

National Endowment for Financial Education

# High School Financial Planning Program

2007 Curriculum Evaluation

A Study of Reported Learning and Behavior Outcomes  
Associated with NEFE's Financial Competency-Based Curriculum  
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## Introduction

For nearly 30 years, the National Endowment for Financial Education® (NEFE®) has provided teachers the NEFE High School Financial Planning Program® (HSFPP), a curriculum designed to teach teenagers about money management financial constructs (like credit ratings) and concepts (such as “pay yourself first”). While the principles that inform the curriculum are the consistent, accepted fundamentals of personal finance, NEFE periodically updates details in the materials to reflect consumer trends, contemporary society, and program user feedback. Since 1984, the program has reached more than 7.8 million students in all 50 states and the District of Columbia and at U.S. military installations around the globe.

NEFE contracted Sharon M. Danes, Ph.D., professor and family economist in the College of Education and Human Development at the University of Minnesota, to lead research that would evaluate the use of the HSFPP across the United States during the 2009/2010 school year. This study is part of a routine program evaluation following curriculum updates after each new version of the curriculum has been

used by teachers across the country for at least two years. NEFE completed previous evaluations in 1998 and 2004. For this study, Danes and her colleagues examined student learning, behavior, and confidence before and after their engagement with the curriculum as well as instructors’ evaluations of the curriculum.

Data from the study shows that students who completed the HSFPP reported significant improvement in their financial knowledge, behaviors, and confidence both immediately after as well as three months after completing the HSFPP.

This summary provides key information and findings from the full report, which is available online. Visit [www.nefe.org](http://www.nefe.org) and click High School Program.

# About the Study

## Survey Samples

To achieve a large sample, researchers developed a list of every teacher who requested the HSFP curriculum throughout eight months in 2009. From that pool, researchers sent a survey to each teacher to determine who would be completing curriculum instruction during the study timeframe and whose school agreed to participate. Ultimately 212 teachers and 4,794 high school students from across the United States completed surveys, giving researchers both baseline data and data gathered

for the period immediately following completion of the curriculum. Three months later, researchers sent a follow-up survey to students to explore lasting impact of the curriculum, a process that resulted in 381 completed surveys. Researchers also surveyed teachers about their use of and opinions about the curriculum, their confidence in teaching the subject matter, and their experience and professional background.

*See appendix for additional methodology information.*

“The subject matter is extremely relevant to HS students. It is a subject that every student should be introduced to.”

— Teacher assessment of the HSFP

## Student Characteristics

Because of the size of the study sample, a wide range of demographics were represented among the students studying the HSFP:

- The original sample had approximately equal numbers of males and females, mostly juniors and seniors.
- Slightly more than half were Caucasian, with Hispanic and African American students making up another 35 percent.
- Fifty-eight percent lived in rural areas or small towns or on farms.
- Thirty-three percent of the students reported working part-time. Most worked or earned income from “odd jobs.”
- Three-fourths reported receiving “as needed” money from their parents, averaging \$24 a week.

Approximately half of the students in the study were male, half female; all were in high school and two-thirds were seniors or juniors.



### Student Characteristics

Researchers could not reach all students for the follow-up survey after three months, and not all contacted students responded. The students who did supply follow-up data (a subset of the original sample) were statistically lower earners and spenders compared to averages for the original sample but were also better savers. They also showed greater gains in financial knowledge immediately following their work with the HSFPF.

*See appendix for full student sample characteristics.*

### Survey Questions

Students were asked to answer questions on financial knowledge and behaviors, confidence in their financial decision making, their spending patterns, and purchases.

Teachers were asked to evaluate the relevance, quality, and adaptability of the curriculum, their satisfaction with it, and their confidence in teaching the program.

For the student surveys, researchers used the “post-then-pre” study design, a method used in social science for situations in which respondents initially may not have enough information to accurately judge their own knowledge, skills and perspectives.

For example, a person may think he knows much about food safety. He



might rate his knowledge a four out of five. However, if he took a food safety class and learned the proper temperature for frozen vegetables and how to safely disinfect a kitchen counter, he might realize he knew relatively little to start with. Looking back with a perspective informed by more knowledge, he might feel he should have originally rated his knowledge lower, at a two or three.

Using the “post-then-pre” method, researchers did not survey students before the HSFPF curriculum to establish baseline data. Instead, after the program, students first rated their

knowledge, behaviors, and confidence. The survey then asked students to answer the same questions relative to the time before they started the program.

Most questions asked respondents to score themselves or the curriculum on five-point Likert scales. For example, students rated their behaviors in five-point ranges from “almost never” (value = 1) to “almost always” (value = 5). Note that all findings related to student knowledge, behavior, and confidence are based on self-assessments and self-reports.

*See appendix for survey questions.*

# Key Findings

Improvement in  
**20 MEASURES**  
of knowledge, behavior,  
and confidence

For the sample overall, the study reveals a number of positive findings and implications for improvements, including these six outstanding achievements:

- Following their work with the HSFP curriculum, students reported improvement on all 20 data points related to financial knowledge, behaviors, and confidence.
- All but one of the gains persisted or increased in reporting gathered via a follow-up survey three months following the HSFP coursework.
- At that point, more than 70 percent of students had improved saving behaviors; an equal segment had improved spending behaviors.
- Students showed gain in financial knowledge and behaviors regardless of levels reported when entering the program.
- In a follow-up survey, three out of four students reported sharing what they had learned with family and/or friends.
- Finally, 97 percent of instructors said they would recommend the HSFP to colleagues.



[ **3** out of **4** students shared what they had learned with family or friends. ]



“ It is basic enough for all-level learners to understand and use. It gives student an excellent basic understanding about their finances. ”

— Teacher assessment of the HSFPF

## FINDINGS: Student Knowledge and Behavior Gains

### Financial Knowledge

A key objective of this study was to document students' financial knowledge before the HSFPF curriculum and how knowledge levels changed after.

Researchers gave students questions on seven financial concepts, such as “I know that paying off debt quickly means I pay less interest.” Students then indicated how much they agreed or disagreed, indicating their understanding for each concept.

### Baseline Knowledge

Students in the study felt they had moderate financial knowledge before engaging with the HSFPF curriculum:

- More than half indicated they had understood that career choices affect income, the most widely understood concept.
- Less than half said they had understood checking accounts, debit cards, and credit ratings; thought about how much they needed the things they bought; or knew that paying off debt quickly means paying less interest.
- Students indicated the least amount of prior knowledge related to credit ratings (34 percent) and shopping for auto insurance (54 percent).

### Change in Knowledge after Studying the HSFP

Researchers also asked students about their knowledge and understanding of the same concepts once they had concluded the HSFP curriculum.

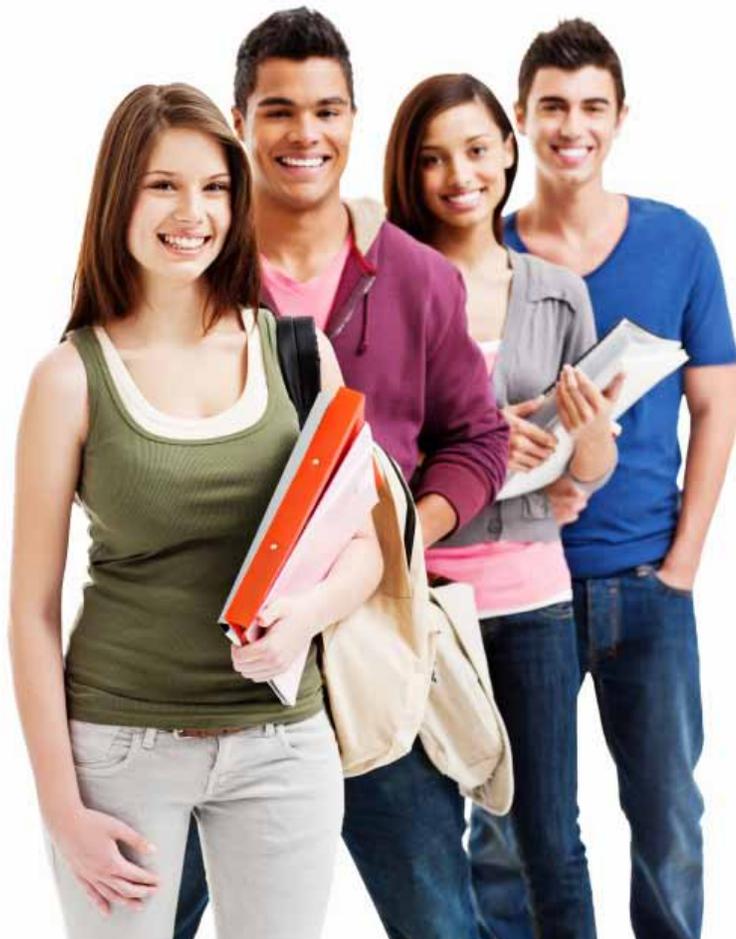
#### Responses immediately after studying the HSFP showed:

- Students reported statistically significant increases in the level of understanding for each measure of financial knowledge.
- Half or more of the students reported knowledge gains for every measure.

#### Follow-up surveys three months later showed:

- Only one knowledge gap persisted (specific to auto insurance).
- Students reported statistically significant gains for five of the seven measures.
- Most students (ranging from approximately 60 to 75 percent) indicated they understood the importance of credit ratings, how checking accounts and debit cards work, the value of paying debts quickly, and that careers impact income (a rating of “4” or “5”).

This study also included statistical analysis of relationships among multiple variables. Based on these analyses, researchers found that controlling for factors such as prior knowledge or student demographics, instructors’ confidence in teaching financial topics correlated with higher levels of student knowledge at the end of the HSFP coursework.



Teacher  
**CONFIDENCE**  
was linked to  
greater student  
**KNOWLEDGE**



“ I bought a car, and now I budget money out for gas each month. ”

— Student quote after the HSFP

### Financial Behaviors

This research and many other studies suggest that knowledge and behavior are related but not linked. Often, individuals' actions do not reflect their knowledge. For that reason, many see behavior change as the true measure of the impact of education.

Because the HSFP is a competency-based curriculum, understanding impact on behavior was among NEFE's key objectives for the curriculum evaluation. To that end, researchers gave students questions on nine behaviors related to personal finance

and spending, such as “I track where I spend my money” and “I am willing to wait for something I want rather than charge it.” Students then indicated how often they engaged in each behavior, ranging from “almost never” to “almost always.”

Researchers phrased all of the questions based on positive behaviors, and for the results summary that follows, “engagement” is defined as responses of “often” or “almost always.” “Positive behaviors” are those widely believed to promote financial well-being, such as tracking spending, comparing prices, and saving for future needs.

“Very comprehensive; teaches my students real-life skills that they can use now or in the immediate future.”

— Teacher assessment of the HSFPF

### Baseline Behaviors

Researchers found that students overall reported low levels of positive behavior before the HSFPF coursework:

- The highest levels of engagement in positive behaviors were just over 50 percent, and those levels were for only three measures: protecting personal information, looking for best prices, and timely payments on debt.
- Less than a third of students indicated that they planned or tracked spending.
- Significant percentages of students indicated poor spending habits: not basing spending on what they could afford (approximately 20 percent) and charging what they could not immediately afford (approximately 25 percent).
- Only a quarter of the students said they discussed money matters with family, the lowest-ranked of the nine behaviors measured in the first student survey.

## Measuring Behavior

In the first student survey of the study, researchers used nine questions to measure student behaviors:

- ✓ I tracked where I spent my money
- ✓ I looked for the best prices for things I bought
- ✓ I saved money for future needs
- ✓ I had a plan for how I spent my money
- ✓ I repaid any money I owed on time
- ✓ I made savings goals for things I wanted
- ✓ I was able to effectively manage my money
- ✓ I discussed money matters with my family
- ✓ I was careful to protect my personal information from being stolen



Three months later



### Changes in Behavior after Studying the HSFPF

Researchers also asked students about the same behaviors following their work with the HSFPF curriculum.

#### Responses immediately after studying the HSFPF showed:

- Students reported statistically significant increases in all positive financial behaviors.
- More than half the sample reported improvement in six of the nine behaviors.
- At least 36 percent of students reported gains in each of the nine behaviors.



More than half the students reported discussing money matters with family

**Follow-up surveys three months later showed:**

- Students reported additional increased engagement in all behaviors: more than 50 percent for all measures; more than 70 percent for six of the nine.
- More than half the students reported discussing money matters with family, and more than 60 percent reporting planning and tracking their spending.

Additionally, new questions introduced in the three-month follow up showed:

- The segment of students indicating they spent based on what they could afford increased from 56 to 86 percent.

- After studying the program, fewer students indicated “almost never” when asked if they were willing to wait for something they wanted rather than charging it. Responses indicated a drop from 10 percent before to less than 1 percent on this measure after the learning experience.
- With respect to both spending and saving, more than 70 percent of students indicated having changed their behavior patterns, primarily by spending less and saving more for both present and future wants and needs.

**Students’ Confidence in Financial Decision Making**

Research shows that confidence in one’s financial management skills has been linked to more positive attitudes and behavior and thus provides another relevant way to look at the impact of the HSFPP curriculum.

Surveys included a question to measure students’ confidence in “making decisions that deal with money.”

**Baseline Confidence**

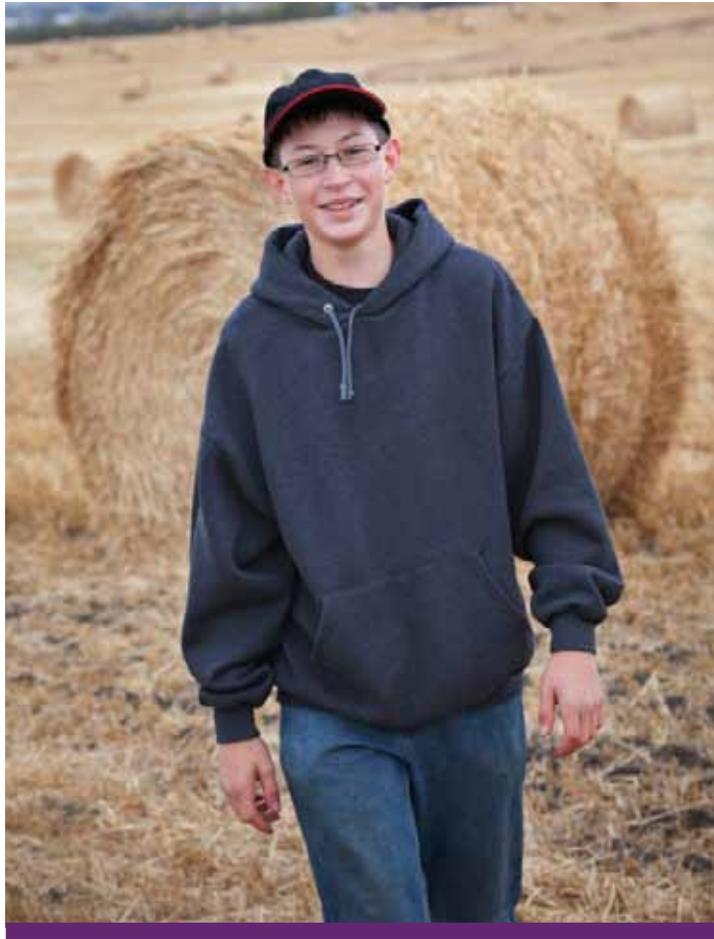
Students’ ratings of their confidence before the HSFPP coursework showed:

- Approximately 41 percent of students indicated that they felt confident about making financial decisions before their work with the HSFPP curriculum.
- One-fourth of the students lacked confidence.

**Changes in Confidence after Studying the HSFPP**

Ratings of self-confidence increased immediately after the HSFPP:

Immediately after, 66 percent of students indicated confidence and only 9 percent continued to lack in confidence. Three months later, 79 percent of students reported confidence and only 4 percent continued to lack in confidence.



## Demographic Differences

Researchers surfaced a number of relationships between demographic variables and measures of knowledge, behavior, and student confidence. Two areas showing significant differences from the norm involved students' employment status and whether or not they lived on a family-owned farm.

### Employment Status

Compared to non-working students, working students gave themselves higher scores in rating their knowledge and financial behaviors:

- Working students reported greater baseline knowledge on all measures, both before and immediately after the HSFP curriculum.
- Working students also reported more engagement in seven of the nine positive behaviors, both before and immediately after the HSFP curriculum.
- Working students reported greater confidence in their financial decision making before and after the HSFP.

### Farm Families

Other research has suggested that children in farm-owning families report behaviors that are more dynamic than those of other students: they earn more, save more, spend more, and owe more. For that reason, researchers included living on a farm as a study variable and found that students who live on farms reported greater baseline knowledge related to paying off debt, credit ratings, and checking accounts; before the HSFP, they also had higher self-reported saving behavior and financial confidence.

**WORKING** students reported  
greater **KNOWLEDGE**  
& greater **CONFIDENCE**

# FINDINGS: Content

“It was very hands-on, which makes it easier for me to be into what I am learning.”

— Student quote about the HSFPF

## Content “Stickiness”

Statistical changes in students’ assessments of their financial knowledge and in their reported financial behaviors are one way to look at the impact of the HSFPF curriculum; however, researchers also were interested in students’ subjective experiences of their classes and the materials.

Here we summarize what stood out to students, as evidenced by their ideas of what was good or bad and by what they chose to share with others.



Approximately **75** percent of students said the most important impact of the HSFPF

was to improve their saving, spending or budgeting behaviors.

## Standouts for Students

In the three-month follow-up surveys, researchers asked students about what stood out to them in and because of the HSFPF curriculum:

- When asked about the most important thing they did with their money as a result of the HSFPF coursework, nearly half of the students indicated saving money for things they wanted or needed.
- Being more careful about spending and budgeting combined to account for one-fourth of the responses.
- When asked what they felt was the most useful concept they learned, approximately one-fourth of the students indicated that all the concepts were useful.
- The concepts of saving, budgeting, managing money, and “pay yourself first,” along with information about credit cards and credit scores, combined to make up half of what students cited as most useful.
- While students overwhelmingly indicated that they found one or more concept(s) useful, 1 percent of students indicated “nothing” as a response.

## What Students Shared

In the three-month follow-up survey researchers asked students what topics from the HSFPF curriculum, if any, they talked about with family and/or friends. Half of the students had indicated that before their work with the HSFPF curriculum, they typically did not discuss money matters with family; however, after having engaged with the HSFPF, they reported being more apt to share what they learned with family and friends.

Three months after concluding the curriculum:

- Approximately 75 percent of students indicated that they shared things they had learned with family and/or friends.
- The information most shared (by 25 percent of students) was on budgeting.
- A sizeable percentage shared with family and friends information about fundamentals of personal finance related to budgeting, investing, saving, and credit. Topics shared by the fewest students were insurance and risk exposure (1 percent) and compounding interest (less than 1 percent).

# FINDINGS: Teacher Views

“ The material is student-friendly, on a high school level. It’s also great that students can write in their books. ”

— Teacher assessment of the HSFPF

## Teacher Preparedness

Classes included in the study were invited to participate if: a) instructors requested the HSFPF materials in the past, and b) they completed the study materials within the timeframe of the study. Researchers also were interested in gathering data about the teachers and instruction in the sample.

Information provided by teachers suggested that, for the most part, instructors using the HSFPF curriculum were prepared to teach personal finance.

- Most teachers (63 percent) identified themselves as teachers of personal finance, family and consumer science, business, or marketing.
- Two-thirds had taught the curriculum before; on average, they reported having used the HSFPF curriculum for three years, with reports of prior use ranging from one to 20 years.
- Approximately one-third had received some form of training in or introduction to the curriculum, half of which was provided by Cooperative Extension educators and/or credit unions.



**[97** percent of teachers said they would **recommend the HSFPF** to colleagues.]

## Teacher Evaluations of the HSFPF

Researchers asked instructors to rate the quality of the HSFPF on a scale of one (“poor”) to five (“excellent”) on nine criteria, including curriculum comprehensiveness and adaptability. They also asked about instructors’ satisfaction specific to eight measures, including the curriculum’s relevance and ease of use.

Overwhelmingly, teachers gave positive feedback:

- Ninety-seven percent of teachers said they would recommend the HSFPF to colleagues.
- In measures of quality, more than 70 percent of teachers scored the curriculum above average or “excellent” in eight of the nine measures.
- More than 80 percent of teachers indicated that they were “satisfied” or “very satisfied” with the curriculum in seven of the eight measures.

# Recap and Implications

## Positive Impact and Assessment

After studying the HSFP curriculum, students reported that they had increased their knowledge about personal finance. They also reported feeling more confident about making financial decisions.

A follow-up survey three months later showed that nearly all of those gains had persisted at scientifically significant levels, that students had improved markedly their financial behaviors, and that they were engaged more with topics of personal finance, actively talking about them with friends and family.

Teachers expressed considerable satisfaction with the HSFP, and almost all said they would recommend it to their colleagues.

Nearly all student  
**IMPROVEMENTS  
HAD PERSISTED**  
at 3-month follow-up

## Implications Arising from the HSFP Evaluation

### Student Employment Predicts Performance

There is a positive correlation between work experience and financial efficacy. Students who had a job averaged higher scores across multiple measures before and after studying the HSFP.

### Behavior & Knowledge Are Distinct

While the study showed gains in both knowledge and behavior, different sets of variables predicted different gains, lending support to the argument that knowledge and behavior are different constructs.

### Teacher Confidence Matters

Findings in this study support other research showing that teacher confidence correlates with better learning outcomes. Preparing instructors to teach personal finance is a key part of the success of a financial curriculum.

## Acknowledgements

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John Parfrey, past director, NEFE High School Financial Planning Program

# APPENDIX: Additional Information

## About the HSFP Curriculum

The High School Financial Planning Program curriculum is comprised of seven competency-based units. Materials include student manuals, an instructor's guide, and a large, Web-based collection of resources, articles, and financial tools for teachers, students, and parents.

The NEFE High School Financial Planning Program is offered in partnership with the participating Land-Grant University Cooperative Extension Services (CES) of the U.S. Department of Agriculture National Institute for Food and Agriculture (USDA NIFA) and the Credit Union National Association, Inc. (CUNA). Over the years, representatives from these organizations have collaborated with NEFE to produce and revise the curriculum as well as to train instructors.

The units and its associated target competencies and assessments are:

| Unit | Title                                    | Target Competency  | Assessments              |
|------|--|--|--------------------------|
| 1    | Your Financial Plan: Where It All Begins | Create a personal financial plan                                   | My Financial Plan        |
| 2    | Budgeting: Making the Most of Your Money | Create a personal budget   | My Personal Budget       |
| 3    | Investing: Making Money Work for You     | Propose a personal saving and investing plan                       | My Investment Plan       |
| 4    | Good Debt, Bad Debt: Using Credit Wisely | Select strategies to use in handling credit and managing debt      | My Plan to Handle Credit |
| 5    | Your Money: Keeping It Safe and Secure   | Demonstrate how to use various financial services                  | Using Financial Services |
| 6    | Insurance: Protecting What You Have      | Create a personal insurance plan                                   | My Insurance Plans       |
| 7    | Your Career: Doing What Matters Most     | Examine how career choice and lifestyle affect your financial plan | Planning for My Career   |

For additional information, visit [www.nefe.org](http://www.nefe.org) and click High School Program.

### Survey Questions

#### Measuring Student Knowledge

Researchers asked students how much they agreed with the following statements on a scale of one (“strongly disagree”) to five (“strongly agree”):

- I understand how debit cards work
- I understand how checking accounts work
- I know that paying off debt quickly means I pay less interest
- I think about how much I needed the things I bought
- I understand why a credit rating is important
- I know key questions to ask when shopping for auto insurance
- I know what I do for a career will affect how much money I will have to meet my goals
- I am careful to protect my personal information from being stolen

#### Measuring Student Behavior

Researchers asked students about their engagement in the following behaviors on a scale of one (“almost never”) to five (“almost always”):

- I look for the best prices for things I buy
- I repay the money I owe on time
- I make savings goals for things I want
- I am better able to manage my money
- I save money for future needs
- I have a plan for spending my money
- I track where I am spending my money
- I discuss money matters with my family

In addition, in the three-month follow-up survey students were asked about the following behaviors in the post-then-pre survey model:

- I make decisions on what I believe I can afford
- I am willing to wait a period of time to buy something I want rather than charge it
- I am willing to wait a period of time to buy something I need rather than charge it

#### Measuring Student Confidence

Researchers asked students to rate the level of their financial self-efficacy by responding to the statement “ I feel confident about making decisions that deal with money” using a scale of one (“almost never”) to five (“almost always”).

### Measuring Curriculum Quality

Researchers asked teachers to rate the curriculum quality across nine measures on a scale of one (“poor”) to five (“excellent”):

- Flexibility of time required
- Comprehensive coverage of topics
- Adaptable to a wide range of students
- Adaptable to many high school subjects
- Appealing Student Guide writing style
- Appealing Student Guide design
- Experiential Student Guide exercises
- Experiential assignments
- Experiential assessments

### Measuring Satisfaction with the Curriculum

Researchers asked teachers to rate their satisfaction with the curriculum across eight measures on a scale of one (“very dissatisfied”) to five (“very satisfied”):

- Available at no charge
- Increased students’ knowledge of finance
- Your confidence in teaching content
- Students could practice personal finance skills
- Relevance of the curriculum for students
- Quality of content of the curriculum
- Ease of use of the curriculum
- Interest of the students in content

### Original Student Sample Characteristics

Researchers surveyed 4,794 students for baseline data and data immediately following completion of the HSFP curriculum:

Grade: all high school:

- 45% seniors
- 23% juniors
- 15% sophomores
- 17% freshmen

Gender:

- 52% female
- 48% male

Ethnicity:

- 56% Caucasian
- 19% African American
- 16% Hispanic
- 3% Asian
- 2% American Indian
- 4% self-identified as “other”

Communities:

- 22% population greater than 100,000
- 27% populations between 25,000 and 100,000
- nearly 31% populations less than 25,000
- 21% in rural areas or on farms

Work:

- Slightly more than 33% had part-time jobs
- 17 hours worked weekly during the school year
- \$137.25 average weekly take-home pay
- 58% had “odd jobs” (babysitting, yard care, etc.) yielding an average of \$42 pay per week