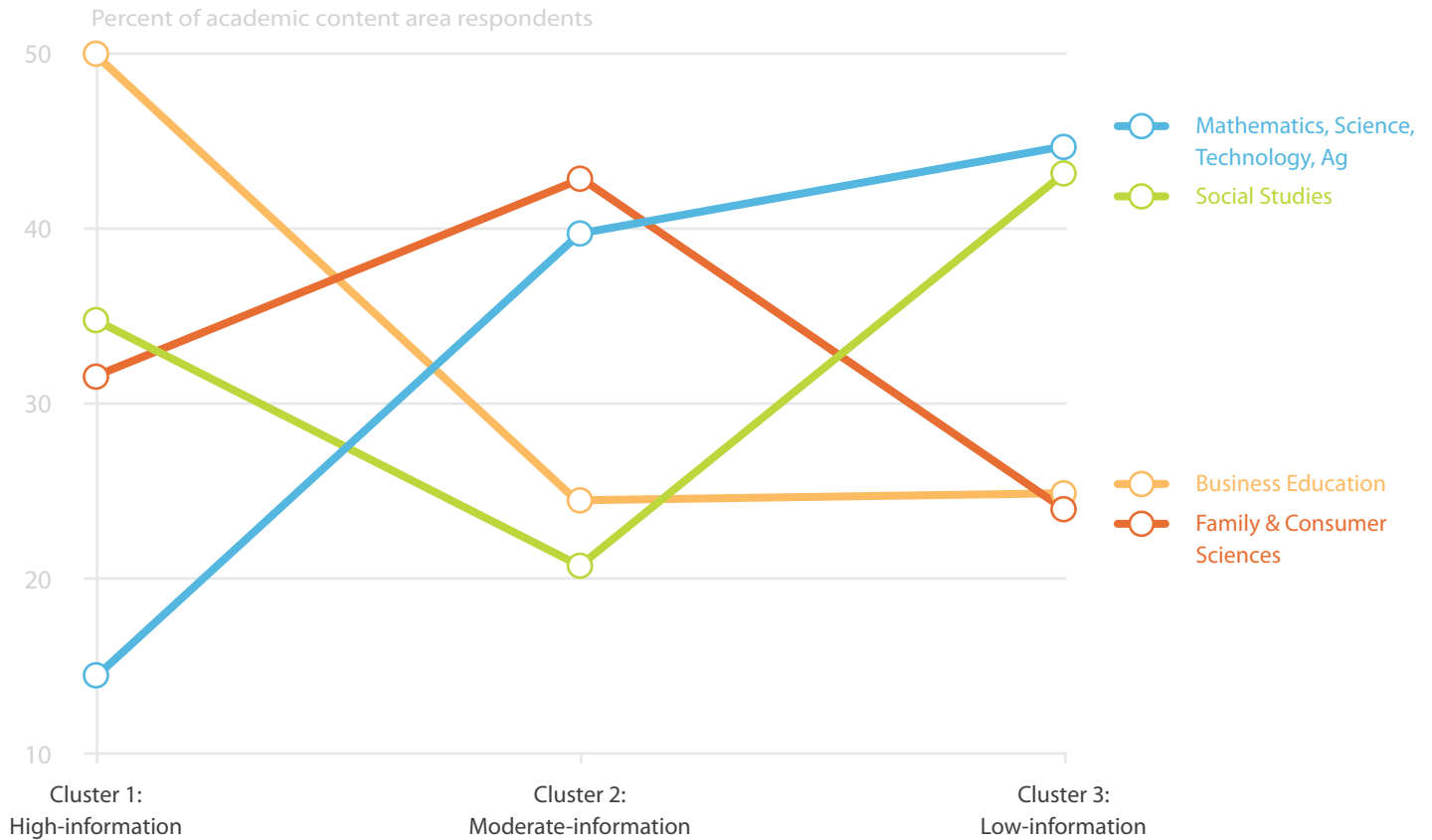
The four academic content areas differed significantly in their instruction of the eight personal finance themes. In this illustration, Business Education teachers were used as basis for comparison.



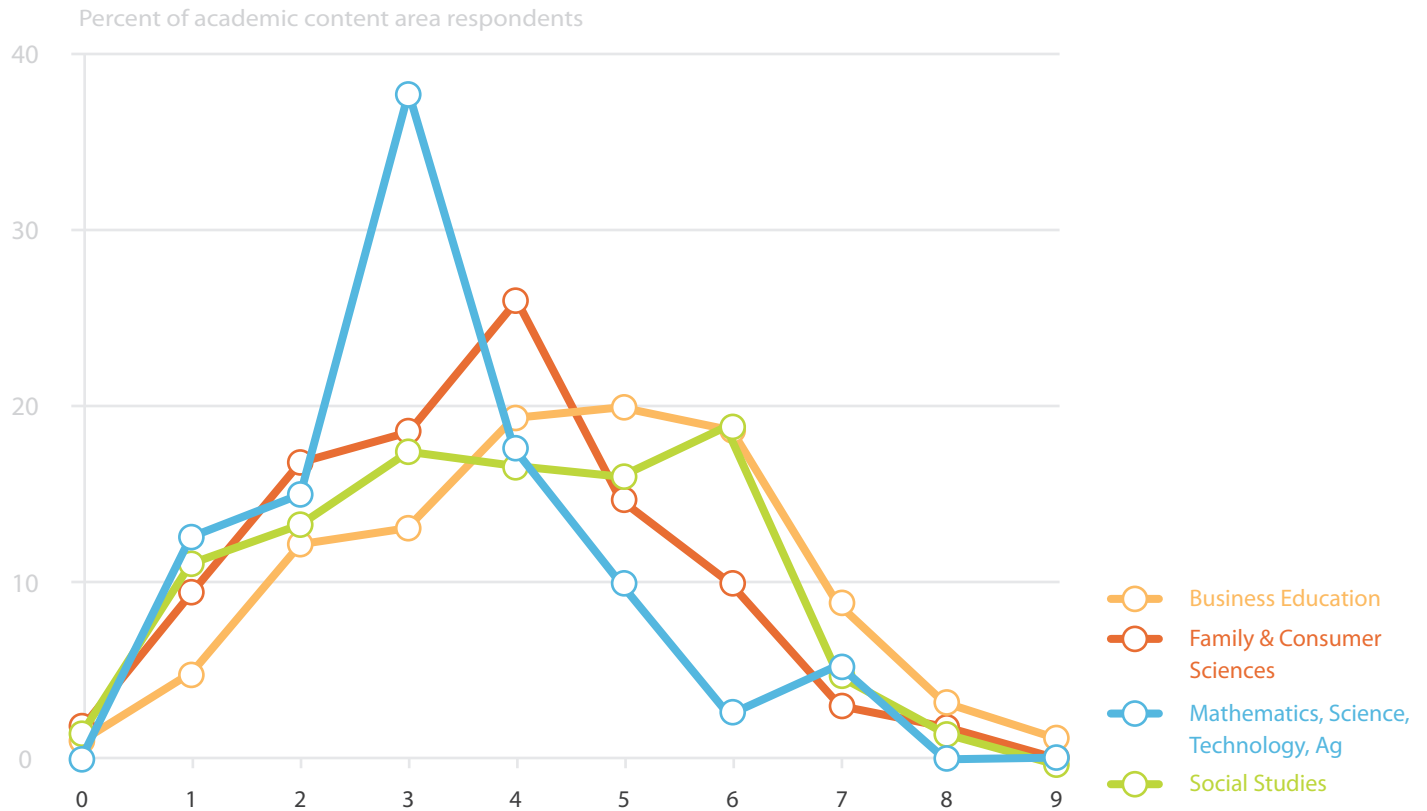
The four academic content areas differed significantly in their curiosity toward teaching personal finance, the significance they attached to these topics, and the diligence in researching them. The feeling of information overload was low and not significant when comparing the four groups.



Business Education teachers were most likely to practice a high-information strategy to stay current about personal finance topics whereas Social Studies and Sciences teachers preferred a low-information strategy.



In the financial knowledge quiz, most respondents answered between two and five questions correctly. There was a much lower percentage who answered none/one question or six to nine questions correctly.



Major survey findings by academic content area

Business Education

Business Education teachers were more likely to teach elective courses, to teach tax-related topics, and to have a higher percentage of male students in their personal finance classes. On the other hand, their courses were less likely to be limited to one semester and they used less classroom time to teach personal finance compared to the other academic content areas. They were less likely to teach goal setting and limited-resource topics, and were most likely to score high on the personal finance quiz. They were curious about learning personal finance and attached great significance to teaching these topics.

Their main barrier to teaching personal finance topics was their school's administration. None of the subject-matter barriers were pertinent for this content area. In fact, Business Education teachers were even less likely to cite curriculum needs and student ignorance as challenges for teaching personal finance compared to the other academic content areas. Those teaching personal finance were less likely to be female and to participate in continuing education courses, but were more likely to have taken college courses on personal finance.

Family and Consumer Sciences

Family and Consumer Sciences teachers were more likely to teach credit, budgeting, and goal-setting, while they avoided the investment topic. They were most likely to be teaching personal finance in an elective course offered on a one-semester schedule with ample time spent on this topic. Their audience was less likely to be male. These teachers expressed high diligence in researching personal finance topics and were highly likely to belong to either the high or moderate-information search types of teachers. Surprisingly, they tended to score low on the knowledge quiz and to dislike the Internet as a source of information on personal finance topics.

Their main challenges in teaching personal finance were a lack of curricula that fit their teaching needs and the lack of student interest. School administration and classroom materials were less likely to present barriers to this content

area. Overall, they attached less significance to teaching these topics than did Business Education or Science teachers. Family and Consumer Sciences teachers were most likely to be female, older, and living in households with a higher household income. Most likely, they had been teaching personal finance for a number of years supported by continuing education courses. This group of teachers was less likely to hold a Masters' degree.

Social Studies

Social Studies teachers were most likely to teach investment, tax, and limited-resources topics. They stayed away from teaching budgeting and interest-related topics. They were more likely to teach a large number of students in Grade 12, to devote significant time to these topics, and to follow a one-semester course schedule. Their courses were least likely to be elective compared to the other academic content areas.

This group of teachers attached little significance to teaching personal finance topics and the group members were less likely to diligently research personal finance topics. They were unlikely to belong to the high- or moderate-search types of teachers for personal finance information. They did indicate that they like to talk to colleagues to prepare for teaching these topics and that their main challenges were classroom materials and classroom time to properly teach these topics. Social Studies teachers who were teaching personal finance were least likely to be located in rural school locations, to be female, and to participate in continuing education on personal finance topics. They also reported fewer years teaching personal finance.

Mathematics, Science, Technology, and Agricultural Sciences

The group of "Science" teachers was more likely to focus on budgeting and to avoid teaching limited-resource related topics. While Science teachers were more likely to have a higher number of male students, their personal finance instruction was characterized by fewer students in Grade 10, the topics being spread out over fewer courses, and generally less time reserved for teaching personal finance topics.

Similar to Business Education teachers, their courses were less likely to be limited to one semester. These Science teachers attached the highest level of significance to teaching personal finance topics among the four academic content areas. While they were less likely to practice high-information search efforts to learn about personal finance, they were most likely to talk to others to prepare for teaching these topics.

Their greatest reported challenge was the feeling that teaching personal finance often seems tedious.

Classroom time, in particular, was of little concern to this group. They were less likely to teach personal finance at public schools, to be female, and to hold a Masters' degree. They reported fewer years teaching personal finance topics and were less likely to have taken college-level coursework in this area. However, they did indicate that they participate in continuing education courses.

Major findings of a comparison of state statutes' attempts to provide students with financial literacy instruction

In addition to the survey of high school teachers, a comparison of state statutes' attempts to provide high school students with financial literacy instruction was conducted. Seventeen states and one United States territory have some form of legislation concerning financial literacy in public schools.

- Nine actually require financial literacy education, either as a separate course or to be integrated into existing courses.
- Rather than mandating the inclusion of financial literacy, six states encourage school districts to provide financial education by requiring the state's education agency to set academic standards, create financial literacy curricula, or provide resources for disseminating financial education.

- Finally, three states have enacted laws that merely require the state's education board to accumulate information on financial literacy programs or require an entity to conduct studies about need for financial literacy instruction.

- All of the statutes currently enacted vary greatly based on factors such as the extent of discretion granted to boards of education in requiring financial education, guidance about what financial literacy topics should be taught, funding availability to create financial literacy courses and materials, and training of teachers in financial literacy instruction.

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Rationale

Following Greenspan (2005), we argue that financial education should be a necessary part of the high school curriculum, given the increasing sophistication of, and technological changes in, the financial industry, as well as the abundance of financial products and services available to consumers. Consumers can only avail themselves of the many products and opportunities offered in financial markets if they have the ability to research and understand the products, and the ability to take advantage of the existing technologies. Having this knowledge protects consumers from predatory and illegal practices and also empowers them in financial decision-making.

Despite the importance generally assigned to financial education in high schools (see, e.g., 126th Ohio General Assembly, 2006a, , 2006b, , 2006c, , 2006d, , 2006e; Greenspan, 2005) no information is available about the extent of personal finance instruction in Ohio. By demonstrating the scope and determinants of personal finance instruction in Ohio high schools via survey research and a comparison of legislative initiatives and financial literacy programs via a literature review and scenario analysis, the current study increases the understanding of personal finance education in Ohio.

In particular, this study furthers financial literacy research, aids school administrators and teachers interested in expanding the scope of personal finance topics offered in schools, and buttresses legislative efforts to require personal finance instruction in Ohio schools.

This project has three specific objectives:

1. Determine what personal finance topics are taught at Ohio high schools, which teachers are teaching it, and which students attend the classes (Objective 1).
2. Determine the personal finance education and knowledge of high school teachers and their sources of information (Objective 2).
3. Compare legislative efforts in Ohio to other state legislative efforts to mandate the inclusion of personal finance

“Financial education should be a necessary part of the high school curriculum.”

education in the high school curricula (Objective 3a) and conduct a meta-analysis of existing financial literacy programs and trainings available to Preschool to Grade 12 teachers in Ohio (Objective 3b).

Methods for achieving Objectives 1, 2, and 3b include an online survey of high school teachers in Ohio who belong to three academic content areas: Business Education, Family and Consumer Sciences, and Social Studies. The findings of the online survey are presented in Part I of this report.

The method for achieving Objective 3a consisted of a meta-analysis of existing laws and proposed legislation in the United States which mandate or require personal financial literacy topics be incorporated in P to 12 schools. The findings of the legislative analysis are presented in Part II of this report.

The current report represents a unique collaboration among faculty members from five OSU academic units. The six project members have special expertise and extensive experience in studying financial education. With the ultimate goal of providing insight on the scope and determinants of personal finance education in Ohio high schools, this project is consistent with the P to 12 Project's mission to *"assist in the improvement of Ohio's schools"* and its goals to *"initiate, incubate, and support projects closely aligned with school improvement"* and to *"develop and sustain an ongoing relationship with the thirteen university-area schools."*

Project Outcomes

Deliverables and outcomes from this project include the here presented report providing:

- Quantitative information about the when, where, who, and how of personal finance instruction in Ohio high schools;
- Quantitative information about the student population attending personal finance courses;
- Knowledge of Ohio high school teachers' personal finance knowledge and the sources they use to stay informed of personal finance topics;
- A comprehensive manual of financial literacy programs used by high school teachers in Ohio and organizations which offer train-the-teacher programs across Ohio; and
- Knowledge of the key actors and status of legislative efforts to achieve legislation mandating effective financial education in schools.

The present findings are currently in preparation for conference presentations and peer-reviewed journal articles.

Part I:

Survey of High School Teachers in Ohio Schools

By Cäzilia Loibl, Assistant Professor
Department of Consumer Sciences, The Ohio State University

Research Questions

This study presents a response to the call for financial education in high schools by examining the current state of instruction in Ohio high schools. Specifically, the study objectives were to provide:

1. Quantitative information about the when, where, who, and how of personal finance instruction in Ohio high schools;
2. Quantitative information about the student population attending personal finance courses;

3. Knowledge of Ohio high school teachers' personal finance knowledge and the sources they use to stay informed of personal finance topics; and
4. A manual of financial literacy programs used by high school teachers in Ohio and the organizations which offer train-the-teacher programs across Ohio.

Survey Procedure

Survey invitation

The present study presents analyses of a survey of high school teachers in Ohio who teach personal finance topics in the 2006/2007 academic year. The survey invitation postcard particularly addressed Business Education, Family and Consumer Sciences, and Social Studies/Economics teachers because these three groups were most likely to teach personal finance topics (National Endowment for Financial Education, 2005).

We mailed one survey invitation postcard to each of the three academic content areas at each of the 1,145 high schools in Ohio that offer 10th to 12th grade-level classes (total mailing N=3,435). This sample included public, public charter, private, and parochial schools. The survey was conducted online during six weeks from February 26 to April 07, 2007.

Survey invitation postcards were mailed at three points in time (see Figure 1, page 7):

1. Postcard 1: Monday, February 26, 2007
2. Postcard 2: Monday, March 5, 2007
3. Postcard 3: Thursday, March 22, 2007

A press release about the ongoing survey was distributed on Wednesday, March 7, 2007 through OSU Communication and

Technology media channels. Six weeks after the survey was closed, participants were mailed a \$10 gasoline gift card for their assistance.

Survey responses

A total of 868 teachers accessed the survey Internet site. A total of 710 teachers taught personal finance in the 2006/2007 academic year. This group of 710 teachers completed the survey. The remaining 158 teachers (=868-710) indicated that they do not teach personal finance in the 2006/2007 academic year. These 158 teachers were exited from the survey at Question 1 ("invalid responses").

It is not possible to determine a response rate as there exists no official statistics of how many teachers taught personal finance topics in Ohio high schools in the 2006/2007 academic year.

Questionnaire

The questionnaire consisted of 53 questions and was divided into four parts. Part I consisted of a total of 20 questions which assessed respondents' personal finance curricula and student population. This part inquired about the time spent on personal finance in the courses in which it is mainly taught, the topics taught, the grade levels, as well as the length, schedule, meeting frequency of these courses. Teachers were

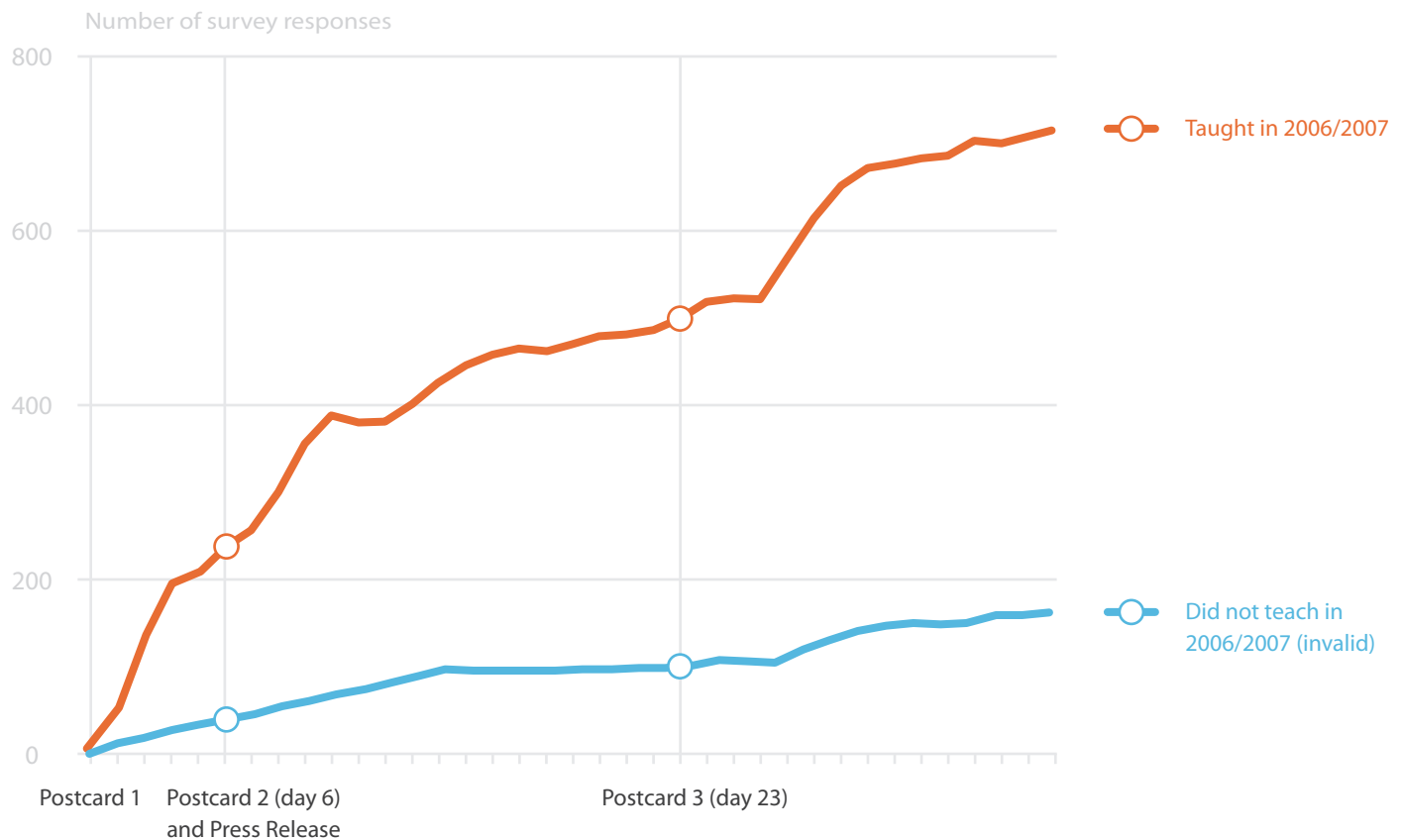


Figure 1

Survey responses

A total of 710 valid responses were received through the online survey. Valid responses comprised the group of teachers who actually taught personal finance topics in the 2006/2007 academic year.

also asked to indicate how many students in this course would receive a grade of "C" or above and how many were ESL/ELL, as well as the students' race, gender, the percentage of students expected to graduate with a high school diploma, and the percentage expected to enter college.

Part II consisted of ten questions assessing challenges to teaching personal finance. These questions examined teachers' attitudes toward teaching personal finance, preferred sources of information on personal finance, and the time spent to prepare for teaching personal finance in class. Part III consisted of 14 questions on participants' school environment and socio-demographic background. The fourth and final part of the survey measured teachers' knowledge of personal finance concepts with a nine-question quiz. The survey instrument is provided in Appendix 6 of this report.

Data imputation for missing values

We used the maximum likelihood estimation (MLE) procedure to replace missing values in the data set. This method, implemented by the EM algorithm, applies MLE to the task of imputing missing data values without recourse to the simulation involved in multiple imputation. MLE makes fewer demands of the data in terms of statistical assumptions and is generally considered superior to imputation by multiple regression. This is now the most common method of imputation. The MLE method assumes that missing values are "missing at random".

Results

The results section presents the analyses of the survey data and summarizes the findings for four academic content areas. This section consists of six parts:

1. Description of the teachers and their students in personal finance courses,
2. Factor analyses to identify the personal finance topics taught in class and teachers' attitudes toward teaching personal finance,
3. Cluster analysis to identify teachers' efforts in staying informed about personal finance topics,
4. Financial knowledge score compiled of respondents' answers to the nine quiz questions

5. Regression analysis to identify the influence of the measures defined in Parts 1 to 4 on personal finance instruction in four academic content areas, and

6. Academic content area scores for the main measures as identified in Parts 1 to 4.

Survey participants provided us with a wealth of comments and suggestions in an open-ended question at the end of the survey. This feedback is presented in Appendix 3.

A detailed descriptive analysis of the survey findings is presented in Appendix 5.

Description of teachers and their students in personal finance courses

Teacher population

The data collection focused on teachers who are teaching (1) business education, (2) family and consumer sciences, and (3) social studies in one or more four high school grades. These three academic content areas were identified in a recently conducted national study as those which are most likely to cover personal finance topics (National Endowment for Financial Education, 2005). Our respondents support this finding, as the majority of survey respondents (91%) belonged to the following three academic content areas (Ohio Department of Education, 2006):

- Family and Consumer Sciences, 38% (N=268);
- Business Education, 33% (N=234); and
- Social Studies, 20% (N=145).

A total of 63 respondents taught in other academic content areas. Of those teachers, 40 were somewhat similar in that they taught "science" courses, including teachers in the following sections: Mathematics, Science, Technology, and

Agricultural Sciences. We included this group as an additional academic content area into our analysis. Although the group is small, with only 40 teachers, we felt that they provide an additional perspective in the analysis of personal finance instruction in Ohio.

The remaining 23 responses came from teachers in the remaining academic content areas (e.g., Fine Arts, English Language) and from teachers in counseling, elementary education, and vocational education. This group was too diverse to allow for useful interpretation. As a result, these 23 responses were excluded from the analyses. Therefore, the working sample for the current analyses consisted of 687 teachers; the total responses were 710 (see Figure 2).

The titles of the courses in which these teachers were teaching personal finance topics are summarized in Appendix 1.

In the following paragraphs, we describe the characteristics of the student population (Table 1), the specifics of personal

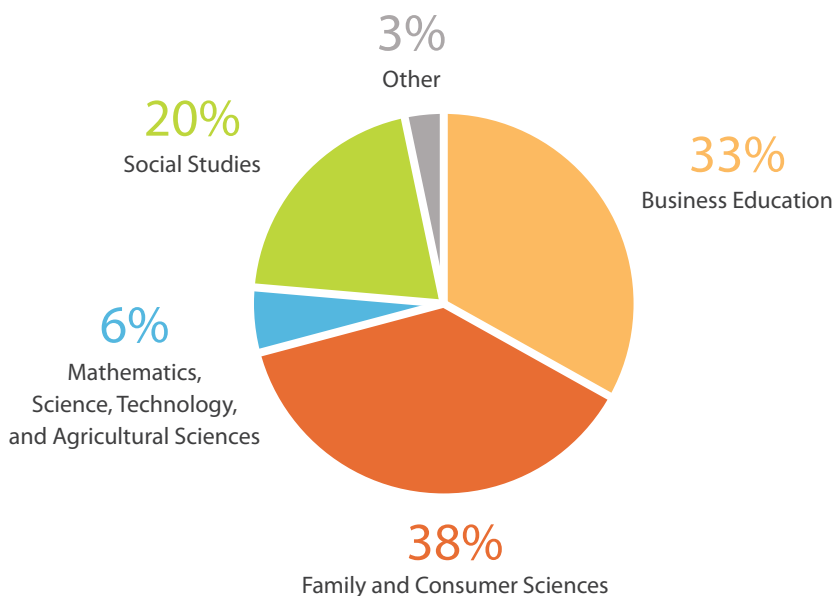


Figure 2

Academic Content Areas of the Sample (N=710)

The majority of personal finance instruction was offered by three academic content areas: Family and Consumer Sciences, Business Education, and Social Studies.

finance instruction in high schools (Table 2), and the school and teacher demographics (Table 3). We present the descriptive data divided into the four academic content areas. A number of differences emerged, which we describe in detail in the following sections.

Student population

Two important differences emerge between the four academic content areas with respect to the student population enrolled in their personal finance courses. Specifically, the questionnaire inquired for the number of student in personal finance classes at each grade level. Teachers were asked to add up the number of students for each grade level if they taught more than one personal finance class at one grade level. The results are presented in Table 1.

Our major finding was that Social Studies teachers instructed, by far, the largest classes in Grades 11 and 12 in personal finance. They taught, on average, 20 juniors and 36 seniors compared to the overall average across the four academic content areas of 13 and 15, respectively. In Grade 10, Family and Consumer Sciences teachers had larger classes (12

students on average), while Social Science teachers had the second largest classes (9 students on average). Second, the number of male students differed among the academic content areas. The number of male students was highest in the Science area (55% on average) and lowest in Family and Consumer Sciences courses (39% on average).

The academic content areas did not differ with respect to minority students (14% on average), student grades (93% will attain a "C" on average), ESL/ELL students (5% on average), nor with respect to teacher expectations about how many of their personal finance students will graduate with a high school diploma (94% on average) or will enter college (62% on average).

Table 1

Sample characteristics: Student population

Significant differences among academic content areas are shadowed. They were observed for the number of students in Grades 10 to 12 and the number of male students.

Variable	Range	All Mean (SD)	Business Education Mean (SD)	Family & Consumer Sciences Mean (SD)	Social Studies Mean (SD)	Mathematics, Science, Technology, Ag Mean (SD)
<i>Student population</i>						
in Grades 9 to 12 ($\chi^2=391.008$, $df=378$, $p=.311$)	2-325	50.05 (45.418)	42.76 (33.851)	47.24 (47.426)	70.58 (53.475)	36.85 (36.910)
in Grade 9 ($\chi^2=140.295$, $df=162$, $p=.890$)	0-150	6.43 (17.986)	5.70 (13.604)	7.71 (19.963)	5.94 (19.948)	3.93 (19.102)
in Grade 10 ($\chi^2=253.019$, $df=177$, $p=.000$)	0-150	9.21 (20.786)	7.86 (12.163)	11.57 (24.655)	8.83 (25.401)	2.70 (8.873)
in Grade 11 ($\chi^2=272.142$, $df=207$, $p=.002$)	0-255	14.20 (23.600)	13.41 (15.604)	12.15 (20.719)	19.95 (36.269)	11.78 (19.617)
in Grade 12 ($\chi^2=320.808$, $df=258$, $p=.005$)	0-310	20.19 (28.484)	15.80 (16.917)	15.81 (19.100)	35.86 (47.789)	18.45 (21.625)
white students ($\chi^2=660.140$, $df=717$, $p=.936$)	0-1	.8594 (.22833)	.8684 (.22549)	.8678 (.21374)	.8226 (.26741)	.8839 (.17277)
male students ($\chi^2=915.008$, $df=852$, $p=.066$)	0-1	.4546 (.20746)	.4918 (.19240)	.3921 (.19838)	.4830 (.20053)	.5523 (.26474)
Graduate "C" students ($\chi^2=764.788$, $df=747$, $p=.318$)	0-1	.92655 (.68507)	.9321 (.63752)	.9428 (.63427)	.9072 (.90616)	.8542 (.1794)
ESL/ELL students ($\chi^2=.529.001$, $df=564$, $p=.852$)	0-1	.05129 (.09838)	.0488 (.10581)	.0641 (.10003)	.0357 (.08825)	.035939 (.0615782)
Will graduate with diploma ($\chi^2=97.633$, $df=96$, $p=.434$)	0-1	.9440 (.12767)	.9654 (.07528)	.9412 (.13891)	.9221 (.14455)	.9165 (.19555)
Will enter college ($\chi^2=173.133$, $df=171$, $p=.440$)	0-1	.6182 (.26656)	.6580 (.24231)	.5714 (.27361)	.6519 (.27329)	.5760 (.28306)
N		687	234	268	145	40

Personal finance instruction

Differences among the four academic content areas were also obtained with respect to the conditions of instructing personal finance. The questionnaire inquired about conditions related to the number of courses taught with personal finance content, the course layout, teachers' course preparation, and the challenges of teaching personal finance. The findings are summarized in Table 2.

Overall, Family and Consumer Sciences teachers taught personal finance topics in the most number of courses (1.8 courses; overall sample average: 1.7), while Business Education teachers invested the most instruction time on personal finance topics (61% of their courses; average: 59%). In most schools, personal finance was an elective, one-semester long course. This was particularly true for the Family and Consumer Sciences academic content area, with 88 percent elective (opposite end: Social Studies: 31%) and 77 percent one-semester coursework (opposite end: Science: 25%). The academic content areas did not differ with respect to teaching personal finance in a traditional course schedule (average: 81%) or in the frequency of class meetings (average: 4.8 times per week).

When teachers prepared for their personal finance courses, they differed in their sources of information they preferred to gather information and classroom materials for teaching personal finance. About 45 percent of Science teachers' reported the Internet as their preferred source of information (average: 38%), while they spent the least amount of time searching the Internet on personal finance topics to prepare for one class period (19.5 min.; average: 29.1 min.). Just the contrary was true for Family and Consumer Sciences teachers. They spent the most time searching the Internet to prepare, on average, for one class period of their personal finance courses (32.1 min.), and were least likely to choose the Internet as their preferred source for gathering information and classroom materials for teaching personal finance (32%). Family and Consumer Sciences teachers also spent the most time talking to others about personal finance topics (15.0 min.; average: 10.5 min.; tied with Science teachers) and on assembling materials to prepare for one class period (40.2 min.; average: 32.7 min.). The academic content areas exhibited similar patterns with respect to reading publications about personal finance (average: 20.4 min. per class period).

Asked about what they felt were the major challenges when teaching personal finance, differences between the academic content areas emerged for seven of the nine presented challenges. Business education teachers were most likely to cite a disinterest of the school administration (26%; average: 18%), and were least likely to report about lacking subject-matter knowledge (6%; average: 16%), curricula needs (12%, average: 20%), classroom materials (29%, average: 39%), and student interest (20%; average: 27%). They were least likely to consider teaching personal finance to be a "tedious task" (12%; average: 18%).

Family and Consumer Sciences teachers reported the highest concerns for not having enough subject-matter knowledge (21%) and suitable curricula (26%), and had the strongest concerns about student interest in the topic (35%). Social Studies teachers were most likely to mention a lack of classroom materials (51%) and classroom time (56%; average: 42%) to properly teach personal finance topics. Finally, the Science teachers were the most likely to consider teaching personal finance to be a "tedious task" (25%) and were more likely to report a lack of suitable curricula (25%) and classroom materials (50%). They were least likely to report lacking classroom time (23%) and inferences of their school's administration (13%) as major challenges.

Interestingly, the academic content areas expressed equal concerns about the information overload (average: 29%) and a lack of time available to stay current with changes in personal finance (average: 30%).

As illustrated in Figure 3, the three major challenges across the four academic content areas were: (1) the lack of classroom time to properly teach personal finance topics (average: 42%), (2) the lack of classroom materials, such as lesson plans and student handouts (average: 39%), and (3) the lack of time to stay current with changes in personal finance (average: 30%).

Table 2

Sample characteristics: Personal finance instruction

The four academic content areas differed by the number of courses in which personal finance is taught, the course layout, teachers' course preparation, and course challenges. Significant differences among the four academic content areas are shadowed.

Variable	Range	All Mean (SD)	Business Education Mean (SD)	Family & Consumer Sciences Mean (SD)	Social Studies Mean (SD)	Mathematics, Science, Technology, Ag Mean (SD)
<i>Courses taught</i>						
No. of courses ($\chi^2=46.235$, df=9, p=.000)	1-3	1.69 (.777)	1.76 (.771)	1.81 (.772)	1.44 (.725)	1.45 (.783)
Percentage of instruction time in main pf course ($\chi^2=217.571$, df=33, p=.000)	<10% to 100%	58.9% (82.36%)	60.9% (85.78%)	45.60% (96.02%)	36.80% (92.70%)	54.00% (83.65%)
<i>Course layout</i>						
Elective course ($\chi^2=197.696$, df=3, p=.000)	0-1	.755 (.43013)	.8761 (.33021)	.8806 (.32487)	.3103 (.46424)	.8250 (.38481)
One-semester course ($\chi^2=51.552$, df=3, p=.000)	0-1	.6405 (.48021)	.5769 (.49511)	.7724 (.42008)	.6069 (.49013)	.2500 (.43853)
Traditional schedule ($\chi^2=5.857$, df=3, p=.119)	0-1	.8079 (.39427)	.8333 (.37348)	.8097 (.39327)	.7448 (.43747)	.8750 (.33493)
Meeting times ($\chi^2=24.395$, df=18, p=.143)	1-5	4.78 (.743)	4.88 (.554)	4.75 (.809)	4.71 (.814)	4.70 (.939)
<i>Course preparation</i>						
Preferred source is Internet (F=2.829, df=686, p=.038)	0-1	.3785 (.48536)	.4359 (.49694)	.3172 (.46624)	.3793 (.48690)	.4500 (.50383)
Time correlating materials (F=10.770, df=686, p=.000)	min.	32.7 (11.64)	31.5 (10.90)	40.2 (13.38)	22.5 (8.71)	24.0 (8.73)
Time searching the Internet (F=2.254, df=686, p=.081)	min.	29.1 (10.48)	28.8 (9.57)	32.1 (11.74)	27.0 (10.25)	19.5 (7.56)
Time reading publications (F=.419, df=686, p=.739)	min.	20.4 (8.04)	20.7 (7.95)	21.3 (8.50)	17.7 (7.13)	20.4 (8.15)
Time talking to others (F=4.905, df=686, p=.002)	min.	10.5 (4.43)	5.4 (2.22)	15.0 (6.35)	8.7 (3.77)	15.0 (5.44)
<i>Course challenges</i>						
Classroom time (F=9.123, df=686, p=.000)	0-1	.4236 (.49449)	.3333 (.47242)	.4590 (.49924)	.5586 (.49827)	.2250 (.42290)
Classroom materials (F=6.788, df=686, p=.000)	0-1	.3857 (.48712)	.2949 (.45696)	.3806 (.48644)	.5103 (.50163)	.5000 (.50637)

Table 2, continued

Sample characteristics: Personal finance instruction

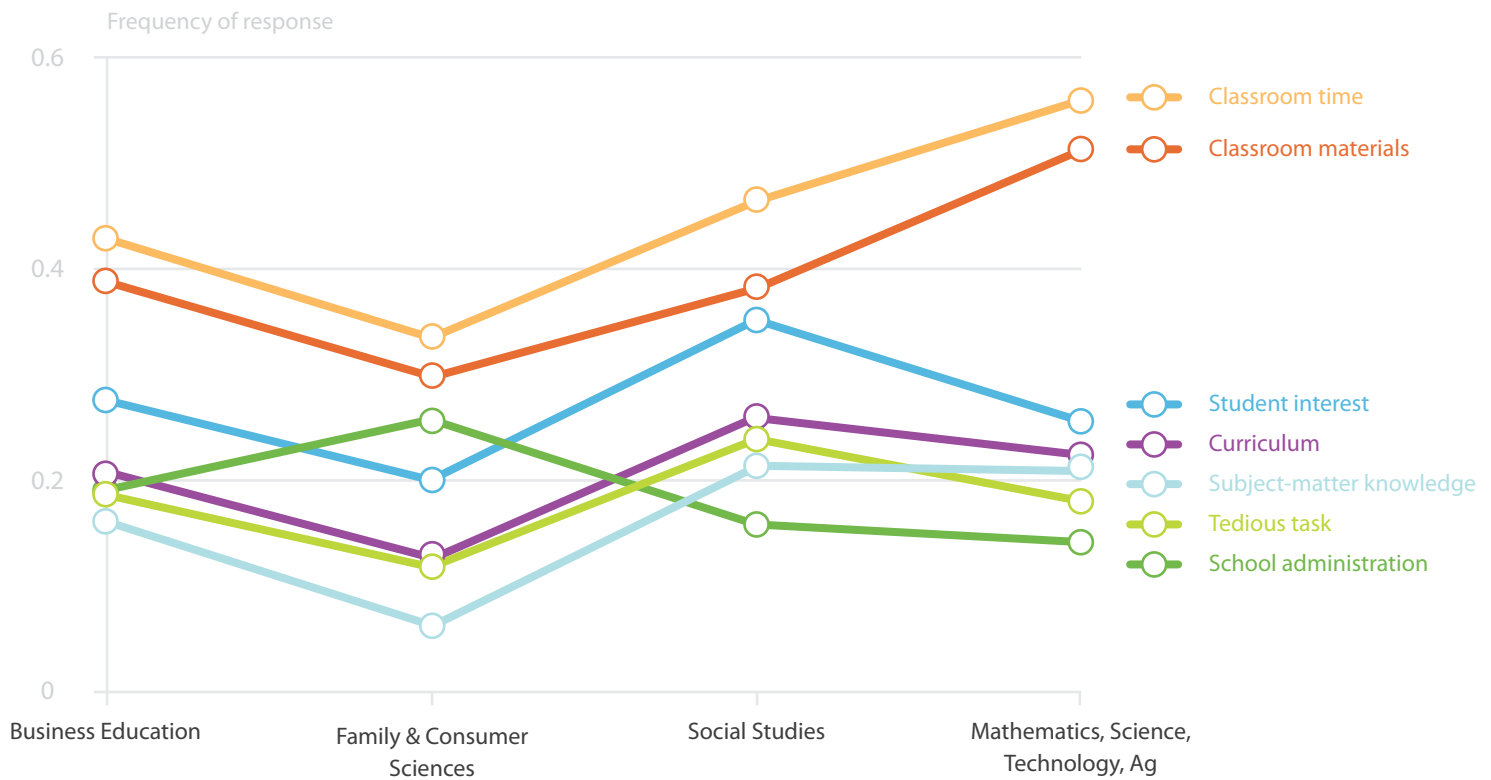
The four academic content areas differed by the number of courses in which personal finance is taught, the course layout, teachers' course preparation, and course challenges. Significant differences among the four academic content areas are shadowed.

Variable	Range	All	Business Education	Family & Consumer Sciences	Social Studies	Mathematics, Science, Technology, Ag
		Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)
Time to stay current (F=1.460, df=686, p=.224)	0-1	.3028 (.45979)	.2692 (.44451)	.3470 (.47691)	.2897 (.45517)	.2500 (.43853)
Information overload (F=1.425, df=686, p=.234)	0-1	.2853 (.45189)	.2564 (.43759)	.3246 (.46911)	.2483 (.43351)	.3250 (.47434)
Student interest (F=5.225, df=686, p=.001)	0-1	.2722 (.44542)	.1966 (.39826)	.3507 (.47810)	.2552 (.43747)	.2500 (.43853)
Curriculum (F=4.991, df=686, p=.002)	0-1	.2038 (.40310)	.1239 (.33021)	.2575 (.43805)	.2207 (.41615)	.25000 (.43853)
School administration (F=4.195, df=686, p=.006)	0-1	.1849 (.38847)	.2564 (.43759)	.1567 (.36421)	.1379 (.34602)	.1250 (.33493)
Tedious task (F=4.462, df=686, p=.004)	0-1	.1834 (.38728)	.1154 (.32017)	.2351 (.42484)	.1793 (.38494)	.2500 (.43853)
Subject-matter knowledge (F=8.963, df=686, p=.000)	0-1	.1587 (.36563)	.0598 (.23768)	.2127 (.40997)	.2069 (.40648)	.2000 (.40510)
N		687	234	268	145	

Figure 3

Challenges of teaching personal finance topics by academic content areas

The lack of classroom time to properly teach personal finance topics and the lack of classroom materials were the top challenges for teaching personal finance across academic content areas.



School and teacher demographics

The survey instrument inquired about survey respondents' school demographics, teaching experience, and their demographic characteristics. The school and teacher demographic variables differed significantly for the four academic content areas (see Table 3).

Business Education teachers had the highest level of formal education (73% Masters; average: 67%) and reported the highest number of college courses taken on personal finance (2.7 courses; average: 2.3 courses). They were second in line, behind Family and Consumer Sciences teachers, with respect to teaching at public schools (93%), being female (62%), and slightly older (44 yrs.). They reported the second-highest annual household income (\$71,600) and the second-longest career teaching personal finance (12.5 yrs.).

Family and Consumer Sciences teachers were most likely to be located in public schools (94%; average 90%) and in rural school locations (57%; average 53%). A teacher in the Family and Consumer Sciences academic content area was most likely to be female (99%; average: 67%). This group was the oldest, on average (48 years; average: 45 years), with the highest annual household income (\$80,400; average: \$72,800) and the longest time teaching personal finance (17.0 years; average: 13.2 years). They were the most likely to report having taken CEU courses (84%; average: 63%).

Teachers teaching personal finance in the Social Studies content area were least likely to teach in rural school locations (42%) and to be female (26%). They were the youngest group (40.2 yrs.). Social Studies teachers had lower educational backgrounds (61% Masters), lower annual household income (\$63,400), fewer years teaching personal finance (9.2 yrs.), and were less likely to have taken college-level courses (1.9 courses). In addition, they collected the fewest CEUs (37%).

The group of Science teachers, while more likely to teach in rural locations (55%) and to collect CEUs (58%), was least likely to teach personal finance in public schools (76%), and had the lowest level of formal education (53% Masters) and household income (\$63,200). These teachers had the shortest history of teaching personal finance (6.6 yrs.) and had taken the fewest college-level courses (1.6 courses) compared to teachers in the three other content areas. They were also less likely to be female (33%) and were younger (41.3 yrs.).

The four academic content areas participated in a multitude of continuing education courses to stay current on personal finance topics and teaching methods. The content of their continuing education courses on personal finance and the institutions used for continuing education in personal finance are summarized in Appendix 4.

Table 3

Sample characteristics: School and teacher demographics by academic content area

The four academic content areas differed significantly by school demographics, teacher experience in teaching personal finance topics, and teacher demographic characteristics. Significant differences among the four academic content areas are shadowed.

Variable	Range	All	Business Education	Family & Consumer Sciences	Social Studies	Mathematics, Science, Technology, Ag
		Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)
<i>School demographics</i>						
Rural school location ($\chi^2=8.767$, $df=3$, $p=.033$)	0-1	.5284 (.49956)	.5470 (.49885)	.5672 (.49640)	.4207 (.49538)	.5500 (.50383)
Public school ($\chi^2=28.894$, $df=3$, $p=.000$)	0-1	.8967 (.30463)	.9274 (.26012)	.9403 (.23738)	.8000 (.40139)	.7750 (.42290)
<i>Teacher experience</i>						
Years teaching pf ($\chi^2=178.978$, $df=114$, $p=.000$)	1-44	13.23 (10.067)	12.51 (10.023)	17.03 (9.761)	9.20 (8.451)	6.60 (7.669)
College-level courses ($\chi^2=78.675$, $df=15$, $p=.000$)	0-4	2.29 (1.452)	2.72 (1.385)	2.20 (1.348)	1.94 (1.533)	1.61 (1.548)
Continuing education ($\chi^2=48.446$, $df=18$, $p=.000$)	0-5	.63 (1.048)	.55 (1.018)	.84 (1.147)	.37 (.695)	.58 (1.318)
<i>Teacher demographics</i>						
Gender (women=1; $\chi^2=260.331$, $df=3$, $p=.000$)	0-1	.6710 (.47018)	.6154 (.48755)	.9925 (.08622)	.2621 (.44128)	.3250 (.47434)
Age ($\chi^2=244.894$, $df=138$, $p=.000$)	22-76	44.59 (10.319)	44.12 (9.534)	47.83 (9.496)	40.24 (10.684)	41.31 (11.667)
Education (Master's and Ph.D.=1; $\chi^2=9.213$, $df=3$, $p=.027$)	0-1	.6667 (.47175)	.7265 (.44671)	.6642 (.47316)	.6138 (.48857)	.5250 (.50574)
Marital status (Married=1; $\chi^2=3.986$, $df=3$, $p=.263$)	0-1	.8006 (.39985)	.7692 (.42223)	.8246 (.38100)	.7862 (.41140)	.8750 (.33493)
Household income ($\chi^2=79.609$, $df=33$, $p=.000$)	1-11	\$72,800 (\$33,480)	\$71,600 (\$29,800)	\$80,400 (\$35,660)	\$63,400 (\$32,360)	\$63,200 (\$31,780)
N		687	234	268	145	40

Factor analysis of topics taught and teacher attitudes

Factor analysis was used to develop measures for two sections of the questionnaire: (1) the personal finance topics taught by survey respondents, and (2) their attitudes toward teaching personal finance. Eight factors were obtained for the most

common topics taught in personal finance courses and four factors were obtained for teacher attitudes toward teaching personal finance.

Topics taught in personal finance courses

The survey instrument included a list of 58 personal finance topics adapted from the NEFE High School Financial Planning Program (National Endowment for Financial Education, 2007). The topics addressed the following five themes in personal finance instruction: (1) financial planning, goal setting, and decision making; (2) budgeting; (3) savings and investments; (4) consumer credit; and (5) insurance.

All single 58 topics, measured on a 1 = "do cover", 0 = "do not cover" scale, were factor analyzed to verify the stability of the five original themes. To this end, we employed principal components method and the Varimax rotation. Item loadings under each factor in the rotated component matrix were then examined for reliability using Cronbach's alpha. Separate reliability analyses were conducted for each topic factor for each of the four academic content areas. Unsatisfactory items were removed and the factor analysis then repeated with the remaining items. The procedure was repeated four times, after which the final factor solution emerged. It included 38 of the original 58 items.

As presented in Table 4, a total of eight factors were obtained. This result extends and rearranges the original five themes to a total of eight. A new label was developed for each of the eight factors based on the mix of the items that loaded on the said factor. Eigenvalues for the independent factors were all greater than one and all item loadings were in excess of the 0.50 threshold. Three-quarters of the Cronbach's alpha reliability coefficients were greater than 0.70, but one was below the 0.60 threshold.

The eight themes that emerged via factor analysis reflect the following themes and are composed of the following specific items:

- **Credit:** Comparing credit offers; Grace period; Benefits of credit; Credit report, history, score; Balance transfers on credit cards; Types of loans; Credit cards, fees, and charges; APR; Minimum balances, charges, fees at financial institutions; Identity theft;
- **Investing:** Growth investments; Diversification of a portfolio; Fixed-income investments; Risk and return of investments; Impact of inflation and taxes on return; Stock market simulation games;
- **Insurance:** Deductible; Insurance premium; Auto insurance types of coverage; Factors affecting costs of auto policies; Future insurance needs; Concept of insurance;
- **Taxes:** Federal income tax, State income tax; Social Security tax, Medicare tax; Forms W-4, W-2, 1040; Payroll deductions;
- **Budget:** Record keeping; Tracking money, spending record; Building a budget; Transaction services;
- **Goals:** Short-, intermediate-, and long-term goals; Setting goals; Needs vs. wants;
- **Interest:** Compounding interest; Earned interest; Rate of return;
- **Limited-Resources:** Living with limited resources; Delayed gratification.

Table 4

Factors for topic-related variables

Eight commonly taught themes emerged from the factor analysis of 58 single personal finance topics.

Factors, reliabilities ^a (all groups; 1, 2, 3, 4) ^b , items	Factor loadings
<i>Credit (.906; .916, .879, .904, .885)</i>	
Comparing credit offers	.784
Grace period	.750
Benefits of credit	.719
Credit report, history, score	.707
Balance transfers on credit cards	.668
Types of loans	.627
Credit cards, fees and charges	.658
APR	.583
Minimum balances, charges, fees at financial institutions	.570
Identity theft	.544
<i>Investing (.874; .870, .842, .827, .859)</i>	
Growth investments	.837
Diversification of a portfolio	.819
Fixed-income investments	.765
Risk and return of investments	.758
Impact of inflation and taxes on return	.676
Stock market simulation games	.619
<i>Insurance (.929; .942, .931, .900, .921)</i>	
Deductible	.837
Insurance premium	.823
Auto insurance types of coverage	.811
Factors affecting costs of auto policies	.788
Future insurance needs	.737
Concept of insurance	.716
<i>Taxes (.851; .883, .858, .789, .862)</i>	
Federal income tax, State income tax	.855
Social Security tax, Medicare tax	.867
Forms W-4, W-2, 1040	.732
Payroll deductions	.693

Table 4

Factors for topic-related variables

Eight commonly taught themes emerged from the factor analysis of 58 single personal finance topics.

Factors, reliabilities ^a (all groups; 1, 2, 3, 4) ^b , items	Factor loadings
<i>Budget (.739; .645, .688, .758, .491)</i>	
Record keeping	.756
Tracking money, spending record	.703
Building a budget	.556
Transaction services	.521
<i>Goals (.700; .742, .641, .603, .827)</i>	
Short-, intermediate-, and long-term goals	.805
Setting goals	.803
Needs vs. wants	.557
<i>Interest (.832; .857, .807, .796, .900)</i>	
Compounding interest	.718
Earned interest	.680
Rate of return	.588
<i>Limited-Resources (.607; .692, .577, .452, .688)</i>	
Living with limited resources	.808
Delayed gratification	.713

N = 687; All items measured on a 1 = "do cover", 0 = "do not cover" scale,

Extraction Method: Principal Component Analysis; Rotation Method: Varimax with Kaiser Normalization;

Rotation converged in 7 iterations; Total variance explained: 66.154%; Kaiser-Meyer-Olkin Measure of Sampling Adequacy: .933; Bartlett's Test of Sphericity:

$\chi^2 = 14791.056$, df = 703, Sig.: .000.

a) Cronbach's alpha; b) Teacher licenses: 1 = Business Education, 2 = Family and Consumer Sciences, 3 = Social Sciences, 4 = Mathematics, Science, Technology, and Agricultural Sciences.

Table 5 and Figure 4 present the differences among the four academic content areas in teaching the eight personal finance themes that emerged from the factor analysis.

Business Education teachers reported highest scores in teaching insurance, taxes, and interest-related topics compared to the other three academic content areas. They were less likely to teach budgeting or limited-resources topics. Family and Consumer Sciences teachers were most likely to teach credit, budgeting, goal setting, and limited-resources

topics. They were least likely to teach investing and interest-related topics among the four academic content areas.

Social studies teachers focused on investing. They were least likely among the four groups to teach credit, insurance, budgeting, and goal setting topics. Science teachers were more likely to teach budgeting and interest-related topics. They scored lowest for tax- and limited resource-related topics.

Table 5

Frequency of instruction of the eight themes

The four academic content areas differed significantly in how frequently they teach each of the eight themes in their personal finance classes. Significant differences among the four academic content areas are shadowed.

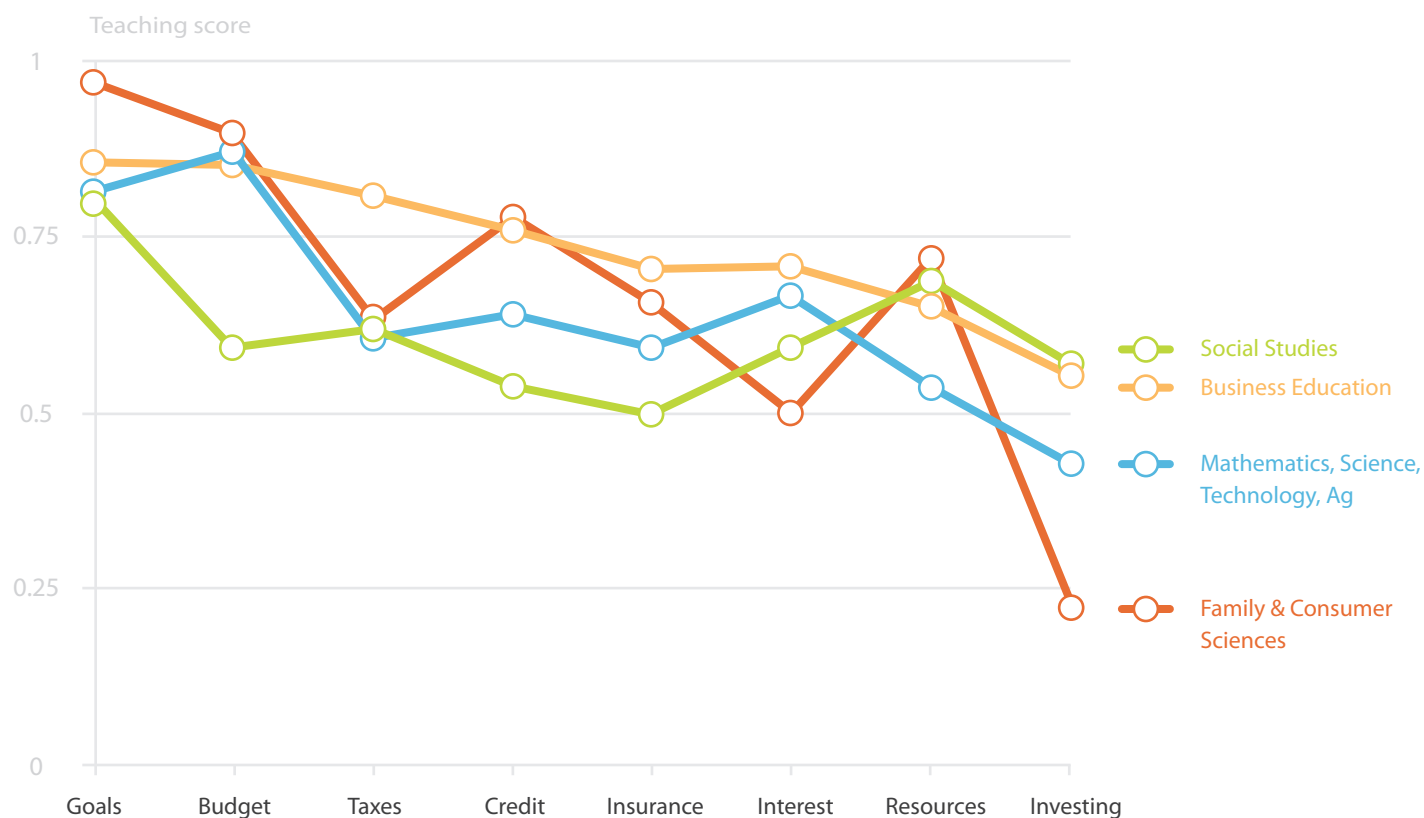
Variable	All mean, SD Mean (SD)	Business Education Mean (SD)	Family & Consumer Sciences Mean (SD)	Social Studies Mean (SD)	Mathematics, Science, Technology, Ag Mean (SD)
Teaching credit ($\chi^2=81.976$, df=33, $p=.000$)	.708 (.324)	.756 (.3106)	.772 (.2807)	.534 (.3575)	.638 (.3264)
Teaching investment ($\chi^2=123.156$, df=18, $p=.000$)	.419 (.3829)	.547 (.3832)	.227 (.3067)	.567 (.3624)	.425 (.3735)
Teaching insurance ($\chi^2=43.398$, df=18, $p=.001$)	.634 (.4111)	.703 (.3999)	.656 (.4079)	.496 (.4032)	.595 (.4166)
Teaching taxes ($\chi^2=70.161$, df=12, $p=.000$)	.687 (.3791)	.807 (.3362)	.632 (.3909)	.615 (.3591)	.606 (.4117)
Teaching budgeting ($\chi^2=119.766$, df=12, $p=.000$)	.813 (.2914)	.849 (.2484)	.894 (.2203)	.591 (.3712)	.868 (.2117)
Teaching goal setting ($\chi^2=88.763$, df=9, $p=.000$)	.996 (.2493)	.854 (.2860)	.965 (.1399)	.813 (.2774)	.816 (.3371)
Teaching interest-related ($\chi^2=39.558$, df=9, $p=.263$)	.598 (.4198)	.702 (.4004)	.502 (.4165)	.588 (.4139)	.666 (.4336)
Teaching limited-resources topics ($\chi^2=17.832$, df=7, $p=.007$)	.676 (.3897)	.649 (.4131)	.714 (.3743)	.686 (.3581)	.537 (.4294)
N	687	234	268	145	40

Note: Measures range from 0 to 1.

Figure 4

Frequency of instruction of the eight themes

The four academic content areas differed significantly in their instruction of the eight personal finance themes. In this illustration, Business Education teachers provide the basis for comparison.



Attitudes toward teaching personal finance

A factor-analytical approach was also taken to identify the attitudes teachers have toward teaching personal finance. A total of 28 attitudinal statements, measured on a 1 = "strongly disagree" to 5 = "strongly agree" scale, were factor analyzed using the same procedure as described for the topic factors. The procedure was repeated five times, after which the final factor solution emerged. It included 18 of the original 28 items.

As presented in Table 6, four factors were obtained. A label was developed for each factor based on the mix of the items that loaded on the said factor. Eigenvalues for the independent factors were all greater than one and all item loadings were in excess of the 0.60 threshold. All but one of the Cronbach's alpha reliability coefficients were greater than the 0.70 threshold.

The four factors that emerged via factor analysis reflect the following themes and are composed of the following specific items:

- **Curiosity:** (1) When I am looking for information or classroom materials for my personal finance course(s), I search a lot; (2) I spend a lot of time comparing information and classroom materials from different sources; (3) I regularly change the sources of information and classroom materials I use for my personal finance course(s); (4) I use many information sources for my personal finance course(s); (5) I enjoy searching for information and classroom materials for teaching personal finance; (6) I enjoy exploring new places for information and classroom materials for teaching personal finance.

- **Overload:** (1) Deciding which financial information and classroom materials to use is overwhelming; (2) I often feel confused by all the information available on personal finance; (3) The more I get into teaching personal finance, the harder it seems to choose the best information and classroom materials; (4) There are too many different sources to consider for gathering information and classroom materials for teaching personal finance; (5) Deciding which information and classroom materials to use requires a great deal of thought

- **Significance:** For me, teaching personal finance topics is (1) satisfying; (2) enjoyable; (3) important.

- **Diligence:** (1) It pays to select the best source of information and classroom materials for teaching personal finance; (2) The process of selecting an information source and classroom materials for my personal finance course(s) is important to me.

Table 6

Factors for attitudinal variables

Factors, reliabilities ^a (groups 1, 2, 3, 4) ^b , items	Factor loadings
<i>Curiosity (.795, .826, .866, .772)</i>	
When I am looking for information or classroom materials for my personal finance course(s), I search a lot.	.784
I spend a lot of time comparing information and classroom materials from different sources.	.780
I regularly change the sources of information and classroom materials I use for my personal finance course(s).	.710
I use many information sources for my personal finance course(s).	.691
I enjoy searching for information and classroom materials for teaching personal finance.	.668
I enjoy exploring new places for information and classroom materials for teaching personal finance.	.618
<i>Overload (.866, .799, .832, .886)</i>	
Deciding which financial information and classroom materials to use is overwhelming.	.831
I often feel confused by all the information available on personal finance.	.823
The more I get into teaching personal finance, the harder it seems to choose the best information and classroom materials.	.782
There are too many different sources to consider for gathering information and classroom materials for teaching personal finance.	.748
Deciding which information and classroom materials to use requires a great deal of thought.	.672
<i>Significance (.758, .773, .789, .857)</i>	
For me, teaching personal finance topics is satisfying.	.845
For me, teaching personal finance topics is enjoyable.	.804
For me, teaching personal finance topics is important.	.739
<i>Diligence (.760, .704, .671, .895)</i>	
It pays to select the best source of information and classroom materials for teaching personal finance.	.856
The process of selecting an information source and classroom materials for my personal finance course(s) is important to me.	.775

N = 687; All items measured on 5-point scales, anchored by 1=strongly agree, 5=strongly disagree;

Extraction Method: Principal Component Analysis; Rotation Method: Varimax with Kaiser Normalization;

Rotation converged in 5 iterations; Total variance explained: 64.328%; Kaiser-Meyer-Olkin Measure of Sampling Adequacy: .850; Bartlett's Test of Sphericity:

 $\chi^2 = 4466.097$, df = 153, Sig.: .000.

a) Cronbach's alpha; b) Teacher licenses: 1 = Business Education, 2 = Family and Consumer Sciences, 3 = Social Sciences, 4 = Mathematics, Science, Technology, and Agricultural Sciences.

Table 7 and Figure 5 illustrate the four academic content areas' attitudes toward teaching personal finance. Using the four attitudes that emerged from the factor analysis, we found that the four areas differed significantly for all but the "information overload" measure. Business Education teacher scored highest with respect to all four attitudes. However, the trend line is

clear: Teachers scored highest with respect to their diligence in researching personal finance topics for class, they attached relatively high significance to this topic, and were somewhat curious about it. The feeling of information overload was low and not significant for the four groups.

Table 7

Strength of teacher attitudes toward teaching personal finance

The four academic content areas differed significantly in their curiosity toward teaching personal finance, the significance they attached to these topics, and the diligence in researching them. The feeling of information overload was low and not significant when comparing the four groups.

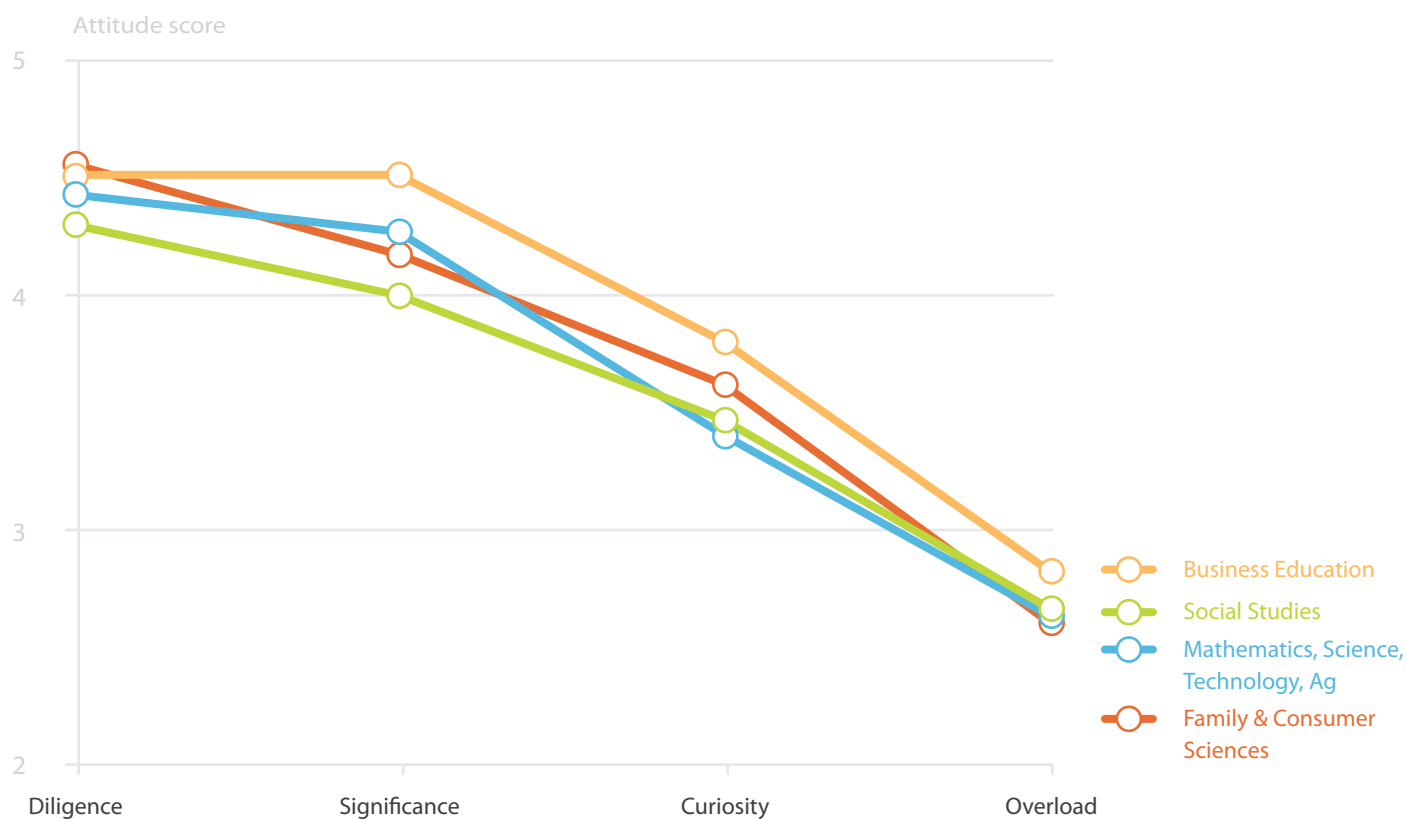
Variable	All	Business Education	Family & Consumer Sciences	Social Studies	Mathematics, Science, Technology, Ag
	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)
Diligence in researching topics ($\chi^2=58.071$, $df=30$, $p=.002$)	4.49 (.540)	4.53 (.562)	4.56 (.485)	4.30 (.560)	4.44 (.540)
Significance of topics ($\chi^2=122.100$, $df=66$, $p=.000$)	4.26 (.675)	4.51 (.576)	4.17 (.689)	4.02 (.688)	4.26 (.606)
Curiosity in topics ($\chi^2=167.831$, $df=120$, $p=.003$)	3.64 (.653)	3.80 (.609)	3.62 (.644)	3.47 (.703)	3.41 (.553)
Overload of information ($\chi^2=85.049$, $df=93$, $p=.709$)	2.71 (.735)	2.84 (.793)	2.63 (.689)	2.68 (.689)	2.64 (.779)
N	687	234	268	145	40

Note: Measures range from 1 to 5.

Figure 5

Strength of teacher attitudes toward teaching personal finance

The four academic content areas differed significantly in their curiosity toward teaching personal finance, the significance they attached to these topics, and the diligence in researching them. The feeling of information overload was low and not significant when comparing the four groups.



Cluster analysis of information sources

Cluster analysis was used to identify groups of teachers with similar information search patterns. These patterns served as the dependent measures in the regression analyses in the subsequent sections of the current study. A total of 38 information-source variables were used to build the clusters. Usage of the sources was measured with the question, "How frequently do you use each of the following to stay informed about personal finance topics?" Responses were rated on a five-point scale ranging from 1 = "never" to 5 = "very often".

Information sources included:

- Eight mass-media sources,
- Fourteen Internet-based sources,
- Twelve interpersonal sources, and
- Four professional sources.

For the cluster analysis, we employed the k-means clustering technique with the software SPSS 14.0 for Windows. This is considered the most robust clustering technique in a review of different clustering applications (Punj & Stewart, 1983). Our process was facilitated by the survey design, which measured these variables on the same five-point Likert scale (anchored by 1 = "never", 5 = "always").

Following a procedure described in Schneider and Roberts (2004), we employed a multi-step cluster analysis process. Starting the cluster analysis with a two-cluster solution, we one-by-one increased the number of clusters to eight. At each step of our analysis, we observed the indicators for valid and reliable cluster solutions, including quantitative indicators, such as iteration history, distance between cluster centers, and analysis of variance, to seek high and statistically significant F values, as well as qualitative indicators, such as the structural meaning of constructs within clusters (Aldenderfer & Blashfield, 1984; Henry, Tolan, & Gorman-Smith, 2005).

The three-cluster solution proved to be the best solution. It included statistically significant, high F values in the ANOVA, satisfying distances between final cluster centers ranging from 1.95 to 2.99, and an iteration history reaching an endpoint at the 13th iteration. The cluster centers and the ANOVA results are presented in Table 8. The three information clusters differ in how often they used the information sources, from a high of 2.99 (Cluster 1) to a low of 1.95 (Cluster 3) and the number of sources used, ranging from all 38 sources (Cluster 1), 37 sources (Cluster 2), to 27 sources (Cluster 3).

Table 8

Cluster centers and ANOVA results for teacher information sources

38 sources of personal finance information and the frequency of their usage were clustered to identify high-, moderate-, and low-information strategies among teachers.

Information sources	Cluster 1	Cluster 2	Cluster 3	F Statistics ^a
<i>Mass-media sources</i>				
Television programs	4	3	3	39.395
Radio programs	3	3	2	11.026
Books	3	3	3	37.801
Personal finance textbooks	4	3	3	18.950
General newspapers	4	3	3	30.814
Financial newspapers	3	2	2	113.810
Financial planning magazines	3	2	2	132.530
General interest magazines	3	3	2	30.706
<i>Internet-based sources</i>				
Email newsletters	2	2	1	85.825
Information-sharing email listservs	2	2	1	81.803
Browser searches	4	4	3	69.844
Blogs	2	1	1	38.526
Teacher-focused financial Web sites	3	2	2	118.056
Curriculum clearinghouses	3	2	1	100.336
Investment firms' and brokerage houses	3	2	1	210.555
Market watch Web sites	3	2	2	213.302
Personalized financial Web sites	3	2	2	215.557
Youth-focused Web sites	3	2	1	160.849
Web sites that provide access to financial	4	3	2	166.605
Personal finance web portals and directories	3	2	2	178.545
Online games and simulations	3	2	2	118.460
Online financial tools	4	3	2	172.786
<i>Interpersonal sources</i>				
Spouse	3	3	2	17.224
Parents	3	2	2	27.273
Friends and extended family	3	3	2	42.819
Colleagues	3	3	2	47.732
Workplace financial education	3	3	2	53.966
Investment clubs	2	2	1	56.785
Financial advisors	3	3	2	51.310
Bankers, credit union associates	3	3	2	88.813

Table 8, continued

Cluster centers and ANOVA results for teacher information sources

38 sources of personal finance information and the frequency of their usage were clustered to identify high-, moderate-, and low-information strategies among teachers.

Information sources	Cluster 1	Cluster 2	Cluster 3	F Statistics ^a
Business leaders	3	3	2	111.566
Civic or religious leaders	2	2	1	55.934
Personal experiences	4	4	4	21.228
Stock broker	3	2	2	71.548
Professional sources				
Professional conferences	3	3	1	109.325
Other continuing education events	3	3	2	121.209
Jumpstart trainings and resources	2	2	1	75.880
NCEE sponsored workshops	2	2	1	53.070
Frequency of sources (SD)	2.99	2.52	1.95	
Number of sources (= 38)	38	37	27	
N (= 687)	260 (37.8%)	221 (32.2%)	206 30.0%	

Note: Variables were coded on a five-point scale: never=1, seldom=2, sometimes=3, often=4, very often=5;

a) All F statistics were significant at the $p < 0.001$ level

Following the terminology of previous research (Claxton, Fry, & Portis, 1974; Furse, Punj, & Stewart, 1984; Kiel & Layton, 1981; Klein & Ford, 2003), we used the distances between the mean frequency of source usage to classify the following (see Figure 6):

1. Cluster 1 (260 respondents; 37.8 percent of the survey respondents): the high information search type of teachers practicing a multi-source, high-information strategy. These teachers were highly information-driven and use a diversified information strategy. The cluster's mean information gathering score is 2.99.

2. Cluster 2 (221 respondents; 32.2 percent of the respondents): the moderate information search type of teachers practicing a multi-source, but less frequent, information search strategy. The cluster's mean information gathering score is 2.52.

3. Cluster 3 (206 respondents; 30.0 percent of the respondents): the low information search type of teachers practicing a low-information strategy. Their major information source is personal experience. The cluster's mean information gathering score is 1.95, the lowest of the three clusters.

Figure 6

Information search strategies among teachers

Teachers practiced high-, moderate-, and low-search strategies to stay current on personal finance topics.

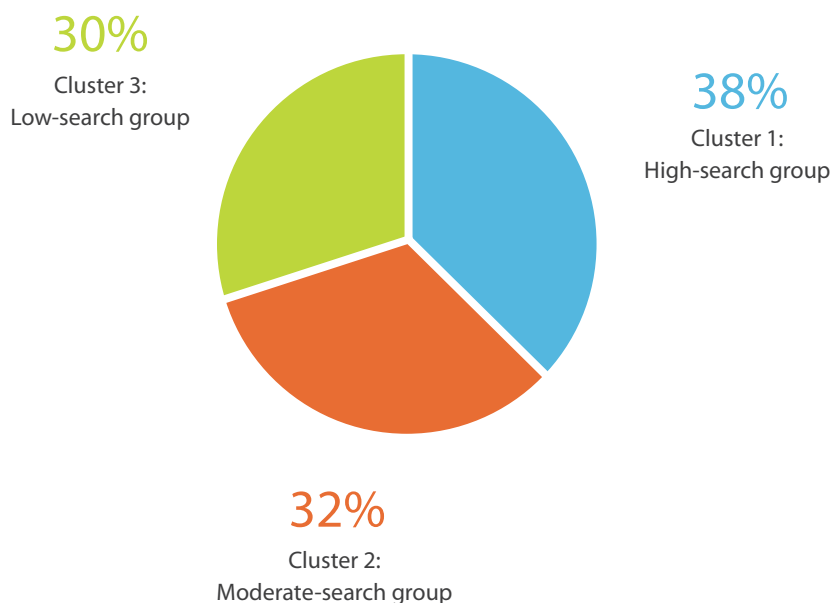


Table 9 and Figure 7 illustrate the different information search strategies for personal finance information among the four academic content areas. Half of the Business Education teachers (50%) practiced a high-information strategy compared to one-third of Social Studies (35%) and Family and Consumer Sciences (32%) teachers, and only 15 percent of

the Science teachers. The latter were most likely to practice a low-information strategy (45%), as did Social Studies teachers (43%), while only one-quarter of the Business Education and Family and Consumer Sciences teachers were in this low-information group.

Table 9

Teacher use of information sources

Business Education teachers were most likely to practice a high-information strategy to stay current about personal finance topics whereas Social Studies and Sciences teachers were most likely to practice a low-information strategy.

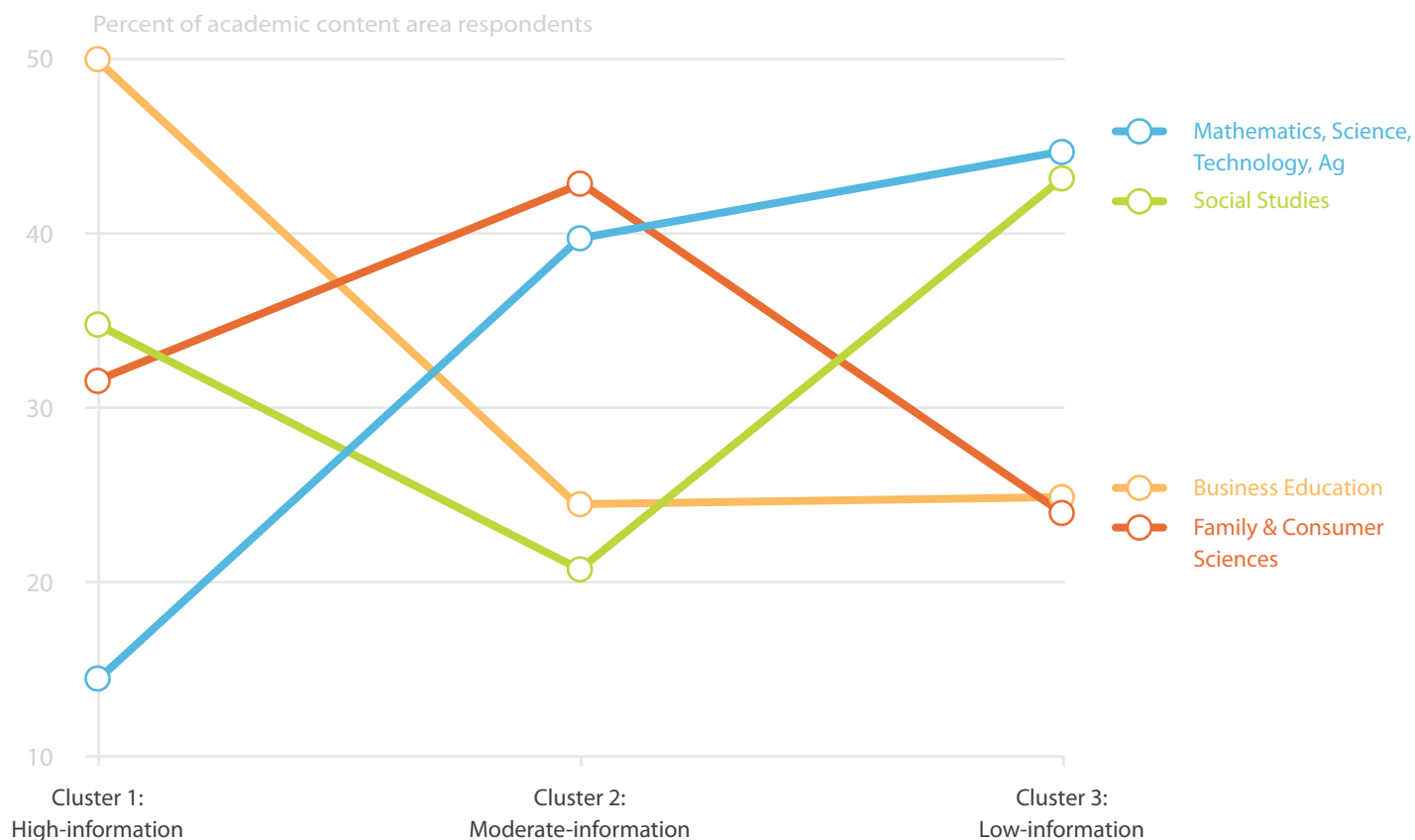
Source	Range	Business Education (N, %)	Family & Consumer Sciences (N, %)	Social Studies (N, %)	Mathematics, Science, Technology, Ag (N, %)
High-information	1-5	117 (50.0%)	86 (32.1%)	51 (35.2%)	6 (15.0%)
Moderate-information	1-5	58 (24.9%)	116 (43.3%)	31 (21.4%)	16 (40.0%)
Low-information	1-5	59 (25.2%)	66 (24.6%)	63 (43.4%)	18 (45.0%)
N (= 687)		234	268	145	40

Note: rated on a five-point scale ranging from 1 = "never" to 5 = "very often"; Pearson Chi-Square = 53.653, df = 6, p < .001 (two-sided)

Figure 7

Information search strategies

Business Education teachers were most likely to practice a high-information strategy to stay current about personal finance topics whereas Social Studies and Sciences teachers were most likely to practice a low-information strategy.



Financial knowledge score

In order to study the interaction between teacher knowledge and personal finance instruction, each participant was given a nine-question financial literacy exam at the end of the survey. The questions in the exam were taken directly, or were adapted, from questions asked in nationally-representative consumer surveys. We chose nine questions from seven sources to test the five personal finance themes that we also used to assess teaching priorities. Due to the comprehensive range of topics, no single questionnaire tested in the literature was available for the current survey. The knowledge quiz questions and their sources were as follows.

Financial planning

What do you think is currently the average personal savings rate in the United States in 2006 as a percentage of the disposable income? Source: Bureau of Economic Analysis (2006)

1. Between -5% and 0% (correct answer)
2. More than 0% to 5%
3. More than 5% to 10%
4. Not sure

Budgeting

In an FDIC-insured financial institution, up to what amount is an individual's accounts insured? Source: Federal Deposit Insurance Corporation (2006)

1. Up to \$100,000 (correct answer)
2. Up to \$10,000
3. Up to \$1,000
4. Not sure

Savings and Investing

Over the last 20 years in the U.S., the best average returns have been generated by which of the following? Source: NASD Investor Education Foundation (2003)

1. Stocks (correct answer)
2. Bonds
3. Certificates of deposit
4. Money market accounts
5. Precious metals
6. Not sure

When is the best time to transfer money into a long-term bond fund? Source: Agnew & Szykman (2005)

1. When interest rates are expected to increase
2. When interest rates are expected to remain stable
3. When interest rates are expected to decrease (correct answer)
4. Interest rate doesn't matter
5. Not sure

Is the following statement true or false? "A stock market index fund is actively managed by a fund portfolio manager." Source: Agnew & Szykman (2005)

1. True
2. False (correct answer)
3. Not sure

Consumer Credit

Negative financial information can stay on your credit report for how many years? Source: National Consumer Protection Week (2004)

1. 5 to 7 years
2. 7 to 10 years (correct answer)
3. 10 to 15 years
4. Not sure

If your credit card was lost or stolen and used to charge items you didn't authorize, you are responsible for what amount? National Consumer Protection Week (2004)

1. Nothing
2. Up to \$50 (correct answer)
3. Up to \$500
4. All unauthorized charges

Credit scores range from 330 to 830. What do you think is the average credit score in the United States as reported in credit reports? Source: Experian Information Solutions (2006)
Open-ended question; correct answer: Numbers in the range of 660 to 720

Insurance

If you have caused an accident, which type of automobile

insurance would cover damage to your own car? Source: Jumpstart Coalition for Personal Financial Literacy (2006)

1. Term insurance
2. Collision insurance (correct answer)
3. Comprehensive insurance
4. Liability insurance

Table 10 provides the questions and the percent of each academic content area answering the questions correctly. There were several surprising results from the financial knowledge quiz.

First, only three of the nine questions were answered correctly by a majority of the teachers. In total, 86 percent of the sample knew the correct amount of FDIC insured deposits, the question with the highest number of correct answers. About half of the sample knew the amount one is responsible for when a credit card is lost (55.4%), the type of car insurance (54.4%), credit report time frames (48.6%), the current personal savings rate (46.8%), and average returns

of investment products (42.6%). Only about one quarter of respondents understood the relationship between bonds and interest rates (26.6%) and the nature of index funds (24.3%). A low percentage knew about the average credit score (9.3%), the question with the lowest number of correct answers.

Secondly, the academic content areas differed significantly in the number of correct answers given. Rank 1, the highest number of correct answers for a question, was achieved four times by Business Education (Questions 2, 6, 8, 9) and Social Studies teachers (Questions 1, 3, 4, 5). Family and Consumer Sciences teachers scored lowest on four of the nine questions (Questions 2, 3, 5, 8) and second-lowest on three more questions (Questions 1, 4, 9). Science teachers were ranked third place for five of the nine questions (Questions 2, 3, 5, 7, 8).

The most significant differences in correct answers among the academic content areas were observed for the lost credit card (Question 7, $F=25.063$), average investment return (Question 3, $F=16.262$), and index fund (Question 5, $F=12.287$) questions.

Table 10

Summary of quiz questions and percentage of participants who answered each question correctly.

The number of correct answers differed most significantly for, in order, Questions 7, 3, and 5. Only three questions were answered correctly by more than half of the sample (Questions 2, 7, 9). Significant differences among the four academic content areas are shadowed.

Quiz Question	All %	BUS %	FCS %	SS %	SCI %
1. What do you think is currently the average personal savings rate in the United States in 2006? ($F=2.421$, $df=3$, $p=.065$)	46.8	43.2	44.8	56.6	47.5
2. In an FDIC-insured financial institution, up to what amount is an individual's accounts insured? ($F=6.477$, $df=3$, $p=.000$)	86.3	92.7	79.9	89.0	82.5
3. Over the last 20 years in the U.S., the best average returns have been generated by which of the following? ($F=16.262$, $df=3$, $p=.000$)	42.6	50.4	27.6	58.6	40.0
4. When is the best time to transfer money into a long-term bond fund? ($F=1.793$, $df=3$, $p=.147$)	26.6	29.5	22.8	31.0	20.0
5. Is the following statement true or false? "A stock market index fund is actively managed by a fund portfolio manager." ($F=12.287$, $df=3$, $p=.000$)	24.3	32.1	14.2	34.5	10.0
6. Negative financial information can stay on your credit report for how many years? ($F=7.358$, $df=3$, $p=.000$)	48.6	55.6	52.2	36.6	27.5

Table 10, continued

Summary of quiz questions and percentage of participants who answered each question correctly.

The number of correct answers differed most significantly for, in order, Questions 7, 3, and 5. Only three questions were answered correctly by more than half of the sample (Questions 2, 7, 9). Significant differences among the four academic content areas are shadowed.

Quiz Question	All	BUS	FCS	SS	SCI
	%	%	%	%	%
8. What do you think is the average credit score in the United States as reported in credit reports? (F=.771, df=3, p=.510)	9.3	11.1	7.5	10.3	7.5
9. If you have caused an accident, which type of automobile insurance would cover damage to your own car? (F=6.480, df=3, p=.000)	54.4	65.4	49.3	45.5	57.5

Table 11 reports the results sorted for the number of questions answered correctly. For all four academic content areas, the mean quiz scores were below 50 percent (Business Education: 49.3%, Family and Consumer Sciences: 40.4%, Social Studies: 43.4%, Science: 36.1%) and only for the Business Education teachers was the median quiz score above the 50-percent threshold.

As illustrated in Figure 8, most respondents answered two to five questions correctly. There was a much lower number who answered none/one question or six to nine questions correctly. With respect to the full sample, most respondents answered four questions correctly (21.1%). Only two of the 687 teachers answered all nine questions correctly. In the subsequent analyses, we used the mean of the quiz scores as our indicator of financial knowledge.

Table 11

Teacher differences in the personal finance knowledge quiz

Most respondents answered two to five questions correctly. There was a much lower number who answered none/one question or six to nine questions correctly.

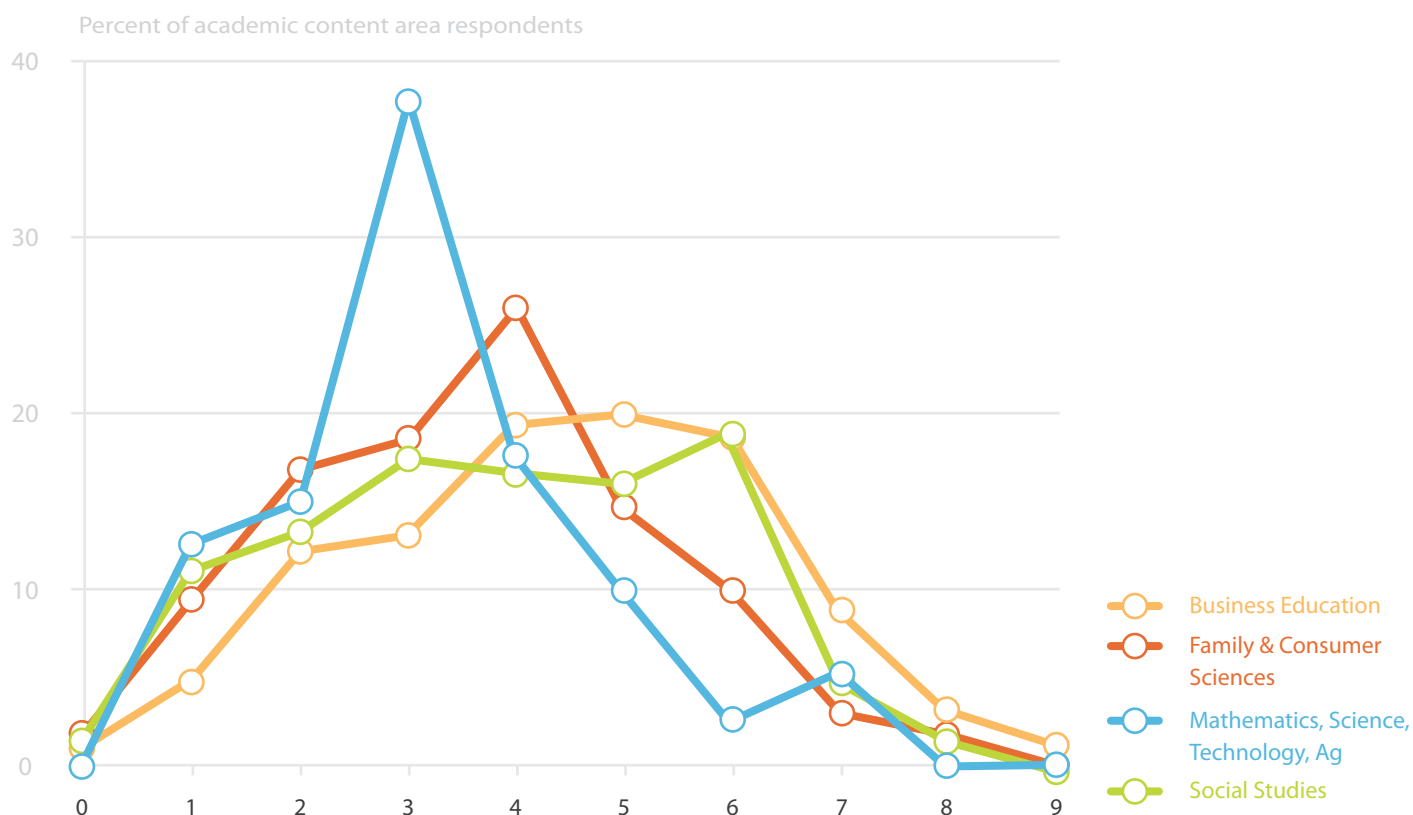
No. of correct answers	Range	Business Education (N, %)	Family & Consumer Sciences (N, %)	Social Studies (N, %)	Mathematics, Science, Technology, Ag (N, %)
0 questions	0-1	2 (.9%)	4 (1.5%)	2 (1.4%)	0 (.0%)
1 question	0-1	11 (4.7%)	25 (9.3%)	16 (11.0%)	5 (12.5%)
2 questions	0-1	28 (12.0%)	44 (16.4%)	19 (13.1%)	6 (15.0%)
3 questions	0-1	30 (12.8%)	49 (18.3%)	25 (17.2%)	15 (37.5%)
4 questions	0-1	45 (19.2%)	69 (25.7%)	24 (16.6%)	7 (17.5%)
5 questions	0-1	46 (19.7%)	39 (14.6%)	23 (15.9%)	4 (10.0%)
6 questions	0-1	43 (18.4%)	26 (9.7%)	27 (18.6%)	1 (2.5%)
7 questions	0-1	20 (8.5%)	8 (3.0%)	7 (4.8%)	2 (5.0%)
8 questions	0-1	7 (3.0%)	4 (1.5%)	2 (1.4%)	0 (.0%)
9 questions	0-1	2 (.9%)	0 (.0%)	0 (.0%)	0 (.0%)
Mean		49.3%	40.4%	43.4%	36.1%
Median		55.5%	44.4%	44.4%	33.3%
N (= 687)		234	268	145	40

Note: Variables were coded on a two-point true = 1 and false = 0 scale; Pearson Chi-Square = 55.674, df = 27, p = .001 (two-sided).

Figure 8

Financial knowledge quiz score

Most respondents answered between two and five questions correctly. There was a much lower percentage who answered none/one question or six to nine questions correctly.



Regression analysis

Regression analysis is the perfect tool to combine all of the measures that we defined in the above chapters into one single analysis. We conducted four separate binary logistic regression analyses to identify the measures that influence the instruction of personal finance in each of the four academic content areas (= dependent variables). The binary logistic regression analyses allow us to predict the variance in the dependent variables explained by the independent measures, to rank the relative importance of the independent measures, and to assess interaction effects.

Table 12 summarizes the results for the regression analyses that were conducted for each academic content area. A complete breakdown of the regression results for each academic content area appears in Appendix 2. In order to facilitate comparisons among the four academic content areas, the regression values of the odd ratios are expressed as

Instructing personal finance – Comparing the four academic content areas

With respect to the presence and sign direction of significant predictor variables, there were few similarities among the four academic content areas. Business education teachers were more likely to teach elective courses, to teach tax topics, and to have a higher percentage of male students in their personal finance classes. On the other hand, their courses were less likely to be limited to one semester and they used less classroom time to teach personal finance. In addition, they were less likely to teach goal setting and limited-resource topics.

Family and Consumer Sciences teachers were more likely to teach credit, budgeting, and goal-setting but avoided the investment topic. They were most likely teaching personal finance in an elective course offered on a one-semester schedule with ample time spent on instructing it. Their audience was less likely to be male.

Social Studies teachers were most likely to teach investment, tax, and limited-resources topics. They stayed away from

positive and negative signs to indicate strength and direction of the relationship with the dependent variables. For each academic content area, the variables have been grouped into three sets: instruction [i], preparation [p], and demographics [d].

Concerning the underlying determinants of teaching personal finance in Ohio high schools, the four academic content areas exhibit differences with respect to the actual number of determinants. The Family and Consumer Sciences academic content area was found to have the highest number, with a total of 24 determinants, while the Social Studies content area had 21, the Business Education content area had 19, and the Science content area had 18 determinants. The ensuing sections describe the effects of the significant antecedent variables on teaching personal finance, with a focus on comparing the four academic content areas.

teaching budgeting and interest-related topics. They were more likely to teach a large number of students in Grade 12, to devote significant time to these topics, and to follow a one-semester course schedule. Their courses were least likely to be elective.

Similar to Family and Consumer Sciences teachers, Science teachers were more likely to focus on budgeting and avoided teaching limited-resource related topics. While Science teachers were more likely to have a higher number of male students, their personal finance instruction was characterized by fewer students attending personal finance courses in Grade 10, topics spread out over fewer courses, and generally had less time reserved for teaching personal finance topics. Similar to Business Education teachers, their personal finance instruction was less likely limited to one semester.

Preparing to teach personal finance – Comparing the four academic content areas

As with the case of the instruction of personal finance, few predictor variables commonly affected class preparation among the four academic content areas. Business Education

teachers were most likely to score high on the personal finance quiz, were curious about learning personal finance, and attached great significance to teaching these topics. Their main barrier to teaching personal finance topics was their school's administration. None of the subject-matter barriers were pertinent for this content area. In fact, Business Education teachers were even less likely to cite curriculum needs and student ignorance as challenges for teaching personal finance compared to the other academic content areas.

Family and Consumer Sciences teachers expressed high diligence in researching personal finance topics and were highly likely to belong to either the high or moderate-information search types of teachers. Surprisingly, they were likely to score low on the knowledge quiz and indicated that they dislike the Internet as a source of information on personal finance topics. Their main barriers to teaching personal finance were a lack of curricula that fit their teaching needs and a lack of student interest. School administration and classroom materials were less likely to present barriers within this content area. Overall, they attached less significance to teaching personal finance topics compared to Business Education or Science teachers.

Social Studies teachers attached little significance to teaching personal finance topics. They were less likely to diligently research personal finance topics and were unlikely to belong to the high or moderate search types of teachers for personal finance information. They indicated that they like to talk to colleagues to prepare for teaching these topics and their main barriers were classroom materials and classroom time to properly teach these topics.

Science teachers attached the highest level of significance to teaching personal finance topics. While they were less likely to practice high-information search efforts to learn about personal finance, they were most likely to talk to others to prepare for teaching these topics. Their greatest challenge was the feeling that teaching personal finance often seems tedious. They were not likely to cite any of the other challenges. Classroom time, in particular, was of little concern to this group.

School and teacher demographics – Comparing the four academic content areas

A selected number of demographics characterize teachers' involvement in teaching personal finance. Business Education teachers were less likely to be female and to participate in continuing education courses, but were more likely to have taken college courses on personal finance.

Family and Consumer Sciences teachers were most likely to be female, older, and living in households with a higher household income. Most likely, they had been teaching personal finance for a number of years, supported by continuing education courses. This group was less likely to hold a Masters' degree.

Social Studies teachers who teach personal finance were least likely to be located in rural school locations, to be female, and to participate in continuing education on personal finance topics. They reported fewer years teaching personal finance.

Science teachers who teach personal finance, finally, were less likely to teach personal finance at public schools, to be female, and to hold a Masters' degree. They, too, reported fewer years teaching personal finance topics and were less likely to have taken college-level coursework in this area. However, they did indicate that they participate in continuing education courses.

Table 12

Antecedent variable effects among academic content areas (direction of coefficient)

The red-shadowed fields indicate significantly positive relationships with the academic content area; blue indicates negative relationships.

Independent variables	Business Education	Family & Consumer Sciences	Social Studies	Mathematics, Science, Technology, Ag
	Exp(B)	Exp(B)	Exp(B)	Exp(B)
[i] Teaching credit	<i>n.s.</i>	++ ^{a)}	<i>n.s.</i>	<i>n.s.</i>
[i] Teaching investment	<i>n.s.</i>	-- ^{a)}	++ ^{a)}	<i>n.s.</i>
[i] Teaching tax	+ ^{c)}	<i>n.s.</i>	++ ^{b)}	<i>n.s.</i>
[i] Teaching budgeting	<i>n.s.</i>	++ ^{a)}	-- ^{a)}	++ ^{a)}
[i] Teaching goal setting	-- ^{b)}	++ ^{a)}	<i>n.s.</i>	<i>n.s.</i>
[i] Teaching interest-related	<i>n.s.</i>	<i>n.s.</i>	-- ^{c)}	<i>n.s.</i>
[i] Teaching resources topics	-- ^{b)}	<i>n.s.</i>	++ ^{a)}	-- ^{b)}
[i] No. students in Grade 10	<i>n.s.</i>	<i>n.s.</i>	<i>n.s.</i>	-- ^{b)}
[i] No. students in Grade 12	<i>n.s.</i>	<i>n.s.</i>	+ ^{c)}	<i>n.s.</i>
[i] Percent male students	+ ^{b)}	-- ^{a)}	<i>n.s.</i>	+ ^{a)}
[i] No. of personal finance courses	<i>n.s.</i>	<i>n.s.</i>	-- ^{b)}	-- ^{c)}
[i] Instruction time in main course	-- ^{a)}	+ ^{a)}	+ ^{a)}	-- ^{c)}
[i] Elective course	++ ^{a)}	++ ^{c)}	-- ^{a)}	<i>n.s.</i>
[i] One-semester course	-- ^{a)}	++ ^{a)}	++ ^{a)}	-- ^{a)}
[p] Curiosity in topics	+ ^{c)}	<i>n.s.</i>	<i>n.s.</i>	<i>n.s.</i>
[p] Significance of topics	+ ^{a)}	-- ^{b)}	-- ^{b)}	++ ^{b)}
[p] Diligence in researching topics	-- ^{c)}	++ ^{a)}	-- ^{b)}	<i>n.s.</i>
[p] High-information search	<i>n.s.</i>	++ ^{a)}	-- ^{c)}	-- ^{b)}
[p] Moderate-information search	<i>n.s.</i>	++ ^{b)}	-- ^{c)}	<i>n.s.</i>
[p] Low-information search	<i>omitted</i>	<i>omitted</i>	<i>omitted</i>	<i>omitted</i>
[p] Financial knowledge quiz score	++ ^{c)}	-- ^{a)}	<i>n.s.</i>	<i>n.s.</i>
[p] Preferred source is Internet	<i>n.s.</i>	-- ^{a)}	<i>n.s.</i>	<i>n.s.</i>
[p] Talking to others	-- ^{a)}	<i>n.s.</i>	+ ^{b)}	++ ^{b)}
[p] Barrier: Curriculum	-- ^{b)}	++ ^{b)}	<i>n.s.</i>	<i>n.s.</i>
[p] Barrier: Classroom materials	<i>n.s.</i>	-- ^{b)}	++ ^{b)}	<i>n.s.</i>
[p] Barrier: Classroom time	<i>n.s.</i>	<i>n.s.</i>	++ ^{b)}	-- ^{b)}
[p] Barrier: School admin	+ ^{b)}	-- ^{a)}	<i>n.s.</i>	<i>n.s.</i>
[p] Barrier: Student interest	-- ^{b)}	++ ^{c)}	<i>n.s.</i>	<i>n.s.</i>
[p] Barrier: Tedious task	<i>n.s.</i>	<i>n.s.</i>	<i>n.s.</i>	++ ^{c)}

Table 12, continued

Antecedent variable effects among academic content areas (direction of coefficient)

The red-shadowed fields indicate significantly positive relationships with the academic content area; blue indicates negative relationships.

Independent variables	Business Education	Family & Consumer Sciences	Social Studies	Mathematics, Science, Technology, Ag
	Exp(B)	Exp(B)	Exp(B)	Exp(B)
[d] Rural school location	<i>n.s.</i>	<i>n.s.</i>	-- b)	<i>n.s.</i>
[d] Public school	<i>n.s.</i>	<i>n.s.</i>	<i>n.s.</i>	-- a)
[d] Women	-- c)	++ a)	-- a)	-- a)
[d] Age	<i>n.s.</i>	+ b)	<i>n.s.</i>	<i>n.s.</i>
[d] Masters degree	<i>n.s.</i>	-- b)	<i>n.s.</i>	-- c)
[d] Annual household income	<i>n.s.</i>	+ c)	<i>n.s.</i>	<i>n.s.</i>
[d] Years teaching personal finance	<i>n.s.</i>	+ a)	-- b)	-- a)
[d] College-level courses	+ a)	<i>n.s.</i>	<i>n.s.</i>	-- a)
[d] Continuing education	-- b)	+ b)	-- a)	+ c)
N (N=687)	234	268	145	40
No. of significant variables	19	24	21	18
Omnibus test of model coefficients (Chi-square)	327.020 ^{a)}	650.960 ^{a)}	501.029 ^{a)}	170.532 ^{a)}
Nagelkerke R Square	.524	.830	.805	.613

Note: ++: $\text{Exp}(b) \geq 2$; +: $2 > \text{Exp}(b) \geq 1$; -: $0.5 < \text{Exp}(b) \leq 1$; --: $\text{Exp}(b) \leq 0.5$; a) Significant at $p < .01$, one-way; b) Significant at $p < .05$, one-way; c) Significant at $p < .10$, one-way.

Academic content area scores for teaching personal finance

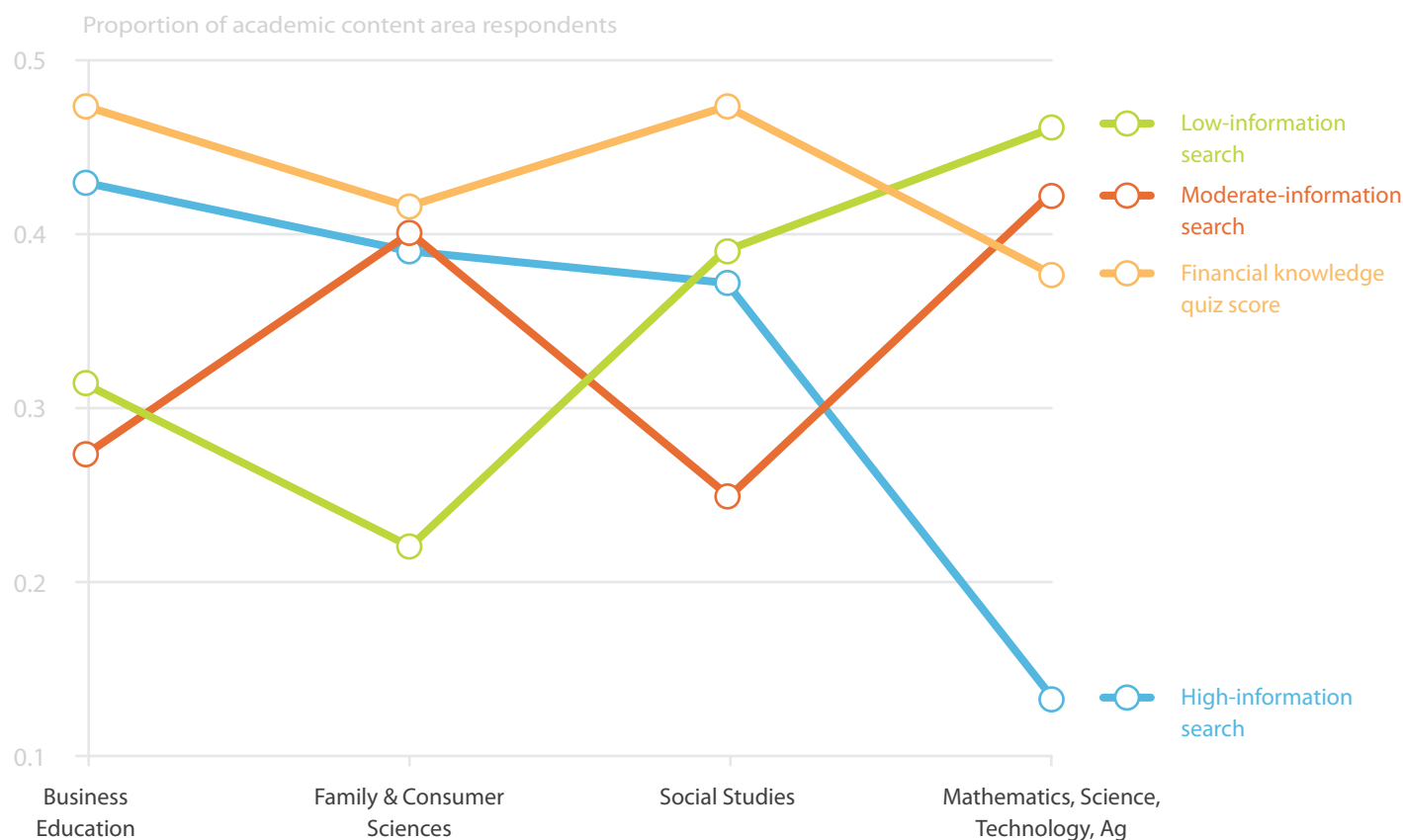
The average mean scores analysis presents a scoring tool to summarize the influence of the major measures of our analyses on teaching personal finance in the four academic content areas.

To assess the mean scores for each academic content area on the dependent variables, several MANCOVAs were conducted (Table 13). Since between-sample differences were determined for 28 variables, these variables were entered into the MANCOVA as covariates. As shown in Table 13 and Figures 9 and 10, significant differences emerged with respect to the mean average scores for all three information search types, financial knowledge scores, the topics of credit, investment, budgeting, goal-setting, and limited resources, as well as the

significance and diligence attributed to teaching personal finance.

Figure 9 illustrates the main effects of academic content area on reported search behaviors and financial knowledge. With respect to information search strategies, the largest group of Business Education teachers practiced a high-information strategy. Family and Consumer Sciences teachers were equally found to practice a high and moderate-search strategy. The largest group of Social Studies and Science teachers practiced a low-information strategy. Surprisingly, despite the lower search efforts, Social Studies and Business Education teachers achieved the highest scores in the financial knowledge quiz.

Figure 9
Main effect of teaching license on information search and knowledge

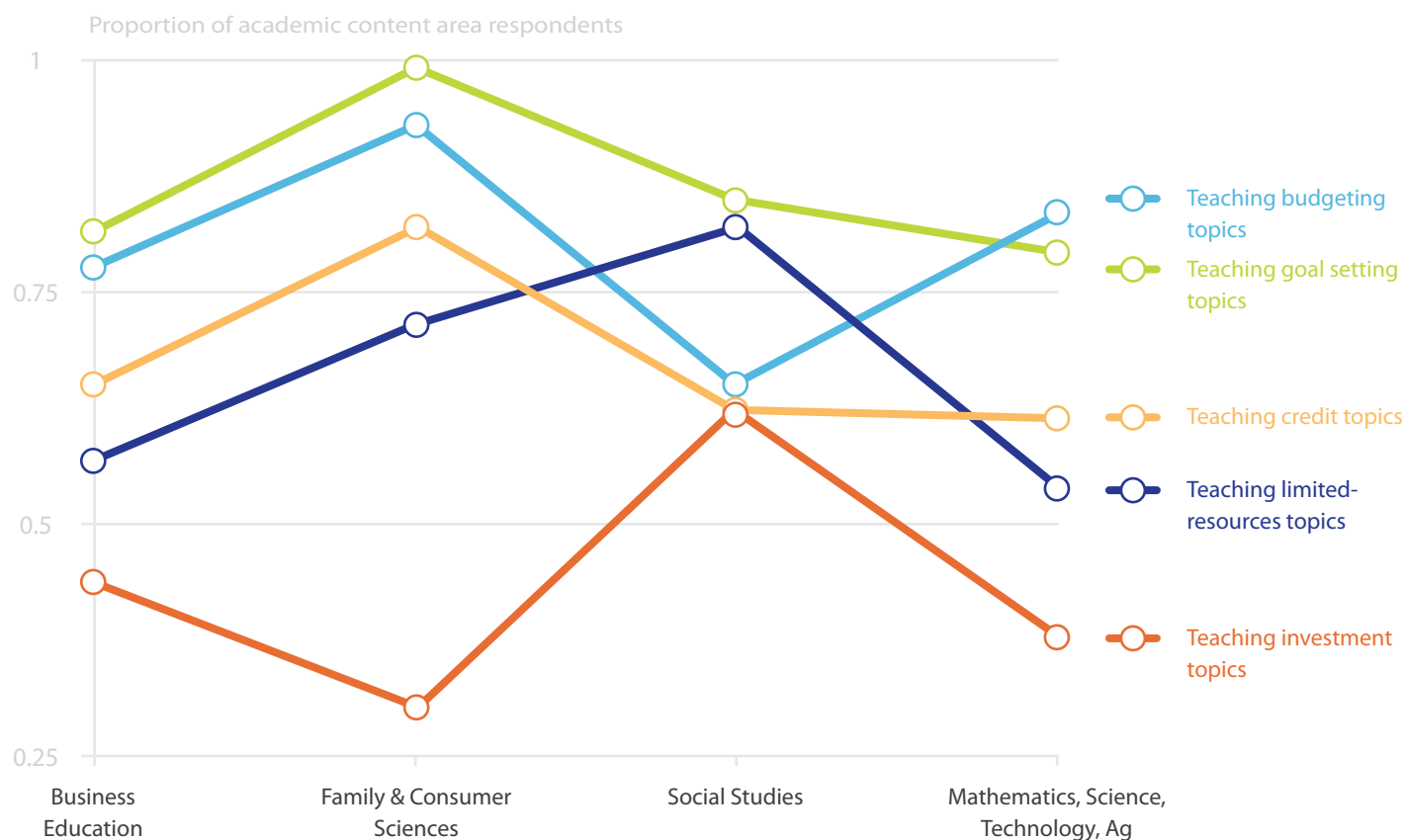


Concerning personal finance topics taught within the four academic content areas, Family and Consumer Sciences teachers reported the highest scores for teaching goal setting, budgeting, and credit. They were least likely to report teaching investing among all four groups. Social Studies teachers reported the highest scores for teaching about

limited resources and investing and the lowest scores for teaching budgeting. Business Education teachers were most likely to cover all the topics equally. Science teachers were least likely to teach credit, goal setting, and limited resources topics, and score high on budgeting topics. Figure 10 illustrates these findings.

Figure 10

Main effect of academic content area on personal finance topics taught



Finally, with respect to teachers' interest in personal finance topics, Business Education teachers attributed the highest significance to teaching personal finance, followed by Science teachers. Family and Consumer Sciences teachers reported the highest scores for diligence in selecting materials for personal finance courses, followed by Business Education teachers. Social Studies teachers scored the lowest for both

factors. It is surprising that Social Studies teachers scored so high on the financial knowledge quiz considering their limited efforts in preparing for these courses. Social Studies teachers were the youngest group with the highest portion of male teachers, teaching more often in non-rural school locations compared to the other three groups.

Table 13

Academic content area scores for teaching personal finance

The four academic content areas scores vary widely for the main antecedent measures of personal finance instruction. Significant differences among the four academic content areas are shadowed.

	Adjusted means ^{a)}				
Cluster/Factor	Business Education	Family & Consumer Sciences	Social Studies	Mathematics, Science, Technology, Ag	Statistics (omnibus F test)
<i>Antecedent clusters</i>					
High information search	.420	.386	.366	.132	4.262, p=.005
Moderate information search	.270	.394	.246	.415	3.150, p=.025
Low information search	.310	.220	.387	.454	3.378, p=.018
<i>Antecedent score</i>					
Financial knowledge quiz score	.464	.412	.464	.372	4.453, p=.004
<i>Antecedent factors</i>					
Teaching credit topics	.653	.819	.621	.615	12.060, p=.000
Teaching investment topics	.436	.303	.622	.378	16.342, p=.000
Teaching insurance topics	.599	.688	.613	.571	n.s.
Teaching tax topics	.721	.656	.711	.611	n.s.
Teaching budgeting topics	.780	.929	.650	.829	19.673, p=.000
Teaching goal setting topics	.812	.989	.846	.791	14.761, p=.000
Teaching interest-related topics	.577	.575	.671	.611	n.s.
Teaching limited-resources topics	.568	.713	.820	.539	10.541, p=.000
Curiosity	3.719	3.626	3.599	3.500	n.s.
Overload	2.726	2.655	2.795	2.747	n.s.
Significance	6.166	5.890	5.765	6.143	5.657, p=.001
Diligence	4.476	4.574	4.374	4.470	2.142, p=.094
N	234	268	145	40	

a) Means are adjusted for covariates. Covariates appearing in the statistical model are evaluated at the following values: students in Grade 10 = 9.21, students in Grade 11 = 14.20, students in Grade 12 = 20.19, percentage of male students = 45.4627, courses taught personal finance topics = 1.69, instruction time = 6.89, elective course = .7555, one-semester course = .6405, Internet-based sources = .3785, searching the Internet = 2.97, talking to others = 2.35, correlating classroom materials = 3.09, subject matter = .1587, curriculum = .2038, materials = .3857, time = .4236, admin = .1849, student interest = .2722, tedious = .1834, rural school = .5284, public school = .8967, women = .6710, age = 44.59, Master, Ph.D. = .6667, total household income = 4.64, years teaching personal finance = 13.23, college-level courses on personal finance topics = 2.29, continuing education courses = .63.

Differences in the antecedent variables were further tested using the Games-Howell and Scheffé method. The significance levels of these tests are designed to be more conservative than other tests in the sense that larger differences between the means are required for significance. As shown in Table 14, significant differences between the groups were obtained for almost half of the possible content area pairs (31 of 70 pairs). Counting significant pairs by academic content area, Family and Consumer Sciences teachers emerged as the group most different from the other three academic content areas, differing significantly from Business Education and Social Studies teachers in 7 out of 11 pair comparisons and from Science teachers in 6 of 11 pair comparisons.

Comparing the direction of the signs of the pair-wise

comparisons, several insights gained in the regression and MANCOA are confirmed:

- Business education teacher reported higher scores in the high-information search strategy and the knowledge quiz than the three other academic content areas.
- Family and Consumer Sciences teachers were less likely to teach investing and were more likely to teach goal-setting than the other three groups. Social Studies teachers were less likely to teach budgeting than the other three groups.
- Business Education teachers attached higher significance to teaching personal finance than the other three groups.

Table 14

Post hoc contrasts

Significant differences were obtained for almost half of the possible content area pairs.

Medium	Pairs	δ Mean	Std. error	Sig.	Medium	Pairs	δ Mean	Std. error	Sig.
High information search	1,2	0.179	0.043	0.000	Investing	1,2	0.320	0.031	0.000
<i>Levene statistics</i>	1,3	0.148	0.052	0.022	<i>Levene statistics</i>	1,3	-0.020	0.039	0.956
<i>F=7.649, p=.000</i>	1,4	0.350	0.066	0.000	<i>F=3.931, p=.008</i>	1,4	0.123	0.064	0.235
	2,3	-0.031	0.049	0.923		2,3	-0.340	0.035	0.000
	2,4	0.171	0.064	0.046		2,4	-0.197	0.062	0.013
	3,4	0.202	0.070	0.025		3,4	0.143	0.066	0.148
Moderate information search	1,2	-0.185	0.041	0.000	Budget	1,2	-0.045	0.021	0.141
<i>Levene statistics</i>	1,3	0.034	0.044	0.869	<i>Levene statistics</i>	1,3	0.258	0.035	0.000
<i>F=30.249, p=.000</i>	1,4	-0.152	0.083	0.274	<i>F=28.254, p=.000</i>	1,4	-0.019	0.037	0.954
	2,3	0.219	0.046	0.000		2,3	0.303	0.034	0.000
	2,4	0.033	0.084	0.980		2,4	0.026	0.036	0.890
	3,4	-0.186	0.086	0.143		3,4	-0.277	0.046	0.000
Low information search	1,2	0.006	0.039	0.999	Goals	1,2	-0.110	0.021	0.000
<i>Levene statistics</i>	1,3	-0.182	0.050	0.002	<i>Levene statistics</i>	1,3	0.041	0.030	0.514
<i>F=8.514, p=.000</i>	1,4	-0.198	0.085	0.103	<i>F=25.192, p=.000</i>	1,4	0.038	0.056	0.907
	2,3	-0.188	0.049	0.001		2,3	0.151	0.025	0.000
	2,4	-0.204	0.084	0.085		2,4	0.149	0.054	0.042
	3,4	-0.016	0.090	0.998		3,4	-0.003	0.058	1.000

Table 14, continued

Post hoc contrasts

Significant differences were obtained for almost half of the possible content area pairs.

Medium	Pairs	δ Mean	Std. error	Sig.	Medium	Pairs	δ Mean	Std. error	Sig.
Knowledge quiz score (Scheffé)	1,2	0.089	0.018	0.000	Resources (Scheffé)	1,2	-0.065	0.035	0.321
<i>Levene statistics</i>	1,3	0.059	0.021	0.046	<i>Levene statistics</i>	1,3	-0.037	0.041	0.850
<i>F=1.951, p=.120</i>	1,4	0.132	0.034	0.002	<i>F=1.632, p=.181</i>	1,4	0.112	0.066	0.416
	2,3	-0.030	0.020	0.526		2,3	0.028	0.040	0.918
	2,4	0.043	0.033	0.642		2,4	0.177	0.066	0.065
	3,4	0.073	0.035	0.225		3,4	0.149	0.069	0.204
Credit	1,2	-0.015	0.027	0.940	Significance	1,2	0.478	0.079	0.000
<i>Levene statistics</i>	1,3	0.223	0.036	0.000	<i>Levene statistics</i>	1,3	0.695	0.096	0.000
<i>F=7.330, p=.000</i>	1,4	0.118	0.055	0.157	<i>F=4.017, p=.008</i>	1,4	0.351	0.144	0.083
	2,3	0.238	0.034	0.000		2,3	0.217	0.099	0.130
	2,4	0.133	0.054	0.081		2,4	-0.127	0.147	0.822
	3,4	-0.104	0.060	0.304		3,4	-0.344	0.156	0.133
Diligence	1,2	-0.029	0.047	0.925	Diligence	2,3	0.254	0.055	0.000
<i>Levene statistics</i>	1,3	0.224	0.059	0.001	(cont.)	2,4	0.113	0.090	0.602
<i>F=3.009, p=.030</i>	1,4	0.083	0.093	0.808		3,4	-0.141	0.097	0.474

Note: Levene's test of equality of error variances tests the null hypothesis that the error variance of the dependent variable is equal across academic content areas; Games-Howell method was used to account for unequal variances ($p < .050$).

Conclusions

This research contributes to the understanding of the scope and determinants of financial education in Ohio high schools. It was conducted at the time when the legislative body in Ohio decided to mandate financial education in Ohio high schools. The relevant House Bill requiring every high school to include instruction of personal finance in the requirements for graduation was passed by the House of Representatives in October 2006 during the development of the here presented survey instrument.

The present study contributes to the understanding of the current state of personal finance instruction in Ohio high schools by:

1. Describing the student population, personal finance instruction, and school and teacher demographics in different academic content areas;
2. Identifying differences among academic content areas with respect to teaching personal finance and teacher attitudes and knowledge of this topic; and
3. Identifying the factors that affect personal finance instruction in different academic content areas.

Major findings by study objectives

1. **Large sample of 710 responses.** A total of 710 teachers responded to the survey. All of these teachers taught personal finance topics in the 2006/2007 academic year. About one-third of the respondents were Family and Consumer Sciences teachers and another third were Business Education teachers. Twenty percent of the respondents belonged to the Social Studies academic content area. A fourth group of 40 "science" teachers also entered the analysis.
2. **Significantly different class sizes in Grades 10 to 12 and attendance of male and female students among the four academic content areas.** Social Studies teachers instructed, by far, the largest classes in Grades 11 and 12 on personal finance. They taught an average of 20 juniors and 36 seniors in their personal finance classes compared to the overall sample

averages of 13 and 15, respectively. In Grade 10, Family and Consumer Sciences teachers had larger classes (12 students on average). The number of male students was highest in the Science content area (55% on average) and lowest in the Family and Consumer Sciences courses (39% on average).

3. **Number of courses, instruction time, course layout, and information sources differed significantly by academic content area.** In most schools, personal finance was an elective, one-semester course. Family and Consumer Sciences teachers taught personal finance topics in the largest number of courses, while Business Education teachers invested the most instruction time on personal finance topics.

When preparing for their personal finance courses, teachers had varying preferences for the Internet. Among Science teachers, 45 percent reported the Internet as their preferred source of information, while they spent the least amount of time searching the Internet on personal finance topics to prepare for one class. In contrast, Family and Consumer Sciences teachers spent the most time searching the Internet to prepare for their personal finance courses and were least likely to choose the Internet as their preferred source for gathering information and classroom materials for teaching personal finance. Family and Consumer Sciences teachers also spent the most time talking to others about personal finance topics (tied with Science teachers) and on assembling materials to prepare for class.

4. **Classroom time, suitable materials, and time to stay current were the top challenges of teaching personal finance.** Across the four academic content areas, the three major challenges of teaching personal finance were: (1) the lack of classroom time to properly teach personal finance topics; (2) the lack of classroom materials, such as lesson plans and student hand-outs; and (3) the lack of time to stay current with changes in personal finance.
5. **School and teacher demographics differed for the four academic content areas.** Business Education teachers had the highest level of formal education and reported the highest number of college courses taken on personal finance.

Family and Consumer Sciences teachers were most likely located in public schools in rural school locations. A teacher in the Family and Consumer Sciences area was most likely to be female, and Family and Consumer Sciences teachers were the oldest group, with the highest annual household income and the longest time teaching personal finance. They also reported the highest scores for taking CEU. Teachers of personal finance in the Social Studies content area were least likely to teach in rural school locations and to be female. They were the youngest group and collected the fewest CEUs. The Science teacher group was least likely to teach personal finance in public schools, had the lowest formal education, household income, and shortest history of teaching personal finance, and had taken the fewest college-level courses in this subject matter area compared to the three other content areas.

6. Eight major themes were taught in personal finance classes. Entering all 58 items of our list of teaching topics into a factor analysis resulted in eight themes that were commonly addressed in personal finance courses, including credit, investing, insurance, taxes, budgeting, goal setting, interest, and limited-resources.

7. Teachers exercise due diligence in teaching personal finance. The 28 attitudinal statements of the questionnaire were factor-analyzed. Four themes emerged reflecting the following: teachers' curiosity in the topic, teachers' feelings of information overload when choosing financial information and classroom materials, the significance teachers attach to teaching this topic, and the diligence executed in preparing for personal finance classes. Business Education teachers scored highest with respect to all four attitudes.

8. Business Education teachers were most likely practicing a high-information strategy to stay current on personal finance topics. Half of the Business Education teachers practiced a high-information strategy compared to one-third of Social Studies and Family and Consumer Sciences teachers, and only 15 percent of the Science teachers. The latter were most likely to practice a low-information strategy, as did Social Studies teachers, while only one-quarter of the Business Education and Family and Consumer Sciences teachers were in this low-search group.

9. Only average scores on financial knowledge quiz.

For all four academic content areas, the mean quiz scores were below 50 percent and only for the Business Education teachers was the median quiz score above the 50-percent threshold. Most respondents answered four questions correctly. Much fewer answered none or only one question, or six to nine questions correctly. Only two of the 687 teachers answered all nine questions correctly.

10. Academic content area scoring differs with respect to information search types and financial knowledge scores.

With respect to information search strategies, the largest group of Business Education teachers practiced a high-information strategy. Family and Consumer Sciences teachers were equally found to practice a high and moderate-search strategy. The largest group of Social Studies and Science teachers practiced a low-information strategy. Surprisingly, despite the lower search efforts, Social Studies and Business Education teachers achieved the highest scores in the financial knowledge quiz.

Concerning personal finance topics taught within the four academic content areas, Family and Consumer Sciences teachers reported the highest scores for teaching goal setting, budgeting, and credit. They were least likely to teach investing among all four groups. Social Studies teachers reported the highest scores for teaching about limited resources and investing, and the lowest scores for teaching budgeting. Business Education teachers were most likely to cover all of the topics equally. Science teachers were least likely to teach credit, goal setting, and limited resources topics, and scored high on budgeting topics.

Major findings by academic content area

Business education

Business education teachers were more likely to teach elective courses, to teach tax-related topics, and to have a higher percentage of male students in their personal finance classes. On the other hand, their courses were less likely to be limited to one semester and they used less classroom time to teach personal finance compared to the other academic content areas. They were less likely to teach goal setting and limited-resource topics, and were most likely to score high on the personal finance quiz. They were curious about learning

personal finance and attached great significance to teaching these topics. Their main barrier to teaching personal finance topics was their school's administration. None of the subject-matter barriers were pertinent for this content area. In fact, Business Education teachers were even less likely to cite curriculum needs and student ignorance as challenges for teaching personal finance compared to the other academic content areas. Those teaching personal finance were less likely to be female and to participate in continuing education courses, but were more likely to have taken college courses on personal finance.

Family and Consumer Sciences

Family and Consumer Sciences teachers were more likely to teach credit, budgeting, and goal-setting, while they avoided the investment topic. They were most likely to be teaching personal finance in an elective course offered on a one-semester schedule with ample time spent on this topic. Their audience was less likely to be male. These teachers expressed high diligence in researching personal finance topics and were highly likely to belong to either the high or moderate-information search types of teachers. Surprisingly, they tended to score low on the knowledge quiz and to dislike the Internet as a source of information on personal finance topics.

Their main challenges in teaching personal finance were a lack of curricula that fit their teaching needs and the lack of student interest. School administration and classroom materials were less likely to present barriers to this content area. Overall, they attached less significance to teaching these topics than did Business Education or Science teachers. Family and Consumer Sciences teachers were most likely to be female, older, and living in households with a higher household income. Most likely, they had been teaching personal finance for a number of years supported by continuing education courses. This group of teachers was less likely to hold a Masters' degree.

Social Studies

Social Studies teachers were most likely to teach investment, tax, and limited-resources topics. They stayed away from teaching budgeting and interest-related topics. They were more likely to teach a large number of students in Grade 12, to devote significant time to these topics, and to follow a one-semester course schedule. Their courses were least likely to be elective compared to the other academic content areas.

“Financial education should be a necessary part of the high school curriculum.”

This group of teachers attached little significance to teaching personal finance topics and the group members were less likely to diligently research personal finance topics. They were unlikely to belong to the high- or moderate-search types of teachers for personal finance information. They did indicate that they like to talk to colleagues to prepare for teaching these topics and that their main challenges were classroom materials and classroom time to properly teach these topics. Social Studies teachers who were teaching personal finance were least likely to be located in rural school locations, to be female, and to participate in continuing education on personal finance topics. They also reported fewer years teaching personal finance.

Mathematics, Science, Technology, and Agricultural Sciences

Science teachers were more likely to focus on budgeting and to avoid teaching limited-resource related topics. While Science teachers were more likely to have a higher number of male students, their personal finance instruction was characterized by fewer students in Grade 10, the topics being spread out over fewer courses, and generally less time reserved for teaching personal finance topics. Similar to Business Education teachers, their courses were less likely to be limited to one semester. These Science teachers attached the highest level of significance to teaching personal finance topics among the four academic content areas. While they were less likely to practice high-information search efforts to learn about personal finance, they were most likely to talk to others to prepare for teaching these topics. Their greatest reported challenge was the feeling that teaching personal finance often seems tedious. They were not likely to cite any of the other barriers. Classroom time, in particular, was of little concern to this group. They were less likely to teach personal finance at public schools, to be female, and to hold a Masters' degree. They reported fewer years teaching personal finance topics and were less likely to have taken college-level coursework in this area. However, they did indicate that they participate in continuing education courses.

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Appendix 1:

Course titles with personal finance instruction

Business education

Accounting I, II, and III
Advanced Business
Advanced Personal Finance
Agricultural Business
Agricultural Science
Applied Business
Automated Accounting
Banking & Borrowing
Banking and Finance
Basic Business Concepts
Bookkeeping
Business & Management Foundation
Business & Personal Finance
Business & Personal Law
Business Computer
Business Concepts
Business Dynamics
Business Economics
Business Finance I and II
Business Foundations
Business I and II
Business Law
Business Management
Business Mathematics
Business Ownership
Business Principles
Career Exploration I and II
Career Planning
Career Success
Careers and Personal Finance
College Survival Skills
Computer Applications I and II
Computer Foundations
Computerized Accounting
Computerized Employment Opportunities
Consumer Economics
Consumer Education

Consumer Mathematics
Consumer Rights
Contracts and Insurance
Cooperative Business Education
Economic Problems
Economics
Entrepreneurship
Finance
Financial Planning
Financial Services
Foundations of Business Management
Fundamentals of Banking & Insurance
General Business
History
Home Maintenance
Income Tax and Money Management
Information Services
Integrated Mathematics
Introduction to Accounting
Introduction to Business
Introduction to Business I and II
Introduction to Business Management
Introduction to Economics
Investing & Risk Management
Investments
Jobs for Ohio's Graduates
Legal/Medical Secretary
Life Choices
Life Skills I and II
Managing Your Personal Finances
Marketing I and II
Medical Office Support
Microcomputer
Microsoft Office
Money Management
Money Skills
Office Procedures
Personal and Business Finance
Personal and Business Skills
Personal Finance

Personal Financial Management
Personal Money Management
Power Hour
Principles of Business
Real World 101
Recordkeeping
Senior Microeconomics
Senior Skills
Skills for the Workplace

Family and Consumer Sciences

Adult Role
Budgeting
Building Successful Families
Career and College Planning
Career and Life Planning
Career Choices
Career Connections
Career Decisions
Career Development
Career Exploration
Career Mentorship
Career Passport
Career Seminar
Careers
Child Development
College Life on a Shoestring
College Life Skills
College Survival Skills
Consumer Choices
Consumer Economics
Consumer Education
Consumer Science
Consumerism
Contemporary Living
Creative Living
Cuisine and Culture
Dynamic Relationships

Employability Skills
 Exploring Career Paths
 Exploring Careers
 Family & Parenting
 Family and Consumer Science I and II
 Family Finance and Financial Education
 Family Living
 Family Relations
 Family Studies
 Fast Foods/Gourmet Foods
 Foods & Fitness
 Foods & Independent living
 Foods for Life
 Foods I and II
 Foundations
 Future Bound
 GRADS I and II
 Home Economics I and II
 Housing
 Housing and Home Arts
 Human Resources Career Cluster
 Independent Life Skills
 Independent Living I and II
 Independent Management
 Interior Design
 Life Choices
 Life Management
 Life Planning I and II
 Life Skills I and II
 Lifestyles
 Living on Your Own
 Living Today
 Marriage and Family Living
 Married and Single Life
 Mentoring
 Modern Living
 Money Matters
 Nutrition and Wellness
 On My Own
 On Your Own
 Parenting
 Personal Banking & Credit in Work and Family
 Personal Development
 Personal Finance
 Personal Financial Literacy

Personal Relationships
 Personal Resources
 Practical Living
 Preparation for College Life
 Quest II
 Resource Management
 Senior Seminar
 Seniors Only
 Single Living
 Single Survival
 Singles Living
 Skills for Living
 Smart Food/Smart Money
 So you want to be a millionaire?
 Survival Skills
 Technology in the Workplace
 Teen Challenges
 Teen Living
 Teen Survival
 Toward Independence
 Work & Family Life I and II
 Work and Family Living
 Young Professionals

Social Studies

20th Century History
 7 Habits of Highly Effective Teens
 Academic Economics
 Advanced Placement Economics
 Advanced Placement Macroeconomics
 Advanced Placement U.S. History
 American Citizenship
 American Government
 American Government and Economics
 American Heritage III
 American History and Economics
 American Issues
 American Politics, Government, and Economics
 Applied Economics
 Business Management
 Career Based Intervention
 Career Connections
 Career Planning Independent Living

Career Planning Independent Living
 Citizenship
 Civics and Civic Responsibility
 Computer applications
 Consumer Economics
 Contemporary Issues
 Contemporary World Affairs
 Current Affairs
 Current Events
 Current Issues
 Democratic Citizenship
 Economics
 Family Relations
 Freshmen Social Studies
 Global Connections
 Global Issues
 Government
 Government and Economics
 Government and Politics
 History of Economics
 Honors Civics
 Information Technology
 Integrated Citizenship
 Introduction to Economics
 Life Skills
 Managing Your Personal Finances
 Microeconomics
 Money and Banking
 Money Matters
 Personal Finance
 Political and Economic Studies
 Principles of Democracy
 Principles of Economics
 Problems of Democracy
 Psychology
 Research and Mentoring
 Social Studies I, III, IV
 Sociology
 U.S. Government and Economics
 U.S. History
 U.S. Studies
 World Geography
 World History
 World Issues
 World Studies

*Mathematics, Science, Technology,
and Agricultural Sciences*

Accounting
Agricultural Business I, II, III and IV
Agricultural Production II
Agricultural Science I and II
Applied Financial Mathematics
Business and Consumer Mathematics
Business and Economics
Business and Personal Finance
Business Foundations
Business Mathematics
College Mathematics
College Prep Algebra
Consumer Mathematics
Consumer Science
Dynamics of Money Management
Economics
Financial Fitness
Investment/Stock market
IT Fundamentals
Landscape & Turf Management
Mechanical Drawing
Money Management
Money Matters
Personal Finance
Personal Finance for Young Adults
Personal Money Management
Practical Mathematics
Pre-calculus
Tech-bridge
Woods Technology

Appendix 2:

Antecedent variable effects among academic content areas

Independent variables	Business Education Exp(B)	Business Education Sig.	Family & Consumer Sciences Exp(B)	Family & Consumer Sciences Sig.	Social Studies Exp(B)	Social Studies Sig.	Math, Science, Tech, Ag Exp(B)	Math, Science, Tech, Ag Sig.
[i] Teaching credit	0.374	0.102	22.327	0.001	0.141	0.259	0.189	0.175
[i] Teaching investing	1.960	0.113	0.034	0.000	0.000	48.346	0.202	0.113
[i] Teaching insurance	0.941	0.869	0.837	0.759	0.502	1.500	1.493	0.640
[i] Teaching tax	1.837	0.092	0.656	0.451	0.022	4.535	0.400	0.271
[i] Teaching budgeting	0.802	0.694	19.781	0.001	0.002	0.075	45.838	0.008
[i] Teaching goal setting	0.331	0.025	50.383	0.000	0.507	0.558	1.375	0.752
[i] Teaching interest-related	0.668	0.303	0.958	0.943	0.057	0.261	4.204	0.112
[i] Teaching resources topics	0.429	0.010	1.327	0.565	0.000	14.370	0.155	0.014
[i] No. students in Grade 10	1.006	0.322	1.014	0.105	0.826	0.998	0.906	0.045
[i] No. students in Grade 11	1.000	0.993	1.001	0.842	0.275	1.008	1.018	0.146
[i] No. students in Grade 12	0.992	0.140	1.008	0.299	0.062	1.014	1.000	0.980
[i] Percent male students	1.014	0.018	0.966	0.000	0.123	1.014	1.046	0.002
[i] No. of personal finance courses	1.091	0.561	1.183	0.454	0.042	0.574	0.515	0.085
[i] Instruction time in main course	0.743	0.000	1.502	0.000	0.000	1.584	0.831	0.092
[i] Elective course	4.291	0.000	2.552	0.062	0.000	0.037	2.164	0.245
[i] One-semester course	0.351	0.000	9.526	0.000	0.001	4.489	0.051	0.000
[p] Curiosity in topics	1.466	0.089	0.618	0.171	0.167	1.809	0.469	0.147
[p] Overload of information	0.976	0.877	0.800	0.347	0.453	1.244	1.039	0.921
[p] Significance of topics	1.681	0.001	0.531	0.012	0.019	0.573	2.469	0.029
[p] Diligence in researching topics	0.676	0.092	3.418	0.001	0.040	0.418	1.507	0.456
[p] High-information search	1.166	0.627	5.119	0.005	0.088	0.389	0.153	0.021
[p] Moderate-information search	0.863	0.630	3.508	0.013	0.091	0.389	1.018	0.978
[p] Low-information search								
[p] Knowledge quiz score	3.458	0.051	0.053	0.004	0.284	3.255	0.163	0.244

Independent variables	Business Education Exp(B)	Business Education Sig.	Family & Consumer Sciences Exp(B)	Family & Consumer Sciences Sig.	Social Studies Exp(B)	Social Studies Sig.	Math, Science, Tech, Ag Exp(B)	Math, Science, Tech, Ag Sig.
[p] Preferred source is Internet	1.087	0.720	0.375	0.007	0.158	1.813	2.211	0.157
[p] Searching the Internet	1.002	0.989	1.006	0.977	0.869	1.045	1.196	0.628
[p] Talking to others	0.625	0.001	1.109	0.594	0.011	1.905	2.200	0.017
[p] Correlating materials	1.207	0.162	0.849	0.402	0.200	0.716	0.652	0.253
[p] Barrier: Knowledge	0.598	0.188	1.772	0.296	0.243	1.918	0.343	0.201
[p] Barrier: Curriculum	0.506	0.035	3.127	0.027	0.663	0.807	0.931	0.914
[p] Barrier: Classroom materials	0.995	0.983	0.393	0.026	0.034	2.438	2.241	0.207
[p] Barrier: Classroom time	0.775	0.277	1.164	0.654	0.022	2.674	0.241	0.023
[p] Barrier: School admin	1.853	0.027	0.285	0.006	0.776	1.156	1.030	0.970
[p] Barrier: Student interest	0.586	0.048	2.040	0.070	0.549	0.750	1.443	0.609
[p] Barrier: Tedious task	0.737	0.353	1.409	0.488	0.868	1.095	3.142	0.091
[d] Rural school location	1.504	0.101	0.969	0.935	0.036	0.397	2.536	0.162
[d] Public school	1.636	0.232	2.624	0.122	0.259	0.508	0.074	0.003
[d] Women	0.635	0.095	266.230	0.000	0.000	0.058	0.164	0.003
[d] Age	0.986	0.327	1.050	0.025	0.690	0.990	1.015	0.598
[d] Masters degree	1.439	0.133	0.414	0.020	0.873	1.072	0.374	0.079
[d] Annual household income	0.972	0.696	1.224	0.082	0.278	0.854	1.277	0.254
[d] Years teaching personal finance	0.989	0.466	1.077	0.001	0.014	0.928	0.876	0.002
[d] College-level courses	1.283	0.003	0.866	0.287	0.696	0.945	0.525	0.005
[d] Continuing education	0.781	0.025	1.426	0.040	0.000	0.371	1.555	0.084
Constant	0.544	0.699	0.000	0.000	0.297	16.377	0.010	0.225
N (N=687)	234		268		145		40	
No. of significant variables (N=43, without constant)		19		24		21		18
Omnibus test of model coefficients (Chi-square)	327.020	.000	650.960	.000	501.029	.000	170.532	.000
Nagelkerke R Square		.524		.830		.805		.613

Appendix 3:

Comments by survey respondents

Positive experiences

As a human and consumer sciences teacher I am extremely happy that our department teaches personal finance. I believe that it is probably one of if not the most important class many students will take. Unlike some other classes that teach "core" curriculum...

I am excited that FCS is being recognized as a personal finance provider. I am always interested in new curriculum suggestions and materials.

I enjoy helping my class learn about checking and savings. I show them how to balance a statement. I expect my students to learn vocabulary words for financial literacy. It will help them in the future when they hear those terms used with bankers or in...

I have really enjoyed teaching finance so far this year. I want to continue to improve my knowledge on personal finance and the best way to teach it to high school students.

I love teaching it and the kids love to learn about it! They go home and tell their parents about things they have learned!

I love teaching my two Personal Finance classes. It helps me individually to keep current on financial matters. I have all seniors and they really want to know how to manage their finances. Next year it is going to be open to 10, 11, and 12 graders.

I love teaching Personal Finance and the students enjoy it too. I don't remember the name of the workshop I attended but there was someone there from OSU. I attended the same workshop two years in a row and received lots of great materials that I use.

I think it is a great topic to teach and I think most students should enjoy taking classes in high school about it.

“

I love teaching Personal Finance and the students enjoy it too.

”

It is an exciting area to teach and I feel you give students valuable information that is necessary for the now and in the future.

Over the years I have had numerous students come back to tell me because of taking the class, they now own stock or they feel comfortable with their financial decision or they made good choices when spending their money. They felt prepared for life with...

I really enjoy teaching Personal Finance and it relates well with my entire curriculum. I am able to teach Personal Finance as it relates to family and real world situations and I believe the students really understand it best in that context.

Challenges

A lot of the students lack real interest because financial literacy is not relative to them at this point. They hear and do the exercises but don't seem to take the information as being what they need to know now.

After reading the questions, I don't know as much as I should.

As a FCS teacher I have to create lessons for everything I teach - I have no textbooks that cover topics deeply or thoroughly. I have little time to research and thoroughly develop meaningful lessons. I know I am in need of a comprehensive curriculum...

As an FCS teacher, I often overlap with the business teacher.

However, my class is required. I don't feel as much an expert as she is, so I stay away from topics that I don't know enough about such as the stock market.

Financial literacy is something that needs to be taught. Students do not see the value in it unfortunately. We have to do a better job of showing them how important it is to know and to make it interesting at the same time.

Having some banking experience, I see a need for "experts" in the field to share what works & what doesn't work when it comes to investing. It is difficult to encourage kids to save money when the interest rates at the bank are so poor.

I am in search of funds to attend a National Financial Literacy conference to be held this June in Arizona. I did apply for a grant through the University of Arizona. Unfortunately, they were overwhelmed with applications and I did not receive a grant.

I believe that financial literacy education is imperative to America's future financial health. Though I feel prepared to teach the basics, I feel unprepared for the "big" questions students may have.

I definitely need more financial literacy education!

I definitely should be teaching it for a longer period of time (and updating my info).

I do the best I can with what time I have to plan and prepare my 6 preps a day.

I have a brief amount of time and background to teach financial ed. I bring in speakers to cover banking, investments, insurance, real estate, etc.

I have never received proper personal finance education and have made major mistakes. Most of what I teach is in regards to economic standards from the state of Ohio.

I need to continue to get more education in the area but I feel it is very important for all students to learn...it should be a required course (in the FCS) department.

I need to learn more about stocks, but our Econ course

teaches that part of curriculum. I'd like a summer course on teaching finances to High School students.

“

I need to learn more.

”

I realize that I don't really know enough about finance and credit. Maybe we need actual college courses in these areas.

I teach at an alternative high school which is barely funded and all teaching staff perform multiple functions. While I enjoy teaching financial literacy, I have little time to prepare. My administration is moving to change the focus of my social studies.

I think it is important in the high school, but our school just made it an elective from required in our school for next year. In another year of two they are eliminating my position and we will have one section taught by the business teacher and finance education.

I was completely SHOCKED at just how LITTLE students know about BASICS -- like writing checks & balancing a checkbook for example!

would like to attend financial and economic workshops or classes if they were offered. I think they need to help us with the topics that we should cover. There are too many people establishing standards. We should have one standard to follow.

It is sad that students don't see the importance of learning it if they still live at home. It seems that they only learn it when they seem to need it and by then it really is too late.

It is very important, my students need to learn about it, but I don't know where to start.

Kids know very little about personal finance...parents do very little in explaining needs and wants and the basics of managing money. Materialism seems to dominate. Also, I notice a lack of knowledge from the general population about

basic economics.

Most students are really only using debit cards, this information is very hard to find for classroom discussion.

National and state leaders are emphasizing science and math instruction, often at the expense of the social sciences. In today's economy, educators must recognize the importance of basic financial literacy to allow American citizens in all professions to...

“My students need to learn about it, but I don't know where to start.”

Our school needs to offer a class like this.

Professional development training is needed to relate finance literacy to today's teens.

Students lack real interest because financial literacy is not relative to them at this point. They hear and do the exercises but don't seem to take the information as being what they need to know now.

Students often don't see worth as they are not old enough for most of the info to be experienced.

Students see themselves as too far removed from the need for personal finance help; Need creative, updated and interesting info to stimulate interest.

The F&CS Department is closing this year. Life Management will not longer be taught however, personal finance will be assumed by the Social Studies Department before 2010. My Social Studies colleagues are scared about teaching this topic.

The teachers need to be educated before we can educate the students. We NEED workshops and good sources.

Very important, I wish I had time to do more and I wish I knew more to teach. Kids & adults both need the info!

We desperately need more externship opportunities and education. It would be nice if OSU could plan the professional development course activities for all business teachers for graduate credit. This would ensure that our training is accurate and up to date.

We need professional development for faculty to stay current, as well as, on-going, required courses for juniors and seniors in high school.

What a challenge it is time-wise and resource-wise to keep up to date. Family Consumer Science needs to keep teaching personal finance in our curriculum because we are the only department that deals with the family.

With the new (in 2010) requirements, more professional development needs to be made available for educators who will be required to teach it. Most teachers find the concepts confusing and frightening for their own money, let alone the responsibility of...

Would LOVE to have something basic and comprehensive to use, to generate some interest in lower functioning students!

Would really appreciate professional dev. on this topic

General financial literacy education

As an educator, I know that there is always more for me to learn about personal finance. I have found that sharing other people's information about financial successes and woes has helped me more than anything.

Basically, finance is taught in my regular class because I see how important it is and it is not taught elsewhere. I have seen some teachers are the worst financial planners. People are people. I feel the best place to start is basics in elementary school.

Family and Consumer Science teachers can be a rich source of personal finance education - too often such courses are left in the hands of Social Studies Teachers who may have less training and education in these areas.

GRADS is not a comprehensive financial education class but we cover several topics to help young people become

independent and we do it more on student needs. Some things we try to cover on a regular basis are wants versus needs, checking accounts, etc.

I am an English teacher in her first year of teaching. When I was hired into this school, I was asked to teach a class that included information on "real-life" skills, such as balancing a checkbook, how to buy a house, credit cards, etc.

I am surprised that more students don't take this type of a program. It is valuable information.

I believe family and consumer science teachers should be considered a source of providing financial literacy instruction to meet upcoming curriculum standards.

I believe FCS teachers will be able to give the family slant that will be needed for students to use the information on a daily basis over time.

I don't deal with the stock market details and bonds since it's not a topic I am interested in or the students want to know about at their age.

I love teaching Personal Money Management and I am upset to hear that it may be taught in the Social Studies

Department. I just feel a Business background is a much better stage for the class.

I only hope I'm able to stress to my students the importance of obtaining the most education they can, that they should never stop learning, that they must be aware of the importance of having a good work ethic, to be financial and ethically responsible, etc.

I teach students the value of education in planning any financial goals.

I think that we need to start educating more young people on this even though they find it boring.

I would be interested in taking a course through OSU. I think that we need more personal financial courses for students.

In addition to our current Economics course we are adding a

course in personal finance for next school year.

It is and will remain the responsibility of the public education system to make some effort in alerting, directing, and developing economic awareness for all students, they are all going to be the future consumers, whose use of currency will effect...

Many of these courses have been dropped due to declining enrollment because of post-secondary, early release options and emphasis on the graduation tests in Ohio high schools.

Many students in the past received this information when they took businesses courses.

My students have to face the reality of providing for a child as a teen. We have to spend time helping most of them learn to budget their resources.

“

I am surprised that more students don't take this type of a program.

”

Needs to be started in the early grades

Next year the keyboard teacher will teach personal finance. After three years, the class goes to the social studies dept. Why are we not the only ones to teach this since it all relates to family living? Why is the state dept. taking this from our curriculum?

Our district is mandating teaching a course in personal finance beginning next year so I may not be teaching as much about it in 2007-2008.

Our focus in Economics should be on the pitfalls that incoming college freshmen will encounter. The credit card companies are just waiting for the "fresh fish" to appear on campus. They should know how to organize and manage a checking account.

Student loans

The Bible is the best single source for understanding sound financial principles.

The class I teach is a senior only class designed to give the students one last ditch effort to pass a math course for graduation.

The living skills class I teach is for cd/ed and Ld students

“ Financial literacy is going by the wayside. ”

There certainly is not enough of it. 90% of our students need REAL LIFE education that can be useful. The other 10% will be the doctors, scientists, engineers, etc.

This is my first year teaching this course, and we haven't gotten into the full Economics section yet

We are not currently teaching a personal finance class at our school. I have added some points to my accounting class. There is a personal finance class in the schedule for next school year.

With the new Core Plan set in place by Gov. Taft that includes financially literacy I think we are moving in the right direction, but I think we need to be careful getting too technical with what I would consider large market or governmental finances like...

With today's concentration on passing the OGT and most schools teaching toward that goal, financial literacy is going by the wayside and is something all students should have an idea about.

Importance

A parent on my advisory committee shared that one of her daughter's school's greatest downfalls was that they taught her nothing about managing money.

Absolutely essential, we in FCS need to be on the front line in this endeavor.

I believe financial literacy to be VERY important to today's student. I also strongly believe teaching students HOW to find information to become literate about finances to be their largest asset.

I believe personal finance is extremely important, however it is not deemed necessary by school administrators. This is very frustrating to me.

I believe that it is very important to teach our future business leaders about how to be knowledgeable about personal finances.

I do not think we are preparing our students for the real world. Financial literacy is not one of the "core" areas that students are tested on by the state, so it is not considered "important" by the school districts.

I think it is a vital educational topic to help students understand financial situations and make good decisions for themselves in the future.

I think it is very valuable to teach high school students about financial literacy so they do not go into debt.

I think personal finance is one of the most important classes I teach. More resources need to get the kids interested so they realize how much they need to learn about personal finance.

I think that it is very important to prepare students for the financial decisions they will be making in the future.

I think that personal finance education is very important and too much overlooked.

I think that teaching financial literacy is imperative for today's youth. They are hungry to learn all they can about money

management. Personally, having answered your questions regarding financial literacy, it is apparent that I would need some retooling...

It definitely is needed. My students reside in a community of quiet wealth, but the wannabe's live way beyond their means. We have many students living a false reality. In questioning them, most do not have a clue about money.

It is definitely needed for high school and adults. Today's parents and educational systems are not providing the information to our young people!! Credit is making it too easy for people to go into debt.

It is extremely important to be emphasized at the high school level and taught by a qualified Business teacher.

It is important that people take time to learn about personal finance in the short term so that they can save in the long term.

It is important to teach and introduce the different topics to our future leaders.

It is important!

“

It is sorely needed
in all schools.

”

It is very much needed in the state of Ohio. I'm very happy to see that the state is addressing it at the high school level and making it required. There should be a follow-up course required of ALL college graduates of how to plan for retirement.

It's important! Many young people today do not understand it. Students need to understand that credit cards can get them into financial trouble.

It's very important! My Independent Living class is being eliminated (we covered other topics relating to living on your own) to be replaced by a full personal finance class to be

taught through the business department.

Much needed class in HS these days

Next to learning how to read and being able to do basic math, financial literacy is the next most important and necessary school class.

Not taught enough in schools. Should be incorporated at earlier ages, probably middle schools or maybe in some districts' intermediate schools.

Our lives revolve around our finances and yet we send so many students out in the world without any knowledge of this subject matter. We need to recognize its importance and educate the public.

This is a critical issue and I am the first to agree that I need to constantly learn about how to best teach this topic.

This is a very important class for all students.

This subject is very important for kids to learn in school, because too many times they are not learning this info in their homes.

Very important and I plan on rewriting most of the course to be able to include more finance information. Will have a new text in 2007/2008.

Very important to the education of all HS students

Very important! In Ohio, too many people are defaulting on their mortgages. We need to educate them before it's too late.

Very much needed at high school level.

We need lots more of it!

We need more and better.

We need more of it...I have many parents that feel there should be more classes taught on basic finance and how to handle money, etc.

We need to do more of it.

Required financial literacy education

A course should be required for graduation.

All students should take personal finance class in high school just like everything else not all students are college material.

Due to the number of foreclosures in Ohio, all students should be required to complete a personal finance course to graduate.

Financial literacy education classes are extremely important, prepare students for their future, and should be required for graduation in all school districts.

I am hoping to see funding and inclusion of financial literacy education in all of our public schools in the near future. Young Americans need to have sound background knowledge as they enter the workforce and adult life. I hope it is taught as a semester course.

I believe it should be required for graduation. It should not be incorporated solely into Math, Social Studies etc., for it gets 'lost in the shuffle.' I think it should be a stand alone course taught by a Business Ed or FCS teacher.

I believe that a financial literacy course should be a required course in high school.

I believe there should be a mandatory semester course in every high school. I would be willing to be part of the process in making this happen including designing the curriculum.

I think all high school students should be required to have at least one basic course covering simple yet important topics about personal finance, especially credit/DEBT.

I think financial literacy education should be a required course for graduation for all students (even the college-bound and the work study ones).

I think financial literacy is an important topic and should be a required subject taught in Ohio high schools.

I think financial literacy should be a required course for all high school students.

I think it should be mandatory for all graduating seniors.

I think it should be required of all students before graduating.

I think that a personal finance course is needed in all high schools, especially for juniors and seniors.

I wish it was required at my school.

I would like to see a course in financial literacy required of all seniors. I believe that it should be taught through the Business Department, just like it would be in college.

I would like to see it as a requirement to graduate. This may cut down on the amount of bankruptcies in the US.

I'm not sure when, but I thought it was supposed to be becoming required in Ohio for High School graduation.

In Ohio, financial literacy education has been in the news recently as state lawmakers want to make this topic a required course for high school graduation. I completely agree.

Is Ohio going to mandate a financial literacy course for high schools in the near future?

It is very important that we continue to work on making personal finance a required course in our high schools.

It needs to be mandated by the state.

It should be a required elective in all schools. It should also be taught as a separate class, not as one whose topics are included in other social studies classes which water down the meaning and students fail to grasp the importance of money.

“

I believe this type of class should be required.

”

It should be a requirement in high school

It should be mandatory for all high school students.

It should be required for every high school student.

It should be required to graduate from high school. Currently, it is offered in two different elective courses in our high school: in the business dept, and in Home and Family Services dept.

Many states have personal finance courses in high school but Ohio does not. I would like for Ohio to make it mandatory.

Needs to be a requirement for all high school students now!

Needs to be a requirement for graduation

OH should require Personal Finance for graduation (.5 credit). The CORE falls short; Current Economics standards are inadequate if the hope is it can be integrated here.

Personal Finance should be a required class for a high school juniors and/or seniors.

Personal Finance should be a required High School class taught in the Business Department.

Should be mandatory for all students

“

I wish it was required at my school.

”

Should be required.

Students need more and it SHOULD be a required course for all students.

There are too many schools that do not provide a personal finance course and/or have cut them from the curriculum. This course should be mandatory for graduation. The students that need this information the most are the students not getting it.

This course needs to become a requirement to graduate! It has to be taught properly however with hands on involvement or

the course will be dry and students will lose interest.

This course should be mandatory in the State of Ohio.

This needs to be a required course for all high school students and most adults.

This needs to be taught in more schools and should be a required subject matter.

This should be a required course in ALL school districts.

This should be a required course through the business department not the social studies department by all schools in Ohio immediately.

Curriculum

Any textbook suggestions (grade 9-12) would be welcomed.

I believe we need to include more financial literacy education into the curriculum of a college prep school in math.

I find the Family Economics and Financial Education website out of Arizona to be extremely valuable in lesson planning. In looking to the future, if there is a required Financial Literacy course in high schools, instead of adding to the already demanding...

I have taught financial education for many years and I am always looking for materials to update the current things that I do. I like to find activity based activities other than computer activities that can be used to teach those concepts in classroom.

I plan on teaching more personal finance but I do need more materials.

I really like to use the NEFE High School Financial Planning Program. I think that it is necessary to teach this in the schools.

I teach basic skills and need just basic resources like sample checks, etc and everyone wants to charge for them.....why not provide them for free?

I think it's unbelievable that the state is putting checking

account management into the social studies curriculum.

I would certainly like to have any teaching materials and/ or lessons that your organization may offer. Thanks.

“ I plan on teaching more personal finance but I do need more materials. ”

I would love to have a written curriculum for teaching personal finance at the high school level in an FCS program. Since this information is not readily available in text books and changes rapidly, I would also like access to hands on technology so that...

I would really be nice to have a list of web site on personal finance that is geared for high school students. Also, ones that have projects for students that encourage critical thinking and collaboration.

It is hard to find a good textbook that covers all of the topics you want to cover in a personal finance class. I use the text as a basis and spend endless hours getting supplemental materials to cover the topics that I feel are important.

It would be great to receive free classroom materials from financial institutions.

It would be nice if state standards were available as guidelines.

It would be nice to have an organized curriculum with excellent handouts and activities for this class. Something based on the computer and students could track stock market etc...

Materials are helpful in providing more opportunities to teach these skills to our students (and us in many cases)!

More materials, more workshops are needed... I enjoy teaching personal finance, but don't have the time or resources to give it proper attention.

Often, I have use EconEdLink to get projects for my students. Plenty of websites to help teach the subject; www.mrseibert.com and look under finance.

The financial education program I teach is sponsored by an organization known as WECO and the NEFE. My students are eligible to receive an additional \$1,500 for educational purposes if they save \$750 in 3 years.

The Take Charge of Your Finances curriculum should be adopted for use by Ohio, other states have. Why reinvent the wheel? I get regular updated emails and there is so much material and ready to use with some study. It is excellent for my students.

This year I am using "Making the Right Money Moves" sponsored by Kemba Financial. I copied web sites to use currently from your survey for further use. I'm not into using the web regularly, I do need more info in some areas. This is NOT my favorite topic to teach.

Up to date statistics in a concise table or format that can be used on over heads or power points are the most helpful sources. All sources need to be something that can be picked up quick and a dedicated topic.

General concerns

I find it interesting that there seems to be so much emphasis recently on financial education, yet business teachers have no state standards. Is personal finance a priority or not?

I have a real concern that the new state standards have aligned the financial literacy class with social study standards. This will allow many schools to use their current economics class which is far from a personal finance curriculum.

My concern is that with the new state mandated "personal finance" in our curriculum, individual school districts will not pay any attention to what department is teaching the material.

My only concern is that due to recent changes in high school graduation requirements is that some of our course work will not be deemed as being important to our students. The areas

you surveyed are EXTREMELY important to our young people

Survey

Excellent exploration of these thoughts on personal finance!!!
Thanks for bringing them to my attention!

Hope this helps. Share info w/ us & anything that might help us do a better job.

I appreciate this survey - I certainly hope it can be utilized to benefit high school teacher's efforts to teach personal finance.

Interesting survey!

It's hard to remember the answers to the questions in the survey when you're not "in the moment".

Recommendations

Financial literacy should be taught by the business department. It should be valued with equal importance to the other math required by the OGT. THIS is real-life math that will be used beyond HS.

“ Financial literacy education needs to be taught by business educators. ”

I believe a personal finance class should be taught in the Business Education Department and not in the Math or Social Studies Departments.

I understand the new state treasurer Richard Cordray is interested in promoting Financial Literacy as required curriculum in Social Studies or Math. This is ridiculous, Business teachers should be the only ones allowed to address this subject...

I feel that this material should be taught by certified business education teachers.

I hope that Consumer Science will be included in programs authorized by the legislature to teach Financial Literacy.

I would like the Ohio Financial Education Component for the new graduation requirements to be required to be taught in FCS classes, or at least have FCS MENTIONED as an elective or an option for the personal finance requirement instead of in Social Studies

If the law requires students to take a class in personal finance to graduate from high school, then Family and Consumer Science teachers should be allowed to teach it not just Social Studies Teachers.

Personal finance should be taught by business teachers not home economics or social studies.

This is content that is appropriate for Family Consumer Science Teachers more than Social Studies teachers.

Appendix 4:

Continuing education in financial literacy

The following lists present an analysis of providers of continuing education that have been used by the respondents of our survey. We further present the topics of the continuing education efforts. The lists are presented by academic content area.

Business Education

Institutions used for continuing education in personal finance

5th/3rd Bank
 ACTE Convention
 Akron Public Career Education
 Ashland Chemical Corp.
 Association for Ohio Business and Technology Educators
 Better Business Bureau
 Chad Foster
 Chase Manhattan Bank Corp.
 Citi Group
 COACE
 COCEE (2 times)
 Columbus Dispatch
 Dave Ramsey
 Dayton Urban League
 E-Tech Ohio exhibitor
 E-Tech Technology Conference
 Federal Reserve Bank of Cleveland (2 times)
 Great Oaks Institute of Technology
 Huntington National Bank
 Jobs for Americas Graduates
 Local Credit Union (2 times)
 Mount Vernon Nazarene University
 NBEA
 NCEE
 New York Stock Exchange
 OBTA (2 times)
 ODE
 Ohio Business Teachers Association (2 times)
 Ohio CPA group (2 times)
 Ohio Department of Commerce
 Ohio Institute of Insurance
 Ohio Insurance Program - Cleveland, Ohio
 Ohio Jump\$tart Coalition (5 times)
 Ohio Univ. Credit Union/State of Ohio

Richland County Chamber of Commerce
 SOITA
 TACCU
 Tiffin University (3 times)
 Toledo area credit union
 University of Cincinnati (5 times)
 University of Dayton (2 times)
 University of Findlay
 University of Phoenix (4 times)
 Walsh University
 Wright State University
 Wright State University, Insurance Institute of Ohio

Topics of continuing education in personal finance

Accounting I and II
 Accounting Related
 Banking in today's society
 Big League Business
 Building Capacity for Financial Education
 Building Your Capacity for Financial Literacy
 Business & Marketing Conclave
 Business Externship
 Business of Ohio
 Business/Personal Finance
 Economics Education
 Effective Content Area Teaching Methods
 Entrepreneurship
 Externship for Business Teachers (2 times)
 Financial Literacy for Teens
 Financial planning
 Global Business
 Global Economy
 How to become a millionaire
 Insurance (3 times)
 Introduction to the Market
 Macroeconomics

Managerial Finance
 Managing your finances
 Microeconomics
 Money and Banking
 Personal Finance and Savings
 Personal Finance
 Personal Time Management
 Professional Approach to HS Business
 Real Life Finance for Students
 Research and Evaluation I
 Stock market game
 Stock market simulation
 Teachers Seminar at New York Stock Exchange
 Teaching Insurance
 Teaching Personal Finance (2 times)
 Teaching the Stock Market Game
 Today's money problem
 Understanding Insurance
 Virtual Economics

Family and Consumer Sciences

Institutions used for continuing education in personal finance

Academic Innovations
 ACTE (2 times)
 Akron University
 American Association of Family and Consumer Sciences
 Annual Vanguard-Sentinel FCS Conference
 Art Institute of Pittsburgh
 Ashland University (2 times)
 BGSU
 CEA Conference (2 times)
 Dave Ramsey
 Dayton Public Schools WOE
 Depco (2 times)
 Family Economics & Financial Education (FEFE, 5 times)
 Family, Career & Community Leaders of America (3 times)
 Federal Reserve Bank of Cleveland High Schools That Work
 Financial Institutions (2 times)
 Greene County Career Center
 Jumpstart Coalition (2 times)
 Keifer Investments
 Local credit union
 Montana State University (2 times)
 Montana University

NCEE
 NEFE (2 times)
 NIE Lima News/Wright State University (3 times)
 ODA Continuing Education
 OEA
 Ohio Association for Career Technical Education
 Ohio Association for Teachers of Family and Consumer Sciences (OATFACS; 13 times)
 Ohio Association of Family and Consumer Sciences OAFCS (5 times)
 Ohio Board of Education
 Ohio Deferred Comp.
 Ohio Family & Consumer Science Conferences & ODE (7 times)
 Ohio Family & Consumer Science Conferences (18 times)
 Ohio Insurance Institute (3 times)
 Ohio State Auditors office
 Ohio State Treasurer's office
 Ohio State University Extension (2 times)
 Ohio State Vocational Conference
 Ohio Vocational Family & Consumer Sciences conference (2 times)
 San Diego (2 times)
 Sinclair College
 Stockpartners.com
 STRS (2 times)
 Take Charge America
 Tech Prep Consortium
 Toledo Area Credit Unions
 Toledo Blade (2 times)
 TPS Credit Union
 University of Akron (2 times)
 University of Cincinnati
 University of Cincinnati Economic Center (2 times)
 University of Cincinnati/Great Oaks (3 times)
 US Army Reserve
 Walsh College/Communicate Institute
 Wright State University (8 times)

Topics of continuing education in personal finance

Career Choices
 Career Development
 Career Education
 Consumer Basics
 Consumer Economics
 Consumer Finance
 Credit Scams

Earning, Learning, Investing
 Economic concepts
 Economics
 Education for Character
 Educators in Industry (2 times)
 Family Financial Security
 Finance 101
 Finance Education
 Finances
 Financial Education
 Financial Education Literacy
 Financial Fitness-National Program
 Financial Literacy (4 times)
 Financial Peace
 Financial Planning for Student projects
 How the Economy Works (2 times)
 I'd Rather be a Bull than a Bear
 Identify Theft (3 times)
 Insurance for Teachers (5 times)
 Insurance Basics for Teachers (4 times)
 Investing
 Investing 101
 Marketing & Advertising
 Money Management (2 times)
 Money Smart
 Payday Loans
 Personal Finance (4 times)
 Personal Financial Literacy
 Planning for Retirement
 Planning for your Future
 Predatory Lending
 Retirement
 School Stock Market Program
 Take Charge of Your Finances (6 times)
 Teaching Economics
 Teaching Insurance for Educators (2 times)
 Teaching Personal Finance
 Teaching Teens Financial Literacy
 Technology in Industry
 Utilizing Media

Social Studies

Institutions used for continuing education in personal finance

Abbejean Kehler

AP Central (2 times)
 Attorney Generals Office (2 times)
 Dave Ramsey
 Dayton on line
 Federal Reserve Bank
 Federal Reserve Bank of Cincinnati
 Fisher School of Business
 High Schools That Work
 Local broker
 National Teachers of Economics
 NCSS
 Northern Kentucky University
 OCSS
 ODE
 Ohio University Charlene Kalenoski
 Ohio University Kongwook Choi
 School Employees Lorain County Credit Union
 University of Akron (2 times)
 University of Cincinnati (3 times)
 University of Cincinnati Center for Economic Education (2 times)
 University of Dayton (2 times)
 University of Rio Grande
 Wright State University (2 times)

Topics of continuing education in personal finance

10 Things You Didn't Know About Money
 Basic Insurance
 Diversification
 Econ 103
 Econ 104
 Economic Applications in the Classroom
 Economic Forces That Work
 Economic in history
 Economic with Geography
 Economics America (2 times)
 Educational Finance
 Finance
 How market forces work?
 Insurance
 Mathematics and Economics
 Microeconomics
 Personal Finance in Schools (3 times)
 Problem-Based Economics
 Simulations
 Stock market game

Teaching Economics in the Classroom (3 times)

Teaching market economics

Total Money Makeover

Using NCEE Economics lessons

Vital Connections (2 times)

Your personal finance

*Mathematics, Science, Technology,
and Agricultural Sciences*

Institutions used for continuing education in personal finance

Dave Ramsey - Financial Peace (5 times)

Hondros College

Mid State Credit Union (4 times)

OAAE/ODE/Ag Ed Service

OAAE/OSU/Ag Ed Service

OSU Marion

Wright State University (2 times)

Topics of continuing education in personal finance

Budgeting

Buying an Auto and Home

CBI

Credit Card and Credit Score

Dumping Debt

Economics 516-01

Economics 514

Hands-on Training

Identity Theft

Loans

Real estate finances

Record Keeping

Super Savers

Topics in personal finance for women

Understanding Insurance

Appendix 5:

Descriptive statistics of the survey instrument

In this section of the report, we present the descriptive statistics of the respondents with an emphasis on differences among academic content areas. These statistics include characteristics related to the teaching of personal finance, along with the characteristics of the students and teachers. The following sections provide detailed information on these findings and on differences among the teachers by academic content area.

Personal financial education in high schools

Table 1 summarizes information related to whether teachers were teaching personal finance at the time of the survey as well as the number of personal finance courses they were teaching.

Table 1: Teaching personal finance courses

Measure	Academic content area				
	All	Business Education	FCS	Social Studies	Other
	N (%)	N (%)	N (%)	N (%)	N (%)
Currently teaching personal finance (F=4.065, df=3, p=0.254)	681 (95.9)	218 (97.8)	256 (95.9)	132 (93.6)	73 (94.8)
No. of personal finance courses taught (F=45.752, df=6, p=0.000)					
1	360 (51.1)	100 (45.0)	110 (41.2)	99 (70.2)	51 (66.2)
2	210 (29.6)	78 (35.1)	99 (37.1)	22 (15.6)	11 (14.3)
3+	137 (19.3)	44 (19.8)	58 (21.7)	20 (14.2)	15 (19.5)

Note: Chi-square tests are used for categorical variables, and ANOVA is used for continuous variables; missing N for no. of personal finance courses taught = 3

The great majority (95.9%) of teachers surveyed were teaching personal finance courses at the time of the survey. The difference in the proportion teaching personal finance courses was not significant among the four academic content areas (Business Education, Family and Consumer Sciences, Social Studies, Other).

More than half of all teachers (51.1%) were teaching one personal finance course, with 29.6% teaching two, and 19.3% teaching three or more. The difference in the number of personal finance courses taught by academic content area

was significant at a level of 0.001. The majority of teachers in the Social Studies (70.2%) academic content area taught one personal finance course, while less than half of those in the Business Education (45.0%) and Family and Consumer Sciences (41.2%) groups taught one personal finance course. About one third of Business Education (35.1%) and Family and Consumer Sciences (37.1%) teachers taught two personal finance courses, while only about one-fifth of Social Studies (15.6%) teachers did so. The percentage of each group teaching three or more personal finances was in the range of 14.2% to 21.7%.

Table 2: Academic content area

Academic content area	N (%)
Business Education	223 (31.5)
Family and Consumer Sciences	267 (37.7)
Social Studies	141 (19.9)
Other	77 (10.9)

Note: Missing N = 2

A little more than one-third of all teachers were licensed in the area of Family and Consumer Sciences (37.7%), followed by Business Education (31.5%) and Social Studies (19.9%). All other teachers were included in the "Other" category, which includes academic content areas such as

Ag Business/Education/Science, Business, English/Language Arts, Computer Science & Vocational, Counselor, History, Economics, Elementary, Science/Physical Education, Health, Mathematics, Special Education, Technology, Trade and Industry, Vocational Education, and World Arts.

Courses covering personal finance topics

Table 3: Name of most relevant course covering personal finance topics taught by Business Education teachers

Course Name	N (%)
Personal Finance	86 (38.6)
Business	48 (21.5)
Accounting	31 (13.9)
Economics	8 (3.6)
Computer	6 (2.7)
Consumer Economics/Education/Rights	5 (2.2)
Finance	5 (2.2)
Mathematics	3 (1.3)
Career	2 (0.9)
Entrepreneurship/Business Ownership	2 (0.9)
Financial Planning/Services	2 (0.9)
Life Skills	2 (0.9)
Recordkeeping	2 (0.9)
Senior Seminar	2 (0.9)
Other	16 (7.2)
No Response	3 (1.3)

The name of the most relevant course covering personal finance topics taught by over one-third (38.6%) of Business Education teachers was Personal Finance, followed by Business (21.5%) and Accounting (13.9%). Business Education teachers also cited Economics, Computer, Consumer Economics/Education/Rights, Finance, Mathematics, and those listed in the table.

Courses falling into the "Other" category, with a frequency of one, include Banking & Borrowing, Banking & Finance, Business & Personal Finance, Business & Personal Law, Home Maintenance/Personal Finance, Jobs for Ohio Graduates, Marketing, Office Procedures, Personal Business Skills, Power Hour, and Skills for the Workplace.

Table 4: Name of most relevant course covering personal finance topics taught by Family and Consumer Sciences teachers

Course Name	N (%)
Life Skills/Management/Planning/Choices	84 (31.5)
Independent/Single Living/Living on Your Own	69 (25.8)
FCS/Home Economics/Resource Management	29 (10.9)
Career	16 (5.9)
GRADS (Graduation, Reality, and Dual-Role Skills)	11 (4.1)
Family Living/Relations	6 (2.2)
Personal Development/Resource Management	6 (2.2)
Personal Finance	6 (2.2)
Consumer Choices/Economics/Education/Science	5 (1.9)
College Life	4 (1.5)
Foods	3 (1.1)
Creative Living	2 (0.7)
Family & Parenting	2 (0.7)
Future Bound	2 (0.7)
Mentoring/Mentorship	2 (0.7)
Teen Survival	2 (0.7)
Other	17 (6.4)
No Response	1 (0.4)

For 31.5% of Family and Consumer Sciences teachers, the name of the most relevant course they taught covering personal finance topics was Life Skills, Life Management, Life Planning, or Life Choices. About one quarter (25.8%) listed a course titled Independent Living, Single Living, or Living on Your Own as the most relevant course covering personal finance topics. Among Family and Consumer Sciences teachers, 10.9% listed Family and Consumer Sciences/Home Economics/Resource Management as the most relevant course.

Other courses cited include Career-Based courses, GRADS (Graduation, Reality, and Dual-Role Skills), Family Living/Relations, Personal Development/Resource Management, Personal Finance, and so on (as listed in the table). Courses falling into the "Other" category are those with a frequency of one, and include Adult Role, Family Finance & Financial Education, Marriage & Family Living, Smart Food/Smart Money, Survivor, and So You Want to Be a Millionaire.

Table 5: Name of most relevant course covering personal finance topics taught by Social Studies teachers

Course Name	N (%)
Economics	64 (45.4)
Citizenship/Government/Civics	20 (14.2)
Government and Economics	12 (8.5)
History	12 (8.5)
Current/Contemporary Issues/Affairs	5 (3.5)
Social Studies	5 (3.5)
Career	4 (2.8)
Personal Finance	4 (2.8)
Global Connections/Issues	2 (1.4)
U.S. Studies	2 (1.4)
Other	11 (7.8)

Almost half of Social Studies teachers taught personal finance topics in an Economics course, followed by Citizenship/Government/Civics, Government and Economics, History, and so on (as listed in the table).

The category of "Other" includes those cited by only one teacher, such as Consumer Economics & Personal Finance, Economics/Personal Finance, Family Relations, Information Technology, Money & Banking, Research & Mentoring, Sociology, and World Geography.

Table 6: Name of most relevant course covering personal finance topics taught by other teachers

Course Name	N (%)
Personal Finance	15 (19.5)
Agricultural Business/Science	14 (18.2)
Mathematics	12 (15.6)
Career	4 (5.2)
Economics	4 (5.2)
English	2 (2.6)
Business	2 (2.6)
Health	2 (2.6)
Consumer Sciences	2 (2.6)
Other	20 (25.9)

There was much greater variety in the names of the most relevant course taught by other teachers. About one quarter of the course names cited were listed by only one teacher, which comprises the "Other" category, and includes Biblical Financial Principles, Business & Economics, Business & Personal Finance, Marketing Education, Nutrition & Wellness,

Personal & School Management, Techbridge, Woods Technology, and World Arts. About one-fifth (19.5%) listed the most relevant course name as Personal Finance, followed by Agricultural Business/Science (18.2%), and Mathematics (15.6%).

Table 7: Name of 2nd most relevant course covering personal finance topics taught by Business Education teachers

Course Name	N (%)
Business	39 (17.5)
Accounting	32 (14.3)
Computer Applications	6 (2.7)
Business Economics	5 (2.2)
Business Law	5 (2.2)
Personal Finance	4 (1.9)
Careers	3 (1.3)
Investments	3 (1.3)
Marketing	3 (1.3)
Medical Office	3 (1.3)
Other	8 (3.6)
No Response	112 (50.2)

About one-half of Business Education Teachers (50.2%) did not list a second-most relevant course. The most frequently cited course name was Business (17.5%), followed by Accounting (14.3%). Other course names, listed by only

one teacher each, include Consumer Education, Consumer Mathematics, Contracts and Insurance, Entrepreneurship, Life Choices, College Survival, Recordkeeping, and Senior Skills.

Table 8: Name of 2nd most relevant course covering personal finance topics taught by Family and Consumer Sciences teachers

Course Name	N (%)
Life Skills (Life Choices/Mgmt/Planning)	31 (11.6)
Family & Consumer Sciences (including Resource Management)	28 (10.5)
Independent Living/Living on your own	17 (6.4)
Family Living/Relationships/Studies	11 (4.1)
Parenting	9 (3.4)
Work & Family Life	7 (2.6)
Career	6 (2.2)
Child Development	5 (1.9)
Foods/Nutrition	4 (1.5)
Personal Finance (including budgeting/checking/saving)	3 (1.1)
College Survival	2 (0.7)
Creative Living	2 (0.7)
GRADS	2 (0.7)
Interior Design	2 (0.7)
Married and Single Life	2 (0.7)
Personal Development	2 (0.7)
Single Living	2 (0.7)
Survival Skills	2 (0.7)
Other	16 (6.0)
No Response	114 (42.7)

A total of 42.7% of Family and Consumer Sciences teachers did not list a second-most relevant course in which they taught personal finance topics. Life Skills/Choices/Management/Planning was the most frequently cited (11.6%), followed by Family and Consumer Sciences (10.5%).

The "Other" category includes those course names listed by only one teacher, such as Building Successful Families, Consumerism, Cuisine & Culture, Employability Skills, Foundations, Housing & Home Arts, Mentoring, Quest, and Technology in the Workplace.

Table 9: Name of 2nd most relevant course covering personal finance topics taught by Social Studies teachers

Course Name	N (%)
Economics	12 (8.5)
History	8 (5.7)
Current Events/Issues	3 (2.1)
Government/Civics	2 (2.1)
Other	6 (4.3)
No Response	110 (78.0)

Over three-quarters of Social Studies teachers (78.0%) did not list a second-most relevant course. The most frequently cited course was Economics (8.5%), followed by history courses (5.7%).

The "Other" category includes those course names listed by only one teacher, such as Social Studies, World Studies, Life Skills, Psychology, Sociology, and World Studies.

Table 10: Name of 2nd most relevant course covering personal finance topics taught by other academic content areas

Course Name	N (%)
Agricultural Business/Science	7 (9.1)
Business	5 (6.5)
Accounting	3 (3.9)
Other	9 (11.7)
No Response	53 (68.8)

About two-thirds of other academic content areas did not provide a name for a second course. The most frequently cited course was Agricultural Business/Science (9.1%), followed by Business (6.5%). Other course names, listed by only one

teacher each, include Career, Child Development, College Mathematics, Computer Applications, English, Mechanical Drawing, Personal Money Management, Real World 101, and World Issues.

Table 11: Instruction time on personal finance

Measures	Academic content area				
	All	Business Education	FCS	Social Studies	Other
	N (%)	N (%)	N (%)	N (%)	N (%)
100%	83(11.7)	62 (27.9)	13 (4.9)	0 (0.0)	8 (10.4)
90% to 99%	40 (5.6)	28 (12.6)	5 (1.9)	3 (2.1)	4 (5.2)
80% to 89%	27 (3.8)	7 (3.2)	11 (4.1)	2 (1.4)	7 (9.1)
70% to 79%	39 (5.5)	15 (6.8)	13 (4.9)	7 (5.0)	4 (5.2)
60% to 69%	19 (2.7)	1 (0.5)	9 (3.4)	5 (3.5)	3 (3.9)
50% to 59%	52 (7.3)	16 (7.2)	22 (8.2)	7 (5.0)	7 (9.1)
40% to 49%	55 (7.8)	22 (9.9)	19 (7.1)	8 (5.7)	5 (6.5)
30% to 39%	94 (13.3)	16 (7.2)	50 (18.7)	21 (14.9)	7 (9.1)
20% to 29%	121 (17.1)	26 (11.7)	64 (24.0)	23 (16.3)	8 (10.4)
10% to 19%	115 (16.2)	19 (8.6)	49 (18.4)	33 (23.4)	14 (18.2)
< 10%	64 (9.0)	10 (4.5)	12 (4.5)	32 (22.7)	10 (13.0)

Note: F=206.130, df=30, p=0.000; Chi-square tests are used for categorical variables, and ANOVA is used for continuous variables; missing N = 3

Only 11.7% of all teachers spent 100% of their instruction time on personal finance topics. There is a statistically significant difference in the amount of instruction time spent on personal finance topics among the academic content areas. Business Education teachers had the greatest proportion (27.9%) of those spending 100% of instruction time on personal finance topics, while only 4.9% of Family and Consumer Sciences teachers and 10.4% of those in the other academic content areas spent all of their instruction time on personal finance.

None of the Social Studies teachers dedicated 100% of their instruction time to personal finance topics. Business Education, Family and Consumer Sciences, and Other teachers seem to be spread across the instruction time distribution, while Social Studies teachers have a smaller proportion dedicating a greater amount of instruction time and a larger proportion dedicating less instruction time to teaching personal finance topics.

Table 12: Topics taught – Financial planning, goal setting, and decision making

Measures	Academic content area					
	All	Business Education	FCS	Social Studies	Other	Missing
	N (%)	N (%)	N (%)	N (%)	N (%)	N (%)
Financial planning process (F=13.725, df=3, p=0.003)	560 (80.7)	182 (83.9)	218 (83.5)	96 (69.6)	62 (81.6)	18 (2.5)
Needs vs. wants (F=29.095, df=3, p=0.000)	651 (93.3)	187 (86.6)	257 (97.0)	137 (98.6)	68 (89.5)	14 (2.0)
Setting goals (F=36.303, df=3, p=0.000)	639 (91.9)	198 (91.7)	261 (98.5)	111 (81.6)	67 (88.2)	17 (2.4)
Short-, intermediate-, and long-term goals (F=56.925, df=3, p=0.000)	599 (87.3)	184 (85.6)	255 (98.1)	97 (72.4)	62 (81.6)	25 (3.5)
Net worth, cash flow (F=13.302, df=3, p=0.004)	433 (66.2)	163 (75.5)	143 (61.4)	78 (59.5)	48 (65.8)	57 (8.0)
Tracking money, spending record (F=55.719, df=3, p=0.000)	597 (86.3)	198 (90.8)	242 (92.4)	90 (66.7)	65 (86.7)	20 (2.8)
Financial decision making (F=3.842, df=3, p=0.279)	640 (92.5)	204 (93.2)	243 (94.2)	122 (89.1)	69 (90.8)	20 (2.8)
Living with limited resources (F=12.846, df=3, p=0.005)	544 (81.3)	162 (76.4)	211 (85.1)	115 (87.1)	54 (72.0)	43 (6.1)
Delayed gratification (F=8.587, df=3, p=0.035)	423 (65.1)	129 (61.7)	172 (72.0)	78 (61.4)	42 (57.5)	62 (8.7)
Opportunity cost (F=35.076, df=3, p=0.000)	414 (63.9)	145 (68.7)	121 (53.3)	110 (80.9)	37 (51.4)	64 (9.0)
Personal financial responsibility (F=21.065, df=3, p=0.000)	636 (92.2)	204 (94.0)	251 (96.2)	114 (84.4)	65 (86.7)	22 (3.1)
Cost of living (F=0.139, df=3, p=0.027)	580 (86.1)	180 (83.7)	215 (86.7)	124 (92.5)	59 (78.7)	38 (5.4)
Employee benefits (F=18.050, df=3, p=0.000)	521 (77.6)	185 (85.3)	196 (78.1)	92 (71.3)	46 (63.9)	41 (5.8)

Note: Chi-square test is used for categorical variables, and ANOVA is used for continuous variables.

The majority of all teachers covered all of the topics related to financial planning, goal setting, and decision making. The topics taught most commonly were “needs vs. wants” (93.3%), “setting goals” (91.9%), “financial decision making” (92.5%), and “personal financial responsibility” (92.2%). The topics that had the least proportion of teachers covering them were “opportunity cost” (63.9%), “delayed gratification” (65.1%), and “net worth, cash flow” (66.2%).

The most commonly covered topic among Business Education teachers was “personal financial responsibility” (94.0%), while the least commonly covered topic among this group

of teachers was “delayed gratification” (61.7%). Among the Family and Consumer Sciences teachers, the most commonly covered topic was “short-, intermediate-, and long-term goals” (98.1%), and the least commonly covered topic was “opportunity cost” (53.3%). The most frequently cited topic among Social Studies teachers was “needs vs. wants” (98.6%), with the least frequently cited topic being “net worth, cash flow” (59.5%). There were statistically significant differences among the academic content areas in the proportion teaching all of the topics except for financial decision-making (p=0.279).

Table 13: Topics taught - Budgeting

Measures	Academic content area					
	All	Business Education	FCS	Social Studies	Other	Missing
	N (%)	N (%)	N (%)	N (%)	N (%)	N (%)
Gross and net income (F=26.492, df=3, p=0.000)	621 (89.9)	208 (94.5)	241 (92.7)	105 (78.9)	65 (85.5)	21 (3.0)
Payroll deductions (F=60.111, df=3, p=0.000)	539 (79.1)	196 (89.9)	214 (84.6)	79 (59.4)	49 (65.3)	31 (4.4)
Federal income tax, State income tax (F=22.771, df=3, p=0.000)	528 (78.0)	191 (88.0)	179 (71.9)	106 (78.5)	50 (67.6)	35 (4.9)
Social Security tax, Medicare tax (F=32.097, df=3, p=0.000)	492 (74.0)	185 (86.4)	163 (67.6)	100 (74.6)	43 (58.1)	47 (6.6)
Forms W-4, W-2, 1040 (F=48.400, df=3, p=0.000)	382 (59.1)	163 (78.4)	122 (52.4)	63 (48.8)	33 (44.6)	66 (9.3)
Fixed and variable expenses (F=50.963, df=3, p=0.000)	568 (82.9)	181 (83.8)	243 (93.5)	88 (66.2)	55 (74.3)	27 (3.8)
Building a budget (F=57.211, df=3, p=0.000)	587 (85.7)	176 (83.0)	248 (94.7)	90 (67.7)	71 (93.4)	27 (3.8)
Record keeping (F=87.368, df=3, p=0.000)	558 (82.5)	191 (89.3)	233 (90.7)	66 (51.6)	66 (88.0)	36 (5.1)
P.Y.F. (pay yourself first) (F=55.511, df=3, p=0.000)	392 (59.0)	139 (66.2)	177 (70.2)	46 (35.9)	30 (41.1)	47 (6.6)
Consumer spending skills (F=22.218, df=3, p=0.000)	546 (81.0)	170 (81.0)	223 (88.5)	100 (74.6)	51 (67.1)	38 (5.4)
Transaction services (F=53.958, df=3, p=0.000)	572 (83.0)	195 (89.0)	233 (89.6)	84 (62.7)	58 (78.4)	23 (3.2)
Minimum balances, charges, fees (F=41.697, df=3, p=0.000)	539 (79.0)	190 (86.0)	218 (84.8)	79 (60.8)	50 (69.4)	30 (4.2)

Note: Chi-square test is used for categorical variables, and ANOVA is used for continuous variables.

The majority of teachers covered all of the budgeting topics in the survey. The most commonly taught topics were “gross and net income” (89.9%) and “building a budget” (85.7%). The least commonly covered topics were “P.Y.F. (pay yourself first)” (59.0%) and “Forms W-4, W-2, 1040” (59.1%).

More than half of the Business Education and Family and Consumer Sciences teachers covered each budgeting topic, while less than half of Social Studies teachers covered “P.Y.F. (pay yourself first)” (35.9%; 41.1) and “Forms W-4, W-2, 1040” (48.8%; 44.6%). The difference in the proportion of each group teaching the budgeting topics was statistically significant for each individual topic at a level of 0.001.

Table 14: Topics taught – Savings and investments

Measures	Academic content area					
	All	Business Education	FCS	Social Studies	Other	Missing
	N (%)	N (%)	N (%)	N (%)	N (%)	N (%)
Rate of return (F=33.777, df=3, p=0.000)	358 (54.8)	142 (67.9)	97 (40.9)	77 (58.3)	42 (56.8)	58 (8.2)
Earned interest (F=18.572, df=3, p=0.000)	481 (70.3)	176 (81.1)	162 (64.3)	94 (68.6)	48 (63.2)	28 (3.9)
Compounding interest (F=12.893, df=3, p=0.005)	430 (63.6)	157 (73.0)	145 (58.0)	79 (59.0)	47 (62.7)	36 (5.1)
Rule of 72 (F=16.227, df=3, p=0.001)	283 (43.2)	110 (53.4)	101 (41.7)	41 (31.8)	30 (39.5)	57 (8.0)
Risk and return of investments (F=52.950, df=3, p=0.000)	356 (54.0)	147 (69.7)	88 (37.0)	84 (62.2)	36 (49.3)	53 (7.5)
Diversification of a portfolio (F=71.223, df=3, p=0.000)	281 (43.3)	124 (59.0)	52 (22.4)	74 (56.1)	31 (41.9)	62 (8.7)
Impact of inflation and taxes on return (F=65.627, df=3, p=0.000)	242 (37.7)	100 (47.8)	43 (18.9)	75 (57.3)	24 (32.9)	69 (9.7)
Emergency fund and cash accounts (F=24.771, df=3, p=0.000)	364 (55.5)	133 (62.7)	149 (61.1)	49 (38.9)	33 (45.2)	55 (7.7)
Basic cash reserves (F=4.066, df=3, p=0.254)	472 (70.2)	158 (74.9)	167 (66.8)	95 (70.9)	50 (66.7)	40 (5.6)
Fixed income investments (F=31.824, df=3, p=0.000)	316 (48.5)	120 (58.0)	83 (35.3)	80 (60.2)	32 (43.2)	61 (8.6)
Growth investments (F=71.272, df=3, p=0.000)	357 (54.5)	145 (69.0)	79 (33.8)	94 (69.6)	38 (51.4)	57 (8.0)
Stock market simulation games (F=117.576, df=3, p=0.000)	223 (35.2)	107 (51.4)	21 (9.5)	75 (57.3)	20 (27.8)	78 (11.0)

Note: Chi-square test is used for categorical variables, and ANOVA is used for continuous variables.

Regarding the personal finance topics taught by teachers, the most common topics taught among all teachers were earned interest (70.3%) and basic cash reserves (70.2%). The least common topics taught among all teachers were stock market simulation games (35.2%) and the impact of inflation and taxes on returns (37.7%).

Among Business Education and Family and Consumer Sciences teachers, the most commonly cited topics were earned interest (81.1%, 64.3%, and 63.2%, respectively) and basic cash reserves (74.9%, 66.8%, and 66.7%, respectively). The least commonly cited topics among Business Education and Family and Consumer Sciences teachers were the impact

of inflation and taxes on return (47.8%, 18.9%, and 32.9%, respectively) and stock market simulation games (51.4%, 9.5%, and 27.8%, respectively).

Among Social Studies teachers, the most common topics were growth investments (69.6%), which differs from the most commonly taught topic among the other academic content areas, and earned interest (68.6%). The topics mentioned by the smallest proportion of Social Studies teachers were the Rule of 72 (31.8%) and emergency fund and cash accounts (38.9%). Except for the topic of basic cash reserves, every savings and investment topic differed significantly by academic content area, at a 1% level of significance.

Table 15: Topics taught – Consumer credit

Measures	Academic content area					
	All	Business Education	FCS	Social Studies	Other	Missing
	N (%)	N (%)	N (%)	N (%)	N (%)	N (%)
APR (F=38.891, df=3, p=0.000)	503 (74.4)	180 (84.1)	199 (78.0)	73 (55.7)	49 (66.2)	36 (5.1)
Types of loans (F=17.041, df=3, p=0.001)	511 (75.5)	177 (82.7)	194 (76.1)	84 (63.2)	55 (74.3)	34 (4.8)
Benefits of credit (F=53.431, df=3, p=0.000)	539 (80.0)	180 (85.7)	227 (88.3)	79 (59.8)	51 (69.9)	38 (5.4)
Credit cards, fees, and charges (F=26.263, df=3, p=0.000)	607 (87.2)	196 (90.7)	244 (92.1)	106 (76.8)	59 (78.7)	16 (2.3)
Grace period (F=42.351, df=3, p=0.000)	481 (71.6)	163 (78.0)	207 (79.6)	68 (53.1)	41 (56.2)	40 (5.6)
Comparing credit offers (F=32.636, df=3, p=0.000)	472 (70.6)	163 (76.9)	196 (77.2)	69 (53.5)	42 (58.3)	43 (6.1)
Credit report, history, score (F=49.084, df=3, p=0.000)	506 (74.4)	169 (79.0)	217 (84.1)	71 (53.8)	47 (63.5)	32 (4.5)
Balance transfers on credit cards (F=19.131, df=3, p=0.000)	350 (53.8)	126 (60.9)	142 (57.7)	52 (41.9)	28 (38.9)	61 (8.6)
Student loans (F=3.891, df=3, p=0.274)	363 (55.7)	108 (52.7)	133 (54.5)	82 (63.1)	38 (53.5)	60 (8.5)
Financing a home with a mortgage (F=19.723, df=3, p=0.000)	405 (61.3)	152 (72.0)	125 (51.7)	81 (61.4)	45 (60.8)	51 (7.2)
Financing an automobile (F=13.004, df=3, p=0.005)	477 (70.6)	171 (79.5)	164 (64.8)	88 (67.7)	52 (68.4)	36 (5.1)
Bankruptcy (F=19.455, df=3, p=0.000)	344 (52.9)	131 (63.9)	112 (46.7)	71 (54.2)	28 (38.9)	62 (8.7)
Identity theft (F=52.678, df=3, p=0.000)	442 (65.8)	150 (70.8)	199 (76.8)	61 (48.0)	30 (41.7)	40 (5.6)
Predatory lending (F=5.223, df=3, p=0.156)	190 (30.1)	65 (32.2)	58 (25.3)	45 (36.0)	20 (27.4)	81 (11.4)

Note: Chi-square test is used for categorical variables, and ANOVA is used for continuous variables.

The most commonly cited consumer credit topics taught among all teachers were credit cards, fees, and charges (87.2%) and benefits of credit (80.0%). Except for student loans and predatory lending, the differences in each consumer credit topic taught by the groups of teachers by academic content area were statistically significant at the 1% level.

Among the Business Education and Family and Consumer Sciences teachers, the most commonly cited consumer credit topics were credit cards, fees, and charges (90.7% and 92.1%, respectively) and benefits of credit (85.7% and 88.3%, respectively). Among the Social Studies teachers, the most commonly cited topics were credit cards, fees, and charges (76.8%) and financing an automobile (67.7%).

Table 16: Topics taught – Insurance

Measures	Academic content area					
	All	Business Education	FCS	Social Studies	Other	Missing
	N (%)	N (%)	N (%)	N (%)	N (%)	N (%)
Risk management (F=29.539, df=3, p=0.000)	284 (44.2)	118 (57.6)	94 (39.5)	35 (28.5)	35 (46.7)	69 (9.7)
Concept of insurance (F=6.022, df=3, p=0.111)	526 (76.3)	174 (80.9)	201 (76.7)	94 (70.1)	55 (72.4)	23 (3.2)
Insurance premium (F=32.951, df=3, p=0.000)	452 (66.9)	172 (80.0)	169 (66.0)	67 (52.3)	42 (56.0)	36 (5.1)
Deductibles (F=19.380, df=3, p=0.000)	471 (69.2)	166 (77.2)	183 (71.2)	75 (56.8)	45 (60.0)	31 (4.4)
Types of auto insurance coverage (F=21.632, df=3, p=0.000)	418 (62.4)	149 (70.6)	165 (65.0)	60 (46.5)	42 (56.8)	42 (5.9)
Factors affecting auto policy costs (F=21.944, df=3, p=0.000)	404 (61.1)	146 (69.9)	158 (63.5)	58 (45.3)	40 (54.8)	51 (7.2)
Future insurance needs (F=18.655, df=3, p=0.000)	434 (64.8)	146 (69.5)	179 (70.2)	66 (51.2)	41 (55.4)	42 (5.9)

Note: Chi-square test is used for categorical variables, and ANOVA is used for continuous variables.

Among the personal finance topics related to insurance, the most commonly cited among all teachers were the concept of insurance (76.3%) and deductibles (69.2%). With the exception of the concept of insurance, the difference in the proportion of teachers teaching each insurance topic was statistically significant (1% level of significance).

Among the Business Education teachers, the most commonly cited insurance topics were the concept of insurance (80.9%) and insurance premiums (80.0%). The most commonly cited insurance topics among the groups of Family and Consumer Sciences and Social Studies teachers were the concept of insurance (76.7%, 70.1%) and deductibles (71.2%, 56.8%).

Table 17: Other topics related to personal finance covered

401(k)s, 403(b)s, IRAs, Roth IRAs	Credit history
Accounting terms and concepts	Debt-free living
Assets and liabilities	Decision making
ATMs & Debit Cards	Deposit slips
Attitudes about money management	Depreciation
Automatic deposit and withdrawal	Disability, worker's comp Insurance
Auto leasing versus owning	Dual incomes
Automatic Millionaire book	Earning power
Banking and banking services	e-commerce
Basic accounting cycle	economic cycles/issues
Basic economics	Economic systems
Bonds	Economy
Budget meals	Education & earnings
Budgeting	Effect of spending on national economy
Business Finance	Emergency funds
Buying a used car	Employment (applications, resumes, laws, etc.)
Career planning/choices/development	Equity
Cash purchases	Ethical investing
Cashier checks	Federal reserve interest rates & money supply
Catalog buying	Figuring tips
Cell phone plans	Financial crisis
Charitable contributions	Financial institutions
Check writing/reconciliation/balancing	Financing college & student loans
Childcare costs	Free enterprise system
Common finance mistakes	Furnishing a house/apartment
Communication/relationships	Futures contracts
Comparing bank services	Government indicators
Comparing loan terms	Gross & net pay
Comparison shopping	Health related issues
Computer assisted accounting	History of money
Computer hardware & software	Home insurance
Consumer awareness	Identity theft
Consumer fraud issues	Influences of advertising
Consumer protection laws	Internet shopping
Consumer purchase/negotiation skills	Interpersonal relationship skills
Consumer support organizations	Interview skills
Consumerism	Job skills
Contracts	Leases
Cost of food, housing, utilities	Leasing furniture and appliances
Cost of living	Life insurance
Cost of raising a child	Liquidity
Costs of miscellaneous spending	Living within a budget
CPI and inflation	Long term care insurance
Credit card traps	Long-term and short-term future goals

Marginal utility	Estate planning
Marriage & budgeting/finances	Sales, returns, and taxes
Money management strategies	Satellite/cable plans
Mutual funds	Savings accounts
Non-monetary employment benefits	Setting financial goals
Occupation pay scales	Shopping habits
Online banking	Single parenting budgeting
Opportunity costs	Social Security
Payday loans	Socialism
Personal savings account	Stock market
Planning a wedding	Student loans
Portfolio diversification	Supply and demand
Prenuptial agreements	Taxes
Price quotations	Technology purchases
Pricing	term versus whole life insurance
Property insurance	Time value of money
Purchasing a car	Travel checks
Purchasing/renting a home	Travel costs
Quicken money management program	Variable/fixed expenses
Renting	Warranties
Restaurant meal costs	Welfare
Retirement/Retirement Portfolio	

Teachers listed many other topics related to personal finance topics, as listed in the table above. These topics ranged from those which are very basic, including the costs of food, housing, and utilities, to more detailed items, such as 401(k)s, 403(b)s, IRAs, and Roth IRAs. Many economic terms were cited, including CPI, inflation, free enterprise, Federal Reserve interest rates and money supply, and so on.

Although the terms were not broken down by academic content area as the open-ended responses made categorization difficult, several topics appear to be related to the teacher's background, as expected. For example, Family and Consumer Sciences teachers may list childcare costs, while Social Studies teachers may cite the history of money as a topic.

Class characteristics

Table 18: Total number of students

Measures	Academic content area				
	All	Business Education	FCS	Social Studies	Other
	Mean (s.e.)	Mean (s.e.)	Mean (s.e.)	Mean (s.e.)	Mean (s.e.)
Number of Students	50.51 (1.778)	42.95 (2.344)	47.15 (2.929)	70.65 (4.518)	46.75 (6.142)

Note: $F=11.548$, $df=3$, $p=0.000$; missing $N = 7$

The mean number of students in courses including topics on personal finance was 50.51. Social Studies teachers had the highest mean number of students (70.65), while the other

academic content areas had an average of 43 to 47 students. The difference in the number of students by the teacher groups was statistically significant ($p=0.000$).

Table 19: Mean number of students by grade

Measure	Academic content area					
	All	Business Education	FCS	Social Studies	Other	Missing
	Mean (s.e.)	Mean (s.e.)	Mean (s.e.)	Mean (s.e.)	Mean (s.e.)	Mean (s.e.)
Grade 9 ($F=0.821$, $df=3$, $p=0.482$)	6.64 (0.705)	5.47 (0.921)	7.71 (1.237)	5.74 (1.678)	8.03 (2.655)	10
Grade 10 ($F=1.140$, $df=3$, $p=0.332$)	9.53 (0.889)	7.75 (0.831)	11.57 (1.527)	8.99 (2.183)	8.66 (4.075)	10
Grade 11 ($F=4.387$, $df=3$, $p=0.005$)	14.09 (.897)	13.78 (1.084)	11.94 (1.277)	20.31 (3.111)	11.19 (2.232)	10
Grade 12 ($F=19.722$, $df=3$, $p=0.000$)	20.16 (1.078)	15.94 (1.169)	15.54 (1.170)	35.96 (4.024)	18.87 (2.889)	10

Note: Chi-square test is used for categorical variables, and ANOVA is used for continuous variables.

Among all of the teachers, the average number of students in each grade, from Grade 9 to Grade 12, were 6.64 students in Grade 9, 9.53 students in Grade 10, 14.09 students in Grade 11, and 20.16 students in Grade 12. The average number of students in Grade 9 and Grade 10 was not significantly different among the groups of teachers by academic content

area, while there were statistically significant differences in the average number of students in Grades 11 and 12 by the groups of teachers ($p<0.01$). The average number of students in each grade increased for all of the teacher groups, with the smallest average number of students in Grade 9, and the highest average number of students in Grade 12.

Table 20: Course structure

Measure	Academic content area					
	All	Business Education	FCS	Social Studies	Other	Missing
	N (%)	N (%)	N (%)	N (%)	N (%)	N (%)
Required or Elective Course (F=222.892, df=6, p=0.000)						
Required	140 (19.9)	16 (7.2)	20 (7.6)	89 (63.1)	14 (18.4)	7 (1.0%)
Elective	533 (75.6)	197 (88.7)	235 (89.0)	44 (31.2)	56 (73.7)	
Some required/elective	32 (4.5)	9 (4.1)	9 (3.4)	8 (5.7)	6 (7.9)	
Course Length (F=56.802, df=6, p=0.000)						
1 semester	453 (64.3)	132 (59.5)	207 (78.1)	86 (61.4)	27 (36.0)	8 (1.1%)
2 semesters	210 (29.8)	79 (35.6)	44 (16.6)	43 (30.7)	43 (57.3)	
Other	41 (5.8)	11 (5.0)	14 (5.3)	11 (7.9)	5 (6.7)	
Schedule (F=4.858, df=6, p=0.562)						
Traditional	573 (81.2)	187 (83.9)	216 (81.5)	105 (75.0)	63 (82.9)	6 (0.8%)
Block	105 (14.9)	29 (13.0)	38 (14.3)	28 (20.0)	10 (13.2)	
Other	28 (4.0)	7 (3.1)	11 (4.2)	7 (5.0)	3 (3.9)	

Note: Chi-square test is used for categorical variables, and ANOVA is used for continuous variables.

The courses in which teachers teach personal finance topics can be arranged in a variety of ways. This section presents the results regarding whether the course is required or an elective, the length of the course, and whether the scheduling is traditional, block, or other. Among all of the teachers, as well as the groups of Business Education and Family and Consumer Sciences teachers, the majority of the courses in which they covered personal finance topics were electives (75.6%, 88.7%, 89.0%). For the group of Social Studies teachers, the majority of the courses were required (63.1%). The difference in the proportion of the teacher groups by academic content area whose courses were required, elective, or a mix was highly statistically significant (p=0.000).

For the majority of all teachers as a group, the course length was one semester (64.3%). The courses for the majority of each teacher group were one semester (Business Education 59.5%, Family and Consumer Sciences 78.1%, Social Studies 63.1%). The difference in course length by academic content area was highly significant (p=0.000).

Regarding the course scheduling, the majority of teachers indicated that the courses in which they taught personal finance were based on a traditional schedule (81.2%), and the majority of each group of teachers had courses based on a traditional schedule (Business Education 83.9%, Family and Consumer Sciences 81.5%, Social Studies 75.0%). The difference in the course scheduling type by academic content area was not significant.

Table 21: Mean percentage of course characteristics by academic content area

Measure	Academic content area					
	All	Business Education	FCS	Social Studies	Other	Missing
	Mean (s.e.)	Mean (s.e.)	Mean (s.e.)	Mean (s.e.)	Mean (s.e.)	Mean (s.e.)
Course meetings per week ($F=0.785$, $df=3$, $p=0.502$)	4.82 (0.040)	4.88 (0.039)	4.78 (0.052)	4.87 (0.158)	4.70 (0.097)	3
Number of students with a grade of C or higher ($F=9.950$, $df=3$, $p=0.000$)	42.37 (1.471)	37.73 (2.125)	40.74 (2.514)	57.36 (3.776)	33.43 (3.795)	20
Number of ESL/ELL students ($F=2.624$, $df=3$, $p=0.050$)	2.06 (0.174)	1.77 (0.258)	2.67 (0.341)	1.80 (0.339)	1.35 (0.448)	81
Percentage of students expected to graduate ($F=3.943$, $df=3$, $p=0.008$)	94.29 (0.487)	96.49 (0.521)	94.09 (0.861)	92.45 (1.213)	92.01 (1.906)	7
Percentage of students expected to enter college ($F=7.234$, $df=3$, $p=0.000$)	62.01 (1.016)	66.69 (1.671)	56.94 (1.698)	66.22 (2.247)	58.03 (3.132)	12

The mean number of course meetings per week among all teachers was 4.82. The difference in the mean number of course meetings did not significantly differ among the academic content areas ($p=0.502$). The mean number of students with a grade of C or higher among all teachers was 42.37, with Social Studies teachers having the highest mean

number of students (57.36), followed by Family and Consumer Sciences (40.74) and Business Education (37.73) teachers. However, it is important to note that Social Studies had the highest mean number of students in general (70.65), followed by Family and Consumer Sciences (47.15), and Business Education (42.95) teachers.

Table 22: Mean percentage of students by race and gender

Measure	Academic content area					
	All	Business Education	FCS	Social Studies	Other	Missing
	Mean (s.e.)	Mean (s.e.)	Mean (s.e.)	Mean (s.e.)	Mean (s.e.)	Mean (s.e.)
Percentage by race						
White (F=0.825, df=3, p=0.480)	85.68 (0.904)	86.33 (1.617)	86.77 (1.351)	83.10 (2.241)	84.65 (2.959)	28
Black (F=1.293, df=3, p=0.276)	10.58 (0.825)	10.04 (1.512)	10.12 (1.167)	13.02 (2.105)	12.84 (2.707)	28
Hispanic (F=1.501, df=3, p=0.213)	2.22 (0.192)	1.93 (0.264)	2.70 (0.389)	2.11 (0.383)	1.54 (0.456)	28
Asian (F=0.291, df=3, p=0.689)	0.84 (0.116)	0.96 (0.147)	0.69 (0.169)	1.01 (0.3970)	0.75 (0.280)	28
Other (F=0.803, df=3, p=0.493)	0.68 (0.094)	0.74 (0.174)	0.72 (0.150)	0.76 (0.243)	0.27 (0.148)	28
Percentage of students by gender						
Male (F=14.867, df=3, p=0.000)	45.57 (0.792)	49.08 (1.316)	39.23 (1.216)	48.36 (1.649)	52.91 (2.948)	0
Female (F=25.828, df=3, p=0.000)	47.87 (0.806)	42.73 (1.228)	56.58 (1.323)	43.07 (1.548)	41.85 (2.815)	0

Among all teachers, the majority of students were categorized as White, with a mean of 85.68% White. The mean value for the proportion of Black students was 10.58%, followed by 2.22% Hispanic, 0.84% Asian, and 0.68% Other. The difference in the distribution by race was not significantly different among the four academic content areas.

The mean percentage of male and female students was rather balanced, with a mean of 45.57% male and 47.87% female among all teachers. The difference in the mean percentage of

males and females was significantly different among the four academic content areas.

Business Education teachers had a higher mean percentage of males (49.08%) than females (42.73%), as did Social Studies teachers (male: 48.36%; female: 43.07%). Family and Consumer Sciences teachers had a much higher mean percentage of females (56.58%) compared to the mean percentage of male students (39.23%).

Teaching personal finance topics

Table 23: Feelings about teaching personal finance topics

	Academic content area					
	All	Business Education	FCS	Social Studies	Other	Missing
	Mean (s.e.)	Mean (s.e.)	Mean (s.e.)	Mean (s.e.)	Mean (s.e.)	Mean (s.e.)
Enjoyable (F=16.301, df=3, p=0.000)	5.73 (0.046)	6.18 (0.075)	5.53 (0.074)	5.40 (0.105)	5.69 (0.145)	1
Satisfying (F=18.911, df=3, p=0.000)	5.70 (0.045)	6.14 (0.067)	5.51 (0.078)	5.30 (0.104)	5.78 (0.128)	4
Important (F=8.671, df=3, p=0.000)	6.49 (0.035)	6.68 (0.053)	6.51 (0.063)	6.17 (0.081)	6.45 (0.104)	7
Challenging (F=1.973, df=3, p=0.117)	5.08 (0.053)	4.97 (0.101)	5.24 (0.082)	4.96 (0.104)	5.04 (0.173)	8
Easy (F=1.816, df=3, p=0.143)	2.80 (0.064)	2.84 (0.103)	2.83 (0.110)	2.51 (0.136)	3.00 (0.203)	6

Note: Items were ranked on a scale from 1 to 7

Teachers were given five terms that aim at assessing their feelings about teaching personal finance topics, and were asked to rate their feelings on a scale of 1 to 7, with 1 representing least agreement with the term, and 7 indicating the most agreement with the term. Regarding how enjoyable teaching personal finance is, the average response given by teachers was 5.73, indicating that they did find teaching personal finance to be rather enjoyable. Business Education teachers had the highest average value at 6.18, indicating that Business Education teachers found teaching personal finance to be very enjoyable, while the mean value for Social Studies teachers was the lowest at 5.40.

The difference among the four academic content areas was statistically significant ($p=0.000$). The mean score given for whether teaching personal finance is satisfying was 5.70, with Business Education teachers again having the highest mean score at 6.14, and Social Studies the lowest at 5.30. The difference among the academic content areas was highly statistically significant ($p=0.000$). When asked to indicate how important teaching personal finance is to them, the mean score given was 6.49, indicating that the teachers

found teaching such topics to be very important. The group of Business Education teachers again had the highest mean score with a value of 6.68, and the Social Studies had the lowest mean value at 6.17. The difference among the four academic content areas was highly statistically significant ($p=0.000$).

Regarding how challenging teaching personal finance topics is, the teachers provided a mean score of 5.08, indicating that they find teaching such topics to be somewhat challenging. Family and Consumer Sciences teachers had the highest mean value for this measure at 5.24, indicating that this group of teachers found teaching personal finance topics to be very challenging. Social Studies had the lowest value at 4.96. The difference among the four teacher groups was not significant. On a scale of 1 to 7, with 1 being the most difficult and 7 being the easiest, teachers provided a mean score of 2.8, indicating that they find teaching personal finance topics to be somewhat difficult. The difference among the four teacher groups' mean responses to this measure was not statistically significant.

Table 24: Process of choosing information and materials for personal finance course

	Academic content area					
	All	Business Education	FCS	Social Studies	Other	Missing
	Mean (s.e.)	Mean (s.e.)	Mean (s.e.)	Mean (s.e.)	Mean (s.e.)	Mean (s.e.)
The process of selecting an information source and classroom materials for my personal finance course(s) is important to me. (F=8.982, df=12, p=0.000)	4.48 (0.024)	4.55 (0.042)	4.55 (0.035)	4.25 (0.057)	4.41 (0.071)	7
It pays to select the best source of information and materials for teaching personal finance (F=3.107, df=12, p=0.026)	4.51 (0.022)	4.51 (0.043)	4.58 (0.033)	4.39 (0.051)	4.47 (0.066)	5
I believe I could be quite helpful to colleagues having difficulty finding information and materials for teaching personal finance courses. (F=16.178, df=12, p=0.000)	3.80 (0.033)	4.11 (0.054)	3.74 (0.055)	3.53 (0.075)	3.59 (0.096)	4
I feel quite knowledgeable about personal finance. (F=13.517, df=12, p=0.000)	4.04 (0.028)	4.30 (0.045)	3.93 (0.045)	3.89 (0.067)	3.95 (0.093)	5
I find learning new things in personal finance interesting and exciting. (F=10.218, df=12, p=0.000)	4.38 (0.026)	4.57 (0.042)	4.35 (0.046)	4.18 (0.055)	4.29 (0.080)	6

Note: Items were ranked on a scale ranging from 1=strongly disagree to 5=strongly agree

Among all teachers, the mean value given on a scale of 1 to 5, with 5 being most strongly agree, was 4.48 in regards to the process of selecting an information source and classroom materials for the personal finance course being important, indicating that this process is very important for the group of teachers. The mean value was highest for the Business Education and Family and Consumer Sciences teacher groups (4.55), and was lowest for the group of Social Studies teachers (4.25). The difference in the mean values by academic content area was significantly different (p=0.000).

Regarding whether it pays to select the best source of information and materials for teaching personal finance, the mean value given by all teachers was 4.51, indicating that this is also very important to the group of teachers. The highest mean value given for this statement was among the Family and Consumer Sciences teacher group (4.58), and was lowest for the Social Studies group (4.39). The difference among the academic content areas was statistically significant (p<0.05).

When asked whether they feel that they are helpful to colleagues having difficulty finding information and materials for teaching personal finance, the mean value given was 3.80, indicating that the teachers somewhat agree with the statement. The mean value for this statement was highest among the Business Education teacher group (4.11) and lowest for the Social Studies group (3.53). The difference in the mean response given for this statement by academic content area was highly significant (p=0.000).

The teachers were also asked whether they feel knowledgeable about personal finance, and the mean value was 4.04, indicating that the teachers strongly agree with the statement. The group with the highest mean value was Business Education teachers (4.30), and the lowest mean value was for the Social Studies teachers (3.89). The difference in the mean values among the academic content areas was highly statistically significant (p=0.000).

Table 25: Major challenges when teaching personal finance topics

	Academic content area				
	All	Business Education	FCS	Social Studies	Other
	N (%)	N (%)	N (%)	N (%)	N (%)
I don't have enough subject matter knowledge to comfortably teach personal finance. (F=28.245, df=3, p=0.000)	115 (16.2)	12 (5.4)	57 (21.3)	30 (21.3)	16 (20.8)
I don't find a suitable curriculum that meets my teaching needs. (F=14.630, df=3, p=0.002)	144 (20.3)	27 (12.1)	69 (25.8)	31 (22.0)	16 (20.8)
I don't have enough classroom materials, such as lesson plans, student handouts (F=20.788, df=3, p=0.000)	276 (38.9)	65 (29.1)	102 (38.2)	73 (51.8)	36 (46.8)
I don't have enough classroom time to properly teach personal finance topics. (F=21.718, df=3, p=0.000)	300 (42.3)	71 (31.8)	122 (45.7)	78 (55.3)	29 (37.7)
I don't see an interest in school administration in teaching personal finance. (F=16.048, df=3, p=0.001)	128 (18.0)	59 (26.5)	41 (15.4)	19 (13.5)	9 (11.7)
I don't see an interest in personal finance among my students. (F=19.653, df=3, p=0.000)	188 (26.5)	45 (20.2)	94 (35.2)	37 (26.2)	12 (15.6)
I struggle with selecting financial information and classroom materials among the many available sources. (F=3.738, df=3, p=0.291)	204 (28.7)	57 (25.6)	87 (32.6)	36 (25.5)	22 (28.6)
Teaching personal finance often seems tedious. (F=16.599, df=3, p=0.001)	130 (18.3)	23 (10.3)	63 (23.6)	25 (17.7)	19 (24.7)
I don't have time to stay current with changes in personal finance. (F=4.4, df=3, p=0.221)	216 (30.4)	59 (26.5)	93 (34.8)	40 (28.4)	24 (31.2)
There are no major challenges when teaching personal finance topics. (F=12.865, df=3, p=0.005)	72 (10.1)	35 (15.7)	20 (7.5)	8 (5.7)	9 (11.7)

Note: Items were ranked on a scale ranging from 1=strongly disagree to 5=strongly agree

Regarding major challenges teachers face when teaching personal topics, the most common challenge cited among all teachers was that there is not enough classtime to properly teach personal finance (42.3%). The least commonly cited challenge was that the teacher did not have enough subject matter knowledge to comfortable teach personal finance (16.2%).

About 10 percent of teachers indicated that there are no major challenges when teaching personal finance topics. Business Education teachers had the greatest proportion indicating that there are no major challenges (15.7), with the Social Studies teacher group having the smallest proportion stating that there are no major challenges (5.7%).

Table 26: Other major challenges when teaching personal finance topics

16-year old boys do not have budgets	Low reading comprehension rate
A lack of unbiased, quality sources	Making it relevant to their lifestyle
Adapting to diverse learning styles	Making the subject interesting
Always looking for new activities	More resources available
Biased material from "free" sources	Need a finance class
Course enrollment should be required	No videos on the topic
Different methods to teach	On some topics, not well-versed
Difficult to cover all topic areas in one semester	Not enough students taking the course
Difficulty attaining materials	Other departments take our curriculum
Discipline problems and attendance	Only have personal economics background
Elective programs are ignored	Personal finance is also taught by other departments
Elective status/should be required	Demographics
Finances to afford extra material	Resources to stay current
Finding materials that students enjoy	Reliable speakers and workshops
Having enough time to prepare	Student attendance
Havint the proper technology equipment	Simulations are expensive
High school textbooks don't cover enough	Students are stressed by the topic
I'm an English teacher, not finance teacher	Student motivation
Not sure how to keep it interesting	Students encouraged to take business
No input to materials purchased	Students don't want to take course
Need a curriculum to follow for high school students	Course should be mandatory
Try to use simulations	Teaching investments is foreign to them
Hard to make students understand	Isn't enough time during the year
Not a priority in our school	Variety of student experience
Not a part of district curriculum	Wish it could be a year course
Liberal bias in the media (pro taxes, etc.)	Wide range of student age

Other major challenges when teaching personal finance topics are listed in the table above. Problems cited include a lack of materials/resources, the fact that personal finance is

taught by other departments, a lack of knowledge on certain topics, limited time, difficulties motivating students or getting students to understand the topics, and so on.

Table 27: Searching for information and materials for personal finance course

	Academic content area					
	All	Business Education	FCS	Social Studies	Other	Missing
	Mean (s.e.)	Mean (s.e.)	Mean (s.e.)	Mean (s.e.)	Mean (s.e.)	Mean (s.e.)
I enjoy exploring new places for information and classroom materials for teaching personal finance (F=5.937, df=3, p=0.001)	3.99	4.14	3.99	3.81	3.81	3
I have favorite sources of information and classroom materials I use every time I teach a personal finance course. (F=3.643, df=3, p=0.013)	(0.031)	(0.053)	(0.052)	(0.068)	(0.092)	4
When I find a source of information and classroom materials that I like, I use them regularly for my personal finance course(s). (F=4.734, df=3, p=0.003)	3.77	3.88	3.80	3.60	3.65	1
I use many information sources for my personal finance course(s). (F=6.911, df=3, p=0.000)	(0.032)	(0.057)	(0.055)	(0.070)	(0.092)	8
I regularly change the sources of information and classroom materials I use for my personal finance course(s). (F=7.784, df=3, p=0.000)	4.24	4.31	4.29	4.11	4.08	6
There are benefits to obtaining new information and classroom materials every time I teach a personal finance course. (F=0.363, df=3, p=0.780)	(0.025)	(0.044)	(0.040)	(0.052)	(0.079)	5

Note: Items were ranked on a scale ranging from 1=strongly disagree to 5=strongly agree

Teachers were asked to rate their feelings on items related to searching for information and materials for personal finance courses on a scale of 1 to 5, with 1 being strongly disagree, and 5 being strongly agree. Regarding whether teachers enjoy exploring new places for information and classroom materials for teaching personal finance, the mean response among all teachers was 3.99, indicating that the teachers do enjoy this aspect. Business Education teachers had the highest mean score at 4.14, with Social Studies providing mean ratings of 3.81. The difference among the four teacher groups was statistically significant (p=0.001).

When asked to rate their agreement with the statement "I have favorite sources of information and classroom materials I use every time I teach a personal finance course," teachers provided a mean score of 3.77, indicating that they agree with

the statement. Business Education teachers had the highest mean score (3.88), while Social Studies teachers had the lowest mean score (3.60). There was a statistically significant difference in the mean scores among the teacher groups (p=0.013).

Regarding whether teachers use information sources and classroom materials regularly for personal finance courses, the mean score given was 4.24, indicating that teachers like to reuse information and materials. The group of Business Education teachers had the highest mean score for this measure (4.31). The difference in the mean scores among the four teacher groups was statistically significant (p=0.000).

Teachers also appear to use many sources of information for personal finance courses, providing a mean value of 4.07.

Business Education teachers indicated the highest agreement with this measure (4.21), while Social Studies teachers had the lowest mean value (3.86). The difference among the four academic content areas was statistically significant ($p=0.000$).

The mean value given for whether the teachers regularly change the sources of information and classroom materials was 3.54, indicating that teachers change their information and materials somewhat regularly. Business Education teachers indicated the most agreement with this measure

(3.73). There was a statistically significant difference among the four teacher groups ($p=0.000$).

Regarding whether there are benefits to obtaining new information and classroom materials every time a personal finance course is taught, the teachers provided a mean value of 4.11 on the scale of 1 to 5. This indicates that the teachers do agree that there are benefits to gathering new information and materials. There was no significant difference in the mean value given for this measure among the teacher groups.

Table 28: Time spent gathering information and materials

	Academic content area					
	All	Business Education	FCS	Social Studies	Other	Missing
	Mean (s.e.)	Mean (s.e.)	Mean (s.e.)	Mean (s.e.)	Mean (s.e.)	Mean (s.e.)
I feel it takes a lot of time to search for information and classroom materials for teaching personal finance. ($F=1.475$, $df=3$, $p=0.220$)	2.17	2.24	2.09	2.19	2.23	5
I spend a lot of time comparing information and classroom materials from different sources. ($F=3.584$, $df=3$, $p=0.014$)	(0.032)	(0.058)	(0.049)	(0.071)	(0.108)	6
When I am looking for information or classroom materials for my personal finance course(s), I search a lot. ($F=4.431$, $df=3$, $p=0.004$)	2.69	2.56	2.69	2.77	2.92	3
I usually decide quickly, using the first information source that appears good enough for my personal finance course(s). ($F=3.306$, $df=3$, $p=0.020$)	(0.034)	(0.059)	(0.054)	(0.082)	(0.107)	4
By rushing, one could miss choosing the most suitable information and classroom materials. ($F=1.306$, $df=3$, $p=0.271$)	2.46	2.29	2.52	2.57	2.59	3
I enjoy searching for information and classroom materials for teaching personal finance. ($F=9.124$, $df=3$, $p=0.000$)	(0.034)	(0.058)	(0.053)	(0.078)	(0.109)	6

Note: Items were ranked on a scale ranging from 1=strongly disagree to 5=strongly agree

When asked to rate whether they feel that it takes a lot of time to search for information and classroom materials, teachers provided a mean value of 2.17, indicating that they somewhat disagreed with the statement. The difference in the mean values among the teacher groups was not significant.

Regarding whether teachers spend a lot of time comparing information and classroom materials from different sources, the mean value was 2.69, indicating that there was slight agreement with the statement. The difference among the four teacher groups was statistically significant ($p=0.014$).

When asked whether they search a lot for information and materials, the mean score provided was 2.46, indicating that the teachers were rather neutral about the statement. The Business Education teachers showed slight disagreement with the statement, with a value of 2.29. The difference among the four academic content areas was statistically significant ($p=0.004$).

The teachers were asked to rate a statement about whether they usually make decisions about selecting information

sources quickly, and the mean value was 3.25, indicating that there was agreement with the statement. The Business Education teachers showed the most agreement with the statement (3.33). The difference among the four teacher groups was statistically significant at a 5% level.

The mean value given for the statement regarding whether a teacher could miss choosing the most suitable information and materials by rushing was 1.98, indicating that there was disagreement with the statement. There was no statistically significant difference in the mean values among the four teacher groups.

The teachers were rather neutral about whether they enjoy searching for information and materials, with a mean value of 2.57. The Social Studies had the highest value for this measure (2.73), while the Business Education teachers showed slight disagreement with the statement (2.30). The difference among the four groups of teachers was highly significant ($p=0.000$).

Table 29: Effort of searching for information and materials for personal finance course

	Academic content area					
	All	Business Education	FCS	Social Studies	Other	Missing
	Mean (s.e.)	Mean (s.e.)	Mean (s.e.)	Mean (s.e.)	Mean (s.e.)	Mean (s.e.)
When seeking financial information or choosing classroom materials, I am concerned about the consequences of making a poor or incorrect choice. (F=0.991, df=3, p=0.396)	2.50	2.58	2.44	2.46	2.51	6
Deciding which information and classroom materials to use requires a great deal of thought. (F=2.669, df=3, p=0.047)	(0.036)	(0.067)	(0.054)	(0.077)	(0.118)	9
The more I get into teaching personal finance, the harder it seems to choose the best information and classroom materials. (F=5.828, df=3, p=0.001)	2.19	2.23	2.08	2.30	2.24	4
Deciding which information and classroom materials to use is overwhelming. (F=2.278, df=3, p=0.078)	(0.032)	(0.060)	(0.047)	(0.068)	(0.109)	8
I often feel confused by all the information available on personal finance. (F=3.356, df=3, p=0.019)	2.90	3.12	2.81	2.77	2.80	6
There are too many different sources to consider for gathering information and classroom materials for teaching personal finance. (F=2.717, df=3, p=0.044)	(0.037)	(0.066)	(0.060)	(0.078)	(0.107)	3

Note: Items were ranked on a scale ranging from 1=strongly disagree to 5=strongly agree

Teachers were asked to respond to six questions related to the effort of searching for information and materials for a personal finance course on a scale of 1 to 5, with 5 indicating the greatest agreement with the statement. The mean ratings given to four of the items indicate that there was some agreement with the statements: "the more I get into teaching personal finance, the harder it seems to choose the best information and classroom materials" (2.90), deciding which information and classroom materials to use is overwhelming" (2.74), "I often feel confused by all the information available on personal finance" (2.89), and "there are too many different sources to consider for gathering information and classroom materials for teaching personal finance" (2.87).

The teachers were rather neutral about the statement regarding whether they are concerned with the consequences of making a poor or incorrect choice when seeking financial information or selecting course materials (2.50), and showed slight disagreement with whether deciding which information and materials to use requires a great deal of thought (2.19).

There were significant differences in the mean ratings provided by the four groups of teachers for four of the items (at a 5% level of significance). However, all of the groups of teachers were either in slight agreement or slight disagreement with each item.

Information sources to stay informed about personal finance

Table 30: Broadcast & Printed Sources

	Academic content area					
	All	Business Education	FCS	Social Studies	Other	Missing
	Mean (s.e.)	Mean (s.e.)	Mean (s.e.)	Mean (s.e.)	Mean (s.e.)	Mean (s.e.)
Television programs (F=7.095, df=3, p=0.000)	3.14 (0.039)	3.26 (0.068)	3.07 (0.065)	3.30 (0.082)	2.71 (0.111)	3
Radio programs (F=0.622, df=3, p=0.601)	2.39 (0.043)	2.37 (0.074)	2.35 (0.069)	2.51 (0.104)	2.39 (0.117)	19
Books (F=4.458, df=3, p=0.004)	3.14 (0.036)	3.23 (0.064)	3.21 (0.057)	2.94 (0.082)	2.93 (0.110)	8
Personal finance textbooks (F=22.991, df=3, p=0.000)	3.31 (0.043)	3.79 (0.069)	3.19 (0.066)	2.94 (0.093)	3.00 (0.148)	8
General newspapers (F=6.665, df=3, p=0.000)	3.41 (0.037)	3.52 (0.062)	3.31 (0.062)	3.61 (0.086)	3.09 (0.103)	7
Financial newspapers (F=45.183, df=3, p=0.000)	2.75 (0.043)	3.29 (0.071)	2.24 (0.063)	3.01 (0.093)	2.51 (0.111)	10
Financial planning magazines (F=12.062, df=3, p=0.000)	2.62 (0.041)	2.97 (0.072)	2.42 (0.064)	2.60 (0.092)	2.41 (0.117)	7
General interest magazines (F=23.378, df=3, p=0.000)	2.75 (0.039)	2.58 (0.067)	3.15 (0.059)	2.44 (0.089)	2.43 (0.117)	11

Note: Items were ranked on a scale ranging from 1=never to 5=very often

Teachers were also asked to indicate the frequency with which they use several sources to stay informed about personal finance, on a scale of 1 to 5 where 1 signifies never and 5 indicates very often. The first group of items was related to broadcast and printed sources. There were statistically significant differences among the teachers for all broadcast and printed source measures with the exclusion of radio programs.

The sources in this category used less than “sometimes” among all teachers were radio programs (2.39), financial newspapers (2.75), financial planning magazines (2.62), and general interest magazines (2.75). The sources with a

mean score between “sometimes” and “often” were general newspapers (3.41), personal finance textbooks (3.31), television programs (3.14), and books (3.14).

Among the Business Education teachers, the source with the highest mean value was personal finance textbooks (3.79), while radio programs had the lowest value (2.37). General newspapers received the highest mean score among the Family and Consumer Sciences teachers (3.31), while financial newspapers had the lowest mean score (2.24). For the Social Studies teachers, the highest mean value was for general newspapers (3.61), and the lowest value was given to general interest magazines (2.44).

Table 31: Internet-based sources

	Academic content area					
	All	Business Education	FCS	Social Studies	Other	Missing
	Mean (s.e.)	Mean (s.e.)	Mean (s.e.)	Mean (s.e.)	Mean (s.e.)	Mean (s.e.)
Email newsletters (F=5.944, df=3, p=0.001)	1.95 (0.039)	1.85 (0.060)	2.16 (0.072)	1.80 (0.075)	1.81 (0.110)	15
Information-sharing email listservs (F=1.629, df=3, p=0.181)	1.66 (0.034)	1.59 (0.054)	1.76 (0.059)	1.63 (0.076)	1.60 (0.109)	15
Browser searches (F=8.067, df=3, p=0.000)	3.58 (0.041)	3.79 (0.066)	3.46 (0.065)	3.70 (0.093)	3.19 (0.137)	8
Blogs (F=0.554, df=3, p=0.645)	1.35 (0.026)	1.36 (0.045)	1.31 (0.040)	1.40 (0.063)	1.37 (0.084)	13
Teacher-focused financial web sites (F=4.941, df=3, p=0.002)	2.60 (0.044)	2.75 (0.077)	2.65 (0.074)	2.32 (0.087)	2.40 (0.134)	10
Curriculum clearinghouses (F=21.072, df=3, p=0.000)	2.24 (0.047)	2.15 (0.076)	2.67 (0.087)	1.84 (0.083)	1.76 (0.107)	13
Investment firms' and brokerage houses' web sites (F=15.207, df=3, p=0.000)	2.04 (0.039)	2.37 (0.073)	1.75 (0.058)	2.06 (0.085)	2.03 (0.121)	18
Market watch web sites (F=32.982, df=3, p=0.000)	2.50 (0.047)	3.01 (0.086)	2.04 (0.064)	2.78 (0.109)	2.08 (0.124)	7
Personalized financial web sites (F=23.116, df=3, p=0.000)	2.30 (0.044)	2.75 (0.080)	1.96 (0.063)	2.39 (0.100)	1.96 (0.119)	13
Youth-focused web sites (F=5.673, df=3, p=0.001)	2.18 (0.043)	2.35 (0.076)	2.24 (0.074)	1.94 (0.091)	1.88 (0.110)	17
Web sites that provide access to financial tools (F=10.497, df=3, p=0.000)	2.95 (0.045)	3.31 (0.075)	2.77 (0.075)	2.86 (0.097)	2.70 (0.123)	8
Personal finance web portals and directories (F=7.864, df=3, p=0.000)	2.42 (0.045)	2.71 (0.083)	2.35 (0.072)	2.26 (0.096)	2.07 (0.125)	12
Online games and simulations (F=3.407, df=3, p=0.017)	2.58 (0.044)	2.75 (0.077)	2.59 (0.073)	2.47 (0.099)	2.30 (0.120)	9
Online financial tools (F=9.217, df=3, p=0.000)	2.93 (0.043)	3.25 (0.072)	2.79 (0.073)	2.83 (0.095)	2.68 (0.117)	11

Note: Items were ranked on a scale ranging from 1=never to 5=very often

The second group of items for which teachers were asked to indicate the frequency with which they use several sources to stay informed about personal finance was Internet-based sources. The items with the highest mean value, indicating that they are used more frequently among all teachers, were browser searches (3.58) and Internet sites that provide access to financial tools (2.95). The items with the lowest mean value, indicating that they are used less frequently, were blogs (1.35) and information-sharing email listservs (1.66).

With the exception of information-sharing email listservs and blogs, there were significant differences in the mean values

among the teacher groups. The items receiving the highest mean value among the Business Education teachers were browser searches (3.79) and Internet sites that provide access to financial tools (3.31), while the items with the lowest mean value, indicating less frequent use, were blogs (1.36) and information-sharing email listservs (1.59).

Among the Family and Consumer Sciences teachers, the items with the highest mean values were browser searches (3.46) and online financial tools (2.79), and the items with the lowest mean values were blogs (1.31) and investment firms' and brokerage houses' Internet sites (1.75).

For the Social Studies teachers, the items with the highest mean values were browser searches (3.70) and Internet sites that provide access to financial tools (2.86), while the items

with the lowest values were blogs (1.40) and information-sharing email listservs (1.63).

Table 32: Interpersonal sources

	Academic content area					
	All	Business Education	FCS	Social Studies	Other	Missing
	Mean (s.e.)	Mean (s.e.)	Mean (s.e.)	Mean (s.e.)	Mean (s.e.)	Mean (s.e.)
Spouse (F=4.232, df=3, p=0.006)	2.58 (0.049)	2.46 (0.084)	2.80 (0.083)	2.40 (0.113)	2.47 (0.139)	17
Parents (F=0.218, df=3, p=0.884)	2.31 (0.040)	2.29 (0.070)	2.28 (0.061)	2.36 (0.097)	2.33 (0.132)	8
Friends and extended family (F=0.181, df=3, p=0.909)	2.91 (0.039)	2.89 (0.069)	2.94 (0.061)	2.91 (0.093)	2.85 (0.121)	8
Colleagues (F=0.963, df=3, p=0.410)	2.91 (0.037)	2.82 (0.064)	2.97 (0.061)	2.91 (0.083)	2.95 (0.115)	8
Workplace financial education (F=4.787, df=3, p=0.003)	2.49 (0.042)	2.44 (0.071)	2.67 (0.072)	2.29 (0.094)	2.31 (0.114)	16
Investment clubs (F=1.803, df=3, p=0.145)	1.62 (0.035)	1.74 (0.069)	1.59 (0.055)	1.55 (0.074)	1.53 (0.094)	7
Financial advisors (F=0.962, df=3, p=0.410)	2.70 (0.041)	2.76 (0.066)	2.71 (0.072)	2.57 (0.092)	2.74 (0.129)	5
Bankers, credit union associates (F=22.378, df=3, p=0.000)	3.07 (0.040)	3.18 (0.065)	3.34 (0.062)	2.51 (0.093)	2.87 (0.114)	5
Business leaders (F=2.246, df=3, p=0.082)	2.66 (0.040)	2.80 (0.070)	2.63 (0.065)	2.51 (0.095)	2.63 (0.120)	7
Civic or religious leaders (F=0.853, df=3, p=0.465)	1.80 (0.035)	1.81 (0.061)	1.74 (0.055)	1.88 (0.082)	1.87 (0.119)	8
Personal experiences (F=1.880, df=3, p=0.131)	3.96 (0.032)	4.07 (0.055)	3.92 (0.049)	3.90 (0.084)	3.87 (0.098)	7
Stock broker (F=5.412, df=3, p=0.001)	2.10 (0.040)	2.31 (0.069)	1.94 (0.063)	2.16 (0.093)	1.99 (0.121)	8

Note: Items were ranked on a scale ranging from 1=never to 5=very often

The third group of items for which teachers were asked to indicate the frequency with which they use several sources to stay informed about personal finance was interpersonal sources. Among all teachers, the items with the highest mean values, indicating more frequent use, were personal experience (3.96) and bankers/credit union associates (3.07). The least frequently used sources, as shown by the lowest mean value on a scale of 1 to 5, with 5 being most frequent, were investment clubs (1.62) and civic or religious leaders (1.80).

The responses to only four of the items in this interpersonal group were significantly different among the four groups of teachers by academic content area: spouse, workplace financial education, bankers/credit union associates, and stock broker. The item with the highest mean value for all four groups of teachers was personal experiences (4.07, 3.92, 3.90, and 3.87), while items with the lowest mean value were investment clubs (1.74, 1.59, 1.55, and 1.53) and civic or religious leaders (1.81, 1.74, 1.88, and 1.87).

Table 33: Professional sources

Measure	Academic content area					
	All	Business Education	FCS	Social Studies	Other	Missing
	Mean (s.e.)	Mean (s.e.)	Mean (s.e.)	Mean (s.e.)	Mean (s.e.)	Mean (s.e.)
Professional conferences (F=29.176, df=3, p=0.000)	2.31 (0.045)	2.19 (0.072)	2.78 (0.075)	1.89 (0.084)	1.76 (0.126)	11
Other continuing education events (F=22.642, df=3, p=0.000)	2.38 (0.042)	2.37 (0.068)	2.74 (0.070)	2.01 (0.089)	1.81 (0.118)	13
Jump\$tart trainings and resources (F=12.402, df=3, p=0.000)	1.77 (0.041)	1.79 (0.071)	2.00 (0.075)	1.49 (0.068)	1.32 (0.079)	15
NCEE sponsored workshops (F=6.428, df=3, p=0.000)	1.54 (0.034)	1.45 (0.055)	1.63 (0.061)	1.69 (0.080)	1.21 (0.058)	16

Note: Items were ranked on a scale ranging from 1=never to 5=very often

Within the group regarding the frequency with which professional sources are used to gather personal finance information, the mean values for two items fell between "rarely" and "sometimes": professional conferences (2.31) and other continuing education events (2.38). The mean values of the other two items fell between "never" and "rarely": Jump\$tart trainings and resources (1.77) and NCEE sponsored workshops (1.54).

All four items within the group regarding the frequency with which professional sources are used to gather personal finance information were significantly different among the teacher groups.

Preferred source for personal finance information

Table 34: Preferred source for receiving teaching information and materials

	Academic content area				
	All	Business Education	FCS	Social Studies	Other
	N (%)	N (%)	N (%)	N (%)	N (%)
Professional sources	128 (18.2)	28 (12.6)	77 (29.2)	16 (11.5)	6 (7.9)
Printed sources	260 (37.0)	85 (38.3)	85 (32.2)	61 (43.9)	29 (38.2)
Internet-based sources	269 (38.3)	97 (43.7)	85 (32.2)	54 (38.8)	33 (43.4)
Interpersonal sources	24 (3.4)	4 (1.8)	11 (4.2)	3 (2.2)	6 (7.9)
Broadcast sources	21 (3.0)	8 (3.6)	6 (2.3)	5 (3.6)	2 (2.6)

Note: $F=45.71$, $df=12$, $p=0.000$; missing $N = 8$ (1.1%)

Teachers were asked to indicate their preferred source for receiving teaching information and materials among a list of five items. The majority of teachers cited Internet-based sources as most important (38.3%), followed by printed

sources (37.0%), professional sources (18.2%), interpersonal sources (3.4%), and broadcast sources (3.0%). The difference in the preferred source among the four teacher groups was statistically significant ($p=0.000$).

Table 35: Preferred source of information on personal finance topics

Measure	Academic content area				
	All	Business Education	FCS	Social Studies	Other
Source	N (%)	N (%)	N (%)	N (%)	N (%)
Personal finance textbooks	158 (23.2%)	71 (32.6%)	53 (20.9%)	16 (11.8%)	17 (23%)
Teacher-focused financial Web sites (moneyinstructor.com)	62 (9.1%)	20 (9.2%)	28 (11.1%)	11 (8.1%)	3 (4.1%)
Browser searches (google.com; yahoo.com)	59 (8.7%)	24 (11.0%)	20 (7.9%)	8 (5.9%)	7 (9.5%)
General newspapers	50 (7.3%)	16 (7.3%)	11 (4.3%)	13 (9.6%)	10 (13.5%)
Books	40 (5.9%)	8 (3.7%)	16 (6.3%)	9 (6.6%)	7 (9.5%)
Curriculum clearinghouses (jumpstart.org; fefe.arizona.edu)	33 (4.8%)	3 (1.4%)	29 (11.5%)		1 (1.4%)
Television programs	32 (4.7%)	8 (3.7%)	9 (3.6%)	13 (9.6%)	2 (2.7%)
Business leaders	25 (3.7%)	4 (1.8%)	5 (2.0%)	9 (6.6%)	7 (9.5%)
Financial newspapers	25 (3.7%)	10 (4.6%)	2 (0.8%)	11 (8.1%)	2 (2.7%)
Investment clubs	25 (3.7%)	3 (1.4%)	20 (7.9%)		2 (2.7%)
Workplace financial education	22 (3.2%)	4 (1.8%)	9 (3.6%)	6 (4.4%)	3 (4.1%)
Online games and simulations	20 (2.9%)	3 (1.4%)	10 (4.0%)	7 (5.1%)	
Personal finance web portals and directories (personalfinance.com; bankrate.com)	15 (2.2%)	8 (3.7%)		4 (2.9%)	3 (4.1%)
Financial planning magazines	13 (1.9%)	5 (2.3%)	3 (1.2%)	4 (2.9%)	1 (1.4%)
Radio programs	13 (1.9%)	2 (0.9%)	6 (2.4%)	3 (2.2%)	2 (2.7%)
Market watch Web sites (Yahoo! Finance; Morningstar)	11 (1.6%)	5 (2.3%)		5 (3.7%)	1 (1.4%)
Spouse	10 (1.5%)	3 (1.4%)	3 (1.2%)	2 (1.5%)	2 (2.7%)
Parents	10 (1.5%)	2 (0.9%)	4 (1.6%)	4 (2.9%)	
Personalized financial Web sites (wsj.com; marketwatch.com)	9 (1.3%)	5 (2.3%)	1 (0.4%)	3 (2.2%)	
Youth-focused Web sites (italladdsup.org)	8 (1.2%)	2 (0.9%)	4 (1.6%)		2 (2.7%)
General interest magazines	7 (1.0%)	2 (0.9%)	3 (1.2%)	1 (0.7%)	1 (1.4%)
Online financial tools (calculators; financial analysis)	7 (1.0%)	3 (1.4%)	1 (0.4%)	2 (1.5%)	1 (1.4%)
Friends and extended family	6 (0.9%)	2 (0.9%)	3 (1.2%)	1 (0.7%)	
Personal experiences	6 (0.9%)	1 (0.5%)	4 (1.6%)		
Stockbroker	4 (0.6%)		3 (1.2%)		
Investment firms' and brokerage houses' Web sites (Vanguard; Fidelity)	3 (0.4%)	1 (0.5%)	1 (0.4%)	1 (0.7%)	
Professional conferences	3 (0.4%)	2 (0.9%)	1 (0.4%)		
Email newsletters	2 (0.3%)		2 (0.8%)		
Civic or religious leaders	1 (0.1%)		1 (0.4%)		
Colleagues	1 (0.1%)		1 (0.4%)		

Note: F=195.27, df=93, p=0.000; missing N = 28 (3.9%)

Measure	Academic content area				
	All	Business Education	FCS	Social Studies	Other
Source	N (%)	N (%)	N (%)	N (%)	N (%)
Information-sharing email listservs	0 (0%)				
Blogs	0 (0%)				
Web sites that provide access to financial tools (online calculators; financial analysis)	0 (0%)				
Bankers/credit union associates	0 (0%)				
Jump\$tart trainings and resources	0 (0%)				
NCEE-sponsored workshops	0 (0%)				

Note: $F=195.27$, $df=93$, $p=0.000$; missing $N = 28$ (3.9%)

Among all teachers, the source most frequently cited as the preferred source was personal finance textbooks (23.2%), followed by teacher-focused financial Internet sites (9.1%), browser searches (8.7%), general newspapers (7.3%), and books (5.9%). Several sources were preferred by none of the teachers, including information-sharing email listservs, blogs, Internet sites that provide access to financial tools, bankers/credit union associates, Jump\$tart trainings and resources, and NCEE-sponsored workshops.

The difference in the preferred information source among the four academic content areas was highly significant ($p=0.000$). The most preferred source among Business Education

teachers was personal finance textbooks (32.6%), followed by browser searches (11.0%) and teacher-focused financial Internet sites (9.2%). Among Family and Consumer Sciences teachers, the most preferred source was also personal finance textbooks (20.9%), followed by curriculum clearinghouses (11.5%) and teacher-focused financial Internet sites (11.1%).

The most preferred source among the Social Studies teacher group was personal finance textbooks (11.8%), followed by general newspapers (9.6%) and television programs (9.6%). Among all teacher groups, the personal finance textbook was the source most frequently cited.

Average time spent on activities to prepare for one class period

Table 36: Searching the Internet on personal finance topics

	Academic content area				
	All	Business Education	FCS	Social Studies	Other
	N (%)	N (%)	N (%)	N (%)	N (%)
No time	47 (6.6)	11 (5.0)	19 (7.1)	8 (5.7)	9 (11.7)
1/2 hour or less	214 (30.2)	65 (29.4)	71 (26.6)	54 (38.3)	24 (31.2)
More than 1/2 hour but less than 1 hour	220 (31.1)	83 (37.6)	77 (28.8)	35 (24.8)	24 (31.2)
More than 1 hour but less than 2 hours	164 (23.2)	48 (21.7)	70 (26.2)	32 (22.7)	13 (16.9)
More than 2 hours	63 (8.9)	14 (6.3)	30 (11.2)	12 (8.5)	7 (9.1)

Note: F=19.511, df=12, p=0.077; missing N = 2 (0.3%)

The largest proportion of teachers (31.1%) indicated that they spend more than ½ hour but less than 1 hour searching the Internet to prepare for one class period, while 30.2% indicated that they spend ½ hour or less, 23.2% cited spending more

than 1 hour but less than 2 hours. The difference in the proportion of teachers in each time category by academic content area was not statistically significant.

Table 37: Reading publications about personal finance topics

	Academic content area				
	All	Business Education	FCS	Social Studies	Other
	N (%)	N (%)	N (%)	N (%)	N (%)
No time	64 (9.1)	15 (6.8)	27 (10.2)	12 (8.5)	10 (13.2)
1/2 hour or less	301 (42.8)	99 (45.2)	102 (38.3)	68 (48.2)	31 (40.8)
More than 1/2 hour, less than 1 hour	196 (27.8)	62 (28.3)	79 (29.7)	39 (27.7)	16 (21.1)
More than 1 hour, less than 2 hours	87 (12.4)	26 (11.9)	36 (13.5)	11 (7.8)	13 (17.1)
More than 2 hours	56 (8.0)	17 (7.8)	22 (8.3)	11 (7.8)	6 (7.9)

Note: F=11.311, df=12, p=0.502; missing N = 6 (0.8%)

The greatest proportion of teachers spent ½ hour or less reading publications about personal finance topics to prepare for one class (42.8%), followed by more than ½ hour but less than 1 hour (27.8%), more than 1 hour but less than 2 hours

(12.4%), no time (9.1%), and more than 2 hours (8.0%). The difference in responses among the four academic content areas was not significant.

Table 38: Talking to others about personal finance topics

	Academic content area				
	All	Business Education	FCS	Social Studies	Other
	N (%)	N (%)	N (%)	N (%)	N (%)
No time	113 (16.1)	38 (17.4)	38 (14.3)	25 (17.7)	12 (15.6)
1/2 hour or less	359 (51.0)	125 (57.1)	119 (44.7)	77 (54.6)	38 (49.4)
More than 1/2 hour, less than 1 hour	134 (19.0)	36 (16.4)	63 (23.7)	20 (14.2)	15 (19.5)
More than 1 hour, less than 2 hours	68 (9.7)	13 (5.9)	30 (11.3)	14 (9.9)	10 (13.0)
More than 2 hours	30 (4.3)	7 (3.2)	16 (6.0)	5 (3.5)	2 (2.6)

Note: F=18.548, df=12, p=0.100; missing N = 6 (0.8%)

Over half of teachers (51.0%) indicated that they spend ½ hour or less talking to others about personal finance topics to prepare for one class. Nineteen percent of all teachers indicated that they spend more than ½ hour but less than 1 hour, 16.1% indicated that they spend no time, 9.7% indicated

that they spend more than 1 hour but less than 2 hours, and 4.3% indicated that they spend more than 2 hours talking to others about personal finance topics to prepare for one class. The difference in the responses among the four teacher groups was not significant.

Table 39: Correlating classroom materials on personal finance

	Academic content area				
	All	Business Education	FCS	Social Studies	Other
	N (%)	N (%)	N (%)	N (%)	N (%)
No time	19 (2.7)	5 (2.3)	5 (1.9)	7 (5.0)	2 (2.6)
1/2 hour or less	239 (33.9)	76 (34.5)	65 (24.4)	67 (47.5)	31 (40.3)
More than 1/2 hour, less than 1 hour	211 (29.9)	70 (31.8)	82 (30.8)	36 (25.5)	21 (27.3)
More than 1 hour, less than 2 hours	130 (18.4)	40 (18.2)	60 (22.6)	19 (13.5)	11 (14.3)
More than 2 hours	107 (15.2)	29 (13.2)	54 (20.3)	12 (8.5)	12 (15.6)

Note: F=34.934, df=12, p=0.000; missing N = 4 (0.6%)

Regarding the amount of time they spend correlating classroom materials on personal finance to teach one course, 33.9% said that they spend ½ hour or less, followed by more than ½ hour but less than 1 hour (29.9%), more than 1 hour but less than 2 hours (18.4%), more than 2 hours (15.2%), and no time (2.7%). The difference in the responses among the

four academic content areas was highly significant (p=0.000). The greatest proportion of Business Education and Social Studies teachers spent ½ hour or less correlating classroom materials, while the greatest proportion of Family and Consumer Sciences teachers spent more than ½ hour but less than 1 hour doing so.

Teacher personal finance knowledge

Table 40: Responses for average personal savings rate

	Academic content area				
	All	Business Education	FCS	Social Studies	Other
What do you think is currently the average personal savings rate in the U.S. in 2006 as a percentage of the disposable income?	N (%)	N (%)	N (%)	N (%)	N (%)
Between -5% and 0%	329 (46.5)	97 (43.7)	120 (44.9)	79 (56.0)	33 (42.9)
More than 0% to 5%	267 (37.7)	92 (41.4)	98 (36.7)	46 (32.6)	30 (39)
More than 5% to 10%	46 (6.5)	17 (7.7)	19 (7.1)	5 (3.5)	5 (6.5)
Not sure	66 (9.3)	16 (7.2)	30 (11.2)	11 (7.8)	9 (11.7)

Note: F=10.805, df=3, p=0.289; missing N = 2 (0.3%)

When asked to select the average personal savings rate in the U.S. in 2006 as a percentage of disposable income, almost half of all teachers (46.5%) responded correctly, with "Between -5% and 0%". This means that more than half of the teachers did not provide the correct response to this question. Almost 40%

(37.7%) of teachers indicated that the personal saving rate was more than 0% but no higher than 5%, 6.5% indicated that the savings rate was from 5 to 10%, and 9.3% of teachers were not sure. The difference among the teacher groups was not statistically significant.

Table 41: Responses for FDIC insurance limits

	Academic content area				
	All	Business Education	FCS	Social Studies	Other
In an FDIC-insured financial institution, up to what amount is an individual's account insured?	N (%)	N (%)	N (%)	N (%)	N (%)
Up to \$100,000	609 (86.1)	210 (94.6)	213 (80.4)	125 (88.7)	59 (76.6)
Up to \$10,000	33 (4.7)	4 (1.8)	14 (5.3)	9 (6.4)	6 (7.8)
Up to \$1,000	5 (0.7)	2 (0.9)	1 (0.4)	0 (0.0)	2 (2.6)
Not sure	60 (8.5)	6 (2.7)	37 (14.0)	7 (5.0)	10 (13.0)

Note: F=37.727, df=9, p=0.000; missing N = 3 (0.4%)

Regarding the amount in an individual's account with a financial institution that is FDIC-insured, the great majority of teachers (86.1%) responded correctly, with "Up to \$100,000". The difference in responses among the four teacher groups

was highly significant (p=0.000). Business Education teachers had the greatest proportion responding correctly (94.6%), followed by Social Studies teachers (88.7%), and Family and Consumer Sciences teachers (80.4%).

Table 42: Responses for long-term bond fund transfers

	Academic content area				
	All	Business Education	FCS	Social Studies	Other
When is the best time to transfer money into a long-term bond fund?	N (%)	N (%)	N (%)	N (%)	N (%)
when interest rates are expected to increase	148 (21.2)	58 (26.6)	37 (14.0)	38 (27.1)	14 (18.7)
when interest rates are expected to remain stable	42 (6.0)	12 (5.5)	16 (6.0)	10 (7.1)	4 (5.3)
when interest rates are expected to decrease	191 (27.3)	67 (30.7)	60 (22.6)	45 (32.1)	19 (25.3)
interest rates do not matter	44 (6.3)	12 (5.5)	23 (8.7)	6 (4.3)	3 (4)
not sure	274 (39.2)	69 (31.7)	129 (48.7)	41 (29.3)	35 (46.7)

Note: $F=34.91$, $df=12$, $p=0.000$; missing $N = 11$ (1.5%)

The responses to the question regarding when is the best time to transfer money into a long-term bond fund were more distributed across the four answers. Almost one-third of all teachers (27.3%) selected the correct answer (when interest rates are expected to decrease), while almost 40 percent (39.2%) were not sure of the answer. The difference in responses among the four teacher groups was highly

significant ($p=0.000$). Almost one-third of Business Education and Social Studies selected the correct answer (30.7% and 32.1%, respectively), while only about a quarter of Family and Consumer Sciences did so (22.6%). Almost half of Family and Consumer Sciences teachers selected the “not sure” response for this question.

Table 43: Responses for stock market index fund

	Academic content area				
	All	Business Education	FCS	Social Studies	Other
True/False: A stock market index fund is actually a portfolio manager.	N (%)	N (%)	N (%)	N (%)	N (%)
True	173 (25.1)	55 (26.1)	62 (23.5)	37 (26.6)	19 (26.0)
FALSE	172 (25.0)	73 (34.6)	38 (14.4)	49 (35.3)	12 (16.4)
Not sure	343 (49.9)	83 (39.3)	164 (62.1)	53 (38.1)	42 (57.5)

Note: $F=45.47$, $df=6$, $p=0.000$; missing $N = 22$ (3.1%)

Nearly half of teachers (49.9%) selected the “not sure” response when asked whether a stock market index fund is actually a portfolio manager, with one quarter selecting “True” and one quarter selecting “False”. The difference in responses among the four teacher groups was highly significant ($p=0.000$). Over half of Family and Consumer Sciences

teachers (62.1%) indicated that they were “not sure”. About one-third of Business Education and Social Studies selected the correct answer of false (34.6% and 35.3%, respectively), while only 14.4% of Family and Consumer Sciences teachers did so.

Table 44: Responses for investment with best average returns

	Academic content area				
	All	Business Education	FCS	Social Studies	Other
Over the last 20 years in the U.S. the best average returns have been generated by which of the following?	N (%)	N (%)	N (%)	N (%)	N (%)
bonds	29 (4.2)	10 (4.7)	11 (4.2)	3 (2.1)	5 (6.8)
CDs	22 (3.2)	3 (1.4)	13 (4.9)	4 (2.8)	2 (2.7)
money market accounts	114 (16.4)	25 (11.7)	59 (22.3)	17 (12.1)	12 (16.2)
precious metals	230 (33.1)	61 (28.5)	108 (40.8)	34 (24.1)	27 (36.5)
stocks	300 (43.2)	115 (53.7)	74 (27.9)	83 (58.9)	28 (37.8)
not sure	0	0	0	0	0

Note: $F=55.642$, $df=12$, $p=0.000$; missing $N = 15$ (2.1%)

Teachers were asked to select which investment generated the best average returns over the last few years in the U.S. Less than half of all teachers (43.2%) selected the correct answer: stocks. About 33.1% indicated that precious metals had the best average returns, while 16.4% selected money market accounts, 4.2% selected bonds, and 3.2% selected CDs. The difference in responses among the four teachers group was

highly significant ($p=0.000$). Over half of Business Education and Social Studies teachers selected stocks (53.7% and 58.9%, respectively), while only 27.9% of Family and Consumer Sciences teachers selected stocks. About one-third of Family and Consumer Sciences teachers selected precious metals (40.8% and 36.5%).

Table 45: Responses for credit report information

	Academic content area				
	All	Business Education	FCS	Social Studies	Other
Negative financial information can stay on your credit report for how many years?	N (%)	N (%)	N (%)	N (%)	N (%)
5 to 7 years	226 (32.2)	68 (31.1)	89 (33.3)	45 (32.1)	24 (32.4)
7 to 10 years	345 (49.2)	123 (56.2)	139 (52.1)	51 (36.4)	31 (41.9)
10 to 15 years	35 (5.0)	8 (3.7)	10 (3.7)	8 (5.7)	9 (12.2)
not sure	95 (13.6)	20 (9.1)	29 (10.9)	36 (25.7)	10 (13.5)

Note: $F=37.457$, $df=9$, $p=0.000$; missing $N = 9$ (1.3%)

Nearly half of all teachers (49.2%) selected the correct response regarding how long negative financial information can stay on your credit report, which is 7 to 10 years. About one-third (32.2%) selected 5 to 7 years, while 13.6% were not sure and 5% selected 10 to 15 years. The difference in the responses among the academic content areas was highly

significant ($p=0.000$). Over half of Business Education and Family and Consumer Sciences teachers selected the correct answer (56.2% and 52.1%, respectively), while about one-third of Social Studies teachers answered correctly (36.4% and 41.9%).

Table 46: Responses for credit card unauthorized charge liability limit

	Academic content area				
	All	Business Education	FCS	Social Studies	Other
If your credit card was lost or stolen and used to charge items you didn't authorized, you are responsible for what amount?	N (%)	N (%)	N (%)	N (%)	N (%)
nothing	143 (20.3)	33 (15.1)	42 (15.7)	42 (30.0)	25 (32.9)
up to \$50	389 (55.3)	146 (66.7)	175 (65.5)	42 (30.0)	26 (34.2)
up to \$500	35 (5.0)	6 (2.7)	16 (6.0)	12 (8.6)	1 (1.3)
all unauthorized charges	52 (7.4)	16 (7.3)	7 (2.6)	19 (13.6)	10 (13.2)
not sure	84 (11.9)	18 (8.2)	27 (10.1)	25 (17.9)	14 (18.4)

Note: $F=87.919$, $df=12$, $p=0.000$; missing $N = 7$ (1.0%)

Teachers were asked what amount individuals are responsible for if their credit card is lost or stolen and used to charge unauthorized items. The correct response is “up to \$50, which was selected by a little more than half of all teachers (55.3%). About twenty percent of all teachers indicated that the credit card owner would be responsible for none of the

unauthorized charge. There was a significant difference in the responses among the four teacher groups. About two-thirds of Business Education and Family and Consumer Sciences teachers responded correctly (66.7% and 65.5%, respectively), while only about one-third of Social Studies teachers did so (30.0% and 34.2%, respectively).

Table 47: Responses for auto insurance coverage

	Academic content area				
	All	Business Education	FCS	Social Studies	Other
If you have caused an accident, which type of auto insurance would cover damage to your own car?	N (%)	N (%)	N (%)	N (%)	N (%)
collision insurance	382 (54.3)	147 (66.8)	132 (49.8)	62 (44.3)	41 (53.2)
comprehensive insurance	197 (28.0)	47 (21.4)	77 (29.1)	49 (35.0)	24 (31.2)
liability insurance	102 (14.5)	25 (11.4)	43 (16.2)	22 (15.7)	11 (14.3)
not sure	22 (3.1)	1 (0.5)	13 (4.9)	7 (5.0)	1 (1.3)
not sure	84 (11.9)	18 (8.2)	27 (10.1)	25 (17.9)	14 (18.4)

Note: $F=28.458$, $df=9$, $p=0.001$; missing $N = 7$ (1.0%)

A little more than half of all teachers (54.3%) responded correctly to the question regarding what type of auto insurance covers the damage to one's own car when causing an accident, selecting collision insurance. Almost one-third (28.0%) selected comprehensive insurance, while 14.5% selected liability insurance, and 3.1% were not sure. The

difference in the responses among the four academic content areas was statistically significant ($p=0.001$). Nearly two-thirds of Business Education teachers (66.8%) answered correctly, while less than half of Family and Consumer Sciences and Social Studies teachers did so (49.8% and 44.3%).

Table 48: Responses for average credit score

	Academic content area				
	All	Business Education	FCS	Social Studies	Other
Credit scores range from 300 to 850. What do you think is the average credit score in the United States as reported in credit reports?	Mean (s.e.)	Mean (s.e.)	Mean (s.e.)	Mean (s.e.)	Mean (s.e.)
mean credit score given	696.7 (8.20)	695.2 (14.35)	717.97 (14.16)	660.9 (16.55)	694.6 (24.86)

Note: F=45.47, df=6, p=0.000; missing N = 22 (3.1%)

Teachers were told that credit scores range from 300 to 850 and were asked what they think the average credit score in the United States as reported in credit reports is. The average

score given was 696.7, which is rather close the actual average of 676. There was no statistically significant difference among the four teacher groups in the mean credit scores.

School and teacher characteristics

School characteristics

Table 49: High school location

	Academic content area				
	All	Business Education	FCS	Social Studies	Other
	N (%)	N (%)	N (%)	N (%)	N (%)
Rural area	371 (52.5)	120 (53.8)	152 (57.1)	60 (42.9)	38 (50.0)
Suburban area	199 (28.1)	66 (29.6)	71 (26.7)	43 (30.7)	18 (23.7)
Urban area, but not central city	94 (13.3)	25 (11.2)	32 (12.0)	25 (17.9)	12 (15.8)
Central city	43 (6.1)	12 (5.4)	11 (4.1)	12 (8.6)	8 (10.5)

Note: F=14.27, df=9, p=0.113; missing N = 3 (0.4%)

Teachers were asked to indicate where the high school they teach at is located. Over half of all teachers (52.5%) were teaching at a school located in a rural area, while 28.1% were located in a suburban area, 13.3% were located in an urban

area, but not central city, and 6.1% were located in a central city. There was no statistically significant difference in the proportion of teachers within each category among the four teacher groups based on academic content area.

Table 50: Type of high school

	Academic content area				
	All	Business Education	FCS	Social Studies	Other
	N (%)	N (%)	N (%)	N (%)	N (%)
Public school	625 (88.4)	206 (92.8)	252 (94.7)	112 (80)	54 (70.1)
Public charter school	21 (3.0)	2 (0.9)	1 (0.4)	11 (7.9)	7 (9.1)
Private school	38 (5.4)	5 (2.3)	3 (1.1)	15 (10.7)	14 (18.2)
Parochial school	23 (3.3)	9 (4.1)	20 (3.8)	2 (1.4)	2 (2.6)

Note: F=82.91, df=9, p=0.000; missing N = 3 (0.4%)

About 88.4% of teachers were employed at a public school, while 5.4% were teaching at a private school, 3.3% were at a parochial school, and 3% were teaching in a public charter school. The difference in the proportion of teachers in each

category was highly significant among the four teacher groups (p=0.000). The great majority of Business Education and Family and Consumer Sciences teachers (92.8% and 94.7%, respectively) were employed at a public school.

Teacher background

Table 51: Years teaching personal finance topics

	Academic content area				
	All	Business Education	FCS	Social Studies	Other
	Mean (s.e.)	Mean (s.e.)	Mean (s.e.)	Mean (s.e.)	Mean (s.e.)
Years teaching personal finance topics	13.0 (0.378)	12.79 (0.682)	17.05 (0.598)	9.09 (0.703)	6.81 (0.809)

Note: $F=36.054$, $df=3$, $p=0.000$; missing $N = 2$

Teachers were asked to indicate the number of years they had been teaching personal finance topics. The mean number of years was 13.0, with a statistically significant difference in the mean number of years among the four groups of teachers by academic content area ($p=0.000$). The Social Studies teachers

had been teaching personal finance for a mean of 9.09 years, and the mean values were 12.79 and 17.05 for Business Education and Family and Consumer Sciences teachers, respectively.

Table 52: Personal finance courses taken

	Academic content area				
	All	Business Education	FCS	Social Studies	Other
	N (%)	N (%)	N (%)	N (%)	N (%)
College-level courses					
None	120 (17.2)	16 (7.2)	37 (14.1)	36 (25.5)	31 (41.9)
One	113 (16.2)	31 (14.0)	49 (18.7)	22 (15.6)	11 (14.9)
Two	164 (23.5)	48 (21.7)	69 (26.3)	31 (21.9)	15 (20.3)
Three	87 (12.4)	18 (8.1)	48 (18.3)	16 (11.3)	5 (6.7)
More than three	215 (30.8)	108 (48.9)	59 (22.5)	36 (25.5)	12 (16.2)

Note: $F=97.798$, $df=12$, $p=0.000$; missing $N = 11$ (1.5%)

Teachers were asked how many college-level personal finance course they had taken. About one-third of all teachers (30.8%) had taken more than three courses, while one-quarter of all teachers (23.5%) had taken two courses. About 17.2% of all teachers had not taken any college-level course on personal finance. The difference in the number of personal finance courses taken among the four teacher groups was statistically significant ($p=0.000$).

Almost half of Business Education teachers (48.9%) had taken more than three courses, while only 22.5% of Family and Consumer Sciences, and 25.5% of Social Studies teachers had taken more than three college-level courses on personal finance. About one quarter of Social Studies teachers (25.5%) teachers had not taken any college-level course on personal finance.

Table 53: Continuing education courses or workshops taken

	Academic content area				
	All	Business Education	FCS	Social Studies	Other
	N (%)	N (%)	N (%)	N (%)	N (%)
None	462 (65.5)	152 (68.5)	146 (55.1)	106 (75.2)	58 (76.3)
One	118 (16.7)	37 (22.5)	50 (18.9)	21 (14.9)	10 (13.2)
Two	82 (11.6)	19 (8.6)	49 (18.5)	12 (8.5)	2 (2.6)
Three	23 (3.3)	11 (4.9)	9 (3.4)	2 (1.4)	1 (1.3)
Four	8 (1.1)	0 (0.0)	7 (2.6)	0 (0.0)	1 (1.3)
Five or more	12 (1.7)	3 (1.4)	4 (1.5)	0 (0.0)	4 (5.3)

Note: F=51.26, df=15, p=0.000); missing N = 5 (0.7%)

About two-thirds of all teachers (65.5%) had not taken a continuing education or workshop course on personal finance, while 16.7% had taken one course, 11.6% had taken two, and 6.1% had taken three or more continuing education courses or workshops on personal finance. The difference in the number of courses taken was significantly different among the four teacher groups (p=0.000).

The majority of all four groups had not taken any continuing education courses or workshops, with Family and Consumer Sciences teachers having the smallest proportion who did not take any courses or workshops (55.1%). The Family and Consumer Sciences teachers had a higher proportion who had taken one or more continuing education courses or workshops.

Table 54: Teacher demographics

Measure	Academic content area				
	All	Business Education	FCS	Social Studies	Other
	N (%)	N (%)	N (%)	N (%)	N (%)
Gender					
Male	227 (32.5)	82 (37.6)	1 (0.4)	105 (75.5)	39 (51.3)
Female	471 (67.5)	136 (62.4)	263 (99.6)	34 (24.5)	37 (48.7)

Note: F=82.91, df=9, p=0.000); missing N = 3 (0.4%)

Among all teachers, females make up the majority at 67.5%. The difference in the gender distribution by academic content area is highly significant (p=0.000). The great majority of Family and Consumer Sciences teachers are female (99.6%),

with only one male Family and Consumer Sciences teacher. The majority of Business Education teachers were also female (62.4%), while the Social Studies academic content area had a greater proportion of male teachers (75.5%).

Table 55: Teacher education

Measure	Academic content area				
	All	Business Education	FCS	Social Studies	Other
	N (%)	N (%)	N (%)	N (%)	N (%)
Highest level of education completed					
Less than a 4-year college degree	6 (0.9)	1 (0.4)	1 (0.4)	0 (0.0)	4 (5.2)
4-year college degree	234 (33.2)	57 (25.8)	89 (33.5)	54 (38.6)	33 (42.9)
Master's degree	463 (65.7)	162 (73.3)	175 (65.8)	86 (61.4)	40 (51.9)
Ph.D.	2 (0.3)	1 (0.4)	1 (0.4)	0 (0.0)	0 (0.0)

Note: $F=31.872$, $df=9$, $p=0.000$; missing $N = 5$ (0.7%)

Among all of the teachers, the greatest proportion had a master's degree (65.7%), followed by a 4-year college degree (33.2%), less than a 4-year college degree (0.9%),

and doctorate (0.3%). The difference in the highest level of education among the four academic content areas was highly significant ($p=0.000$).

Table 56: Teacher marital status

Measure	Academic content area				
	All	Business Education	FCS	Social Studies	Other
	N (%)	N (%)	N (%)	N (%)	N (%)
Current marital status					
Married/living with a partner	548 (79.9)	166 (77.6)	213 (82.6)	109 (78.4)	59 (79.7)
Single, never married	70 (10.2)	20 (9.3)	17 (6.6)	20 (14.4)	13 (17.6)
Divorced/separated	54 (7.9)	24 (11.2)	18 (6.9)	10 (7.2)	2 (2.7)
Widowed	14 (2.0)	4 (1.9)	10 (3.9)	0 (0.0)	0 (0.0)

Note: $F=24.682$, $df=9$, $p=0.003$; missing $N = 24$ (3.4%)

The difference in marital status differed significantly among the academic content areas ($p=0.003$). Among all teachers, the majority were married or living with a partner (79.9%), followed by single, never married (10.2%), divorced/separated (7.9%), and widowed (2.0%).

The majority of Business Education and Family and Consumer Sciences teachers were married (77.6% and 82.6%,

respectively), followed by the group who were divorced/separated (11.2% and 6.9%, respectively), single, never married (9.3% and 6.6%, respectively), and widowed (1.9% and 3.9%, respectively). Among the Social Studies teacher groups, the majority were married or living with a partner (78.4%), followed by single, never married (14.4%), and divorced/separated (7.2%). None of the teachers in the Social Studies academic content area were widowed.

Table 57: Teacher household income

Measure	Academic content area				
	All	Business Education	FCS	Social Studies	Other
	N (%)	N (%)	N (%)	N (%)	N (%)
Total household income in 2006					
Less than \$20,000	7 (1.2)	2 (1.1)	1 (0.4)	1 (0.01)	3 (4.5)
\$20,000 to \$39,999	40 (6.7)	9 (4.9)	3 (1.4)	21 (16.5)	7 (10.6)
\$40,000 to \$59,999	114 (19.1)	35 (19.1)	36 (16.3)	30 (23.6)	13 (19.7)
\$60,000 to \$79,999	153 (25.6)	51 (27.9)	53 (23.9)	26 (20.5)	23 (34.8)
\$80,000 to \$99,999	122 (20.4)	37 (20.2)	53 (23.9)	21 (16.5)	10 (15.2)
\$100,000 to \$119,999	73 (12.2)	22 (12.0)	31 (14.0)	15 (11.8)	5 (7.6)
\$120,000 to \$139,999	51 (8.5)	16 (8.7)	23 (10.4)	10 (7.9)	2 (3.0)
\$140,000 to \$159,999	16 (2.7)	8 (4.4)	5 (2.3)	2 (1.6)	1 (1.5)
\$160,000 to \$179,999	8 (1.3)	3 (1.6)	5 (2.3)	0 (0.0)	0 (0.0)
\$180,000 to \$199,999	6 (1.0)	0 (0.0)	5 (2.3)	0 (0.0)	1 (1.5)
More than \$200,000	8 (1.3)	0 (0.0)	6 (2.7)	1 (0.01)	1 (1.5)

Note: $F=72.147$, $df=30$, $p=0.000$; missing $N = 112$ (15.8%)

The difference in the distribution of household income by academic content area was highly statistically significant ($p=0.000$). Among all teachers, the greatest proportion had an income in the range of \$60,000 to \$79,999 (25.6%), with 27% having an income below \$60,000 and 47.4% having an annual income above \$79,999. Among the group of Business Education teachers, the greatest proportion had an income in the range of \$60,000 to \$79,999 (27.9%), with 25.1% and 46.9% having an income below and above that range, respectively.

For the Family and Consumer Sciences teachers, the two categories with the greatest proportion of teachers falling into it were \$60,000 to \$79,999 and \$80,000 to \$99,999 (23.9% for both). About 18% of Family and Consumer Sciences teachers had income below \$60,000, and 34% had an income of \$100,000 or higher. The greatest proportion of Social Studies teachers fell into the \$40,000 to \$59,999 income category, with 15.1% having an income of less than \$40,000 and 58.3% having an income of \$60,000 or higher.

Table 58: Teacher age

	Academic content area				
	All	Business Education	FCS	Social Studies	Other
	Mean (s.e.)	Mean (s.e.)	Mean (s.e.)	Mean (s.e.)	Mean (s.e.)
Mean age of teacher	44.74 (0.421)	44.86 (0.695)	48.25 (0.614)	40.09 (0.972)	40.96 (1.373)

Note: $F=21.936$, $df=3$, $p=0.000$; missing $N = 56$

The mean age of all teachers was 44.74 years, with 1.373% of the sample not providing an age. The mean teacher age was highest for the Family and Consumer Sciences teachers (48.25

years) and lowest for the Social Studies teachers (40.09 years). The difference among the academic content areas in mean age was highly statistically significant ($p=0.000$).

Appendix 6:

Survey instrument

Dear Educator:

The College of Education and Human Ecology at The Ohio State University invites you to participate in a Web survey about your experiences **teaching Personal Finance**.

Funded by the OSU P-12 Project, which is affiliated with the John Glenn Institute, the survey will profile financial literacy education in Ohio high schools.

Participation is voluntary, all responses will be held in strict confidence, and the survey results will be published only in the aggregate.

The first 200 educators who complete the online questionnaire will receive a **\$10 gasoline gift card** as a token of our appreciation.

Thank you in advance for your assistance.

Cecilia Loibl, PhD, CFP®

Assistant Professor

Access questionnaire at:

<http://www.eprcnet.com/personalfinance.htm>

Thank you for participating in our survey about financial literacy education. The information we collect will be used to describe the state of financial literacy education in Ohio high schools.

This survey is funded by The Ohio State University P-12 Project, an affiliation of the John Glenn Institute for Public Service and Public Policy.

Your participation in this survey is voluntary. Any information you provide will be kept strictly confidential. Results will be summarized and reported only in the aggregate. Also, if you feel any of our questions are too personal, simply do not answer them.

We will mail you a **\$10 gasoline gift card** as a token of our appreciation. You may enter your address at the end of the survey.

If you have any questions or comments about this survey, we would be happy to talk with you. Please contact us at 614-292-4226 or loibl.3@osu.edu.

If you have any questions or concerns about your rights as a survey participant, feel free to contact Sandra Meadows at the OSU Office of Responsible Research Practices (Reference: IRB2007E0007) at 1-800-678-6251.

Thank you very much for helping with this important study.

Sincerely,

Caezilia Loibl
Assistant Professor
OSU College of Education and Human Ecology

Personal Financial Education at Your School

1. Are you currently teaching a high school course that covers personal finance topics?
 1. Yes
 2. No
2. In how many courses will you have taught personal finance topics during the 2006-2007 school year? Include multiple classes of the same course as one course.
 1. One
 2. Two
 3. Three or more
 4. None [terminate]
3. What are the names of the courses you teach that cover personal finance topics? If you teach more than one course, list the two courses in which you cover more personal finance topics.

First course:

Second course:

(IF TWO OR MORE COURSES IN Q2, ANSWER Q4 FOR BOTH COURSES)

4. In [course], approximately what percentage of your instruction time is spent on personal finance topics?
 1. 100% of instruction time is devoted to personal finance topics
 2. 90% to 99%
 3. 80% to 89%
 4. 70% to 79%
 5. 60% to 69%
 6. 50% to 59%
 7. 40% to 49%
 8. 30% to 39%
 9. 20% to 29%
 10. 10% to 19%
 11. Less than 10% of instruction time is devoted to personal finance topics

(ANSWER Q5 THROUGH 20 FOR COURSE LISTED UNDER "FIRST COURSE")

5. In [course], which of the following topics related to **financial planning, goal setting, and decision making** do you cover?

	Cover	Do Not Cover
a. Financial planning process.	1	2
b. Needs vs. wants.	1	2
c. Setting goals.	1	2
d. Short-, intermediate-, and long-term goals.	1	2
e. Net worth, cash flow.	1	2
f. Tracking money, spending record.	1	2
g. Financial decision making.	1	2
h. Living with limited resources.	1	2
i. Delayed gratification.	1	2
j. Opportunity cost.	1	2
k. Personal financial responsibility.	1	2
l. Cost of living.	1	2
m. Employee benefits.	1	2

6. In [course], which of the following topics related to **budgeting** do you cover?

	Cover	Do Not Cover
a. Gross and net income.	1	2
b. Payroll deductions.	1	2
c. Federal income tax, State income tax.	1	2
d. Social Security tax, Medicare tax.	1	2
e. Forms W-4, W-2, 1040.	1	2
f. Fixed and variable expenses.	1	2
g. Building a budget.	1	2
h. Record keeping.	1	2
i. P.Y.F. (pay yourself first).	1	2
j. Consumer spending skills (e.g., <i>comparison shopping</i>).	1	2
k. Transaction services (e.g., <i>ATM cards, debit cards</i>).	1	2
l. Minimum balances, charges, fees at financial institutions.	1	2

7. In [course], which of the following topics related to **savings and investments** do you cover?

	Cover	Do Not Cover
a. Rate of return.....	1	2
b. Earned interest.....	1	2
c. Compounding interest.....	1	2
d. Rule of 72.....	1	2
e. Risk and return of investments.....	1	2
f. Diversification of a portfolio.....	1	2
g. Impact of inflation and taxes on return.....	1	2
h. Emergency fund and operating cash accounts.....	1	2
i. Basic cash reserves (e.g., <i>money market funds, savings accounts</i>).....	1	2
j. Fixed-income investments (e.g., <i>bonds, bond funds</i>).....	1	2
k. Growth investments (e.g., <i>stocks, mutual funds</i>).....	1	2
l. Stock market simulation games.....	1	2

8. In [course], which of the following topics related to **consumer credit** do you cover?

	Cover	Do Not Cover
a. APR.....	1	2
b. Types of loans.....	1	2
c. Benefits of credits.....	1	2
d. Credit cards, fees and charges.....	1	2
e. Grace period.....	1	2
f. Comparing credit offers.....	1	2
g. Credit report, history, score.....	1	2
h. Balance transfers on credit cards.....	1	2
i. Student loans.....	1	2
j. Financing a home with a mortgage.....	1	2
k. Financing an automobile.....	1	2
l. Bankruptcy.....	1	2
m. Identity theft.....	1	2
n. Predatory lending.....	1	2

9. In [course], which of the following topics related to **insurance** do you cover?

	Cover	Do Not Cover
a. Risk management.	1	2
b. Concept of insurance.	1	2
c. Insurance premium.	1	2
d. Deductible.	1	2
e. Auto insurance types of coverage.	1	2
f. Factors affecting costs of auto policies.	1	2
g. Future insurance needs (e.g., <i>health, property, life</i>).	1	2

10. In [course], what **other topics** related to personal finance do you cover?

11. During the 2006-2007 school year, how many of your [course] students were in each of the following grades? Include in your answer students enrolled in all of your [course] classes.

_____ Students in Grade 9

_____ Students in Grade 10

_____ Students in Grade 11

_____ Students in Grade 12

12. Is [course] a required course or an elective course?

1. Required course
2. Elective course
3. Required for some, elective for others

13. Is [course] a one-semester course or a year-long course?

1. One semester (approximately 18 weeks)
2. Two semesters (approximately 36 weeks)
3. Other: _____

14. Is [course] taught in a traditional or block schedule?

1. Traditional (approximately 45-50 minutes)
2. Block (60 minutes or longer)
3. Other: _____

15. How many times per week does [course] meet?

16. How many of your [course] students complete this course with a grade of "C" or above?

17. Approximately how many of your [course] students are ESL/ELL?

18. Approximately how many your [course] students are in each of the following categories?

_____	White
_____	Black
_____	Hispanic
_____	Asian
_____	Other
_____	Male
_____	Female

19. Based on your experience, approximately what percentage of your [course] students will graduate with a high school diploma?

_____ %

20. Based on your experience, approximately what percentage of your [course] students will enter college?

_____ %

Teaching Personal Finance Topics

21. Do you agree or disagree with the following statements about the process of choosing information and classroom materials for your personal finance course(s)?

	Strongly Agree	Agree	Neither Agree Nor Disagree	Disagree	Strongly Disagree
a. The process of selecting an information source and classroom materials for my personal finance course(s) is important to me	1	2	3	4	5
b. It pays to select the best source of information and classroom materials for teaching personal finance.	1	2	3	4	5
c. I believe I could be quite helpful to colleagues who are having difficulty finding the right information and classroom materials for teaching personal finance	1	2	3	4	5
d. I feel quite knowledgeable about personal finance.....	1	2	3	4	5
e. I find learning new things in personal finance to be interesting and exciting.....	1	2	3	4	5

22. What do you feel are the major challenges when you teach personal finance topics? (Check all that apply.)

1. I don't have enough subject matter knowledge to comfortably teach it
2. I don't find a suitable curriculum that fits my teaching needs
3. I don't have enough classroom materials, such as lesson plans, student hand-outs
4. I don't have enough classroom time to properly teach these topics
5. I don't see an interest in my school administration in teaching these topics
6. I don't see an interest in the topic among my students
7. I struggle with selecting financial information and classroom materials among the many available sources
8. Teaching personal finance often seems tedious
9. I don't have time to stay current with changes in personal finance
97. Other: _____
98. There are no major challenges

23. For me, teaching personal finance topics is...

Unenjoyable	1	2	3	4	5	6	7	Enjoyable
Unsatisfying	1	2	3	4	5	6	7	Satisfying
Unimportant	1	2	3	4	5	6	7	Important
Routine	1	2	3	4	5	6	7	Challenging
Easy	1	2	3	4	5	6	7	Difficult

24. Do you agree or disagree with the following statements about searching for information and classroom materials for your personal finance course(s)?

	Strongly Agree	Agree	Neither Agree Nor Disagree	Disagree	Strongly Disagree
a. I enjoy exploring new places for information and classroom materials for teaching personal finance.	1	2	3	4	5
b. I have favorite sources of information and classroom materials I use every time I teach a personal finance course.	1	2	3	4	5
c. When I find a source of information and classroom materials that I like, I use it regularly for my personal finance course(s)	1	2	3	4	5
d. I use many information sources for my personal finance course(s)	1	2	3	4	5
e. I regularly change the sources of information and classroom materials I use for my personal finance course(s).	1	2	3	4	5
f. There are no benefits to obtaining new information and classroom materials every time I teach a personal finance course	1	2	3	4	5

25. Do you agree or disagree with the following statements about the time you spend gathering information and classroom materials for your personal finance course(s)?

	Strongly Agree	Agree	Neither Agree Nor Disagree	Disagree	Strongly Disagree
a. I feel it takes a lot of time to search for information and classroom materials for teaching personal finance.	1	2	3	4	5
b. I spend a lot of time comparing information and classroom materials from different sources	1	2	3	4	5
c. When I am looking for information or classroom materials for my personal finance course(s), I search a lot.	1	2	3	4	5
d. I usually decide quickly, using the first information source that appears good enough for my personal finance course(s)	1	2	3	4	5
e. By rushing, one could miss choosing the most suitable information and classroom materials	1	2	3	4	5
f. I enjoy searching for information and classroom materials for teaching personal finance.	1	2	3	4	5

26. How frequently do you use each of the following to stay informed about personal finance topics?

	Never	Seldom	Sometimes	Often	Very Often
Broadcast sources					
a. Television programs.	1	2	3	4	5
b. Radio programs.	1	2	3	4	5
Printed sources					
c. Books.	1	2	3	4	5
d. Personal finance textbooks.	1	2	3	4	5
e. General newspapers (e.g., <i>Columbus Dispatch</i>).	1	2	3	4	5
f. Financial newspapers (e.g., <i>Wall Street Journal</i>).	1	2	3	4	5
g. Financial planning magazines (e.g., <i>Kiplinger's</i> , <i>Money</i>).	1	2	3	4	5
h. General interest magazines (e.g., <i>Good Housekeeping</i>).	1	2	3	4	5
Internet-based sources					
i. Email newsletters.	1	2	3	4	5
j. Information-sharing email listservs.	1	2	3	4	5
k. Browser searches (e.g., <i>Google</i> , <i>Yahoo</i>).	1	2	3	4	5
l. Blogs.	1	2	3	4	5
m. Teacher-focused financial Web sites (e.g., <i>moneyinstructor.com</i>).	1	2	3	4	5
n. Curriculum clearinghouses (e.g., <i>jumpstart.org</i> , <i>feff.arizona.edu</i>).	1	2	3	4	5
o. Investment firms' and brokerage houses' Web sites (e.g., <i>Vanguard</i> , <i>Fidelity</i>).	1	2	3	4	5
p. Market watch Web sites (e.g., <i>Yahoo! Finance</i> , <i>morningstar.com</i>).	1	2	3	4	5
q. Personalized financial Web sites (e.g., <i>WSJ.com</i> , <i>marketwatch.com</i>).	1	2	3	4	5

26. How frequently do you use each of the following to stay informed about personal finance topics?
(cont'd)

	Never	Seldom	Sometimes	Often	Very Often
r. Youth-focused Web sites (e.g., <i>italladdsup.org</i>).....	1	2	3	4	5
s. Online financial tools (e.g., <i>calculators</i> , <i>financial analysis</i>).....	1	2	3	4	5
t. Online games and simulations.....	1	2	3	4	5
u. Personal finance web portals and directories (e.g., <i>personalfinance.com</i>).....	1	2	3	4	5
Interpersonal sources					
v. Spouse.....	1	2	3	4	5
w. Parents.....	1	2	3	4	5
x. Friends and extended family.....	1	2	3	4	5
y. Colleagues.....	1	2	3	4	5
z. Workplace financial education.....	1	2	3	4	5
aa. Investment clubs.....	1	2	3	4	5
ab. Financial advisors.....	1	2	3	4	5
ac. Bankers, credit union associates.....	1	2	3	4	5
ad. Business leaders.....	1	2	3	4	5
ae. Civic or religious leaders.....	1	2	3	4	5
af. Personal experiences.....	1	2	3	4	5
ag. Stock broker.....	1	2	3	4	5
Professional sources					
ah. Professional conferences.....	1	2	3	4	5
ai. Other continuing education events.....	1	2	3	4	5
aj. Jump\$tart trainings and resources.....	1	2	3	4	5
ak. NCEE sponsored workshops.....	1	2	3	4	5

27. Which of the sources listed in the previous question is your most important source of information on personal finance topics?

[list all sources from previous question]

28. How do you prefer to receive information and classroom materials for teaching personal finance? Please select your favorite source.

1. Professional sources (e.g., *conferences, trainings*)
2. Printed sources (e.g., *books, magazines, newspapers*)
3. Internet-based sources (e.g., *Web sites, email newsletters*)
4. Interpersonal sources (e.g., *colleagues, financial advisors*)
5. Broadcast sources (e.g., *radio, TV*)

29. When teaching personal finance topics, how much time do you spend on each of the following activities, on average, to prepare for one class period?

Searching the Internet on personal finance topics

1. No time
2. Up to ½ hour
3. More than ½ hour, but less than 1 hour
4. More than 1 hour, but less than 2 hours
5. More than 2 hours

Reading publications about personal finance topics

1. No time
2. Up to ½ hour
3. More than ½ hour, but less than 1 hour
4. More than 1 hour, but less than 2 hours
5. More than 2 hours

Talking to others about personal finance topics

1. No time
2. Up to ½ hour
3. More than ½ hour, but less than 1 hour
4. More than 1 hour, but less than 2 hours
5. More than 2 hours

Correlating classroom materials on personal finance topics

1. No time
2. Up to ½ hour
3. More than ½ hour, but less than 1 hour
4. More than 1 hour, but less than 2 hours
5. More than 2 hours

30. Do you agree or disagree with the following statements about the effort of searching for information and classroom materials for your personal finance course(s)?

	Strongly Agree	Agree	Neither Agree Nor Disagree	Disagree	Strongly Disagree
a. When seeking financial information or choosing classroom materials, I am concerned about the consequences of making a poor or incorrect choice.	1	2	3	4	5
b. Deciding which information and classroom materials to use requires a great deal of thought	1	2	3	4	5
c. The more I get into teaching personal finance, the harder it seems to choose the best information and classroom materials	1	2	3	4	5
d. Deciding which financial information and classroom materials to use is overwhelming.	1	2	3	4	5
e. I often feel confused by all the information available on personal finance.	1	2	3	4	5
f. There are too many different sources to consider for gathering information and classroom materials for teaching personal finance.	1	2	3	4	5

A Few Questions About Your School

31. Where is your high school located?

1. Rural area
2. Suburban area
3. Urban area, but not central city
4. Central city

32. What is the name of your school district? _____

33. What is the name of your school? _____

34. Which of the following best describes your school?

1. Public school
2. Public charter school
3. Private school
4. Parochial school

Your Background in Personal Finance

35. For how many years have you been teaching personal finance topics?

_____ years

36. In which area is your teaching License / Certification?

1. Business Education
2. Family and Consumer Sciences
3. Social Studies
4. Other: _____

37. How many college-level courses have you taken on personal finance topics?

0. None
1. One
2. Two
3. Three
4. More than three

38. How many continuing education courses or workshops related to personal finance have you taken in the last two years?

0. None
1. One
2. Two
3. Three
4. Four
5. Five or more

39. What are the names of the continuing education courses or workshops on personal finance that you attended and which institutions or associations offered them?

Title:	Organized / offered by:
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

A Few More Questions About You

The following questions are used for statistical purposes only. If you do not feel comfortable answering a question, feel free to leave it blank.

40. Are you male or female?

1. Male
2. Female

41. How old were you on your last birthday?

_____ years old

42. What is the highest level of education that you have completed?

1. Less than a 4-year college degree
2. 4-year college degree
3. Master's degree
4. Ph.D.

43. What is your current marital status?

1. Married / living with a partner
2. Single, never married
3. Divorced / separated
4. Widowed

44. What was your total household income from all sources and before taxes for 2006?

1. Less than \$20,000
2. \$20,000 to \$39,999
3. \$40,000 to \$59,999
4. \$60,000 to \$79,999
5. \$80,000 to \$99,999
6. \$100,000 to \$119,999
7. \$120,000 to \$139,999
8. \$140,000 to \$159,999
9. \$160,000 to \$179,999
10. \$180,000 to \$199,999
11. More than \$200,000

Finally, A Few Questions About Personal Finance

For these next few questions, if you are not sure of an answer, feel free to select "Not sure."

45. What do you think is currently the average personal savings rate in the United States in 2006 as a percentage of the disposable income?

1. Between -5% and 0%
2. More than 0% to 5%
3. More than 5% to 10%
4. Not sure

46. In an FDIC-insured financial institution, up to what amount is an individual's accounts insured?

1. Up to \$100,000
2. Up to \$10,000
3. Up to \$1,000
4. Not sure

47. When is the best time to transfer money into a long-term bond fund?
1. When interest rates are expected to increase
 2. When interest rates are expected to remain stable
 3. When interest rates are expected to decrease
 4. Interest rates do not matter
 5. Not sure
48. Is the following statement true or false? "A stock market index fund is actively managed by a fund portfolio manager."
1. True
 2. False
 3. Not sure
49. Over the last 20 years in the U.S., the best average returns have been generated by which of the following?
1. Bonds
 2. CDs
 3. Money market accounts
 4. Precious metals
 5. Stocks
 6. Not sure
50. Negative financial information can stay on your credit report for how many years?
1. 5 to 7 years
 2. 7 to 10 years
 3. 10 to 15 years
 4. Not sure
51. Credit scores range from 300 to 850. What do you think is the average credit score in the United States as reported in credit reports?
999. _____
999. Not sure
52. If your credit card was lost or stolen and used to charge items you didn't authorize, you are responsible for what amount?
1. Nothing
 2. Up to \$50
 3. Up to \$500
 4. All unauthorized charges
 5. Not sure
53. If you have caused an accident, which type of automobile insurance would cover damage to your own car?
1. Collision insurance
 2. Comprehensive insurance
 3. Liability insurance
 4. Term insurance
 5. Not sure

54. Use the space below for any additional thoughts you would like to share about financial literacy education.

Thank you for taking the time to participate in our survey.

When you click "Submit," you will be forwarded to a different Web site where you may enter your address to receive your **\$10 gasoline gift card**.

This Web site is separate from the questionnaire to ensure that your responses remain completely anonymous.

[submit - link to incentive page]

To receive your \$10 gasoline gift card as a small, but sincere token of our appreciation, enter your name and address below.

Name: _____
Street address: _____
City: _____
State: _____
ZIP code: _____

☐ I do not want to receive an incentive.

[submit - link to report page]

Thanks!

Would you like us to email you a report summarizing the results of this survey?

1. Yes
2. No [skip to syllabus screen]

Part II:

Analysis of Legislation regarding personal finance instruction in high schools

*Comparison of State Statutes' Attempts to
Provide Students with Financial Literacy Instruction*

By Creola Johnson, Professor of Law,
Ohio State University Moritz College of Law

Seventeen states and one United States territory have some form of legislation concerning financial literacy in public schools. As reflected in the attached table, eighteen jurisdictions with financial literacy related laws may appear to be an impressive number. However, of the eighteen, only nine actually require financial literacy education, either as a separate course or to be integrated into existing courses.¹ Rather than mandating the inclusion of financial literacy, six states encourage school districts to provide financial education by requiring the state's education agency to set academic standards, create financial literacy curricula, or provide resources for disseminating financial education.² Finally, three states have enacted laws that merely require the state's education board to accumulate information on financial literacy programs or require an entity to conduct studies about need for financial literacy instruction.³ All of the statutes currently enacted vary greatly based on factors such as the extent of discretion granted to boards of education in requiring financial education, guidance about what financial literacy topics should be taught, funding availability to create financial literacy courses and materials, and training of teachers in financial literacy instruction.

A. Mandatory-instruction statutes

The nine jurisdictions that mandate some form of financial literacy instruction are Louisiana, North Carolina, Ohio, Illinois, Rhode Island, South Carolina, Texas, Virginia and the United States Virgin Islands. Statutes in Louisiana, South Carolina, Ohio, and Illinois appear to be the most comprehensive in that they provide the greatest detail about the financial literacy instruction and address implementation impediments such as funding and training. First, Louisiana, South Carolina, Ohio, and Illinois all require all students in public high schools be given financial literacy education.⁴ Second, the boards of education in these states must take an active role in fostering programs relating to financial literacy and enforcing educational objectives by gathering financial literacy materials, setting goals, and developing curricula for use by the schools.⁵

The statutes in Louisiana, South Carolina, Ohio, and Illinois differ in several respects that may have an impact on the effectiveness of financial education provided to their high school students. Louisiana mandates financial literacy instruction as part of a separate semester-long "free enterprise" course that high school students must take to obtain one-half credit towards graduation.⁶ In South Carolina, personal financial literacy instruction must be integrated into existing courses, but the statute does

1 Louisiana, North Carolina, Rhode Island, South Carolina, Texas, the U.S. Virgin Islands, and Virginia

2 Colorado, Kansas, Michigan, Mississippi, Washington, and West Virginia

3 Arkansas, Ohio, Missouri, Tennessee

4 LA. REV. STAT. ANN. § 17:274 (2003) ("All public high schools shall give instruction in a course in free enterprise as a prerequisite to graduation."); S.C. CODE ANN. § 59-29-165 (2005) ("All students attending a high school in this State that is sustained by public funds must receive instruction in the area of personal finance."); OHIO REV. CODE ANN. § 3313.603(C)(6) (West 2007) ("... the requirements for graduation from every public and chartered nonpublic high school ... [include:] (6) ... the study of economics and financial literacy ... [integrated into] existing social studies credits required under division (C)(6) of this section, or into the content of another class, so that every high school student receives instruction in those concepts." The "Ohio Core Curriculum"). Ohio's legislation does make provisions for exceptions to this requirement. Through a process of obtaining informed parental consent, with the acknowledgement that further coursework will be required for eligibility to most state universities, and requiring the joint development of an individual career plan, a student may graduate without completing this financial literacy graduation requirement. *Id.* at (D). Ohio provides a caveat to this exception: any district or charter may set a higher graduation standard, choosing not to recognize the exception of subsection (D). *Id.* at (E). A waiver of Ohio's financial literacy requirement is also available through a dropout prevention program. *Id.* at (F). 105 ILL. COMP. STAT. 5/27-12.1(a) (2007) ("Subject to the provisions of subsection (b) of this Section, pupils in the public schools in grades 9 through 12 shall be taught and be required to study courses which include instruction in the area of consumer education, including ... (i) understanding the basic concepts of financial literacy ...").

5 LA. REV. STAT. ANN. § 17:274 (the State Board of Elementary and Secondary Education is required to prescribe a course of study and suitable teaching materials for the instruction); S.C. CODE ANN. § 59-29-410 (2005) ("The State Board of Education shall develop or adopt curricula, materials, and guidelines for local school boards to use in implementing a program of instruction on financial literacy within courses currently offered in high schools in this State."); OHIO REV. CODE ANN. § 3313.603(C)(6) (West 2007) ("... as expressed in the social studies academic content standards adopted by the state board of education under section 3301.079 of the Revised Code ..."); 105 ILL. COMP. STAT. 5/27-12.1(a) (2007) ("The State Board of Education shall devise or approve the consumer education curriculum for grades 9 through 12 and specify the minimum amount of instruction to be devoted thereto").

6 LA. REV. STAT. ANN. § 17:274 (2003) ("Instruction shall be given in accordance with the course of study prescribed by the State Board of

not designate any particular courses.⁷ Therefore, such instruction could be part of elective course that is not necessary to take to graduate. Consequently, students who elect not to take the course will miss out on instruction essential for effective financial decision-making. South Carolina's legislature may have intended to overcome this limitation by also mandating that the state board of education incorporate financial literacy education into its academic standards for kindergarten through the twelfth grade.⁸ Ohio stipulates that financial literacy education is to be integrated into at least one of the required social studies courses, or alternatively, "into the content of another class, so that every high school student receives instruction in those concepts."⁹ Illinois does not stipulate whether the financial literacy instruction must be provided in a separate course, or integrated into an existing course.¹⁰

Louisiana, South Carolina, Ohio, and Illinois are similar in that they all address skills or topics to be covered by financial literacy instruction.¹¹ For example, while Louisiana mandates topics which must be covered in building effective financial literacy programs,¹² South Carolina's statute contains the following comprehensive list of topics and skills the financial literacy instruction must include:

- (1) opening a deposit account and assessing the quality of a depository institution's services;
- (2) balancing a check book;
- (3) spending, credit, credit scoring, and managing debt, including retail and credit card debt;
- (4) completing a loan application;
- (5) the implications of an inheritance;
- (6) the basic principles of personal insurance policies;
- (7) computing state and federal income taxes;
- (8) local tax assessments;
- (9) computing interest rates by various mechanisms;
- (10) understanding simple contracts;
- (11) contesting an incorrect billing statement;
- (12) savings and investing; and
- (13) state and federal laws concerning finance."¹³

Assuming that the above skills are taught effectively, students in South Carolina will receive a solid foundation that will enable them to make a wide array of wise financial choices.

Finally, the statutes in Louisiana, South Carolina, Ohio, and Illinois address the following two barriers to successful implementation of financial literacy instruction: the potential lack of financial expertise among educators and the increased costs associated with adding financial education to the existing curriculum. In Louisiana, the state's department of education must

Elementary and Secondary Education for at least one semester, equal to one-half unit of credit.").

7 § 59-29-410 (the State Board of Education develop curricula, materials, and guidelines for use by local school boards in implementing a financial literacy program within courses currently offered in high schools in this State).

8 S.C. CODE ANN. § 59-29-430 (2005).

9 OHIO REV. CODE ANN. § 3313.603(C)(6) (West 2007).

10 See 105 ILL. COMP. STAT. 5/27-12.1(a) (2007).

11 Ohio's financial literacy legislation requires the implementation of the academic content standards previously adopted by the State Board of Education OHIO REV. CODE ANN. § 3313.603(C)(6) (West 2007); See Academic Content Standards at 35, 77, 177 available at <http://www.ode.state.oh.us/GD/Templates/Pages/ODE/ODEDetail.aspx?Page=3&TopicRelationID=335&Content=32668> (select "Academic Content Standards"). Illinois provides a list of areas that must be covered within consumer education. 105 ILL. COMP. STAT. 5/27-12.1(a) (2007) (including instruction in "installment purchasing (including credit scoring, managing credit debt, and completing a loan application), budgeting, savings and investing, banking . . . understanding simple contracts, State and federal income taxes, personal insurance policies, and the comparison of prices.").

12 § 17:274 (topics include income, money management, spending and credit, and savings and investing).

13 § 59-29-410.

create programs to train the teachers.¹⁴ South Carolina's creates an initiative aimed at providing "public and private funds for teachers and schools to provide high-quality financial literacy education for students in kindergarten through twelfth grade."¹⁵ Ohio acknowledges the importance of "teacher quality" in the implementation of Ohio's required core curriculum, and directs the General Assembly to appropriate an estimated \$120 million over five years "to strengthen schools' capacities to hire and retain highly qualified teachers in the subject areas required by the curriculum."¹⁶ Illinois has created "The Financial Literacy Fund" to provide the school districts grants for the following purposes: (1) Defraying the costs of financial literacy training for teachers. (2) Rewarding a school or teacher who wins or achieves results at a certain level of success in a financial literacy competition. (3) Rewarding a student who wins or achieves results at a certain level of success in a financial literacy competition. (4) Funding activities, including books, games, field trips, computers, and other activities, related to financial literacy education.¹⁷ Because Illinois, Louisiana, South Carolina, and Ohio have dealt with training and funding matters, their statutes seem to be the strongest of the state statutes mandating financial literacy instruction.

The three states that appear to have moderate financial literacy statutes are Rhode Island, Virginia, and Texas. These statutes contain moderate detail about the content of financial literacy education but fail to address significant barriers to implementation of financial literacy education in public schools. For instance, rather than mandating that the state education board set the standards for financial literacy education, Rhode Island's statute leaves it to the individual school committees and districts to create mandatory financial literacy instruction for their students in grades eight through twelve.¹⁸ This statute makes no mention of issues related to either funding or training of teachers.¹⁹

Like Rhode Island, funding and training provisions are not considered in Virginia's financial literacy statute. Virginia requires the state's board of education to develop financial literacy objectives and monitor adoption by the schools.²⁰ This program includes both middle and high school instruction, integrated into relevant Standards of Learning already existing, and provides a comprehensive list of topics to be covered.²¹ However, the board of education was specifically not required to evaluate students' attainment of the financial literacy objectives during Standards of Learning assessments.²² Why Virginia chose not to test student attainment is a mystery, but perhaps it was necessary to get the votes to get the financial education statute enacted.

14 § 17:274 ("In-service training programs shall be provided each year by the State Department of Education to assist teachers who give instruction on the free enterprise system.")

15 S.C. CODE ANN. § 59-29-440 (2006).

16 OHIO REV. CODE ANN. § 3313.603(C)(7) (West 2007). In addition, Ohio requires the creation of a resource bank of instructional materials to assist in the implementation of Ohio's financial literacy education requirements. OHIO REV. CODE ANN. § 3301.0726 (West 2007) (The department of education shall develop a packet of high school instructional materials on personal financial responsibility, including instructional materials on the avoidance of credit card abuse, and shall distribute that packet to all school districts. . .").

17 105 ILL. COMP. STAT. 5/27-12.1(c) (2007).

18 R.I. GEN. LAWS § 16-22-13 (2005) ("The school committees of the several cities, towns, and school districts shall provide for pupils in the public schools in grades eight (8) through twelve (12) to be taught and be required to study courses which include instruction in consumer education, which may include but not necessarily be limited to installment purchasing, budgeting, comparison of prices, credit and the law, employment and income, rights and responsibilities in the marketplace, money management, and other personal finance or consumer economic topics of study approved by the department of elementary and secondary education.").

19 *Id.*

20 VA. CODE ANN. § 22.1-200.03 (2006) ("The Board of Education shall develop and approve objectives for economics education and financial literacy at the middle and high school levels, that shall be required of all students, and shall provide for the systematic infusion of economic principles in the relevant Standards of Learning, and in career and technical education programs.").

21 § 22.1-200.03 ("The objectives shall include, but not be limited to, personal living and finances; personal and business money management skills; opening an account in a financial institution and judging the quality of a financial institution's services; balancing a checkbook; completing a loan application; the implications of an inheritance; the basics of personal insurance policies; consumer rights and responsibilities; dealing with salesmen and merchants; debt management; managing retail and credit card debt; state and federal tax computation; local tax assessments; computation of interest rates by various mechanisms; understanding simple contracts; and learning how to contest an incorrect bill.").

22 § 22.1-200.03 ("The Board shall not be required to evaluate student achievement concerning economics education and financial literacy objectives in the Standards of Learning assessments required by § 22.1-253.13:3.").

Texas Education Code requires instruction in financial literacy in all schools and directs the state board of education to select materials, and, unlike Virginia, Texas requires testing of essential knowledge and skills relating to personal finance.²³ Texas also requires the Texas Education Agency to create and execute a financial literacy pilot program to be run in twenty-five school districts throughout the state.²⁴ The Agency must collaborate with the Office of Consumer Credit Commissioner and the State Securities Board in developing a curriculum and gathering materials covering a detailed list of personal finance topics.²⁵ However, Texas did not appropriate any funding for the pilot program but delegates to the Texas Education Agency the authority to solicit funding from non-profit organizations, private businesses, governmental entities, and higher learning institutions.²⁶

Of the nine jurisdictions that have statutes mandating financial education, North Carolina and the U.S. Virgin Islands have statutes that contain the least detail about financial literacy instruction and use general language that provide no clear guidelines for state boards of education and school districts to follow. Neither state statute lists topics to include in the curriculum or address issues relating to funding and training although. Both statutes require personal financial literacy standards to be incorporated into the existing curricula, rather than creating a separate course. Some other variations exist between the state statutes. For instance, in North Carolina, the primary emphasis is on the state board of education, which is required to determine the components of the financial literacy curriculum and determine into which courses the financial literacy instruction should be integrated.²⁷ The statute passed by the Virgin Islands only mentions adoption by the individual public schools.²⁸ North Carolina requires financial literacy instruction only at the high school level,²⁹ while the Virgin Islands extend coverage throughout K-12 education.³⁰

B. Permissive statutes

The next tier of financial literacy statutes are considered “permissive” because, rather than mandating the inclusion of financial education instruction, they range from those strongly encouraging the adoption of financial literacy objectives to simply

23 § 28.0021

24 TEX. EDUC. CODE ANN. § 29.915 (Vernon 2005)

25 § 29.915 (“The agency shall collaborate with the Office of Consumer Credit Commissioner and the State Securities Board to develop the curriculum and instructional materials for the program. The curriculum and instructional materials include information about:

- (1) avoiding and eliminating credit card debt;
- (2) understanding the rights and responsibilities of renting or buying a home;
- (3) managing money to make the transition from renting a home to home ownership;
- (4) starting a small business;
- (5) being a prudent investor in the stock market and using other investment options;
- (6) beginning a savings program;
- (7) bankruptcy;
- (8) the types of bank accounts available to consumers and the benefits of maintaining a bank account;
- (9) balancing a check book; and
- (10) the types of loans available to consumers and becoming a low-risk borrower.”).

Id. An application and selection process must also be developed to choose the participating schools. See § 29.915 (“The agency shall develop an application and selection process for selecting school districts to participate in the program. The agency may select not more than 25 school districts to participate in the program.”).

26 §29.915 (“The agency may solicit and accept a gift, grant, or donation from any source, including a foundation, private entity, governmental entity, or institution of higher education, for the implementation of the program. The program may be implemented only if sufficient funds are available under this subsection for that purpose.”). The pilot program was supposed to begin in the 2006-2007 academic year, but the Agency had to provide the legislature with a progress report on the program by January 1st, 2007. *Id.*

27 N.C. GEN. STAT. § 115C-81 (2004) (“The State Board of Education shall determine the components of personal financial literacy that will be covered in the curriculum. The State Board shall also review the high school standard course of study to determine in which course the new personal financial literacy curriculum can be integrated.”).

28 V.A. CODE ANN. tit. 17, § 41 (2004)

29 § 115C-81

30 § 41

making programs available for use by the schools. The six states with permissive statutes are Colorado,³¹ Kansas,³² Michigan,³³ Mississippi,³⁴ Washington,³⁵ and West Virginia.³⁶ Because none of these states actually mandate financial literacy instruction, the discussion below will only highlight unique aspects of the statutes enacted in Colorado and Washington.

31 See *infra* notes ____-____ and accompanying text.

32 The financial literacy statute enacted in Kansas requires the state's board of education to develop a curriculum, materials, and guidelines relating to financial literacy but not addressing the issue of implementation by the individual school districts. See Kan. Stat. Ann. § 72-7535 (2004) ("In order to equip students with the knowledge and skills needed to become self-supporting and to enable students to make critical decisions regarding personal finances, the state board of education shall authorize and assist in the implementation of programs on teaching personal financial literacy."). The financial literacy instruction outlined in this statute covers all grade levels and should be integrated into the existing mathematics curriculum or another appropriate subject. See § 72-7535 ("The state board of education shall develop standards and objectives for personal financial literacy, for all grade levels, within the existing mathematics curriculum or another appropriate subject-matter curriculum."). A general list of topics is given, and the board of education must also encourage school districts to consider financial literacy when selecting textbooks in mathematics, economics, and other related topics. See § 72-7535 ("The state board of education shall encourage school districts when selecting textbooks for mathematics, economics or similar courses, to select those textbooks which contain substantive provisions on personal finance, including personal budgeting, credit, debt management and similar personal financial topics."). However, the Kansas statute made no mention funding or training.

33 Michigan's statute includes language which encourages adoption of a model financial literacy program created by the Department of Education. MICH. COMP. LAWS § 380.1165 (2002) ("Each school district, local act school district, and public school academy is encouraged to adopt and implement the model financial education programs developed under subsection (1) or 1 or more similar financial education programs."). This statute covers K-12 instruction and required topics are included, but no specific skills are mentioned. See § 380.1165 ("A program under this section shall be designed to incorporate financial education throughout the curriculum for grades K to 12 and shall be based on the concept of achieving financial literacy through the teaching of personal financial management skills and the basic principles involved with earning, spending, saving, borrowing, and investing."). While it does not mention training or appropriate any state funds for financial education, Michigan's statute does mandate that available federal funds be used to create incentives to implement financial education programs. § 380.1165 ("To the extent that federal funds are available for these purposes, the department shall use those funds for grants to public schools and other measures to encourage implementation of financial education programs.").

34 While Mississippi's financial literacy statute makes no mention of legislative findings, funding, or training, it requires the state board of education to develop objectives for financial literacy which cover an extensive range of topics. See MISS. CODE ANN. § 37-1-3 (2004) ("The objectives must require the teaching of those skills necessary to handle personal business and finances and must include instruction in the following:

- (i) Opening a bank account and assessing the quality of a bank's services;
- (ii) Balancing a checkbook;
- (iii) Managing debt, including retail and credit card debt;
- (iv) Completing a loan application;
- (v) The implications of an inheritance;
- (vi) The basics of personal insurance policies;
- (vii) Consumer rights and responsibilities;
- (viii) Dealing with salesmen and merchants;
- (ix) Computing state and federal income taxes;
- (x) Local tax assessments;
- (xi) Computing interest rates by various mechanisms;
- (xii) Understanding simple contracts; and
- (xiii) Contesting an incorrect billing statement.

Id. Financial literacy objectives are to be developed for high school instruction and for purposes of integrating them into related, existing courses. See § 37-1-3 ("[T]he State Board of Education shall develop personal living and finances objectives that focus on money management skills for individuals and families for appropriate, existing courses at the secondary level.")

35 See *infra* notes 37-45 and accompanying text.

36 West Virginia's financial literacy statute requires the state board of education to develop a program of instruction that may be integrated into existing courses in secondary schools. See W. VA. CODE § 18-2-7c (2005) ("To provide students a basic understanding of personal finance, the State Board shall develop a program of instruction on personal finance which may be integrated into the curriculum of an appropriate existing course or courses for students in secondary schools."). While the statute has a short statement of legislative findings, it does not address training programs or funding for the addition of financial literacy education. See § 18-2-7c ("The Legislature finds and declares that persons with an understanding of personal finance are better prepared to manage their money and that providing a personal finance program in secondary schools in West Virginia will prepare students to handle their finances.").

The Colorado legislature made findings emphasizing the number of high school students who graduate without receiving financial education,³⁷ the failing grade high seniors made on a financial literacy test,³⁸ and the growing amount of debt Americans consumer carry³⁹ to justify the need for financial literacy training.⁴⁰ The legislature defines “financial literacy” as the “knowledge of personal finances that is sufficient to enable a person to manage savings, investment, and checking accounts, to design and maintain a household budget, to manage personal debt, to understand consumer credit and finance, to manage personal credit options, and to understand and select among short-term and long-term investment options.”

Colorado's financial literacy statute focuses upon the school district boards of education, and strongly encourages the boards to adopt financial literacy instruction in all grade levels.⁴¹ Moreover, while this instruction can be integrated into existing curricula, such as in math and economics, the statute also strongly encourages the creation of a separate course in financial literacy required for high school graduation.⁴² Colorado mandates that the state board of education form a resource bank of materials relating to financial literacy,⁴³ including model programs, curricula, and materials relating to professional educator development.⁴⁴ Furthermore, the board must create a list of mathematics and economics textbooks that contain sections dealing with personal finance.⁴⁵ The materials included in the resource bank must be made available to all school districts attempting to implement a financial literacy program.⁴⁶ Finally, this statute creates a fund to finance the creation of the resource bank and also provides for the distribution of gifts, grants, or donations related to financial literacy education.⁴⁷ The appropriation of funding for the dissemination of appropriate materials imply a legislative commitment towards increasing financial literacy.

Instead of mandating the creation of a resource bank, the Washington legislature enacted a statute requiring the creation of a public-private partnership which must identify strategies for enhancing the financial literacy of public school students. The legislature made the following findings. To further the purpose of the state's school system, the Washington public-private partnership must “seek out and determine the best methods of equipping students with the knowledge and skills they need, before they become self-supporting, in order for them to make critical decisions regarding their personal finances.”⁴⁸ The strategies

37 COLO. REV. STAT. §22-32-135(1)(c) (2004) (“Many students graduate from high school without having learned crucial personal financial management skills, although many have already obtained their first credit cards.

38 COLO. REV. STAT. §22-32-135(1)(b) (2004) (“In February and March of 2000, in a survey of high school seniors designed to test their knowledge of personal finance basics, the students answered only fifty-one and nine tenths percent of the questions correctly, receiving a failing grade.”).

39 COLO. REV. STAT. §22-32-135(1)(d) (2004) (“Recent studies of consumer finances by the federal reserve board show that, at the end of the third quarter of 1999, household debt in the United States totaled over six trillion three hundred billion dollars. Almost one trillion four hundred billion dollars of this debt was consumer credit debt, while four trillion four hundred billion dollars consisted of mortgage debt.”).

40 COLO. REV. STAT. §22-32-135(1)(e) (“With the recent growth in consumer debt and the apparently low level of education and understanding with regard to personal finances, it is imperative that the public schools of the state provide students with a thorough, high-quality curriculum of financial literacy to enable students to understand and master personal finance skills, including, at a minimum, managing bank accounts, household budgeting, understanding and managing personal debt, and managing personal savings and investment.”).

41 COLO. REV. STAT. §22-32-135 (2004) (“Each school district board of education is strongly encouraged to adopt as part of its district curriculum courses pertaining to financial literacy to be taught in grade-appropriate courses at the elementary, middle, junior high, and high school grade levels. When selecting mathematics and economics textbooks, each school district is strongly encouraged to select those texts that include substantive provisions on personal finance, including personal budgeting, credit, debt management, and similar personal finance topics.” (emphasis added)).

42 *Id.*

43 COLO. REV. STAT. § 22-2-127 (2004).

44 *Id.*

45 COLO. REV. STAT. § 22-2-127 (“The resource bank shall also include a list of the available mathematics and economics textbooks that contain substantive provisions on personal finance, including personal budgeting, credit, debt management, and similar personal finance topics.”).

46 § 22-2-127 (“Upon the request of a school district or charter school, the department shall provide technical assistance to the school district or charter school in designing a curriculum of financial literacy.”).

47 *Id.*

48 WASH. REV. CODE § 28A.300.455 (2004) (By June 30, 2006, the financial literacy public-private partnership shall identify strategies to increase the financial literacy of public school students in our state.”); § 28A.300.460.

must encompass areas such as coverage of important topics, methods for integrating those topics into existing courses at all grade levels, appropriate materials, standards for assessing student achievement, and professional development of teachers.⁴⁹ The partnership must consider personal financial literacy programs that "include, at a minimum, consumer financial education, personal finance, and personal credit."⁵⁰ The Washington legislation also created an account to fund the partnership's activities and provide training for teachers.⁵¹ The legislature also declares that financial instruction could be easily included in the existing curriculum and intends to assist schools in achieving greater financial literacy for its students.⁵²

C. "Token" statutes

The final group of statutes could be characterized as "token" efforts by the legislatures which only require a study to be conducted or financial instruction materials to be accumulated. Token statutes are found in Arkansas, Missouri, and Tennessee.

Arkansas' statute only mandates that the state department of education develop guidelines for a personal finance course and recommend textbooks relating to financial literacy.⁵³ While a short list of financial literacy topics is given, the state board of education must approve any financial literacy course.⁵⁴

In Missouri, the Department of Secondary and Elementary Education must conduct a study and develop a report concerning personal financial education to be submitted to the legislature.⁵⁵ The topics to be covered within the report are given in great

49 § 28A.300.455 ("To the extent funds are available, strategies to be considered by the partnership shall include, but not be limited to:

(a) Identifying and making available to school districts:

(i) Important financial literacy skills and knowledge;

(ii) Ways in which teachers at different grade levels may integrate financial literacy in mathematics, social studies, and other course content areas;

(iii) Instructional materials and programs, including schoolwide programs, that include the important financial literacy skills and knowledge;

(iv) Assessments and other outcome measures that schools and communities may use to determine whether students are financially literate; and

(v) Other strategies for expanding and increasing the quality of financial literacy instruction in public schools, including professional development for teachers;

(b) Developing a structure and set of operating principles for the financial literacy public-private partnership to assist interested school districts in improving the financial literacy of their students by providing such things as financial literacy instructional materials and professional development; and

(c) Providing a report to the governor, the house and senate financial institutions and education committees of the legislature, the superintendent of public instruction, the state board of education, and education stakeholder groups, on the results of work of the financial literacy public-private partnership. A final report shall be submitted to the same parties by June 30, 2007.")

50 WASH. REV. CODE § 28A.300.460 (2004) ("The components of personal financial literacy examined shall include, at a minimum, consumer financial education, personal finance, and personal credit.").

51 WASH. REV. CODE § 28A.300.465 (2004) ("The Washington financial literacy public-private partnership account is hereby created in the custody of the state treasurer. The purpose of the account is to support the financial literacy public-private partnership, and to provide financial literacy opportunities for students and financial literacy professional development opportunities for the teachers providing those educational opportunities.")

52 WASH. REV. CODE § 28A.300.450 (2004) ("The legislature further finds that financial literacy could easily be included in lessons, courses, and projects that demonstrate each student's understanding of the state's four learning goals, including goal four: Understanding the importance of work and how performance, effort, and decisions directly affect future opportunities. The legislature intends to assist school districts in their efforts to ensure that students are financially literate through identifying critical financial literacy skills and knowledge, providing information on instructional materials, and creating a public-private partnership to help provide instructional tools and professional development to school districts that wish to increase the financial literacy of their students.").

53 ARK. CODE ANN. § 6-16-135(a) (2005) (The Department of Education, in consultation with the Department of Workforce Education, subject to the approval of the State Board of Education, shall develop personal finance course content guidelines and recommend textbooks to be used in a personal finance course.

54 § 6-16-135 ("The course content shall include, but not be limited to, household budgets creation, checking accounts maintenance, basic consumer finance, debt management, credit management, insurance and taxes.").

55 MO. REV. STAT. § 161.655 (1) (2002).

detail, and the focus is on integration of financial literacy instruction into the existing K-12 curriculum.⁵⁶ The study must look at methods of ensuring sufficient expertise among teachers,⁵⁷ but no state tax revenue is appropriated towards conducting the study and formulating the report.⁵⁸ Missouri's does not require the Department of Secondary and Elementary Education to take any affirmative steps, such as creating objectives or guidelines, towards creating an actual program of financial literacy education. The statute enacted in Tennessee is very short and one has to doubt if it will have any practical effect on the dissemination of financial literacy education. In Tennessee, the schools are only encouraged to select textbooks which contain sections dealing with personal finance.⁵⁹

While statutes enacted in Arkansas, Missouri, and Tennessee indicate some legislative interest in increasing financial literacy, they may indicate that state legislators are not convinced about the need to mandate financial literacy education.

Conclusion

In summary because only nine of the eighteen jurisdictions mandate some form of financial literacy instruction, the majority of American high school students will graduate without having received such instruction. Of those who will receive it, the scope of the financial literacy instruction will vary because, except in three jurisdictions, such instruction is not condition of graduation, is not taught as a separate course, and is not evaluated on high school proficiency tests.

⁵⁶ §161.655 (2) ("The economics and personal finance report shall include, but not be limited to, the following:

- (1) Recommendations on methods, materials, procedures, and in-service training of teachers;
- (2) Recommendations relating to funding to facilitate the integration of grade-appropriate principles of economics and personal finance from kindergarten through the twelfth grade into math, reading, writing, social studies, business, and family and consumer science courses;
- (3) Recommendations relating to detailed procedures and timetables to assure integration of testing on appropriate areas of economics and personal finance in the Missouri assessment program (MAP) with sufficient test questions to permit a separate reportable test score for each of these two subjects;
- (4) Recommendations relating to content for a capstone high school course in economics and personal finance in which a passing grade shall be achieved by each public school student prior to graduation from high school;
- (5) Recommendations relating to establishing appropriate undergraduate preparation requirements for teacher certification for teachers from kindergarten through the twelfth grade that will enable new teachers to meet these increased expectations in economics and personal finance education;
- (6) Recommendations relating to appropriate changes in state laws, rules, or regulations that are necessary to implement the stated purpose of this study.

⁵⁷ *Id.*

⁵⁸ See §161.655(3) ("Any costs relating to the completion of this study shall not be paid by Missouri tax revenue funds, but shall be paid by federal funds, private funds, or other funding sources.).

⁵⁹ TENN. CODE, ANN. § 49-6-1013 (2003) ("Each LEA is encourage when selecting textbooks for economics or similar courses, to select those textbooks which contain substantive provisions on personal finance, including personal budgeting, credit and debt management, and similar personal financial topics.").

Table: State Statutes Addressing Financial Literacy

Type	State	Mandatory Financial Literacy Instruction	Testing or Condition of Graduation	Enumerated Covered Topics/ Skills	Integrat Financial Education	Targete Student Group	Mandated Guidance to School Boards/ Districts	Program Funding	Educator Training	Creation of Resource Bank
Mandatory	Louisiana	X	X	X	Separate Coursework	High School	X			
	South Carolina	X		X	X	K-12	X	X	X	
	Ohio	X (limited exceptions are provided by statute)	X	X	X (integrated into required coursework)	Grades 11 – 12	X	X	X (to hire highly qualified teachers in the subject areas required.)	X
	Illinois	X	X (“required to study”)	X		High School	X	X	X	
	Rhode Island	X		X (mostly general topics)	X	8-12				
	Virginia	X	X (no testing required)	X	X	Middle and High School	X			
	Texas	X	X	X	X (integrated into required coursework)	High School	X			
	North Carolina	X			X	High School	X (little provided)			
	Virgin Islands	X		X (few topics provided)	X	K-12				
Permissive	Colorado			X				X		X
	Washington			X				X		
	Michigan			X		K-12				
	Kansas			X (few topics provided)	X		X			
	Mississippi			X	X	Grades 10 - 11	X			
	West Virginia				X	Grades 9 - 12	X (little provided)			

Table: State Statutes Addressing Financial Literacy, continued

Type	State	Mandatory Financial Literacy Instruction	Testing or Condition of Graduation	Enumerated Covered Topics/ Skills	Integrat Financial Education	Targete Student Group	Mandated Guidance to School Boards/ Districts	Program Funding	Educator Training	Creation of Resource Bank
Token	Arkansas			X			X			
	Missouri									
	Tennessee						X			