

**EVALUATION OF THE
NATIONAL ENDOWMENT FOR FINANCIAL EDUCATION
HIGH SCHOOL FINANCIAL PLANNING PROGRAM[®]
2009-2010**

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IMPACT EVALUATION

NATIONAL ENDOWMENT FOR FINANCIAL EDUCATION

HIGH SCHOOL FINANCIAL PLANNING PROGRAM CURRICULUM

2009-2010 ACADEMIC YEAR

Executive Summary

An impact evaluation of the competency-based NEFE High School Financial Planning Program[®] (HSFPP), a curriculum provided by the National Endowment for Financial Education[®] (NEFE[®]), shows that students who completed the HSFPP reported significant improvement in their financial knowledge, behavior, and confidence immediately after studying the HSFPP. Results are based on survey responses from 212 teachers and 4,794 high school students across the U.S. A smaller sampling of students surveyed three months later showed that the positive impact of the HSFPP continued. Dr. Sharon M. Danes, professor at the University of Minnesota, led this project.

Evaluation Study Methodology

In the survey, students were asked questions about their financial knowledge, behavior, and confidence in managing their finances; their demographic characteristics; their access to money for spending; the jobs they had; and their saving, spending, and borrowing behavior. In order to discover the change in students as a result of studying the HSFPP, 17 core questions about their financial behavior (9), knowledge (7), and confidence (1) were asked at critical points using the post-then-pre evaluation methodology. This methodology asked students the 17 core questions at the completion of the HSFPP curriculum. Using those answers as a foundation, students were again asked the same 17 questions about what they knew before they began their study of the curriculum. Finally, students were asked the same 17 questions three months later.

The Impact of the HSFPP on Students

Immediately after studying the curriculum, it was found that:

- Students increased their confidence in making financial decisions.
- Students with part-time jobs, males, and those from states where personal finance is mandated reported higher confidence in making financial decisions.
- Students statistically increased their knowledge on all financial knowledge questions.
- Students differed in their financial knowledge before and after the HSFPP study based on ethnicity, gender, part-time work status, and whether they were part of a farm business-owning family.
- Students statistically increased their behavior on all financial behavior questions.

- Students differed in their levels of financial behavior before and after the HSFPP study by ethnicity, gender, part-time work status, whether their state mandates personal finance, and whether they come from a farm business-owning family.
- Over 50 percent of students increased their financial knowledge across the financial knowledge questions.
- A range of 35 percent to 46 percent of students increased their financial behavior across the financial behavior questions.
- About 45 percent of students reported increasing their confidence in making financial decisions.

Three months after completing their study of the curriculum, it was found that:

Students not only increased their financial knowledge and behavior through studying the curriculum content, but also maintained those changes over time by putting them into practice during the three months after studying the HSFPP. By doing so, they also increased their confidence to manage their finances in the future.

- Seventy-three percent of students reported having changed their spending habits.
- Nearly seventy-one percent of students reported having changed their saving habits.
- The number of students who make decisions on what they believe they can afford, who are willing to wait for something they want rather than charge it, and who are willing to wait for something they need rather than charge it increased statistically.
- Seventy-four percent of students shared financial knowledge learned with family and/or friends; budgeting, investing and saving, and credit and debit card information were shared the most.
- “Pay Yourself First” was the concept that the students reported as the most important.
- At each stage of the evaluation study, students statistically increased the amount they discussed money matters with their family.

Teacher Responses to the Curriculum

- Fifty-two percent of teachers were very satisfied with the curriculum relevance to students.
- Forty-seven percent of teachers were very satisfied with the quality of the curriculum content.
- Forty-two percent of teachers rated the curriculum excellent on its comprehensive coverage of topics, its adaptability to a wide range of students, and its adaptability to many high school subjects.
- Fifty-one percent of teachers felt very confident in teaching the personal finance curriculum.
- The use of the competency-based curriculum tools by teachers varied across units.

Profile of A Typical Student Who Participated in Study

Students provided information about their use of money and this financial profile included:

- In an average week, students reported saving about \$29 while they spent \$34.

- Twenty-one percent of the students said that they received an allowance averaging about \$45 per week; the median amount was \$20.
- Seventy-six percent of the students indicated that they receive, on average, \$24 from their parents on an “as needed” basis in an average week; the median amount was \$20.
- Thirty-three percent of the students worked a part-time job; about 20 percent worked less than 10 hours per week, approximately 52 percent worked 10-20 hours, 20 percent worked between 21-30 hours, and another 7 percent worked between 31-40 hours. One percent of students reported working more than 40 hours per week. The average weekly take-home pay from part-time jobs was \$137.
- Fifty-eight percent of the students received money from odd jobs such as babysitting, lawn care, snow shoveling, cleaning house, or pet care. The average amount they received from these odd jobs per week was a just under \$42.
- Ninety percent of students reported having a cell phone. Seventy-seven percent of parents paid for the cost associated with the phone.

Predictors of Financial Knowledge and Behavior as a Result of the HSFPP Study

A goal of the HSFPP evaluation was to understand what influenced students' ending financial knowledge and behavior. To achieve this goal, not only bivariate analyses were conducted but also a more complex hierarchical linear model (HLM) was conducted that permits a discussion about findings in a predictive manner and to examine relationships between teacher variables (e.g. their use of competency-based aspects of the HSFPP) and students' knowledge and behavior after studying the curriculum content. Since there are many students for one teacher, a procedure such as HLM is necessary to account for this nesting of students within the classroom.

HLM involves simultaneously fitting two regression models for each dependent variable: a within-classroom model and a between-classroom model. HLM analyses were conducted with two dependent variables: students' total financial knowledge and behavior levels after the HSFPP study. Independent variables were grouped into one of four conceptual categories: student demographic variables, teacher demographic variables, variables assessing student access to money, and variables assessing teacher use of competency-based aspects of the HSFPP.

The findings of this analysis indicated that different sets of variables predicted students' knowledge and behavior after studying the HSFPP. The fact that different sets of variables predicted students' financial knowledge and behavior lends support to the argument that knowledge and behavior are two very different constructs. In other words, acquisition of financial knowledge is not the same thing as adjusting one's financial behavior.

In investigating predictors of financial behavior after the HSFPP study, seniors rather than non-seniors and students with higher rather than lower levels of behavior before the HSFPP study were more likely to have higher behavior levels after HSFPP study. Classrooms with more rural students tended to have lower behavior levels after HSFPP study compared to classrooms with fewer rural students. Students who worked part-time were more likely than students who did not work part-time to have higher behavior levels after HSFPP study. In contrast, the more money students spent per week, the less their behavior levels were after the HSFPP study. Teachers who were confident were more likely than teachers who were less confident to have students with higher levels of ending behavior. Teachers who used Assessment 5 tended to have

students with lower levels of behavior after the HSFPP study. In contrast, teachers who used Assessment 7 tended to have students with higher levels of financial behavior after the HSFPP study.

In investigating predictors of financial knowledge after the HSFPP study, seniors rather than non-seniors, females rather than males, and students with higher rather than lower levels of beginning financial knowledge had higher levels of knowledge after the HSFPP study. Classrooms with more White than non-White students had higher levels of knowledge after the HSFPP study. In just one of the financial knowledge models, rural versus non-rural students tended to have lower knowledge levels after the HSFPP study and juniors rather than non-juniors tended to have higher levels of knowledge after the HSFPP study. Teachers who were confident were more likely than teachers who were less confident to have students in their classrooms with higher levels of ending financial knowledge. Teachers who used Assessment 7 tended to have students in their classrooms with lower levels of financial knowledge after the HSFPP study. Teachers who used Activities 1 and 3 had students in their classrooms with lower levels of ending financial knowledge. In contrast, teachers who used Activity 4 were more likely to have students with higher ending financial knowledge.

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A NOTE ABOUT EVALUATION

“Evaluation” means many different things to people. Furthermore, the concepts of evaluation and research are often used interchangeably which does not distinguish the difference in objectives between these processes. Basic research is directed toward an increase in knowledge or information, which is aimed at a fuller understanding of the subject under study. The aim of applied research is to produce generalizable knowledge to solve a general problem while evaluation focuses on collecting specific information relevant to a particular problem, program or product. The distinction between applied research and evaluation is a distinction between general and specific knowledge. The definition of evaluation used within this study is the formal determination of the quality, effectiveness, or value of a program, product, project, process, objective, or curriculum (Patton, 2008).

This question of the difference between research and evaluation is one that is controversial within the evaluation discipline and its literature. The distinction is identified here because different evaluation definitions lead to different approaches. This study is grounded in the evaluation definition and approach of Patton (2002, 2008). That definition is as follows”

Program evaluation is the systematic collection of information about the activities, characteristics, and results of programs to make judgment about the program effectiveness, inform decision about future programming, and/or increase understanding.
(Patton, 2008: 39)

With this definition, the evaluation is performed for and with specific intended primary users for specific, intended users. This definition is different than that of Rossi (2004) who defines evaluation as applied research:

Evaluation is social research applied to answering policy-oriented questions. As such, an important criterion for judging evaluations is the extent to which they successfully apply the canons of social science. (Rossi, 2004:127)

Patton (2008) indicates that being clear about evaluation objectives is critical. In order to be clear about the objectives of this evaluation project, they will be placed in context of Jacobs’s (1988) five-tier evaluation framework that identifies the audience and specific evaluation objective in each tier. The five-tier approach is hierarchical in that as the levels increase, so do efforts at data collection and tabulation, precision in program definition, and the commitment to incorporate evaluation from the start of the program (Danes, Huddleston-Casas, & Boyce, 1999).

Tier 1 is about needs assessment and is the foundation for other tiers. The audience for this tier is potential funders. The evaluation purpose is to document the need for a particular program, to demonstrate the fit between the participant needs and the proposed program, and to provide data which will serve as the groundwork for further work.

The primary Tier 2 function is accountability; it is closely associated with Tier 1. The audience is funders, donors, community leaders, and the media. Its objective is to document the program’s utilization,

entrenchment, and penetration into target populations, to justify current program expenditures and requests for increased expenditures, and to build a constituency. Tier 3—program clarification—has an objective of monitoring and improving program operation. The audience is program staff and participants. At Tier 3, program goals and objectives are scrutinized to identify what a program hopes for its clients and the intervention strategies for achieving those goals.

Tier 4 focuses on program effectiveness. In this tier, the objective is to articulate short-term objectives with behavioral indicators of their attainment and to understand why participants may have differentially achieved program objectives. Audience for this tier is staff, program participants, funding agencies, and other programs. An in-depth effectiveness evaluation of students in four classrooms from varied socio-economic areas who had studied the HSFPP was performed in the 2008-09 academic year. For the next year, over the remainder of 2009 and 2010, students were followed quarterly through Internet interviews primarily to assess change or maintenance of change in financial behaviors and discover the factors that contributed to the change and factors that detracted from that behavior change.

Program impact is the objective of Tier 5 that incorporates more stringent methodologies so as to identify and measure long- and short-term impacts on members of the target population using complex procedures such as random sampling or longitudinal data collection. Tier 5 evaluations meet the criteria of reflecting the goals and objectives of their programs, inclusion of program process and implementation data, inclusion of direct participant feedback, an identified audience for evaluation findings and the identification of strengths and limitations of the evaluation design. Tier 5 is the objective of this evaluation study. The methodology for this project can be found at the end of this report.

THE NEFE HSFPF COMPETENCY-BASED CURRICULUM DESCRIPTION

The NEFE High School Financial Planning Curriculum (HSFPF) is sponsored by the National Endowment for Financial Education (NEFE) and endorsed by the National Institute of Food and Agriculture (NIFA) of the United States Department of Agriculture (USDA) and the Credit Union National Association (CUNA). It is a competency-based learning curriculum, the goal of which is to provide students with the tools needed to perform seven core competencies. In competency-based learning, competencies are clear from the start as are student scoring criteria in assessments (Boritz & Carnaghan, 2003; Spady, 1978). Instruction in competency-based learning is designed to facilitate demonstration of competencies. The curriculum incorporates learning strategy opportunities to ensure the achievement of the learning outcomes (Harden, 2002).

Outcomes in competency-based education are performance-based life role activities (Curran, Casimiro, Banfield, Hall, Lackie, Simmons, Tremblay, Wagner, & Oandasan, 2009). Both instruction and assessment in such education are organized around student outcomes emphasizing behavior change rather than knowledge gain (Chyung, Stepick, & Cox, 2006).

Criteria of competency-based instruction includes teaching that is individualized and personalized designed to meet the specific needs of learners, feedback provided to students that is directed toward behavior that the student can change, and modularized curriculum (Boritz & Carnaghan, 2003). A module, according to Boritz and Carnaghan (2003) is a package of integrated materials with a sequence of learning activities which provide systematic guidance through a particular set of learning experiences. A module in the case of HSFPF is a unit. Typically, competency-based units include rationale, prerequisites, objectives, strategies, resources and performance-based assessments.

Table 1 lists the seven units that comprise the NEFE HSFPF curriculum and the target competencies taught. The units included in the HSFPF curriculum are: Your Financial Plan: Where it All Begins (Unit 1); Budgeting: Making the Most of Your Money (Unit 2); Investing: Making Money Work for You (Unit 3); Good Debt, Bad Debt: Using Credit Cards Wisely (Unit 4); Your Money: Keeping it Safe and Secure (Unit 5); Insurance: Protecting What You Have (Unit 6); and Your Career: Doing What Matters Most (Unit 7). Each unit has one target competency. Target competencies by unit are: Unit 1-Create a personal financial plan, Unit 2-Create a personal budget, Unit 3-Propose a personal savings and investing plan, Unit 4-Select strategies to use in handling credit and managing debt, Unit 5-Demonstrate how to use various financial services, Unit 6-Create a personal insurance plan that will minimize your personal or financial losses, and Unit 7-Examine how a career choice and lifestyle affect your financial plan.

Unit	Target Competency Taught
1	Create a personal financial plan
2	Create a personal budget
3	Propose a personal saving and investing plan
4	Select strategies to use in handling credit and managing debt
5	Demonstrate how to use various financial services
6	Create a personal insurance plan that will minimize your personal or financial losses
7	Examine how career choice and lifestyle affect your financial plan

Each unit has at least one assessment designed to evaluate the students' abilities to attain the unit competency; in other words, these assessments measure the financial behavior performance of the students as a result of the curriculum study. Table 2 lists the assessment for each unit of the HSFP curriculum. In the curriculum appendices, teachers are provided with additional "evaluations" designed in a more traditional "test" format to assess knowledge attainment.

Unit	Assessment
1	My Financial Plan
2	My Personal Budget
3	My Investment Plan
4	My Plan to Handle Credit
5	Using Financial Services
6	My Insurance Plans
7	Planning for My Career

DESCRIPTION OF EVALUATION METHODOLOGY

A very brief description of the evaluation study methodology is presented here. A detailed description can be found in Appendix A in the back of this report. The sample for this study was all those classroom teachers who requested HSFPP curriculum materials from NEFE between January and Mid-August of 2009. The study had three phases.

In Phase 1, teachers in the sample were contacted about their intended use of the NEFE materials during the 2009-2010 school year, their willingness to participate in the evaluation, and the procedure to follow for obtaining school or district consent for their participation. In Phase 2, eligible teachers who agreed to participate in the evaluation were sent packets of surveys at a time that corresponded to their expected completion date of classroom study. Each packet contained one Teacher Evaluation Survey and enough Student Evaluation Surveys for that teacher's anticipated enrollment. The final study sample was 212 teachers and 4,794 students from across the U.S. Phase 3 included students contacted at their home addresses approximately three months after the completion of their NEFE classroom instruction, requesting that they complete Student Follow-up Surveys.

STUDENT DESCRIPTION AND FINANCIAL CHARACTERISTICS

Students who participated in the program were high school students, with 68 percent being high school juniors and seniors. Fifty-two percent of the students were female and 48 percent were male. Over half (56 percent) of the students were Caucasian, 19 percent were African American, 16 percent were Hispanic, 3 percent were Asian, and 2 percent were American Indian. Four percent of students chose the ethnic category of “other.” Approximately 22 percent of the students lived in urban areas with populations over 100,000 and an additional 27 percent resided in communities with populations between 25,000 and 100,000. Nearly 31 percent lived in towns with populations less than 25,000. Twenty-one percent of students lived in rural areas or on farms.

When preparing the data for analysis, the research team found that some students had what appeared to be extreme values for certain questions. However, based on what was learned in the 2008-09 NEFE HSFPP qualitative and year-long longitudinal effectiveness evaluation study, the researchers knew that students from farm business-owning families (especially male students) tended to earn, spend, save, and owe more money than students who did not come from farm business-owning families. As a result, researchers conducted more investigation within the data to determine whether these potential extreme values were actually extreme.

Table 3 shows the mean values for all financial variables where the researchers questioned whether the extreme values were actually outliers or were a result of a subsample of the students who had unique characteristics (i.e., part of a business-owning family). Financial characteristics are presented for the total student sample, students who lived in a farm business-owning family, and students who did not live on a farm.

The research team found in the 2008-09 NEFE HSFPP qualitative and year-long longitudinal effectiveness evaluation study that students who came from business-owning families or students who had a business of their own approached investments and assets differently than most students approached those financial concepts. Table 3 further validates what was learned in the 2008-09 NEFE HSFPP effectiveness evaluation study, indicating that students who lived on a farm tended to earn and save more money than students who did not live on a farm. They also tended to spend and owe more money than students who did not live on a farm. This investigative analysis supports findings from the 2008-09 qualitative and year-long longitudinal effectiveness evaluation study – values that appeared extreme were in fact valid for students from business-owning families.

Question N = 4,794	Total Sample	Live On Farm	Do Not Live On Farm
Allowance per week from parents	\$45.13	\$57.70	\$44.80
Money “as needed” per week from parents	\$23.61	\$19.91	\$23.91
Hours worked per week at part-time job	17.43	16.72	17.44
Money earned per week at part-time job	\$37.25	\$149.79	\$136.23
Money earned per week at odd jobs	\$42.10	\$42.49	\$42.19
Money saved per week	\$29.11	\$36.76	\$28.63
Money spent per week	\$34.02	\$39.66	\$33.82
Money owed	\$627.54	\$2,513.23	\$518.38

Table 4 breaks down the “live on farm” category that is shown in Table 3 into male and female students living on a farm. Since farm-owning families still tend to transfer the business through the male gender line (Haberman & Danes, 2007), the data from questions in Table 3 for the students living on a farm was investigated for differences between male and female students.

Male students living on a farm had statistically higher values than female students living on a farm on all variables with the exception of money received on an "as needed" basis from parents. The males were statistically more likely than the females to earn more money at part-time and odd jobs, as well as spend more money.

Table 4. Male and Female Students Who Live on Farms		
Question N = 4,794	Males On Farm	Females On Farm
Allowance per week from parents	\$71.96	\$19.67
Money “as needed” per week from parents	\$19.17	\$21.41
Hours worked per week at part-time job	18.07	14.30
Money earned per week at part-time job	\$173.03*	\$107.66
Money earned per week at odd jobs	\$54.16*	\$27.46
Money saved per week	\$43.60	\$26.38
Money spent per week	\$49.21*	\$26.41
Money owed	\$3,648.27	\$636.50
* Indicates statistically higher mean for males living on a farm at $p < .05$.		

DESCRIPTION OF STUDENTS' FINANCIAL BEHAVIOR

Students were asked how they saved, invested, and spent their money. In an average week, students responded that they saved approximately \$29 and they spent \$34. About 21 percent of students received a weekly allowance totaling, on average, \$45.83 per week; the median amount was \$20. Students receiving money from their parents on an "as needed" basis received about \$24 per week, on average.

A little over 33 percent of the students worked a part-time job. The average number of hours worked per week during the school year was about 17 hours. The average weekly take-home pay from their part-time jobs was \$137.25. About 58 percent of the students indicated that they received money from odd jobs such as babysitting, lawn care, snow shoveling, cleaning house, or pet care. The average amount they received from these jobs was a little over \$42 per week.

Table 5 lists items students owned in their own names. Fifty-three percent of students indicated they had a savings account in their own name while 32 percent had a checking account. About a fifth (18.6 percent) owned a car or a truck in their own names. Very few students had investment accounts, owned motorcycles, or had loans in their own names. Only 7.9 percent of students had a credit card.

Table 5. Items Owned by Students in Their Own Names	
Item Owned	Percent
Savings account	53.3
Checking account	32.2
Car or truck	18.6
Credit card	7.9
Recreational vehicles	7.7
Investment account	4.0
Motorcycle	2.3
Loan	1.8

Fifteen percent of students indicated that they owed debts: the average debt for those students was \$579. Students who indicated that they owned a car, truck, recreation vehicle, or motorcycle had much higher debt loads. Those who owned a car or truck had a debt load of \$1,171, those who owned a motorcycle had a debt load of \$697, and those who owned a recreational vehicle (e.g. ATV, snowmobile, ski-doo) had the highest debt load, with an average debt of \$1,336.

When students were asked immediately after studying the curriculum how they planned to use the financial management skills in the next six months, 25.9 percent indicated that they would save their money. Another 33 percent indicated that they would save for a specific purpose, such as a car, a trip, college, clothing, an apartment, or auto insurance. About 4 percent mentioned some aspect of spending. A little over one percent of the students indicated that they would pay their debts and 8 percent indicated that they would get a job. Examples of what students said were:

- Save money and spend wisely.
- Pay for rent and books for college.
- Plan not to get into debt by doing what we learned in this course.
- Get a job and save my money for things I need rather than what I want.

WHAT STUDENTS WERE ASKED ABOUT THEIR FINANCIAL KNOWLEDGE, CONFIDENCE, AND BEHAVIOR

Students were asked 17 core questions about their financial knowledge (7), financial management behaviors (9), and confidence about managing finances (1). Knowledge questions and the confidence question were asked on a 5-point Likert scale ranging from strongly disagree (1) to strongly agree (5). Behavior questions and the second confidence question were asked on a 5-point Likert scale ranging from almost never (1) to almost always (5).

More questions assessing student behavioral changes compared to knowledge changes were included because of the emphasis on impact in this evaluation and because of the competency-based nature of the curriculum. Behavioral changes indicate a higher degree of internalizing of subject matter than knowledge changes (Fishbein & Ajzen, 1975; Danes et al., 1999); however, that fact does not lessen the importance of documenting knowledge changes because knowledge improvement is an earlier stage in the internalization of the information (Ajzen, 1975).

Self-efficacy, or confidence as it will be referred to in this report, is another aspect that affects longer-term impacts in behavior change; self-efficacy is a feeling of being able to deal effectively with a situation (Bandura, 1977; Danes & Hira, 1990). Confidence in making financial decisions is a precursor to long-term financial behavior changes because it increases the probability of those changes. Feeling confident about making money decisions creates motivation for enacting or continuing what has been learned (Ajzen, 1985; Danes & Rettig, 1993).

When students begin their HSFPP study, they come into the classroom with varied levels of financial knowledge, confidence and behavior. Thus, capturing baseline financial knowledge, confidence, and behavior patterns is important in the evaluation process in order to determine how much progress is made by studying the curriculum content. There are a number of ways to capture this baseline data and there is controversy in the evaluation literature about the best way to do so.

In this study, the post-then-pre methodology is used to assess changes in financial knowledge, confidence, and behavior. A brief description of the post-then-pre methodology and the rationale for using this methodology can be found in Appendix B in the back of this report. Documenting changes in students' knowledge, confidence, and behavior immediately after completing the study of the curriculum content and three-months after, and then comparing those changes to the baseline knowledge, confidence, and behavior that they indicated they had before studying the HSFPP captures the variance in student levels of financial knowledge, confidence, and behavior and, thus, the impact of their study of the HSFPP curriculum.

EVALUATION FINDINGS

Curriculum Units Taught by Teachers

All seven units of the curriculum were taught by 53.3 percent of the teachers. In addition to these teachers, about 12 percent more teachers taught six out of seven of the units, and 16 percent of more teachers taught five of the seven units. Of the seven units in the curriculum, over 90 percent of the teachers taught the units on financial planning and budgeting (Table 6). Over 80 percent of the teachers taught the units on credit and investing. Over 70 percent of the teachers taught the units on financial services and insurance. The fewest number of teachers taught the career unit (64.6 percent).

Unit	Percent
1. Your Financial Plan	90.5
2. Budgeting	91.4
3. Investing	83.9
4. Credit	88.0
5. Financial Services	77.3
6. Insurance	72.4
7. Your Career	64.6

Baseline Student Financial Knowledge Levels

Table 7 identifies the financial knowledge of students prior to studying the HSFPP curriculum content. The knowledge questions were asked on a 5-point scale and are ordered from highest level of knowledge to lowest level of knowledge based on the mean for the question. Before studying the HSFPP, students were most knowledgeable about how careers affect money available to meet goals and how debit cards work, with mean scores of 3.64 and 3.39, respectively. The students indicated that they knew the least about auto insurance with a mean score of 2.39. In fact, over a quarter of the students checked the lowest ranking on the 5-point scale for the auto insurance question. Students also reported that they didn't understand why their credit rating was important (mean of 3.07) at the beginning of their HSFPP study.

Financial Question	Strongly Disagree	Neutral	Strongly Agree	Mean		
Knowledge^a						
I knew what I did for a career would affect how much money I will have to meet my goals	6.1	11.6	26.4	23.9	32.0	3.64
I understood how debit cards work	10.1	15.6	26.9	20.1	27.3	3.39
I understood how checking accounts work	10.7	17.4	27.2	20.2	24.6	3.31
I knew that paying off debt quickly means I pay less interest	10.0	17.4	28.5	21.8	22.3	3.29
I thought about how much I needed the things I bought	9.0	17.7	34.1	23.6	15.6	3.19
I understood why a credit rating is important	13.5	20.2	29.9	19.2	17.3	3.07
I knew key questions to ask when shopping for auto insurance	26.9	27.5	30.4	9.6	5.6	2.39
^a Past tense found here due to use of “post-then-pre” methodology; see Appendix B for detailed description of that methodology.						

Differences in Baseline Financial Knowledge by Student Characteristics

Table 7 presented the baseline financial knowledge data for all students. While discussing evaluation objectives with NEFE prior to conducting the study, NEFE had communicated an interest in knowing differences in financial knowledge, confidence, and behavior by ethnicity, working status, and between students living in states that mandate financial education and those states that do not mandate financial education. Furthermore, past NEFE HSFP evaluation reports and research suggest that there are other student characteristics that might account for differences in financial knowledge, confidence, and behavior. For example, data from the 2008-09 NEFE effectiveness study report suggests that there are differences between students living in a farm business-owning family and urban students (Danes & Brewton, 2010). Also, Danes and Haberman (2007) found differences by gender.

For ethnicity, students were divided into white and non-white groups. Students were also divided into two groups based on whether or not, the state in which they lived mandated financial education in their state. Mandate states were states that required either (a) a one-semester course or more devoted to personal finance, or (b) personal finance to be incorporated into other subject matter. Non-mandate states did not require personal finance to be taught. Appendix C lists the states that make up the mandate and non-mandate groups. The geographic location question was used to compare students who lived on a farm and those who did not live on a farm. Students were also compared based upon their gender.

Table 8 indicates that before studying the curriculum, White students were significantly more likely than non-White students to have knowledge about why paying off debt quickly means paying less interest (mean = 3.39 vs. mean = 3.15), why credit ratings are important (mean = 3.10 vs. mean = 3.02), that a

career affects money available to meet goals (mean = 3.73 vs. mean = 3.53), how debit cards work (mean = 3.48 vs. mean = 3.28), and how checking accounts work (mean = 3.43 vs. mean = 3.16).

There were no significant differences in the baseline financial knowledge of students residing in mandate versus non-mandate states. Students living on farms were more likely than students not living on farms to have knowledge about why paying off debt quickly means paying less interest (mean = 3.52 vs. mean = 3.06), why a credit rating is important (mean = 3.26 vs. mean = 3.06), and how a checking account works (mean = 3.51 vs. mean = 3.31) (Table 8).

Males reported knowing more than females about key questions to ask when shopping for auto insurance (mean = 2.54 vs. mean = 2.25), why paying off debt quickly means paying less interest (mean = 3.34 vs. mean = 3.24), and why a credit rating is important (mean = 3.13 vs. mean = 2.99). Females were more likely than males to report knowing that a career affects money available to meet goals (mean = 3.69 vs. mean = 3.60), how debit cards work (mean = 3.45 vs. mean = 3.33), and how a checking account works (mean = 3.36 vs. mean = 3.25) (Table 8).

Working students were those who reported holding a part-time job. For all knowledge questions, these students scored consistently higher than non-working students. In other words, they had greater existing financial knowledge, perhaps due to their experiences working (Table 8).

Table 8. Differences in Financial Student Knowledge before Studying the HSFPP by Gender, Mandate, Farm, Gender, and Working Statuses					
Financial Question	Ethnicity	Mandate	Farm	Gender	Working
Knowledge^a					
I knew what I did for a career would affect how much money I will have to meet my goals	↑W			↑Fe	↑Wo
I understood how debit cards work	↑W			↑Fe	↑Wo
I understood how checking accounts work	↑W		↑Fa	↑Fe	↑Wo
I knew that paying off debt quickly means I pay less interest	↑W		↑Fa	↑M	↑Wo
I thought about how much I needed the things I bought					↑Wo
I understood why a credit rating is important	↑W		↑Fa	↑M	↑Wo
I knew key questions to ask when shopping for auto insurance				↑M	↑Wo
^a Up arrows indicate the group with the statistically higher mean; W = White, Fa = Farmer, Fe = Female, M = Male, Wo = Working. Blank cells indicate no statistical difference between groups for that item.					

Change in Financial Knowledge after the HSFPP Curriculum Study

There were statistically significant increases for all financial knowledge questions immediately after studying the HSFPP curriculum compared to before studying the HSFPP curriculum (Table 9). The increase in the

percent of students answering “strongly agree” to the questions after studying the HSFPP curriculum compared to before is as follows: 39 percent for thinking about how much they needed the things they buy, 30.6 percent for knowing that paying off debt quickly means paying less interest, and 28.2 percent for understanding why a credit rating is important. The connection between chosen career and income potential remained the question that most students knew. The questions about the connection between the amount of interest paid to the time that debt is held and understanding the importance of a credit rating increased in the knowledge ranking after the HSFPP study. Key questions to ask when shopping for auto insurance remained the question that the fewest students understood.

Financial Question	Strongly Disagree	Neutral	Strongly Agree	Mean		
Knowledge						
I know what I do for a career will affect how much money I will have to meet my goals	1.4	3.2	14.7	27.1	53.7	4.29*
I know that paying off debt quickly means I pay less interest	2.1	4.5	16.7	23.7	52.9	4.21*
I understand how debit cards work	2.0	4.4	17.3	25.6	50.8	4.19*
I understand how checking accounts work	2.3	4.7	17.4	26.5	49.0	4.15*
I understand why a credit rating is important	2.6	5.3	18.7	27.9	45.5	4.08*
I think about how much I need the things I buy	2.1	5.8	21.7	37.4	32.9	3.93*
I know key questions to ask when shopping for auto insurance	9.1	11.9	38.7	25.4	14.8	3.25*
* Indicates statistically higher mean after studying the HSFPP at $p < .01$.						

White students were significantly more likely to have higher increases than non-White students in their knowledge about why paying off debt quickly means paying less interest (mean = 4.31 vs. mean = 4.10) (Table 10), key questions to ask when shopping for auto insurance (mean = 3.29 vs. mean = 3.21), why credit ratings are important (mean = 4.16 vs. mean = 4.00), that a career affects money available to meet goals (mean = 4.34 vs. mean = 4.24), how debit cards work (mean = 4.28 vs. mean = 4.09), and how checking accounts work (mean = 4.27 vs. mean = 4.04) after studying the HSFPP.

Table 10 also indicates that there were no significant differences in the ending knowledge of students residing in mandate versus non-mandate states. Students not living on farms were more likely than students living on farms to think about how much they needed the things they bought (mean = 3.92 vs. mean = 3.81) after studying the HSFPP curriculum.

Males reported knowing more than females about the key questions to ask when shopping for auto insurance (mean = 3.31 vs. mean = 3.21), while females were more likely than males to report knowing how much they needed the things they bought (mean = 3.98 vs. mean = 3.89), that a career affects money available to

meet goals (mean = 4.36 vs. mean = 4.24), how debit cards work (mean = 4.27 vs. mean = 4.13), and how a checking account works (mean = 4.24 vs. mean = 4.10) (Table 10).

Working students scored statistically higher than non-working students on all questions pertaining to knowledge after studying the HSFPP, suggesting that they not only started but also ended with greater knowledge than non-working students (Table 10).

Table 10. Differences in Financial Student Knowledge after Studying the HSFPP by Gender, Mandate, Farm, Gender, and Working Statuses					
Financial Question	Ethnicity	Mandate	Farm	Gender	Working
Knowledge^a					
I know what I do for a career will affect how much money I will have to meet my goals	↑ W			↑ Fe	↑ Wo
I understand how debit cards work	↑ W			↑ Fe	↑ Wo
I understand how checking accounts work	↑ W			↑ Fe	↑ Wo
I know that paying off debt quickly means I pay less interest	↑ W				↑ Wo
I think about how much I need the things I buy			↑ Fa	↑ Fe	↑ Wo
I understand why a credit rating is important	↑ W				
I know key questions to ask when shopping for auto insurance	↑ W			↑ M	↑ Wo
^a Up arrows indicate the group with the statistically higher mean; W = White, Fa = Farmer, Fe = Female, M = Male, Wo = Working. Blank cells indicate no statistical difference between groups.					

Baseline Student Financial Behavior and Confidence Levels

Table 11 provides all student responses regarding financial behaviors and confidence prior to studying the HSFPP curriculum content. On a 5-point scale the financial behavior questions had averages of 3.58 to 2.59. Of the nine financial behavior questions, the behaviors performed the most by students prior to the HSFPP study included protecting personal information from being stolen (mean=3.58), looking for the best prices for things bought (mean=3.53), and timely repayment of money owed (mean=3.50).

The three questions that students did the least before studying the HSFPP were discussing money matters with family (mean=2.59), tracking where money was spent (mean=2.72), and having a plan for how to spend money (mean=2.81). Students paid little attention to how they spent their money prior to the HSFPP study. Only 11 percent of students reported that they almost always had a plan for how they spent their money, and 12.2 percent of students tracked where they spent their money. Only 10.4 percent of students indicated that they discuss money matters with their families prior to the HSFPP study.

The financial confidence question had a mean of 3.22. Only 40.9 percent of the students reported that they felt confident about making decisions that dealt with money prior to the HSFPP study. Another third of the students reported being midway between never feeling confident about making money decisions while 25.9 percent of the students reported not being at all confident about making money decisions.

Financial Question	Almost Never					Almost Always	Mean
Behaviors^a							
I was careful to protect my personal information from being stolen	6.1	12.8	28.1	23.5	29.6		3.58
I looked for best prices for things I bought	8.1	12.8	25.8	24.5	28.8		3.53
I repaid any money I owed on time	9.1	13.4	24.9	23.8	28.8		3.50
I made savings goals for things I wanted	11.1	19.6	29.1	24.3	15.8		3.14
I saved money for future needs	12.5	20.1	29.1	20.9	17.4		3.11
I was able to effectively manage my money	10.9	20.1	34.7	21.9	12.5		3.05
I had a plan for how I spent money	16.8	24.5	30.3	17.4	11.0		2.81
I tracked where I spent my money	22.4	22.2	28.3	15.0	12.2		2.72
I discussed money matters with my family	28.0	21.9	24.2	15.5	10.4		2.59
Confidence							
I felt confident about making decisions that dealt with money	9.1	16.8	33.2	24.6	16.3		3.22
^a Past tense in questions is due to use of “post-then-pre” methodology; see Appendix B for details.							

Differences in Baseline Financial Behavior and Confidence by Student Characteristics

Table 12 shows that White students were significantly more likely than non-White students to report three behaviors before studying the HSFPP curriculum: timely repayment of money owed (mean = 3.60 vs. mean = 3.35), saving money for future needs (mean = 3.15 vs. mean = 3.04) and ability to effectively manage money (mean = 3.08 vs. mean = 3.00). On the other hand, non-White students were significantly more likely than White students to report having a plan for spending money (mean = 2.86 vs. mean = 2.76) and making savings goals for things wanted (mean = 3.19 vs. mean = 3.10).

Students residing in non-mandate states reported more timely repayment of money owed (mean = 3.54 vs. mean = 3.46) compared to students living in mandate states (Table 12). Students who lived on farms were significantly more likely than students who did not live on farms to report two behaviors: saving money for future needs (mean = 3.73 vs. mean = 3.07) and confidence making decisions that deal with money (mean = 4.00 vs. mean = 3.29). Male and female students' behavior did not significantly differ.

Students who worked part-time were more likely than those who did not work part-time to score higher on seven of the nine financial behavior questions and the one confidence question. In other words, working students were engaging in many financial behaviors before the HSFPP study.

Table 12. Differences in Financial Student Behavior and Confidence before Studying the HSFPP by Gender, Mandate, Farm, Gender, and Working Statuses					
Financial Question	Ethnicity	Mandate	Farm	Gender	Working
Behaviors^a					
I was careful to protect my personal information from being stolen					
I looked for best prices for things I bought					
I repaid any money I owed on time	↑ W	↑ NM			↑ Wo
I made savings goals for things I wanted	↑ NW				↑ Wo
I saved money for future needs	↑ W		↑ Fa		↑ Wo
I was able to effectively manage my money	↑ W				↑ Wo
I had a plan for how I spent money	↑ NW				↑ Wo
I tracked where I spent my money					↑ Wo
I discussed money matters with my family					↑ Wo
Confidence					
I felt confident about making decisions that dealt with money			↑ Fa		↑ Wo
^a Up arrows indicate the group with the statistically higher mean; W = White, NW = non-White, Fa = Farmer, Wo = Working. Blank cells indicate no statistical difference between groups for that item.					

Changes in Financial Behavior and Confidence after the HSFPP Curriculum Study

Table 13 indicates that there was a statistical increase in the students' behavior for all nine types of financial behaviors when comparing what they did before studying the HSFPP with after the HSFPP curriculum study. After completing the HSFPP, 25.1 percent more students indicated they "almost always" protected their personal information from being stolen. The increase was 15 percent for looking for the best prices for things they bought and was a 12.6 percent increase for repaying money owed on time. Their confidence level for making financial decisions also increased at a statistically significant level after studying the HSFPP curriculum. For those students responding only to the "almost always" category of the confidence question, 13.8 percent more students responded in that manner after studying the HSFPP curriculum compared to before studying it.

After studying the HSFPP curriculum, slightly over a fourth of the students reported that they almost always make savings goals for things they wanted, are better able to manage their money, and save money for future needs. About a fifth of the students reported that they "almost always" now have a spending plan compared to only 11 percent prior to the curriculum study. Nineteen percent of students reported "almost always" now tracking where they spend their money compared to only 12.2 percent prior to the curriculum study.

Financial Question	Almost Never					Almost Always	Mean
Behaviors							
I am careful to protect my personal information from being stolen	1.4	3.3	14.2	26.5	54.7		4.30*
I look for the best prices for things I buy	2.2	6.0	18.6	29.5	43.8		4.07*
I repay the money I owe on time	3.1	7.6	19.8	28.1	41.4		3.97*
I make savings goals for things I want	4.2	9.9	22.6	33.6	29.7		3.75*
I am better able to manage my money	3.7	8.2	26.8	35.5	25.9		3.72*
I save money for future needs	5.0	12.2	26.2	29.1	27.5		3.62*
I have a plan for spending my money	7.1	15.4	30.3	27.1	20.2		3.38*
I track where I am spending my money	9.5	13.4	32.7	25.4	19.0		3.31*
I discuss money matters with my family	18.1	18.2	23.2	22.1	18.5		3.05*
Confidence							
I feel confident about making decisions that deal with money	2.4	6.3	25.4	35.8	30.1		3.85*
* Indicates a statistically higher mean after studying of the HSFPP; $p < .01$.							

In breaking down the students by various student characteristics, White students were significantly more likely than non-White students to report: timely repayment of money owed (mean = 4.09 vs. mean = 3.83), saving money for future needs (mean = 3.69 vs. mean = 3.53), and discussing money matters with family (mean = 3.09 vs. mean = 3.00). Non-White students, in contrast, were significantly more likely than White students to report having a plan for spending money (mean = 3.44 vs. mean = 3.33) and protecting personal information from being stolen (mean = 4.34 vs. mean = 4.28) (Table 14)

Students residing in mandated states reported making savings goals for things wanted (mean = 3.79 vs. mean = 3.70), discussing money matters with family (mean = 3.10 vs. mean = 2.98), ability to effectively manage money (mean = 3.75 vs. mean = 3.68), and confidence about making decisions that dealt with money (mean = 3.88 vs. mean = 3.81) more frequently than students living in non-mandate states (Table 14). Students who lived on farms did not differ from students who did not live on farms on any behavior (Table 14).

Male students were more likely than female students to report three behaviors: saving money for future needs (mean = 3.92 versus mean = 3.67), ability to effectively manage money (mean = 4.01 vs. mean = 3.68), and confidence making decisions that deal with money (mean = 4.10 vs. mean = 3.86) (Table 14).

Working students generally engaged in more financial behaviors than non-working students; they scored higher on seven of the nine financial behavior questions and one confidence question. These findings suggest that working students not only started but also ended having engaged in more financial behaviors than non-working students (Table 14).

Table 14. Differences in Financial Student Behavior and Confidence after Studying the HSFPP by Gender, Mandate, Farm, Gender, and Working Statuses					
Financial Question	Ethnicity	Mandate	Farm	Gender	Working
Behaviors ^a					
I am careful to protect my personal information from being stolen	↑ NW				
I look for the best prices for things I buy					
I repay any money I owe on time	↑ W				↑ Wo
I made savings goals for things I want		↑ Ma			↑ Wo
I save money for future needs	↑ W			↑ M	↑ Wo
I am better able to effectively manage my money		↑ Ma		↑ M	↑ Wo
I have a plan for spending my money	↑ NW				↑ Wo
I track where I am spending my money					↑ Wo
I discuss money matters with my family	↑ W	↑ Ma			↑ Wo
Confidence					
I feel confident about making decisions that deal with money		↑ Ma		↑ M	↑ Wo
^a Up arrows indicate the group with the statistically higher mean; W = White, NW = non-White, Ma = Mandate, M = Male, Wo = Working. Blank cells indicate no statistical difference between groups.					

Gains in Financial Knowledge, Confidence, and Behavior

The previous tables provided changes for all students and those changes based on selected student characteristics. Tables 15 and 16 report student differences for each question indicating their unique gains resulting from studying the HSFPP curriculum, taking into consideration where the students began and where they ended. Increases in knowledge (Table 15) were reported by over 50 percent of students on credit ratings, auto insurance, debt, and careers affecting money available to meet goals. In fact, almost sixty percent of students (57.1 percent) increased their knowledge about the importance of their credit rating. Slightly over 55 percent increased their knowledge about key questions to ask when shopping for auto insurance. About 53 percent increased their understanding that they pay less interest when they pay off debt quickly. Less than 50 percent of students knew more about the difference between needs and wants and how debit cards work after the curriculum studying.

Table 15. Gain in Knowledge Immediately after HSFPP (percent)		
Financial Question	Maintain	Gain
Knowledge		
I understand why a credit rating is important	42.7	57.1
I know key questions to ask when shopping for auto insurance	44.5	55.4
I know that paying off debt quickly means I pay less interest	46.6	53.3
I understand how checking accounts work	48.6	51.4
I know what I do for a career will affect how much money I will have to meet my goals	49.2	50.8
I think about how much I need the things I buy	50.5	49.5
I understand how debit cards work	50.7	49.3

Changing behaviors (Table 16) is a sign of a deeper integration of the subject matter. For six of the behaviors, over 40 percent of the students increased their behaviors after studying the HSFPP. These behaviors were: managing money, protecting personal information, tracking spending, making savings goals, planning spending, and saving for future needs. Less than 40 percent of students increased their behavior in the remaining behaviors: looking for the best prices, repaying money owed on time, and discussing money matters with family. About 45 percent felt more confident about making money decisions after studying the HSFPP curriculum compared to before studying it.

Table 16. Gain in Behaviors and Confidence Immediately after HSFPP (percent)		
Financial Question	Maintain	Gain
Behaviors		
I am better able to manage my money	53.8	46.3
I was careful to protect my personal information from being stolen	53.6	46.3
I track where I am spending my money	56.0	44.1
I make savings goals for certain things I want	56.9	43.1
I have a plan for spending my money	56.9	43.1
I save money for future needs	59.1	40.9
I look for the best prices for things I buy	62.4	37.6
I repay the money I owe on time	64.3	35.7
I discuss money matters with my family	64.2	35.7
Confidence		
I feel confident about making money decisions	55.4	44.5

Change in Financial Knowledge in the Three Month Follow-Up Survey

Students were asked the same knowledge, behavior, and confidence questions three months after they completed the HSFPP study. These answers were compared to the responses that students provided about what they knew prior to studying the curriculum. Knowing that a career affects the amount of money students have available to meet their goals was the knowledge question with the highest mean three months after studying the HSFPP curriculum (Table 17). Knowing that paying off debt quickly means paying less interest followed next. A little over 70 percent of the students "almost always" agreed with these statements when queried three months after the HSFPP study.

Financial Question	Almost Never		(percent)		Almost Always	Mean
Know that career will affect amount of money to meet goals	0.5	0.5	6.1	19.8	73.1	4.64*
Know that paying off debt quickly means less interest	1.6	1.3	6.9	19.8	70.4	4.56*
Understand how debit cards work	1.3	.8	11.6	22.4	63.9	4.47*
Understand how checking accounts work	0.8	1.8	13.2	22.7	61.5	4.42
Understand why credit rating is important	1.9	3.4	8.8	24.4	61.5	4.40*
Think about how much I need things I buy	0.5	2.4	15.0	38.0	44.1	4.23
Know key questions to ask when shopping for auto insurance	9.0	13.2	36.2	29.4	12.2	3.22*
* Indicates statistically significant higher mean compared to before studying the HSFPP; $p < .05$						

Knowing what key questions to ask when shopping for auto insurance was the knowledge question with the lowest mean three months after studying the HSFPP. It can be assumed that because few students owned a vehicle (18.6 percent), understanding key questions to ask when shopping for auto insurance was not relevant information to know (Danes & Hira, 1990).

For all the questions except the ones asking about how checking accounts work and how much the students think about how much they need the things they buy, students' answers showed statistically significant increases three months after studying the curriculum compared to before studying the HSFPP.

Change in Financial Behavior and Confidence in the Three Month Follow-Up Survey

The behavior questions in Table 18 are listed in order of highest to lowest mean for each behavior question. The four behavior questions with the highest means, in descending order, are: protecting personal information, looking for the best prices when buying something, repaying money owed on time, and ability to manage money. The other four financial behavior question means were close to or above 3.5.

The mean for confidence in making decisions that deal with money was 4.15 three months after studying the HSFPP. About 79 percent of the students who responded to the three-month follow-up survey reported a 4 (37.6 percent) or 5 (41.5 percent) on a 5-point scale in the level of confidence they felt in making decisions that deal with money.

Financial Question	Almost Never					Almost Always	Mean
Behaviors							
Am careful to protect personal information	1.1	2.1	7.4	23.2	66.2		4.51
Look for best prices when buying	1.1	4.2	11.6	30.9	52.2		4.29*
Repay money owed on time	1.3	3.2	16.7	26.3	52.5		4.25*
Better able to manage money	2.1	3.7	15.4	41.6	37.1		4.08*
Make savings goals for wants	2.1	5.0	18.8	32.4	41.6		4.06*
Save money for future needs	4.8	6.6	17.8	34.2	36.6		3.91*
Have plan for spending money	3.2	8.2	26.5	34.4	27.8		3.75*
Track where spending money	2.9	8.7	26.1	34.6	27.7		3.75*
Discuss money matters with family	9.8	14.3	22.0	25.7	28.3		3.48*
Confidence							
Feel confident making money decisions	1.1	3.2	16.7	37.6	41.5		4.15*
* Indicates statistically significant higher mean compared to before studying the HSFP; $p < .001$							

Over the time of the HSFP study, students significantly increased the time they discussed money matters with their family. The mean for this question was 2.59 before the study, 3.05 immediately after the study, and 3.48 three months after the study. Once the students acquired the financial knowledge from the HSFP study, they felt that they had something to contribute to the family and it opened up lines of communication that were not there before the HSFP study.

Criteria for Making Spending Decisions before and after HSFP Study

Questions about student orientation to spending were included in this evaluation study for multiple reasons. Included in these reasons are, credit cards are now being marketed to high school students, spending money versus saving money is a core concept in the HSFP curriculum, and change in student views of how they spent their money and recognition of the difference between needs and wants had previously been reported by students as a major impact of the HSFP study. Students were asked three questions about the criteria they used to make spending decisions in the three-month follow-up questionnaire. They were asked how often they made decisions on what they believed they could afford, how willing they were to wait for something they wanted rather than charge it, and how willing they were to wait for something they needed rather than charge it.

Before studying the HSFP, about 26 percent of students indicated they "almost always" made decisions based on what they believed they could afford (Table 19). On the 5-point scale ranging from almost never (1) to almost always (5), 50.4 percent of the students responded with a 4 (24.8 percent) or a 5 (25.6 percent) to indicate how much they were willing to wait for something they wanted rather than charge it. Slightly fewer students were willing to wait for something they needed rather than charge it. A little over 46 percent answered with a 4 (24.3 percent) or 5 (22.0 percent) on the scale for that question.

Financial Question	Almost Never					Almost Always	Mean
Financial Decision							
Made decisions on what I believed I could afford	4.5	15.0	24.7	29.5	26.3		3.58
Willing to wait for something I wanted rather than charge it	9.5	15.8	24.3	24.8	25.6		3.41
Willing to wait for something I needed rather than charge it	9.8	16.9	27.0	24.3	22.0		3.32

Three months after studying the HSFPP, 51.8 percent of students said they "almost always" made decisions on what they believed they could afford versus 26.3 percent before their study of the curriculum content (Table 20). About 57 percent of students indicated they were willing to "almost always" wait for something they wanted rather than charge it and approximately 42 percent said they were willing to wait for something they needed rather than charge it. Students were statistically more likely to make these decisions after studying the HSFPP.

Financial Question	Almost Never					Almost Always	Mean
Financial Decision							
Make decisions on what I believe I can afford	0.0	1.3	12.4	34.5	51.8		4.37*
Willing to wait for something I want rather than charge it	0.3	2.6	11.6	28.8	56.7		4.39*
Willing to wait for something I need rather than charge it	2.6	6.1	18.2	31.4	41.7		4.03*

*Statistically significant difference between means before and after studying HSFPP; $p < .001$.

Changes in Spending and Saving Patterns

Three months after studying the HSFPP, 73.2 percent of students reported that they had changed their spending patterns, and 70.8 percent said they had changed their saving patterns (Table 21). The primary ways in which the students indicated that they changed their spending habits was that they spent less money. Of those who reported having changed their saving habits, 50.9 percent indicated they saved money for present needs and wants, and 39.8 percent indicated that they saved money for future needs and wants.

Changes in spending patterns	73.2
Changes in saving patterns	70.8

Quotes from the open-ended questions about how they changed their spending and saving patterns capture the students' perspective about how they have changed their spending and saving. The concepts taught in the curriculum study and the strategies used by students to create opportunities for more saving are evident in

their direct quotes. Students often discussed spending and saving in one quote because they are very closely aligned in their minds.

The distinction between wants and needs had a major impact on students related to their change in spending patterns because it was mentioned repeatedly in their descriptions of how they changed their spending patterns. One of the trends in the students, particularly among those in 12th grade, were how they indicated that the financial knowledge that they were learning in the HSFPP class was helping them realize what they needed to do in order to be more financially independent from their parents. They often indicated how important it was that they were able to pay for something with “their own money” regardless of the source of that money.

Change in Spending Patterns

- I understand that saving early gets you more money than saving later with a lot of money, so I spend less.
- I save all my paycheck and use only my tips as spending money.
- Less impulsive buying, and if I do, I make sure to get good deals.
- I spend more time managing my money than just planning how to spend my money on the same day I receive it.
- I consider whether the item I am buying is a need or a want. If it is a “want”, I wait until I have more than enough money to purchase it.
- Carry less cash now because it is more tempting to use cash versus a credit card.
- Compared prices, generic and home brand, to know what is better to buy and save the rest.

Change in Saving Patterns

- I have started saving for college and other things in the future.
- I save more money rather than saving a little bit so that I can buy quality things. I have been saving a lot and the rewards have been great.
- Instead of putting money in a bank account I invested in stocks for more growth.
- When I know payments are coming I save so I’m not borrowing in the end.
- I save a large portion of my income while I can now as a teen since my parents buy what I need now. So instead of using all my money, I save.

Manner in Which Students Decide How Much to Save

Students were asked how they decided to save and were provided the choice of responses found in Table 22. A purpose of this question was to find out the level of parent involvement in teens’ decision making process. The question also included reasons why the teens may not be saving. It also addressed some of the guidelines that the teen might be using to make the saving decision, if they were making their own decisions about saving.

Table 22 indicates that the highest percent of students had a goal of saving a specific amount or percent of earnings (37.4 percent). A little over 20 percent were saving for a specific purpose or decided with their

parents to save. Of note, is that 29.6 percent stated their parents were involved in the decision by either requiring them to save (8.9 percent) or deciding along with them how to save (20.7 percent).

Way Student Decides How Much to Save	Percent
Save specific amount or percent of earnings	37.4
Save for specific purchase	21.0
Parents and I decide together on how I will handle saving money	20.7
Parents require me to save a specific percent or amount	8.9
Have no source of money, so do not save	7.0
Have source of money, but do not save	5.1

Description of Purchases and Borrowing Practices

In the three-month follow-up survey, students were asked what they had purchased since studying the HSFPP, if they borrowed money for the purchase, and from whom they borrowed the money. Table 23 outlines students' responses to all of those questions. The two most frequently purchased items were a cell phone (29.8 percent) and an iPod or MP3 player (28.7 percent). When students purchased items, only small percentages borrowed money and that money was borrowed primarily from family. Exceptions were when students purchased big-ticket items such as computers, cars/trucks, or TVs. In these cases, money was borrowed from banks/credit unions and store credit/credit cards were used in addition to borrowing from family members.

Item Purchased	Percent Who Purchased Item	Percent Who Borrowed for the Purchase	From Whom Money was Borrowed
Cell Phone	29.8	31.1	Family, Friends
iPod, MP3 Player	28.7	20.8	Family
Other	27.9	22.6	Family, Friends
Game System	14.5	21.6	Family
Computer	12.7	23.3	Family, Credit Card
Car/Truck	11.5	57.6	Family, Credit Union
TV	9.3	22.2	Family, Bank, Credit Card
DVD Player	6.5	7.7	Family
Motorcycle	.3	0.0	N/A

“Other” items were the third most frequently purchased and included clothing, jewelry, shoes, electronics, and books. Table 24 outlines the "Other" category. Apparel, jewelry, and shoes, comprise the largest percentage (58.3 percent). Nearly ten percent (9.7 percent) of students purchased electronics, 6.9 percent purchased books.

Table 24. Other Items Purchased during Three Months after Studying the HSFPF	
Other Item Purchased	Percent
Clothes, Jewelry, Shoes	58.3
Miscellaneous	25.0
Electronics	9.7
Books	6.9

Most Important Behavior Accomplished as a Result of HSFPF Study

Students were asked to report the most important thing they did with their money as a result of studying the HSFPF (Table 25). Nearly half of the students said that they now saved for things that they either wanted or needed; 22.4 percent of the students specified what it was they were saving for while 26.0 percent left the item(s) unspecified. The remaining half of the students said that they now tracked their spending in some way (15.6 percent), opened a checking or savings account (10.9 percent), budgeted (10.7 percent), purchased something like a car or insurance (6.3 percent), invested (2.7 percent), paid debts (1.4 percent), or secured a debit or credit card (.8 percent). Only 3.3 percent of the students said that they did nothing with their money as a result of studying the HSFPF.

Table 25. Most Important Thing Done with Money as a Result of Studying the HSFPF	
Most Important Thing Done With Money	Percent
Saved money (goal unspecified)	26.0
Saved for specified item(s)	22.4
More careful about spending, spend less/wisely	15.6
Opened checking or savings account	10.9
Budgeted money	10.7
Bought own things, insurance, car	6.3
Invested in stocks, CDs	2.7
Paid people back	1.4
Obtained a credit or debit card	.8
Nothing, been using, no job or money	3.3

Below are student quotes of ways they had used their money as a result of the HSFPF study. Many of the students stated some of the principles from the curriculum such as the saving/spending balance or that they now are saving and investing for the future, or that they are paying back their debts. Some indicated the unique way in which they maintain their savings over time. Others expressed both the confidence and satisfaction that learning about financial planning has brought to them through the ways that they have incorporated the chapter competencies into their lives. The application of their financial knowledge gain had changed their behavior in ways that made them feel more responsible and independent.

Confidence and Satisfaction that Financial Planning Brings to Becoming Independent

- The most important thing I've done with my money is I bought everything for prom on my own due to studying financial planning.
- I gave my grandfather money to help pay a utility bill.
- I have almost saved up for my own personal laptop.
- I have continued to save more money and feel more confident with discussing finances with my family.

Saving/Spending Balance

- I am trying to save more than I spend, and I only spend my money on things that matter most.
- I bought a car and now I budget money out for gas each month.
- I have saved about \$50 from each check to pay off my fines and save for a car.
- Put my money in a bank account because I am less likely to spend it if it is not in cash.
- I have been able to set aside money I have earned, so I can have for emergencies while in college.

Saving/Investing for the Future

- I opened an interest-bearing saving account at the credit union.
- Invested in stocks for college and retirement.
- The most important thing I have done with my money is finding ways to make it grow (investing).
- Opened a checking and savings account. Started saving for college. Have a plan to start a Roth IRA once I turn 18.

Paying Back Debts

- The most important thing I have done with my money was paying people back.
- Paying back my dad for my car.

Unique Ways to Save

- I have put my allowance in a box that needs a key to open; I have given my parent the key.

What the Students Found to be Most Useful

What students remember three months after studying the HSFPP content is important in assessing what they retain over time. Students were asked about the most useful concepts they learned while studying the HSFPP. Four primary answers emerged (Table 26). Students answered this question differently than the question about what they thought was most important. Students were quite specific in their answers. About a fourth of the students (23.6 percent) indicated that they found all concepts to be useful. Another fifth (20.3 percent) reported that saving sooner and paying yourself first were the most useful concepts. Other concepts students found useful were budgeting and managing money (17.3 percent), differences between credit and debit cards, and information about credit scores (14.6 percent).

Most Useful Concept	Percent
All concepts	23.6
Save sooner, PYF	20.3
Budget and manage money	17.3
Credit and debit cards, credit scores	14.6
Important to save	8.8
Balancing checkbook, account information	4.1
Workbooks, website	3.6
Insurance and health care information	2.5
Careful about identity theft	1.6
Career choices	1.4
Nothing	1.1
Have goals	.8

When students were asked what was most useful about the HSFPP, they commented on both technical aspects of the curriculum as well as the content of the HSFPP. The competency-based nature of the curriculum and its focus on skills and behavior change was highlighted in their comments. The comments on the content reflect the variety of students who studied the HSFPP. Some thought the information on checking accounts was more useful while others thought the investment information was most useful. The information on investments probably was the concept that had the most variance in comments. Students with an income source of their own, such as a part-time job, commented that the investment information was useful whereas students with no income source thought it was not as useful.

Although the career unit was the one that was least taught by teachers of all the seven HSFPP units, there were a number of students who identified this information as the most useful. One student, in fact, indicated that he was now thinking differently about what career to pursue because of what they learned in the HSFPP. Some of the HSFPP content is seen as most useful when it can be immediately applicable. The insurance unit is the one that best fits this category. One student was in the midst of purchasing an auto, so the auto insurance information was needed and, thus, was identified as the most useful information from the HSFPP for that student.

Most Useful Technical Aspects of the HSFPP

- The assignments helped us understand more because they helped us practice difficult concepts.
- The workbook that I can refer back to.
- The website and booklet are interesting and informative; I can refer to them with my financial questions.
- It was very hands-on which makes it easier for me to be into what I am learning.

- I found it most useful that NEFE gives you both “sides of the story”. It lets you know that will happen if you don’t save, for instance.
- I found the hands-on planning activities most useful.

Most Useful Content/Concepts of the HSFPP

Checking Accounts

- Learning how to do a checking account.
- I don’t overdraw my checking account anymore.
- The chapter on debit cards and checking accounts was the most useful and helpful.

Spending/Saving

- Money is not to spend all the time, but to put some away for when you really need it.
- I thought the class was very informative and I’ve realized once you spend money it’s gone. The class should be required.
- I found “Pay Yourself First’ to be the most useful and most important.
- The saving and investing because I realized how hard it was to buy my senior things when I had no money saved.

Credit/Credit Cards/Debt

- When I took the class, it was around the same time I got my first credit card. I found it useful when I was taught to put aside cash for the purchase; that way I have it when the bill comes in the mail.
- Everything from the difference between credit and debit cards, also saving, and I keep track of where my money goes.
- I learned that credit cards can cause such an incredible cycle of debt and they are not worth it.
- How to have better control of your money. Also paying off debt quickly means that you pay less interest.
- The credit rates and scoring and how interest works.
- Learning about debit cards; I actually went out and got one after the class.
- I found it useful that simply saving 10 percent of your earnings for a period of time can generally influence your life.
- It made me aware of how easy it is to get into debt.

Becoming Financially Independent from Parents

- I have learned more about responsibility when it comes to money and future life risks.

Investments

- I learned about a lot of helpful things, but I would have to say that “investments” have been the best thing I have learned.
- Saving money and investing. Both very interesting and I learned a lot through the stock market game. Loved the class. Very useful.

Insurance

- The tips on auto insurance were great to know because I am needing it right now.

Goals Setting/Budgeting

- I found that having a good plan/goal and achieving it is the best way to make it in life.
- That even though you don’t have a job, or you can’t get things yourself, that whatever source of money is given, to still use budgeting guidelines to help manage your money.

Career Planning

- It helped me realize that I need to start saving NOW! Rather than later in my life. Also my career choice has been affected by this program.
- The career unit because I learned how to make a resume and that is very pertinent to my college entrance, etc.

Information Students Shared With Others

Another way to determine what the students found important is to discover which concepts that they shared with family and/or friends. Approximately three-quarters of the students shared concepts they learned from the HSFPP. Table 27 shows that students most frequently shared budgeting information (24.7 percent), followed by information about investing and saving (14.4 percent) and credit and debit (11.0 percent). Ten percent of the students shared the “pay yourself first” savings concepts with others. Approximately three-quarters of students shared concepts they learned from the HSFPP with family and/or friends.

Students who shared concepts learned	74.5
Budgeting	24.7
Investing and saving	14.4
Credit and debit cards	11.0
Multiple concepts circled	10.3
Pay yourself first	10.3
Career choices	8.7
Checking accounts and debit cards	8.4
SMART goals	8.0
Financial planning process	2.7
Insurance: Risk exposures	1.1
Compounding interest	0.4

Student Plans to Use Their Financial Management Skills in the Next Six Months

Students were also asked how they planned to use their financial management skills in the next six months. The students who identified “saving” could be grouped into those students who planned to save without identifying a time period or a goal for which to save. Then there were the students who indicated that they would be saving for a specified purpose. There were a few students who planned to invest in the next six months, as well as students who identified plans related to tracking spending, budgeting, or spending. Many students learned about debit cards for the first time in their HSFPP class. Learning about debit cards was repeatedly identified in other open-ended questions in the survey as one of the concepts that they learned for the first time in their study of the HSFPP.

Many of those students opened a checking account as a result of their study and obtained a debit card to go with that account. Students who stated something about borrowing referred to debts, loans, or credit cards. For some students who did not already have a job, getting a job was identified as their target goal; however, that target goal was most often paired with another goal where having their own money source was an imperative. Appendix D lists student responses grouped by content area: (a) saving in general, (b) saving for a specific purpose, (c) investing, (d) tracking spending, (e) budgeting, (f) spending, (g) borrowing, and (h) earning.

What Was Least Useful to Students?

A different lens to evaluate usefulness of the HSFPP was to query students about what they found least useful (Table 28). The most common responses were not pertaining to the concepts themselves but rather to the curriculum quality. Thirteen percent of students commented that the HSFPP material was outdated. Nearly 10 percent of the students said that the material was confusing or that there was too much of it. Although there were a number of students who indicated that the information on credit and debit cards was useful and that they shared that information with family and friends, 7.1 percent of the students indicated that this information was not useful.

These numbers reflect the diversity of the students who studied the HSFPP curriculum content. Some had a great deal of experience with money prior to their HSFPP planning study, while others had very little experience.

Least Useful Concept	Percent
Outdated	12.8
Confusing, too much material	9.5
Credit and debit, compounding interest	7.1
Career choices	3.0
SMART goals	3.0
Insurance	2.7
Pay yourself first, saving	2.7
Balancing checkbook, bank accounts	2.1
Stocks and bonds	1.5
Track expenses, planning	1.5
Identity theft	0.9
Information on needs vs. wants	0.6

Teacher Evaluation Findings

Units Taught and Utilization of Guest Instructors

Teachers were given a list of the HSFPP units and asked to indicate which units were taught and whether a guest instructor taught a particular unit. Table 29 indicates that the units most likely to be taught by someone, whether the classroom teacher or a guest instructor, were budgeting (97.6 percent), your financial plan (96.1 percent), and credit (95.6 percent).

The units least likely to be taught by someone were your career (66.7 percent) and insurance (78.5 percent). Teachers taught most of the units, but guest instructors did teach some, including the credit (29.7 percent), financial services (32.4 percent), investing (29.2 percent), and insurance (31.1 percent) units. The units where more teachers used guest speakers (those speakers were primarily from the financial industry sector reflected by the unit content) may be an indicator of the content where many teachers of the HSFPP had the least amount of confidence teaching the unit content.

Unit Taught	Taught	By Guest Instructor
1. Your Financial Plan	96.1	10.6
2. Budgeting	97.6	12.3
3. Investing	89.2	29.2
4. Credit	95.6	29.7
5. Financial Services	85.2	32.4
6. Insurance	78.5	31.1
7. Your Career	66.7	20.8

By and large, the units taught in schools that were located in states where financial education was mandated did not differ from those located in non-mandated states, with one exception. Unit 7, "Your Career," was taught by significantly more non-mandated than mandated state teachers.

Table 30 lists the type of guest instructors that were brought into the classroom. Guest instructors were most commonly extension educators (42.1 percent) followed by banking professionals (31.8 percent), and insurance agents (21.5 percent). Financial planners were brought into 17.9 percent of the classrooms to teach units. Credit union professionals taught as guest teachers in the HSFPP in 12.3 percent of the classrooms and stock brokers taught in 8.7 percent of the classrooms. Junior Achievement volunteers taught in the classroom as guest teachers in 7.2 percent of the classrooms.

Guest Instructor	Percent
Extension Educator	42.1
Banking Professional	31.8
Insurance Agent	21.5
Financial Planner	17.9
Other	13.8
Credit Union Professional	12.3
Stock Broker	8.7
Junior Achievement Volunteer	7.2

Materials Used in Classroom

The materials teachers used in their classrooms are depicted in Table 31. The student guide and instructor's manual were used by nearly all teachers (97.2 percent and 96.2 percent, respectively). Less frequently, the NEFE website (59.9 percent), and data CD (55.2 percent) helped facilitate classroom instruction. Additional analysis of this question revealed that 33 percent of teachers used the instructor's manual, student guide, NEFE website, and data CD in combination, while 19.3 percent of teachers used the instructor's manual, student guide, and NEFE website in combination. An additional 17 percent of teachers used either the instructor's manual or student guide in combination or the instructor's manual, student guide, and data CD in combination. Teachers most commonly used three (38.7 percent) or four (36.8 percent) types of materials to teach the NEFE curriculum.

Assessment	Percent
Student Guides	97.2
Instructor's Manual	96.2
NEFE Websites	59.9
Data CD	55.2
Other Web Resources	9.0

TEACHER DESCRIPTION

Teachers spent, on average, 40 classroom hours teaching the HSFPP curriculum (Range = 2 - 180 hours). Number of hours did not differ by whether the state in which the teacher taught mandated financial education or did not mandate financial education.

Nearly 50 percent of the teachers dedicated 10 or more weeks to the teaching of the curriculum content. About 18 percent of the teachers devoted four to nine weeks to teach the HSFPP content. Twelve percent taught the course content in two to three weeks and about 1 percent taught the curriculum content in less than a week.

Forty-nine percent of teachers indicated they used only the NEFE curriculum to teach personal finance. When teachers indicated having used other materials, the types of materials they used were: teacher/district lessons, textbooks, DVD/CD materials, bank materials, web materials, guest speakers, publications, and others. Specific responses from teachers and categories can be found in Appendix E.

Twenty-three percent of teachers identified themselves as personal finance teachers, followed by 21 percent who were family and consumer sciences teachers. Nearly 19 percent were business-marketing teachers, 9 percent were either economics or Junior ROTC teachers, and the remaining 19 percent were teachers from other subject areas.

The curriculum, by and large, was taught to high school students in grades 9 through 12 but it targeted 11th and 12th grade students. Forty-five percent of the students who completed the study of the HSFPP were 12th grade students. Another 22.7 percent of the students were in the 11th grade. About fifteen percent (15.1 percent) were in the 10th grade, and 16.7 percent were in the 9th grade.

An overwhelming majority of teachers (97 percent) indicated they would recommend the use of the NEFE curriculum to a colleague. Here are comments written by five teachers who indicated “why” they would recommend the HSFPP curriculum to their colleagues:

- It is hands-on and refers to things young individuals need to know in our times. No other class material explains to them how the checkbook works, the credit card system, and how interests can make or break them.
- The material is student friendly, on a high school level. It is easy to follow and easy to read. The material also covers many of the state standards for personal finance. It’s also great that students can write in their books.
- The program captured student interest and promoted class discussion, leading to a high level of student understanding and retention of content.
- Free materials; excellent material; excellent additional sources, relevant to what needs to be taught.
- Most parents are not teaching financial literacy (check writing, savings, investing, etc).

The quotes of these five teachers exemplify the types of comments that many teachers wrote. See Appendix F for additional comments by teachers recommending use of the NEFE HSFPP to a colleague. The comments in Appendix F also include suggestions that teachers wrote related to some of the challenges that they experienced in teaching the personal finance content.

On average, teachers reported having used the curriculum for three years. Sixty-seven percent of teachers had used the curriculum more than once. The number of years teaching the curriculum ranged from one to 20 years. Teachers in mandate states did not differ from teachers in non-mandate states in regards to number of years teaching the curriculum.

Table 32 shows the number of weeks teachers spent on the HSFPP curriculum. This information is organized by the teachers' subject areas.

Subject Area	Time Spent On Program (Median)
Business/Marketing	10 weeks or more
Consumer Mathematics	10 weeks or more
Family & Consumer Science/Home Economics	10 weeks or more
Personal Finance	10 weeks or more
Economics	7 – 9 weeks
Junior ROTC	7 – 9 weeks
Other	7 – 9 weeks
Vocational Education	4 – 6 weeks

Seventy-six teachers (36 percent) received training or in-service that focused on or introduced the NEFE curriculum. Cooperative extension educators and credit unions provided training for 50 percent of the teachers.

Teachers' Use of Competency-Based End-of-Unit Assessments

Teachers were queried about whether they used the end of unit competency-based assessments. To compute the percents in Table 33, only those teachers who actually taught each unit were selected. Once the researchers determined the group of teachers who actually taught the unit, then the study team determined those teachers who utilized the competency-based assessment for that unit. Table 32 indicates that around 80 percent of teachers who taught the “Development of a personal financial plan” unit and “Development of a personal budget” unit used the corresponding competency-based unit assessment. Only 50.3 percent and 61.2 percent of teachers used the competency-based assessments for the “Development of a person insurance plan” and “Demonstration of how to use financial services” units, respectively.

Assessment	Percent
2-1 Development of a personal budget	81.8
1-1 Development of a personal financial plan	80.0
4-1 Identification of strategies to manage credit	71.6
7-1 Identification of career options that match personal goals	71.2
3-1 Development of an investing plan	64.0
5-1 Demonstration of how to use financial services	61.2
6-1 Development of a personal insurance plan	50.3

Unit Competency-Based Activities Used and Type of Data Used in the Activities

Similar to the previous table, the percents in Table 34 are only for those teachers who taught the unit, it was then determined whether they used the particular student activity. The unit activities were utilized by a large percentage of teachers who taught the activities' corresponding units. More than 90 percent of the teachers used the smart goals, personal spending log, personal budget, and personal financial plan activities, while nearly three-quarters or more of the teachers used the rate your work skills, entry level job skills, and loan application activities.

Activity	Percent
Assignment 1-1 Smart Goals	98.9
Assignment 1-3 Personal Spending Log	94.2
Assessment 2-1 Personal Budget	91.4
Assessment 1-1 Personal Financial Plan	90.1
Exercise 7B Rate Your Work Skills	86.6
Exercise 7C Entry Level Job Skills	81.9
Exercise 4E Loan Application	74.1

Table 35 provides the percent of teachers who had students use personal data, data provided to them, or both forms of data to complete curriculum activities. Teachers most typically required students to use personal data to complete activities, especially in the case of the smart goals (74.0 percent), personal spending log (70.6 percent), and personal financial plan (60.6 percent) activities. The activity for which the most teachers provided data to students was the loan application activity (30.7 percent). The personal budget activity was one that teachers asked students to use both their own and provided data for (22.4 percent).

In the "Did Not Use" column, there is a big jump in the percentage for the loan application activity and the two work/job activities. The loan activity may not have been used as much because of the level of applicability for the majority of students. The two Unit 7 (Your Career) activities (Rate Your Work Skills and Entry Level Job Skills) were used the least of all the activities. This fact may have occurred because Unit 7 was the unit that was the least taught unit of the seven in the HSFPP curriculum.

Student Activity	Personal Data	Provided Data	Both	Did Not Use
Assignment 1-1 Smart Goals	74.0	7.4	15.2	3.4
Assignment 1-3 Personal Spending Log	70.6	6.0	15.9	7.5
Assessment 1-1 Personal Financial Plan	60.6	9.9	17.2	12.3
Assessment 2-1 Personal Budget	53.2	13.2	22.4	11.2
Exercise 4E Loan Application	31.7	30.7	10.1	27.6
Exercise 7B Rate Your Work Skills	51.0	6.7	8.2	34.0
Exercise 7C Entry Level Job Skills	45.1	6.7	7.3	40.9

Competency-Based Scoring Procedures

Teachers were asked how frequently they used the scoring criteria in the teacher manual; these scoring criteria utilize a rating scale that is based on the degree to which the unit competency was reached. Responses are on a scale of 1 = never to 5 = very often with a mean score of 2.68. Table 36 indicates that only 8.6 percent of teachers used the scoring criteria "very often," 36.4 percent "sometimes" used the scoring criteria, and 26.3 percent responded that they "never" used the scoring criteria.

Use of Scoring Criteria	Percent
5 (Very Often)	8.6
4	16.3
3 (Sometimes)	36.4
2	12.4
1 (Never)	26.3

Teacher Assessment of the HSFPP Curriculum Quality

Table 37 indicates that the majority of teachers rated the HSFPP curriculum quality highly on a 5-point scale ranging from "Poor" to "Excellent." Teachers' satisfaction was measured with nine items. The highest mean scores were for flexibility of time required (4.34), comprehensive topic coverage (4.32), adaptability to a wide range of students (4.24), and adaptability to many high school subjects (4.20). No item had a mean less than 3.82. The other five items have a mean-score of less than 4, but those means are very close to a mean of 4 on the 5-point scale, as well.

The length of time that teachers had taught the HSFPP did not make a difference in how they ranked curriculum quality. We compared those teachers who had taught the curriculum for more than two years and those who had taught the curriculum for less than two years. This analysis was conducted because teachers who had taught the HSFPP longer than two years would have made the transition from the previous curriculum to the current one that is competency-based.

Quality Question	Poor	Average			Excellent	Mean
Flexibility of time required	0.0	1.5	9.9	41.9	46.8	4.34
Comprehensive coverage of topics	0.0	0.5	10.2	46.3	42.9	4.32
Adaptable to a wide range of students	0.0	3.4	11.2	43.4	42.0	4.24
Adaptable to many high school subjects	0.0	2.0	18.6	37.3	42.2	4.20
Appealing Student Guide writing style	0.0	6.3	21.0	42.4	30.2	3.97
Appealing Student Guide design	0.0	6.3	22.0	43.9	27.8	3.93
Experiential student guide exercises	0.0	3.5	28.0	42.5	26.0	3.91
Experiential assignments	0.0	3.5	24.9	48.8	22.9	3.91
Experiential assessments	0.5	2.0	32.5	44.7	20.3	3.82

Teachers also provided open-ended responses related to the quality of the curriculum. In this “other” category the responses included: data supplied for activities, true assessment/quizzes, amount of information and exercises, parallels state requirements, PowerPoint presentations, and could do projects related to each unit.

Teachers' Satisfaction with the HSFPP Curriculum

Teachers were asked about their satisfaction with six aspects of the HSFPP (Table 38). In general, teachers were satisfied with the HSFPP curriculum, rating nearly all items above a 4 on a 5-point satisfaction scale where the higher scored indicated greater satisfaction. Teachers were most satisfied that the curriculum was available to them at no charge. Additionally, they were satisfied that the curriculum increased their students' knowledge of finance and in their own confidence teaching the content. Teachers were most dissatisfied with the interest that the students had in the content, reflected in a mean score of 3.80.

Satisfaction Question	Very Dissatisfied	Mixed			Very Satisfied	Mean
Available at no charge	0.0	0.0	1.4	6.8	91.8	4.90
Increased students' knowledge of finance	0.0	0.0	6.8	36.7	56.5	4.50
Your confidence in teaching content	0.0	1.0	8.7	39.6	50.7	4.40
Students could practice personal finance skills	0.0	1.5	10.7	38.3	49.5	4.36
Relevance of the curriculum for students	0.0	2.4	12.1	33.0	52.4	4.35
Quality of content of the curriculum	0.0	1.0	13.6	38.3	47.1	4.32
Ease of use of the curriculum	0.0	0.5	15.0	33.7	46.9	4.31
Interest of the students in content	1.0	2.9	32.7	42.0	21.5	3.80

WHAT INFLUENCED STUDENTS' KNOWLEDGE AND BEHAVIOR AS A RESULT OF THE HSFPF STUDY?

A goal of the HSFPF evaluation was to understand what influenced students' ending financial knowledge and behavior. NEFE was particularly interested in discovering the effect of the use of the competency-based tools provided in the curriculum by teachers in the classroom. Earlier in the report, we examined differences in students' beginning and ending financial knowledge and behavior by their demographic characteristics on the bivariate level. That analysis was useful to do, but a more complex analysis permits us to discuss findings in a predictive manner and to examine relationships between teacher variables (e.g., their use of competency-based aspects of the HSFPF) and students' knowledge and behavior after studying the curriculum.

To investigate what influenced students' ending financial knowledge and behavior levels, data from students and their teachers were analyzed using hierarchical linear modeling (HLM) – financial knowledge at the end of the HSFPF study and financial behavior at the end of the HSFPF study (Bryk, Raudenbush, Seltzer, & Congdon, 1989). Since there are many students for one teacher, a procedure such as HLM is necessary to account for this nesting of students within the classroom.

Methodologically, HLM involves simultaneously fitting two regression models for each dependent variable. The two regression models that are simultaneously fitted were a within-classroom model and a between-classroom model. With students' total ending knowledge and behavior as dependent variables, the within-classroom model predicted *student* knowledge/behavior and the between-classroom model predicted *classroom* knowledge/behavior.

Conceptual Categories of Variables and Variable Descriptions

Dependent Variables

HLM analyses were conducted with two dependent variables. The dependent variables were students' total knowledge and behavior levels after studying the HSFPF curriculum content. These variables were computed by summing students' values on the "since" knowledge/behavior questions that were presented earlier in the report. The two dependent variables were financial knowledge at the end of the HSFPF study and financial behavior at the end of the HSFPF study.

Independent Variables

Independent variables were grouped into one of four conceptual categories: student demographic variables, teacher demographic variables, variables assessing student access to money, and variables assessing teacher use of competency-based aspects of the HSFPF. Variables used and conceptual labels assigned were based on findings from the HSFPF qualitative evaluation (Danes & Brewton, 2010), relevant empirical research, and NEFE's goals for the evaluation project.

Student Demographic Variables. Student demographic variables consisted of gender, grade level, ethnicity, hometown size, and level of knowledge/behavior prior to studying the HSFPF. Gender was a dummy variable where 0 = Male and 1 = Female. Two variables represented grade level, a dummy variable for

12th grade (0 = Not in 12th grade, 1 = In 12th grade), and a dummy variable for 11th grade (0 = Not in 11th grade, 1 = In 11th grade). Ethnicity was also a dummy variable where 0 = Non-White and 1 = White. Hometown size was a dummy variable with the values of 0 = Not rural and 1 = Rural. Students' knowledge and behavior before studying the curriculum were computed by summing students' values on the "before" knowledge/behavior questions.

Classroom means on the student demographic variables were calculated to include in analyses.

Student Access to Money Variables. The average amount of money that students spent per week and their employment and debt statuses were the variables that composed the access to money category of variables. The amount of money spent per week was a negatively skewed continuous variable such that almost 60 percent of the students spent between \$0 and \$20. To ensure a fairly normal distribution for analysis, the natural log of this variable was used. Employment status was a dummy variable where 0 = No part-time job and 1 = Had a part-time job. Debt status was also a dummy variable where 0 = No debt and 1 = Had debt.

Classroom means on the student access to money variables were also calculated to include in analyses.

Teacher Demographics. Teacher demographic variables included confidence teaching the HSFPP, number of hours they taught the program, period of time over which the program was taught, whether the HSFPP was the only curriculum teachers used, number of years teaching the HSFPP, intensity with which the program was taught, and whether they taught it in a state that mandated financial education or not.

Teachers' satisfaction with their confidence teaching the HSFPP was rated on a 5-point scale ranging from 1 = Very Dissatisfied to 5 = Very Satisfied. Whether or not the HSFPP was the only curriculum teachers used and whether teachers taught in a state that mandated financial education were dummy variables where 0 = No and 1 = Yes. The period of time over which the material was covered was a categorical variable where 1 = Less than 1 week, 2 = 1 week, 3 = 2 to 3 weeks, 4 = 4 to 6 weeks, 5 = 7 to 9 weeks, and 6 = 10+ weeks. Number of years teaching and number of hours over which the program was taught were continuous variables. The intensity variable was created by dividing the number of hours the curriculum was taught by the product of period of time over which the curriculum was taught and 3/5.

Teacher Use of the Competency-Based Aspects of the Curriculum. Teachers' use of the competency-based aspects of the HSFPP was measured with one scoring variable, seven assessment variables, and 7 activity variables. Teachers' use of the HSFPP scoring criteria was rated on a 5-point scale ranging from 1 = Never to 5 = Very Often. The seven assessment variables were dummy variables where 0 = Did not use assessment or teach its corresponding unit and 1 = Taught unit and used its corresponding assessment. The activity variables were also dummy variables where 0 = Did not use activity or teach its corresponding unit and 1 = Taught unit and used its corresponding activity.

HLM Analysis Procedure

This section describes the procedure used to conduct the HLM analyses. It is meant to capture the essence of what was done, and further details (e.g., model equations) are provided for those interested in Appendix G.

Six final models are presented here, three with students' total behavior after studying the HSFPP as the dependent variable and three with students' total knowledge after studying the HSFPP as the dependent variable. Independent variables were entered in steps. Student demographics were entered in the first step,

teacher demographics were entered in the second step, student access to money variables were entered in the third step, and, in the fourth step, variables that assessed teacher use of the competency-based aspects of the curriculum were entered.

An HLM was conducted at each step and newly entered variables that were highly unrelated to the dependent variable were removed from the analysis. This procedure resulted in the removal of nine variables from the knowledge analysis (i.e., student employment status, student debt, student spending per week, teacher hours taught, teacher period of time taught, teacher used the HSFPP only, teacher years taught, teacher intensity, and teacher state mandate) and 10 variables from the behavior analysis (i.e., student ethnicity, student hometown size, student debt, debt classroom mean, spending classroom mean, teacher hours taught, teacher period of time taught, teacher intensity, teacher years taught, and teacher state mandate). Variables assessing teachers' use of the competency-based aspects of the HSFPP are the reason why six final models are presented in this section of the report. One model included scoring in step 4 but not the individual assessments or activities. The second model included the assessments in step 4 but not scoring or the activities. And the third model included the activities in step 4 but not the assessments or scoring.

HLM Findings

Students' Behavior after Studying the HSFPP

The findings for the three behavior HLM models are displayed in Table 39. A “+ sign” indicates that a variable is significantly and positively related to students' behavior after studying the HSFPP, while a “- sign” indicates that a variable is significantly and negatively related to students' behavior after studying the HSFPP. Model 1 included only scoring in step 4, Model 2 included only the assessments in step 4, and Model 3 included only the activities in step 4. Independent variables entered in steps 1 through 3 were the same.

Regardless of the HLM conducted, seniors rather than non-seniors and students who had higher rather than lower levels of behavior before the HSFPP study were more likely to have higher behavior levels after the HSFPP study. Classrooms with more rural students tended to have lower behavior levels after the HSFPP study compared to classrooms with fewer rural students. These findings suggest that the contribution of demographic variables on students' financial behavior should not be ignored. Seniors are in a unique situation in that they are potentially on the brink of change in the areas of education, employment, and living situation. The HSFPP may be more relevant to these students, which may mean that they interact with the curriculum in such a way that promotes positive financial behavior. The finding that classrooms with more rural students had lower levels of behavior after the HSFPP study is consistent with previous research that shows rural students exhibit lower levels of educational achievement and higher likelihood of dropping out of high school than their nonrural counterparts (Roscigno & Crowle, 2001). Also consistent with previous research is that students' pretest scores significantly predict their posttest scores (Schochet, 2005). Students who were working part-time were more likely than students who were not working a part-time job to have higher levels of behavior after studying the HSFPP. In contrast, the more money that students spent per week, the less their behavior levels were after studying the curriculum. Perhaps a job allowed students the opportunity to practice their financial management skills after studying the HSFPP content. On the other hand, students constrained by heavy expenses may not have been able to practice their financial management skills.

Teachers who were confident were more likely than teachers who were less confident to have students in their classrooms with higher levels of ending behavior. This teacher demographic variable has been shown in

other studies to be highly related to student performance (Goddard, Hoy, & Hoy, 2000). And, while teachers' use of scoring and activities were unrelated to students' ending behavior in their classrooms, this was not the case for two assessments. Teachers who used Assessment 5 tended to have students with lower levels of behavior after studying the HSFPP. In contrast, teachers who used Assessment 7 tended to have students with higher levels of behavior after the HSFPP study. Assessment 5 was a demonstration of how to use financial services. Assessment 7 was identification of career options that matched personal goals. Particular HSFPP assessments may have been chosen by teachers because of their relevance to students. It could be that the teachers who used the financial services assessment, on average, had students in their classrooms with less experience managing their money and teachers who used the career options assessment had students with more experience managing their money. Regardless, it appears that Assessment 7 is a particularly worthwhile activity for students to complete.

Table 39. HLM Findings for Students' Behavior after Studying the HSFPP

	Model 1	Model 2	Model 3
Student Demographics			
Total "before" behavior	+	+	+
Gender			
Senior	+	+	+
Junior			
Total "before" behavior class mean			
Gender class mean			
Senior class mean			
Junior class mean			
Hometown size class mean	-	-	-
Ethnicity class mean			
Student Access to Money			
Employment status	+	+	+
Amount spent per week	-	-	-
Employment status class mean			
Amount spent per week class mean			
Teacher Demographics			
Confidence	+	+	+
HSFPP only taught			
Teacher Use of Competency-Based Aspects of HSFPP			
Scoring			
Assessment 1-1 Personal Financial Plan			
Assessment 2-1 Personal Budget			
Assessment 3-1 Personal Investing Plan			
Assessment 4-1 Credit Management Strategies			
Assessment 5-1 Financial Services Demonstration		-	
Assessment 6-1 Personal Insurance Plan			
Assessment 7-1 Career Options		+	
Activity 1 (Assignment 1-1 SMART Goals)			
Activity 2 (Assignment 1-3 Personal Spending Log)			
Activity 3 (Assessment 1-1 Personal Financial Plan)			
Activity 4 (Assessment 2-1 Personal Budget)			
Activity 5 (Exercise 4E Loan Application)			
Activity 6 (Exercise 7B Rate Work Skills)			
Activity 7 (Exercise 7C Entry-Level Job Skills)			

Students' Knowledge after Studying the HSFPP

Findings for the three knowledge HLM models are displayed in Table 40. Again, a “+ sign” indicates that a variable is significantly and positively related to students' knowledge after the HSFPP study, while a “- sign” indicates that a variable is significantly and negatively related to students' knowledge after studying the HSFPP. Model 1 included only scoring in step 4, Model 2 included only the assessments in step 4, and Model 3 included only the activities in step 4.

Regardless of the HLM conducted, seniors rather than non-seniors, females rather than males, and students with higher rather than lower levels of beginning knowledge had higher levels of knowledge after studying the HSFPP. Classrooms with more White than non-White students also had higher levels of knowledge after studying the HSFPP. In Model 3 only, rural versus non-rural students tended to have lower levels of knowledge after studying the curriculum, and juniors rather than non-juniors tended to have higher levels of knowledge after the HSFPP study. Some of these findings are consistent with the behavior analysis.

Exceptions relate to gender and ethnicity. Both females and White students have been shown in previous evaluation research to experience greater gains in knowledge (Danes & Haberman, 2007; National Center for Education Statistics, 2001). It could be that these students, in general, relate better to the curriculum, thus taking advantage of what it has to offer.

In Models 1 and 2, teachers who were confident were more likely than teachers who were less confident to have students in their classrooms with higher levels of ending knowledge. And, while teachers' use of scoring was unrelated to students' knowledge in their classrooms, this was not the case for one assessment and three activities. Teachers who used Assessment 7 tended to have students in their classrooms with lower levels of knowledge after studying the HSFPP. Regarding the activities, teachers who used Activities 1 and 3 also had students in their classrooms with lower levels of ending knowledge. In contrast, teachers who used Activity 4 were more likely to have students in their classrooms with higher ending knowledge. The significance of teacher confidence is consistent with the behavior analysis. In contrast to it, however, is the finding pertaining to Assessment 7 (identification of career options that match personal goals). Its use was associated with students in classrooms having less ending financial knowledge. This finding could be due to the fact that the assessment is highly behaviorally focused, and perhaps teachers who used this assessment, in particular, focused more in the class on behavior outcomes than knowledge outcomes.

Activities 1 and 3 were Smart Goals and Personal Financial Plan, respectively, and their use was negatively related to student knowledge after studying the curriculum. Perhaps these activities were used especially in classrooms where the students had, in general, lower financial knowledge to begin and end with. In contrast, Activity 4 (Personal Budget) may have been one chosen by teachers who had classrooms with students in them who generally had higher financial knowledge to begin and end with, and this may be why it was positively related to student knowledge after studying the curriculum.

Table 40. HLM Findings for Students' Knowledge after Studying the HSFPF			
	Model 1	Model 2	Model 3
Student Demographics			
Total "before" knowledge	+	+	+
Gender	+	+	+
Senior	+	+	+
Junior			+
Ethnicity			
Hometown size			-
Total "before" knowledge class mean			
Gender class mean			
Senior class mean	+	+	+
Junior class mean			
Ethnicity class mean	+	+	+
Hometown size class mean			
Teacher Demographics			
Confidence	+	+	
Teacher Use of Competency-Based Aspects of HSFPF			
Scoring			
Assessment 1-1 Personal Financial Plan			
Assessment 2-1 Personal Budget			
Assessment 3-1 Personal Investing Plan			
Assessment 4-1 Credit Management Strategies			
Assessment 5-1 Financial Services Demonstration			
Assessment 6-1 Personal Insurance Plan			
Assessment 7-1 Career Options		-	
Activity 1 (Assignment 1-1 SMART Goals)			-
Activity 2 (Assignment 1-3 Personal Spending Log)			
Activity 3 (Assessment 1-1 Personal Financial Plan)			-
Activity 4 (Assessment 2-1 Personal Budget)			+
Activity 5 (Exercise 4E Loan Application)			
Activity 6 (Exercise 7B Rate Work Skills)			
Activity 7 (Exercise 7C Entry-Level Job Skills)			

The fact that different sets of variables predicted students' knowledge and behavior after studying the HSFPF lends support to the argument that knowledge and behavior are two very different constructs. In other words, knowledge is not the same thing as behavior. An advantage of conducting the HLM analyses as part of this evaluation is that they highlighted the variables that predicted each construct and allowed us to discuss the findings in a predictive manner.

APPENDIX A

IMPACT EVALUATION DESIGN AND SAMPLING PROCEDURES

The University of Minnesota contracted with Iowa State University Center for Survey Statistics and Methodology (CSSM) to collect the data for the quantitative HSFPP evaluation. The sample frame consisted of 2,638 people who had requested HSFPP materials from NEFE between January and mid-August of 2009. Duplicates and ineligible cases were removed from the list. Ineligible cases consisted of agencies/organizations such as housing authorities, non-profit organizations (e.g., Habitat for Humanity, Lutheran Social Service), home schoolers, hospitals, universities, career and detention centers, and others that would not be likely to involve high school level instruction in a classroom setting. The remaining 2,300 names were prepared for use.

In late July CSSM submitted the NEFE evaluation project to the Iowa State University Institutional Review Board (IRB) for approval. Unlike previous years, the IRB ruled that permission must be obtained from each school or district administration in order to proceed with the evaluation. In addition, the IRB required alterations in project protocols relating to parental consent. These changes were incorporated into the project, but the additional effort to obtain school/district permission affected the participation and return rate for the evaluation project.

Data Collection Procedures

Phase 1

Teachers in the sample were contacted about their intended use of the NEFE materials during the 2009-2010 school year, their willingness to participate in the evaluation, and the procedure to follow for obtaining school or district consent for their participation. This information was obtained from a Teacher Participation Survey that was sent to each of the 2,300 teachers on September 18, 2009. This mailing included a letter and information sheet with instructions on how to access the Teacher Participation Survey online, should they choose not to complete the hard copy provided. A reminder postcard was sent one week later to the 1,620 teachers who had not responded, followed by second mailing on October 15, 2009. Total responses to the survey were 1,062. Data were evaluated to determine whether the anticipated use of the NEFE HSFPP material met established guidelines for participation and to identify what steps should be taken to obtain permission from school or district officials.

There were 266 teachers who anticipated using and completing the HSFPP by the end of January, 2010. An additional 33 teachers were added to the pool of eligible participants in January of 2010 by extending the eligibility period through March 31, bringing the total to 299 teachers. Of these teachers, 156 indicated that no school or district permission was needed to participate. Permission was required, however, for 143 schools. CSSM staff contacted the appropriate staff at those schools by letter, email, and telephone to learn what steps needed to be taken to obtain permission. Requirements varied. Some school administrators requested copies of the surveys and other project materials, some simply had a few questions for clarification, and some sent forms to be completed and returned. Some requirements were so extensive and time-consuming that it was impractical to pursue. Ultimately permission was received from 130 of the 143 schools. Teachers at the remaining 13 schools did not participate because official permission was not obtained.

Here are a few examples of extensive and time-consuming procedures that were deemed to be beyond what were feasible for the evaluation project timeline. For one school district, there was a 56-page Research Review Procedures Manual and a 14-page CCSD Research Application and Instruction as well as flowcharts, and various appendices. The procedures manual stated that a complete application must be submitted at least 60 days before the research is scheduled to begin. A number of schools required that the evaluations be administered outside the work day so that they did not interfere with instruction time. In a number of other schools, applications were reviewed only four times a year and proposals were to be submitted at least one semester or in some cases 60 days before researchers would begin their research activities.

The final results of contacts during Phase 1 (Teacher Participation Surveys) appear in Table 1.

Appendix A - Table 1. Final Results, Phase 1	
Contact Results	Number of Cases
Yes – Will use NEFE materials this year	766
Agreed, Teacher and Students participated	157
Agreed, Teacher only participated (No Students)	53*
Agreed, Students only participated (No Teacher)	7
Agreed, Packets sent, No Response	69
Not using it in Data Collection period	467
Permission not granted by school	13
No – Will not use it at all this school year	174
Refused to participate	117
No Response	1198
Not Eligible—Facility/Teacher/Situation	5
Unlocatable	40
TOTAL	2300
<p>* Two additional teacher evaluations were received from teachers who were not in the original sample of 2,300. They are included in the data set. A total of 55 completed Teacher Evaluations were received with no corresponding student evaluations.</p>	

Phase 2

Eligible teachers who agreed to participate in the evaluation were sent packets of surveys at a time that corresponded to their expected completion date. Each packet contained one Teacher Evaluation Survey and enough Student Evaluation Surveys for that teacher’s anticipated enrollment. Packets also included an information sheet with instructions and answers to frequently asked questions as well as a postage-paid envelope for returning completed surveys.

In total, packets containing 15,912 student surveys were sent to 286 teachers. Packets were re-mailed to teachers upon request. Project questions were received and answered by email and over the CSSM toll-free

telephone. Teachers who did not respond within a reasonable time frame were sent a minimum of two email reminders to encourage them to return completed surveys.

In order to maximize teacher input, CSSM encouraged teachers to complete and return their own evaluation regardless of whether their students would be able to participate. In addition, two teachers who were not in the original sample, but who received the NEFE materials from a teacher in the sample, sent completed Teacher Evaluations unsolicited. This resulted in a total of 55 teacher surveys being completed and returned without corresponding student surveys. Conversely, 7 teachers did not complete their own evaluation but returned completed student evaluations. There were 69 teachers who received survey packets but who did not respond at all.

Completed teacher evaluation surveys were received from 212 teachers. Completed student evaluation surveys were received from 4,794 students. Completed teacher and student surveys were received, recorded and coded. Coded surveys were entered into a data file using double-entry verification. Frequencies and cross-tabulations were run and checked for possible errors, and the data set was cleaned. During the cleaning process, unusually high non-response was noted for three items in the Student Evaluation surveys.

The numbers of Teacher Evaluation and Student Evaluation surveys mailed and returned in Phase 2 are shown in Table 2 below. The final study sample was 212 teachers and 4,794 students from across the U.S. Higher nonresponse rates have evolved over the last ten years so that there now is a general trend in measurement research resulting from general unwillingness to participate in research, inability to contact sample members, and characteristics of samples (Groves, 2006; Groves & Peytcheva, 2008; Singer, 2006).

Appendix A - Table 2. Final Results, Phase 2		
	Teacher Surveys	Student Surveys
Surveys Mailed	286	15,912
Not Returned	69	11,118
Student Surveys returned but no Teacher Survey	7	----
Unsolicited Surveys Received	(+ 2)	0
TOTAL Surveys Completed	212	4,794

Phase 3

This phase consisted of contacting the students at their home address approximately three months after the completion of their NEFE classroom instruction to ask them to complete Student Follow-up surveys. The sample consisted of the 1,982 students who volunteered to participate and wrote their name and address on the Student Evaluation surveys they completed in class. Entering the names and addresses of these volunteers into an Excel file was a significant challenge given the quality of some handwriting. Addresses were checked online when possible. Survey packets were prepared and mailed on a bi-weekly basis beginning in February of 2010.

In accordance with Iowa State University IRB requirements and recommendations, the survey packets were addressed to the parents of each student. Each packet included a letter to the parent, a letter to the student, a Student Follow-Up survey, and a pre-addressed postage-paid envelope. In their letter, parents were given information about the project and, if they consented to their child’s participation, they were asked to give the packet to their child. In their letter, students were instructed to complete the survey and return it in the enclosed envelope. After one month a second packet was sent to non-responders. After three more weeks, a third packet containing the Phase Three material was sent to those who had not yet responded.

There were 1,982 parents/students who were sent at least one follow-up survey packet. Of these, 147 were returned by the US Post Office due to inaccurate or incomplete addresses. A second survey packet was sent to 1,762 parents/students and a third packet was sent to 1,659 parents/students. Completed Student Follow-up Surveys were received from 381 students. These surveys were received, coded, and entered into a data file.

The final results of Phase 3 are depicted in Table 3 below.

Appendix A - Table 3. Final Results, Phase 3	
Total Sample (student names/addresses provided)	1,982
Undeliverable Addresses	147
No Response	1,454
Surveys Completed & Returned	381

Comparing Students Who Participated in Follow-Up Survey to Those Who Did Not

Analyses were conducted to discern whether students who completed the follow-up survey were different from the students who did not. The students who completed a follow-up survey were statistically more likely to be female and living in a rural area. Further, they earned less money and also spent less money than their counterparts who did not complete the follow-up survey. They were, however, more likely to have checking and savings accounts, money in a savings account, and to have gained in their total financial knowledge as a result of studying the HSFPP.

APPENDIX B

BEHAVIOR CHANGE MEASURED BY POST-THEN-PRE METHODOLOGY

There are two primary ways to measure change in knowledge, confidence, and behavior. One way is the traditional pretest-posttest design. A second approach to measure change in knowledge, confidence and behavior is the retrospective pretest design; an example of this design that is commonly used is the post-then-pre design. The post-then-pre design was the method used in this study. At one time there was a controversy in the evaluation literature about which of these measurement designs was most beneficial, but over the last ten years, the studies in the literature comparing these two methods, have repeatedly found that the post-then-pre design is more valid.

The traditional pretest-posttest comparison results have been found to be a source of internal invalidity because participants may have limited knowledge at the beginning of a program that prevents them from accurately assessing baseline behaviors. By the end of the program, their new understanding of the program content may have an impact on the response on their self-assessment. If a pretest was used at the beginning of the program, participants have no way to correct an inaccurate assessment in the baseline data rendering the pre- and post-test results incompatible (Howard & Dailey, 1979; Klatt and Taylor-Powell, 2005). This problem is called response shift bias and is a concern in evaluating program impact.

The retrospective pretest design known as the post-then-pre design corrects this problem (Davis, 2003; Rockwell & Kohn, 1989). The problem is handled by not giving a pretest at the beginning of the program. Then, at the end of the program, the participant answers two questions. The first question asks about behavior after program completion. This is the posttest question. Then participants are asked to report what the behavior had been before the program. This second question is really the pretest question, but it is asked after the program when participants have sufficient knowledge to answer the question validly (Davis, 2003; Rockwell & Kohn, 1989). That is why this approach is called post-then-pre design.

When comparing traditional pretest-posttest and retrospective pretest designs such as the post-then-pre design, Drennan and Hyde (2008) and Rohs, Langone, and Coleman (2001) found that self-reported measures of change that used retrospective pretests (e.g. post-then-pre designs) to remove response-shift bias demonstrated significantly greater validity than measures of change that used traditional self-report pretests.

The post-then-pre design accounts for changes in learners' knowledge and behavior by allowing participants of a program to first report present behaviors (post) and then rate how they perceived these some behaviors just before taking the course (then pre). The retrospective pretest at the end of the program is more accurate because it is answered in the same frame of reference as the posttest. Thus, the problem of response shift bias in self-report, pre-post designs is minimized (Davis, 2003). This method takes less time, is less intrusive, and, for self-reported change, avoids pretest sensitivity and response shift bias that results from pretest overestimation or underestimation (Lam & Bengo, 2003; Pratt, McGuigan, & Katzev, 2000). It must be noted, however, for this design to work, questions about what they had done SINCE the study MUST proceed what they did PRIOR to study.

APPENDIX C
STATE FINANCIAL EDUCATION REQUIREMENTS

No Requirement	Requires personal finance incorporated into other subject matter	Requires at least a one-semester course devoted to personal finance
Alabama	Arizona	Missouri
Alaska	Colorado	Tennessee
Arkansas	Georgia	Utah
California	Idaho	Virginia
Connecticut	Illinois	
Delaware	Indiana	
Florida	Kansas	
Hawaii	Kentucky	
Iowa	Louisiana	
Maine	Nevada	
Maryland	New Hampshire	
Massachusetts	New Jersey	
Michigan	New York	
Minnesota	North Carolina	
Mississippi	Ohio	
Montana	Oklahoma	
Nebraska	South Carolina	
New Mexico	South Dakota	
North Dakota	Texas	
Oregon	West Virginia	
Pennsylvania		
Rhode Island		
Vermont		
Washington		
Wisconsin		
Wyoming		

Note: States in the “No Requirement” column are *non-mandate* states; states in the remaining two columns are *mandate* states. State financial education requirements were taken from <http://www.jumpstart.org/state-financial-education-requirements.html> in the fall of 2010.

APPENDIX D

HOW STUDENTS PLANNED TO USE FINANCIAL MANAGEMENT SKILLS IN NEXT SIX MONTHS.

Saving (general): Save money; Save my money & make better choices; Save more & compare prices; Save money and spend wisely; Save, save, save & buy stocks; Spend some money and save the rest, Save money in my checking account; Save, save, save, save, save, spend; Out of the money I make, I will save \$10 or less; Pay off debts & then save money; Get a job & save.

Saving (for a specific purpose): Save for a car; College; Christmas gifts; Auto insurance; Shoes; A hat; For prom and graduation; Save to get my own place; Save my money for something that I really want or need; Save for bad days; To establish myself in college; Save part of my check for future reference; Save for college and be able to get through on a personal budget; I plan to save my money to invest in a money market account to have as emergency money; To plan for a family trip to Europe or Israel; To save for my goals; Manage my money better and save for the future; Spend money to go out to eat while saving money for a new camcorder; Get a job & save my money for things I need not want.

Investing: Save, save, save & buy stocks; I plan to save my money to invest in a money market account to have as emergency money.

Tracking spending: Save money and spend wisely; By keeping up with my spending habits and budgeting my money; By tracking how I spend my money; Be more organized and keep track of my money; Track spending; Track expenses.

Budgeting: Pinch and spend wisely; I plan to make a budget & save my money for the future; Save for college and be able to get through on a personal budget; Budget; By keeping up with my spending habits and budgeting my money; Plan a better budget because I'll be graduating soon; Make a budget for my needs; Think about what I really need and not what I want; Get a job & plan a budget.

Spending: Get my own place; Spend all my money; Buy a car, Purchasing a car and insurance; Pay for college; Pay for rent and books for college; I plan to use my skills to buy a game system; Save, save, save, save, save, spend; I plan to use them when I plan to pay for college; Spend money to go out to eat while saving money for a new camcorder; Spend what I need to spend; Making goals for future spending; Plan to get a job and pay for my permit.

Borrowing: Pay off debts & learn to be better with money; Pay off debts & then save money; Pay my parents back; Pay off loans; To get a better credit card rate and higher interest rate on my savings account; To not be in debt; Get a job and stay away from credit cards; Plan not to get into debt by doing what we learned in this course; Get a job and stay away from credit cards.

Earning: Get a job and get a debit card; Get a job & plan a budget; Get a job & save; Get a job & save my money for things I need not want; Get a job and put money into a savings account regularly; Plan to get a job and pay for my permit; Get a job and stay away from credit cards; By working really hard to earn the money.

APPENDIX E
SPECIFICATION OF CONTENT OF CATEGORIES OF SUPPLEMENTAL TEACHING MATERIALS

Teacher/District Lessons: Teacher designed lessons; Self-developed curriculum; Created own class “Economics of Life”; District curriculum; Lessons on current issues; Self-designed marriage project; Lessons written by local committee, Added some advanced concepts; Practical YES Program; DO Program; Used in conjunction with finance class; Personal Finance program.

Textbooks: Intro to Business; Ford-Credit Drives America; Mathematics texts; Other finance worksheets; Economics texts; Media textbook materials; Personal Finance texts; Math worksheets; Financial Literacy text; Handouts; WISE Financial Literacy; State approved texts; Managing Your Personal Finances texts; Ernst & Young for Young Adults text; Addison-Wesley, Learning, Earning, & Investing text; Math with Business Applications text; Consumer Education and Economics text; Goals for Living Consumer Education Text; Dollars and Sense; Economic Education for Consumers; Confident Consumer text; Rich Dad Poor Dad book.

DVD/CD Materials: Virtual Economics CD; Videos; DVD Curriculum in Economics; Ramsey DVDs including Foundation in Personal Finance and Financial Peace; PBS credit video; PFP video; Financing Your Future.

Bank Materials: Members 1st Checking Account Simulation; Bank checking; County First Bank-How to do your banking; FDIC Thomson Southwestern Banking Systems WB, Basics of Savings & Investing; Bank materials; US Bank materials; FDIC plan.

Web Materials: H&R Block Computer Budgeting Simulation; Stock Market Game; The Griffith Insurance Education Online Curriculum; Income taxes- online forms; Moneyinstructor.com; Moneyshell.org; Thinking Economics; Moneyskill.org; Financial Freedom; Investing in Your Future; MoneySmarts; National Academy Foundation; Virtual Business; Practical Money Skills for Life; Financial Fitness for Life; Consumer Jungle.

Guest Speakers: Consumer credit counseling service presentations; University of Arizona lecturer; Intrust Bank speakers; Apartment manager on consumer counseling; Apartment manager; Guest speakers; Local Banking people; Insurance people.

Publications: Maps; Current Issues; IRS publications; Newspapers/Other publications.

Other: VISA; Invest; NYS; Junior Achievement; National Council on Economic Education; Forbes Stock Market unit; Money Savvy Generation materials; Leadership III; Career and Financial Management; State of Iowa Attorney General on identity theft.

APPENDIX F

TEACHER HSFPP RECOMMENDATION COMMENTS

Below are specific answers from teachers who added a comment about why they would recommend the use of the NEFE HSFPP to a colleague. The number in front of each comment is the teacher ID number. The comments have been categorized into two sections. The first lists reasons for recommending the HSFPP to a colleague. The second section lists comments teachers made about challenges they experienced teaching the HSFPP.

1. Reasons for Recommending HSFPP to a Colleague

- 1011 – Good information that is relevant for students, Easy to understand and easy to present.
- 1028 – Free and great information for students.
- 1030 – It is one of the best classes available to JROTC Instructors and cadets.
- 1045 – Excellent program. Need to add Tax component 1040EZ/W-4 forms/W-2 forms, Job applications 2 or 3.
- 1070 – It is easy to understand, effective, accurate, and is self contained.
- 1083 – It is comprehensive and easy to adapt to Ag Business. Best of all it is FREE!
- 1091 – Free materials. Good level of reading for school age students.
- 1102 – Very useful for our students.
- 1105 – It was a very good comprehensive program.
- 1145 – I had a very small senior class so it was intimate and we could have specific discussions. I need an Instructors manual.
- 1181 – I have already recommended as a great teaching resource.
- 1182 – Most parents are not teaching financial literacy (check writing, savings, investing, etc).
- 1236 – Great supplement students like to have their own workbook.
- 1294 – Content is appropriate for age group- easy to understand- some good activities accompany the program- no cost!
- 1318 – It's an interactive curriculum; easy to use; student friendly; relates to other courses; free materials.
- 1329 – Provides good starting point. Can be adjusted to rich school or poor school such as mine.
- 1332 – It is so needed!
- 1339 – Not a subject most of us stay current with so this helps when given this content to teach.
- 1357 – It is hands on and refers to things young individuals need to know in our times. No other class material explains to them how the checkbook works, the credit card system, and how interests can make or break them.
- 1359 – Not for math classes solely!
- 1360 – Excellent source for teens. Easy to read, understand, and apply. Thanks so much!
- 1398 – Well organized. I plan to use the program again next year if I teach the course.
- 1421 – Excellent source to present financial planning to high school students. Easy to understand.
- 1426 – Covers many aspects not available elsewhere.
- 1465 – It is important for high school students to understand the importance of financial planning.
- 1491 – It could be very helpful to college students just starting to use checkbooks and credit cards.

- 1511 – Very adoptable and useful for students. Gave students related projects and a final for them to show their knowledge and comprehension.
- 1520 – As a supplemental tool, yes.
- 1535 – The curriculum has a solid foundation for teaching the skills.
- 1544 – Ease in using curriculum and student involvement.
- 1558 – I think my group had very little financial background so they really couldn't use their own money situations.
- 1573 – Excellent!
- 1578 – It is very pertinent but I really miss the worksheets from the first version with crosswords and review sheets.
- 1585 – Excellent visuals.
- 1606 – I am moving to another school and have passed the materials over to a teacher with business background.
- 1618 – It puts everything together in one place. Cuts down on my workload.
- 1621 – Materials can be inserted or supplemental to other materials. Materials give students problems to work on.
- 1626 – I love the program. Thank you for providing it!
- 1634 – I think it is a very good program, but both years I have taught it, students are disinterested.
- 1658 – It is informative and easy to use.
- 1683 – Organized, complete materials; free is wonderful; student and teacher friendly.
- 1691 – Lots of good information, easy to understand lessons, I like most of the assignments.
- 1692 – Excellent materials.
- 1697 – Prepare HS students for their next chapter in education (college).
- 1710 – The booklets are the students' own. The facts inside are awesome. My students appreciated using the books.
- 1766 – It is basic enough for all level learners to understand and use. It gives student an excellent basic understanding about their finances.
- 1778 – Financial planning is absolutely essential in today's economic world.
- 1784 – Because it is a great tool for Financial math.
- 1820 – The materials easy for the students to understand and relate to their current situation.
- 1828 – Excellent guidelines! This is the first semester taught. I plan to incorporate more speakers next semester.
- 1830 – Great program. Kids found it to be helpful and interesting.
- 1863 – It is a great opportunity and learning experience for the students.
- 1872 – Thought the book was current and relevant. Great for a semester course.
- 1875 – Very comprehensive; teaches my students real life skills that they can use now or in the immediate future.
- 1876 – The subject matter is extremely relevant to HS students. It is a subject that every student should be introduced to.
- 1916 – The students enjoy having their own workbook, it's easy to use and understand.
- 1925 – Great program – kids need the material – free – material updated often.
- 1941 – Great book for students. Easy to use or adapt things with it.

- 1949 – Relevant to students!
- 1956 – Good curriculum up to date statistics (or close anyway), good price!
- 1970 – Thanks! Any good resources are appreciated. Great curriculum/resources.
- 1981 – It is concise and to the point.
- 1983 – I have already done so because I think students lack this education anywhere else.
- 1993 – Some questions on the Assessments are poorly written, or opinion rather than fact.
- 1996 – Program is easy to use and integrate into a current personal finance class.
- 2009 – Real life situations, financial planning is something everyone must deal with in their life.
- 2010 – Because they would take the curriculum and my class since I am an elective.
- 2011 – It is pretty good material and done in a fairly good way.
- 2020 – It has everything in the book that the state requires and plenty of things we can do projects over.
- 2031 – It is a great supplement to the district curriculum and gives students a hands-on approach to finance.
- 2071 – Excellent resources. Great substitute for textbook.
- 2076 – Easy to use, good for student to read, free, like website materials.
- 2078 – It's good basic information! You can always pull in more supplemental material.
- 2089 – I think it's an outstanding program and vital information for high school students.
- 2097 – This is an excellent curriculum provided free of charge!
- 2114 – Excellent info all students need to be exposed to and learn. A great resource and easy to use with teacher's manual and assignments and tests.
- 2117 – Easy to use and free.
- 2130 – Great content. Easy for HS students to understand.
- 2143 – Great program. Wish I could have been exposed to this or similar program in HS (1959).
- 2173 – Relevant life skills for students.
- 2205 – Excellent way to teach students finances!
- 2219 – Great materials, not costly.
- 2226 – But I would like to see it incorporated into various classes rather than just me teaching it.
- 2228 – Terrific resource that covers suitable topics in an easy to understand format.
- 2247 – Material is at student's level. I wish there was data supplied for activities. I create my own credit unit.
- 2264 – Cost, ease of use, relevance.
- 2267 – The information is presented in very easy-to-read language.
- 2286 – Easy to understand and content is simple-good for freshmen.
- 2318 – Easy to use, comprehensive, lends itself to supplemental material.
- 2359 – Its free, interesting, engaging, and informative. I wish someone would have taught me this!
- 2371 – All students need to be financially literate.
- 2386 – The information is helpful. It is addition to regular curriculum. Each student has his/her personal book.
- 2396 – It is age appropriate, easy to use, and contains very useful information for teenagers.
- 2412 – It is so in tune with high school kids.
- 2425 – Because of its comprehensiveness and the students like it.
- 2445 – Very high school relevant. Rigor is good for a baseline with flexibility to add to it.

- 2454 – Supplemental.
- 2476 – It covers many major aspects of financial planning and includes assignments and tests.
- 2504 – Concise, informative. It’s interactive if using the website. It’s realistic and has good examples.
- 2516 – I found all materials very helpful. I did need additional resources since the course was taught for an entire semester.
- 2530 – It offers a hands on approach to personal financial planning for the students.
- 2541 – The games appeal to the students and the course is a good preparation for financial planning.
- 2546 – It is already developed and so the guess work is removed. The workbooks are free.
- 2564 – Although students have a workbook hang-up—I was able to supplement many other activities that were engaging so that when we returned to the workbook they participated well.
- 2585 – Excellent materials for HS students, very much appreciated.
- 2615 – Very student oriented and student friendly.
- 2642 – I like simplicity of the “old” NEFE good at changing attitude.
- 2649 – Good material, although, it is a little simplistic for high school.
- 2674 – “Real world” applications with information geared toward financial success. Enjoy teaching this program very much.
- 2680 – Creates a basic financial literacy foundation for all students!
- 2691 – Hits basic financial concepts; improved greatly since last time I used it with online access and activities. FREE! Can adapt/expand on concepts.
- 2730 – Very adaptable.
- 2739 – It’s very good especially for a school just starting a program. GREAT that it’s free!
- 2751 – This is what every kid needs to learn in high school.
- 2762 – I appreciate the program and have recommended it.
- 2770 – Excellent source for personal finance.
- 2793 – Great program, a lot of valuable resources.
- 2797 – It provides students with higher order thinking skills activities.
- 2808 – The material is student friendly, on a high school level. It is easy to follow and easy to read. The material also covers many of the state standards for personal finance. It’s also great that students can write in their books.
- 2810 – Provides quality information in easily used format; the price is right.
- 2879 – Free materials; excellent material; excellent additional sources, relevant to what needs to be taught.
- 2883 – Teachers need supplemental exercises to complement a boring text book.
- 2908 – Great program.
- 2911 – Great info. Everyone needs to have
- 2921 – We will be using this as a part of our curriculum next year in Money Matters!
- 2935 – The program captured student interest and promoted class discussion, leading to a high level of student understanding and retention of content.
- 2960 – It provides great amount of knowledge of financial planning.
- 2992 – Great and accurate information!
- 2996 – Very good presentation of financial education to high school students.
- 3009 – Easy format, relevant topics.
- 3021 – Great info. Easy to use.

- 3026 – NEFE is absolutely one of the very best resources that I have had the pleasure and honor to use. The kids are the real beneficiaries!! We streamline and use most of the material.
- 3036 – I am planning to continue the use of some of this program in my management class next semester because we did not have time to complete it.
- 3040 – Great start for young people to think about their future.
- 3089 – FREE.
- 3115 – It is an excellent resource, and when used at the proper time, a great source for economics and life lessons. Thank you.
- 3159 – The price is right. Good comprehensive information.
- 3189 – I have and they love it! I need to order for next year. 120 books.
- 3196 – Because promoting financial literacy education is a huge priority for me. Our country's future depends on citizens making good decisions.
- 3213 – Great info!
- 3215 – It makes most students think about themselves.
- 3217 – Easy to use for the most part, comprehensive, complementary.
- 3227 – Materials are free. They are adaptable to many courses.
- 3244 – It has very relevant info. I mostly use it as an additional resource.
- 3259 – Covers many areas of personal finance and has excellent materials to use entirely or in part.
- 3269 – Covers all needed topics and works well for students.
- 3272 – Free! Adaptable curriculum.

2. Challenges Experienced in Teaching HSFPP

- 1255 – It is a great resource-comprehensive and easy to use. However, if I did it again I would reorder the content. E.g. I think they would get much more out of financial planning if they had more basic knowledge.
- 1287 – Only if they had no other materials- students HATED books and found them juvenile.
- 1298 – I like this program, but it requires a lot of time on my part to develop activities/assignments.
- 1366 – Tests could be better suited for students. Less confusing directions.
- 1496 – With more confidence after another year.
- 1501 – Students found it boring. Not enough interaction/activities. Hard to match PowerPoints w/workbook.
- 1565 – Not enough math.
- 1567 – Easy to use, good overview of important topics (one disadvantage: many students didn't have a lot of personal financial history so some activities were hard to adopt).
- 2221 – Our school is small rural school in very small community. Many students don't have jobs and can't relate to a lot of the activities and show no interest in subject.
- 2304 – But as a supplement. I took many sources for topics students got bored with one book!!
- 2561 – The only real problem I had was trying to do the individual projects/assessments. As freshmen – most of my students did not even try to think about their own personal situation much less make a budget and stick to it. I gave up on those assignments EARLY in the semester.
- 2625 – Solid material! More concern should be given for students who don't work or have income to do the worksheets.
- 2734 – It is a great resource and building block for my lessons. The website needs improved add more student activities/projects.

APPENDIX G

TECHNICAL DESCRIPTION OF HLM ANALYSES

Students' Behavior after Studying the HSFPP

At Level-1, students' behavior scores after studying the HSFPP were modeled within classroom, adjusting for behavior scores before studying the HSFPP, gender, grade level (senior, junior, or lower), employment status, and average amount of money spent per week (with log transformation to normalize the distribution).

$$TotSinceBeh_{ij} = \beta_{0j} + \beta_{1j}(TotBeforeBeh)_{ij} + \beta_{2j}(Gender)_{ij} + \beta_{3j}(Junior)_{ij} + \beta_{4j}(Senior)_{ij} + \beta_{5j}(Employment)_{ij} + \beta_{6j}(LogSpending)_{ij} + r_{ij},$$

where β_{0j} is the estimate of the true classroom mean of students' behavior scores after studying the HSFPP (TotSinceBeh), controlling for pre-test (TotBeforeBeh), gender, grade (Junior and Senior), employment, and spending differences among classrooms; the individual student residual is normally distributed with a mean of zero and a constant variance, $r_{ij} \sim N(0, \sigma^2)$. Level-1 variables were group-mean centered to facilitate interpretation of the intercept β_{0j} as the average classroom behavior score after studying the HSFPP.

At Level-2, the classroom mean (β_{0j}) was modeled as a function of teacher or classroom characteristics and teacher use of competency-based aspects of the HSFPP.

$$\beta_{0j} = \gamma_{00} + \gamma_{01}(NEFEOnly)_j + \gamma_{02}(Confidence)_j + \gamma_{03}(PropEthnicity)_j + \gamma_{04}(PropGender)_j + \gamma_{05}(PropRural)_j + \gamma_{06}(PropSenior)_j + \gamma_{07}(PropJunior)_j + \gamma_{08}(ACLogSpending)_j + \gamma_{09}(PropNEFEOnly)_j + \gamma_{0,10}(ACTotBeforeBeh)_j + \gamma_{0,11}(Scoring)_j^* + u_{0j},$$

$$*or \gamma_{0,11}(A1)_j + \gamma_{0,12}(A2)_j + \gamma_{0,13}(A3)_j + \gamma_{0,14}(A4)_j + \gamma_{0,15}(A5)_j + \gamma_{0,16}(A6)_j + \gamma_{0,17}(A7)_j;$$

$$or \gamma_{0,11}(Assess1)_j + \gamma_{0,12}(Assess2)_j + \gamma_{0,13}(Assess3)_j + \gamma_{0,14}(Assess4)_j + \gamma_{0,15}(Assess5)_j + \gamma_{0,16}(Assess6)_j + \gamma_{0,17}(Assess7)_j$$

where γ_{00} is the grand mean outcome in the population, adjusted for classroom differences in whether NEFE's HSFPP was used alone by teachers, teacher confidence, proportion of ethnic minority students, proportion of female students, proportion of rural students, proportion of senior students, proportion of junior students, average amount of money students spent in one week, proportion of teachers who used the NEFE HSFPP only, students' average behavior before studying the HSFPP, and teachers' use of either the HSFPP scoring, activities, or assessments; where u_{0j} is the random effect associated with each classroom and $u_{0j} \sim N(0, \tau_{00})$. Level-2 variables were grand-mean centered.

Students' Knowledge after Studying the HSFPP

At Level-1, students' knowledge scores after studying the HSFPP were modeled within classroom, adjusting for knowledge scores before studying the HSFPP, ethnicity, gender, hometown size (Rural), and grade (Junior and Senior).

$$TotSinceKnow_{ij} = \beta_{0j} + \beta_{1j} (TotBeforeKnow)_{ij} + \beta_{2j} (Ethnicity)_{ij} + \beta_{3j} (Gender)_{ij} + \beta_{4j} (Rural)_{ij} + \beta_{5j} (Junior)_{ij} + \beta_{6j} (Senior)_{ij} + r_{ij},$$

where β_{0j} is the estimate of the true classroom mean of students' knowledge scores after studying the HSFPP, controlling for pre-test (TotBeforeKnow), ethnicity, gender, hometown size (Rural), and grade (Junior and Senior); the individual student residual is normally distributed with a mean of zero and a constant variance, $r_{ij} \sim N(0, \sigma^2)$. Level-1 variables were group-mean centered to facilitate interpretation of the intercept β_{0j} as the average classroom knowledge score after studying the HSFPP.

At Level-2, the classroom mean (β_{0j}) was modeled as a function of teacher or classroom characteristics and teacher use of competency-based aspects of the HSFPP.

$$\begin{aligned} \beta_{0j} = & \gamma_{00} + \gamma_{01}(\text{Confidence})_j + \gamma_{02}(\text{PropEthnicity})_j + \gamma_{03}(\text{ACTotBeforeKnow})_j + \\ & \gamma_{04}(\text{PropGender})_j + \gamma_{05}(\text{PropRural})_j + \gamma_{06}(\text{PropSenior})_j + \gamma_{07}(\text{PropJunior})_j + \\ & \gamma_{08}(\text{Scoring})_j^* + u_{0j}, \\ & \text{*or } \gamma_{08}(\text{A1})_j + \gamma_{09}(\text{A2})_j + \gamma_{0,10}(\text{A3})_j + \gamma_{0,11}(\text{A4})_j + \gamma_{0,12}(\text{A5})_j + \gamma_{0,13}(\text{A6})_j + \gamma_{0,14}(\text{A7})_j; \\ & \text{or } \gamma_{08}(\text{Assess1})_j + \gamma_{09}(\text{Assess2})_j + \gamma_{0,10}(\text{Assess3})_j + \gamma_{0,11}(\text{Assess4})_j + \gamma_{0,12}(\text{Assess5})_j + \\ & \gamma_{0,13}(\text{Assess6})_j + \gamma_{0,14}(\text{Assess7})_j \end{aligned}$$

where γ_{00} is the grand mean outcome in the population, adjusted for classroom differences in teacher confidence, proportion of ethnic minority students, average knowledge before studying the HSFPP, proportion of female students, proportion of rural students, proportion of senior students, proportion of junior students, and teachers' use of either the HSFPP scoring, activities, or assessments; where u_{0j} is the random effect associated with each classroom and $u_{0j} \sim N(0, \tau_{00})$. Level-2 variables were grand-mean centered.

HLM (Raudenbush & Bryk, 2002; Raudenbush, Bryk, & Congdon, 2004) was used for all hierarchical analyses. SPSS was used to conduct other analyses.

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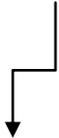
Case ID

Teacher Participation Form
NEFE High School Financial Planning Program
2009

Please complete each item below by circling the appropriate number(s) or recording the information requested.

1. Do you plan to teach the NEFE High School Financial Planning Program curriculum in your classroom between now and January 31, 2010?

1 = No
2 = Yes



2. Did you order the materials for someone else to use?
1 = No
2 = Yes
3. How many other teachers will use the NEFE materials you ordered? _____

4. How many of your students will use the NEFE High School Financial Planning Program between now and January 31, 2010? _____ students

5. What is the approximate ending date of your use of the NEFE materials? _____ / _____
Month Day

6. How did you find out about the NEFE High School Financial Planning Program? Circle all that apply.
1 = Another teacher
2 = Newsletter
3 = Cooperative Extension Service
4 = Attended a training
5 = Credit Union contact
6 = National Endowment for Financial Education
7 = Junior ROTC
8 = Other (Please specify) _____

7. Are you willing to participate in this evaluation of the NEFE High School Financial Planning Program?
1 = No
2 = Yes

8. Who should we contact to learn about any requirements at your school or district for including your students in the High School Financial Planning Program evaluation?

Name: _____ Position: _____

E-mail: _____ Phone: _____

9. Our records show the following contact information for you at your school. Please record any missing information and make corrections as appropriate.

Your Name: <<Teacher Name>>
Your School: <<School Name>>
School Address: <<School Address>>
Your E-mail: <<Teacher email>>

Thank you for completing this survey. Please return it in the envelope provided or mail to:
Iowa State University Center for Survey Statistics and Methodology
2625 North Loop Drive, Suite 2140
Ames, IA 50010-8615

3. Please circle the number on the scale below that best indicates how strongly you disagree or agree with the following statements:

Since studying financial planning:

	<u>Strongly Disagree</u>	<u>Neutral</u>	<u>Strongly Agree</u>
a. I know key questions to ask when shopping for auto insurance	1	2 3 4	5
b. I think about how much I need the things I buy	1	2 3 4	5
c. I am careful to protect my personal information from being stolen.....	1	2 3 4	5
d. I know that paying off debt quickly means I pay less interest	1	2 3 4	5
e. I understand why a credit rating is important.....	1	2 3 4	5
f. I know what I do for a career will affect how much money I will have to meet my goals.	1	2 3 4	5
g. I understand how debit cards work.....	1	2 3 4	5
h. I understand how checking accounts work.....	1	2 3 4	5

Before studying financial planning:

	<u>Strongly Disagree</u>	<u>Neutral</u>	<u>Strongly Agree</u>
i. I knew key questions to ask when shopping for auto insurance	1	2 3 4	5
j. I thought about how much I needed the things I bought	1	2 3 4	5
k. I was careful to protect my personal information from being stolen.....	1	2 3 4	5
l. I knew that paying off debt quickly means I pay less interest	1	2 3 4	5
m. I understood why a credit rating is important	1	2 3 4	5
n. I knew what I did for a career would affect how much money I will have to meet my goals.	1	2 3 4	5
o. I understood how debit cards work	1	2 3 4	5
p. I understood how checking accounts work.....	1	2 3 4	5

4. Circle all of the following that you own in your own name.

- | | |
|--|------------------------|
| 1 = Car or truck | 6 = Checking account |
| 2 = Motorcycle | 7 = Savings account |
| 3 = Credit card | 8 = Investment account |
| 4 = Loan | 9 = None of these |
| 5 = Recreational vehicle (ATV, snowmobile, etc.) | |

5a. Do you have a cell phone?

- 1 = Yes →
2 = No



b. Who pays for your cell phone?

- 1 = I pay
2 = My parents pay
[Go to Question 6a]

6a. Do you receive an allowance?

- 1 = Yes →
2 = No



b. What is your weekly allowance?

\$ _____
[Go to Question 7]

7. How much money do your parents/guardians give you on an "as needed" basis in an average week?

\$ _____ per week

8. Do you have a part-time job(s), where you receive a regular paycheck?

- 1 = Yes [Go to Question 9] 2 = No [Go to Question 11]



9. On average, how many hours a week do you work at your regular job(s) during the school year?

_____ Hours/week

10. How much money do you take home from this job(s) in an average week? (This is the money you earn after all deductions like taxes are taken out. If you are not paid weekly, please estimate what your weekly take-home pay would be.)

\$ _____ per week

11. Do you ever earn money from other jobs such as babysitting, lawn care, snow shoveling, cleaning house, or pet care?

- 1 = Yes [Go to Question 12] 2 = No [Go to Question 13]



12. How much money do you earn from these types of jobs in an average week?

\$ _____ per week

13. How much money do you personally save in an average week?

\$ _____ per week

14. How much money do you spend in an average week?

\$ _____ per week

15a. Currently do you have any debts or bills to pay?

(Include money you owe friends and family as well as outside creditors.)

- 1 = Yes →
2 = No

b. How much do you owe your creditors, friends and family? \$ _____ owed

[Go to Question 16, next page]

14. Which of the following materials did you use in teaching the curriculum? Please circle all that apply.

- 1 = Instructor's Manual 3 = NEFE websites
 2 = Student Guides 4 = Data CD
 5 = Other web resources: _____

15. How often did you use the scoring criteria in the teacher's manual to evaluate student assignments?

- | | | | | |
|--------------|---|------------------|---|-------------------|
| <u>Never</u> | | <u>Sometimes</u> | | <u>Very Often</u> |
| 1 | 2 | 3 | 4 | 5 |

16. Have you attended a training or in-service that introduced or focused on the NEFE High School Financial Planning Program curriculum?

- 1 = Yes 2 = No [Go to Question 18]



17. Who provided the training?

- 1 = School district
 2 = Cooperative Extension educators
 3 = Credit Union/Credit Union League
 4 = Don't know
 5 = Other : _____

18. Including this school year, about how many years have you taught the NEFE High School Financial Planning program? _____ years

19. Would you recommend the use of the NEFE High School Financial Planning Program to a colleague?

- 1 = Yes 2 = No

Why / Why not? _____

Thank you for completing this survey.

Please return it along with any completed Student Evaluations in the envelope provided to:

**Iowa State University Center for Survey Statistics and Methodology
 2625 North Loop Drive, Suite 2140
 Ames, IA 50010-8615**

NEFE High School Financial Planning Program Teacher Evaluation

1. How many students received a copy of the NEFE Student Evaluation survey? # _____

2. What is/was the ending date of your use of the curriculum with these students? _____ / _____
month day

3. Approximately how many class hours did you use to teach the NEFE Financial Planning Program? # _____

4. Over what period of time did you teach the material? Circle the answer that best reflects the time period used.

- | | |
|----------------------|----------------------|
| 1 = Less than 1 week | 4 = 4 to 6 weeks |
| 2 = 1 week | 5 = 7 to 9 weeks |
| 3 = 2 to 3 weeks | 6 = 10 weeks or more |

5. What is the grade level of the students who were taught the NEFE curriculum Please circle all that apply.

- 9th 10th 11th 12th

Other: _____

6. Which best describes your curriculum work area? Circle one area.

- 1 = Family and Consumer Science/Home Economics
 2 = Economics
 3 = Personal Finance
 4 = Consumer Mathematics/Mathematics
 5 = Vocational Education
 6 = Business
 7 = Junior ROTC
 8 = Other: _____

7a. Was the NEFE High School Financial Planning curriculum the only curriculum you used to teach personal finance?

- 1 = Yes
 2 = No → 7b. What others did you use? (Please specify below.)

8. For each curriculum unit listed below, please indicate whether you taught that unit and whether you used a guest instructor when you taught the unit.

Unit number and name	Taught this unit?		Used a guest instructor?	
	Yes	No	Yes	No
1. Your Financial Plan	1	2	1	2
2. Budgeting	1	2	1	2
3. Investing	1	2	1	2
4. Credit	1	2	1	2
5. Financial Services	1	2	1	2
6. Insurance	1	2	1	2
7. Your Career	1	2	1	2

9. Which of the following guest instructors did you use? Circle all that apply.

- 1 = None
- 2 = Extension educator
- 3 = Credit Union professional
- 4 = Junior Achievement Volunteer
- 5 = Banking professional
- 6 = Stock broker
- 7 = Insurance agent
- 8 = Financial Planner
- 9 = Other : _____

10. For each student activity below, please check whether students used their personal data or whether data was provided for them. If both data types were used, check both. Check “did not use” if students did not complete the activity. Student guide pages for activities are in parentheses.

Student Activity	Personal Data	Data Provided	Did not use
1. Smart Goals (p. 7)	_____	_____	_____
2. Personal Spending Log (p. 8)	_____	_____	_____
3. Personal Financial Plan (p. 14)	_____	_____	_____
4. Personal Budget (p. 26)	_____	_____	_____
5. Loan Application (p. 48)	_____	_____	_____
6. Rate Your Work Skills (p. 98)	_____	_____	_____
7. Entry Level Job Skills (p. 99)	_____	_____	_____

11. Which of the end-of-unit assessments did your students complete?

Unit assessments	Completed?	
	Yes	No
Unit 1. Development of a personal financial plan	1	2
Unit 2. Development of a personal budget	1	2
Unit 3. Development of an investing plan	1	2
Unit 4. Identification of strategies to manage credit	1	2
Unit 5. Demonstration of how to use financial services	1	2
Unit 6. Development of a personal insurance plan	1	2
Unit 7. Identification of career options that match personal goals	1	2

12. Please evaluate the quality of the NEFE High School Financial Planning curriculum on each of these criteria by circling the scale number.

	Poor	Average	Excellent
a. Comprehensive coverage of topics.....	1	2 3 4	5
b. Adaptable to many high school subjects.....	1	2 3 4	5
c. Adaptable to a wide range of students.....	1	2 3 4	5
d. Experiential student guide exercises.....	1	2 3 4	5
e. Experiential assignments.....	1	2 3 4	5
f. Experiential assessments.....	1	2 3 4	5
g. Appealing Student Guide design.....	1	2 3 4	5
h. Appealing Student Guide writing style.....	1	2 3 4	5
i. Flexibility of time required.....	1	2 3 4	5
j. Other: _____	1	2 3 4	5

13. For each item below, please circle the number that best indicates how satisfied you are with the following aspects of the curriculum.

	Very Dissatisfied	Mixed	Very Satisfied
a. Ease of use of the curriculum.....	1	2 3 4	5
b. Quality of content of the curriculum.....	1	2 3 4	5
c. Relevance of the curriculum for your students.....	1	2 3 4	5
d. Interest of the students in content.....	1	2 3 4	5
e. Your confidence in teaching the content.....	1	2 3 4	5
f. Available at no charge.....	1	2 3 4	5
g. Increased students' knowledge of finance.....	1	2 3 4	5
h. Students could practice personal finance skills.....	1	2 3 4	5

10. We would like to know what you have bought since taking the financial planning class, whether you borrowed money for it, and, if you did borrow, from whom you borrowed it (family, friends, bank, credit union, etc.). Please answer each part of the question.

	Purchased it since the class?		Borrowed money for it?		Borrowed from whom?
	Yes	No	Yes	No	
a. Computer	1	2	1	2	
b. Car/Truck	1	2	1	2	
c. Motorcycle	1	2	1	2	
d. Cell phone	1	2	1	2	
e. DVD player	1	2	1	2	
f. TV	1	2	1	2	
g. IPOD, MP3 player	1	2	1	2	
h. Game systems	1	2	1	2	
i. Other _____	1	2	1	2	

11. What did you find **most** useful about the NEFE High School Financial Planning Program? _____

12. What did you find **least** useful about the NEFE High School Financial Planning Program? _____

Thank you for completing this survey.

Please return it in the envelope provided to:

**Iowa State University Center for Survey Statistics and Methodology
2625 N. Loop Drive, Suite 2140 Ames, IA 50010-8615**

You will be eligible to win one of fifty \$25 gift cards!

Teacher #:

**NEFE High School
Financial Planning Program
Student Evaluation – Follow-Up Survey**

In the last few months, you studied financial planning using the NEFE High School Financial Planning Program.® We would like to find out what kind of things you have done as a result of studying this information. Please answer all questions as completely as possible.

1. For each item below, please circle the scale number that best indicates how often you have done the activities since completing the financial planning class.

<u>Since studying financial planning:</u>	<u>Almost Never</u>	<u>Almost Always</u>
a. I track where I am spending my money	1 2 3 4 5	
b. I look for the best prices for things I buy	1 2 3 4 5	
c. I save money for future needs	1 2 3 4 5	
d. I have a plan for spending my money	1 2 3 4 5	
e. I repay the money I owe on time	1 2 3 4 5	
f. I make savings goals for certain things I want	1 2 3 4 5	
g. I am better able to manage my money	1 2 3 4 5	
h. I discuss money matters with my family	1 2 3 4 5	
i. I feel confident about making money decisions	1 2 3 4 5	

2. Please circle the number on the scale below that best indicates how strongly you disagree or agree with the following statements:

<u>Since studying financial planning:</u>	<u>Strongly Disagree</u>	<u>Neutral</u>	<u>Strongly Agree</u>
a. I know key questions to ask when shopping for auto insurance	1 2 3 4 5		
b. I think about how much I need the things I buy	1 2 3 4 5		
c. I am careful to protect my personal information from being stolen.	1 2 3 4 5		
d. I know that paying off debt quickly means I pay less interest	1 2 3 4 5		
e. I understand why a credit rating is important	1 2 3 4 5		
f. I know what I do for a career will affect how much money I will have to meet my goals.	1 2 3 4 5		
g. I understand how debit cards work	1 2 3 4 5		
h. I understand how checking accounts work	1 2 3 4 5		

3. What is the most important thing you have done with your money as a result of studying financial planning? _____

4. We would like to know whether the NEFE High School Financial Planning Program has affected the way you make decisions about spending money.

For each item below, please circle the number on the scale that best indicates how often you have done the following

- since studying financial planning:**
- | | Almost
Never | | | | | |
|--|-------------------------|---|---|---|---|--|
| a. I make decisions on what I believe I can afford | 1 | 2 | 3 | 4 | 5 | |
| b. I am willing to wait a period of time to buy something I want rather than charge it | 1 | 2 | 3 | 4 | 5 | |
| c. I am willing to wait a period of time to buy something I need rather than charge it..... | 1 | 2 | 3 | 4 | 5 | |

How often did you do the following **before studying financial planning:**

	Almost Never					
--	-------------------------	--	--	--	--	--

- | | | | | | |
|---|---|---|---|---|---|
| d. I made decisions on what I believed I could afford..... | 1 | 2 | 3 | 4 | 5 |
| e. I was willing to wait a period of time to buy something I wanted rather than charge it..... | 1 | 2 | 3 | 4 | 5 |
| f. I was willing to wait a period of time to buy something I needed rather than charge it..... | 1 | 2 | 3 | 4 | 5 |

5a. Have you changed your **spending habits** as a result of studying financial planning?

1 = Yes 2 = No [Go to Question 6a]



5b. How have you changed your spending habits as a result of studying financial planning? _____

6a. Have you changed your **savings habits** as a result of studying financial planning?

1 = Yes 2 = No [Go to Question 7]



6b. How have you changed your savings habits as a result of studying financial planning? _____

7. Which one of the following best describes how you decide how much money to save?

[CIRCLE ONE ITEM ONLY.]

- 1 = I have no source of money, so I don't save any.
- 2 = I have a source of money, but I don't save money regularly.
- 3 = I decide on a specific percent or amount of my earnings to save (for no specific length of time).
- 4 = I usually save only when there is a specific purchase I want to make.
- 5 = My parents require me to save a specific percent or certain amount of my earnings/gifts.
- 6 = My parents and I decide together how I will handle saving money.

8. Have you shared any of the concepts you learned in the NEFE High School Financial Planning Program with your family and/or friends?

1 = Yes 2 = No [Go to Question 10]



9. What is the concept you've shared most often with family or friends?

[CIRCLE ONE ITEM ONLY]

- | | |
|--------------------------------|-------------------------------------|
| 1 = Pay Yourself First (PYF) | 7 = Insurance: Risk exposures |
| 2 = Credit & Debt | 8 = Career choices |
| 3 = Budgeting | 9 = Checking accounts & debit cards |
| 4 = Compounding Interest | 10 = SMART goals |
| 5 = Financial Planning Process | 11 = Other (Please explain)_____ |
| 6 = Investing & Saving | _____ |