Financial Knowledge and Debt Repayment Behavior of U.S. Households

Ellie Hansen / Human Development and Family Studies
Utah State University

Dr. Yoon Lee / Utah State University
Background

• Financial knowledge refers to an individual’s ability to **understand** financial concepts as well as the ability to **manage** personal financial resources (Bahovec et al., 2015).

• Financial knowledge can be measured by both objective and subjective measures.

• Objective financial knowledge is measured by individuals responding to knowledge based questions.

• Subjective financial knowledge is measured by asking individuals to rate their perceived level of financial knowledge (Xiao, 2011).

• Financial Ability an individuals ability to manage day-to-day financial matters.
Purpose of Study

• To understand the relationship between financial knowledge and debt repayment behavior.

• To explore how receiving financial education influences debt repayment behavior.

• To examine socio-demographic factors (age and income) associated with debt repayment behavior.
Hypothesis

H1: Financial knowledge will be positively associated with debt repayment behaviors.

H2: High financial ability will be positively associated with debt repayment behaviors.

H3: Receiving financial education will be positively associated with debt repayment behaviors.

H4: Younger individuals are less likely to display positive debt repayment behaviors than older individuals.

H5: Low income individuals are less likely to display positive debt repayment behaviors than higher income individuals.
Methods

Data: 2018 National Financial Capability Study (NFCS)
Sample: N = 8325
Variables

▪ **Dependent Variables:**
  ▪ Mortgage Debt Repayment
  ▪ Credit Card Repayment

▪ **Key Independent Variables:**
  ▪ Financial Knowledge – objective, subjective
  ▪ Financial Ability
  ▪ Financial Education

▪ **Socio Demographic Variables:**
  ▪ Age, Income, Gender, Marital Status, Race, Education, Employment Status
Six Quiz Questions (= Objective Financial Knowledge)

<table>
<thead>
<tr>
<th>Question</th>
<th>Proportion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q6-compounding interest</td>
<td>47.3%</td>
</tr>
<tr>
<td>Q5-portfolio</td>
<td>82.3%</td>
</tr>
<tr>
<td>Q4-mortgage</td>
<td>91.2%</td>
</tr>
<tr>
<td>Q3-bond</td>
<td>49.6%</td>
</tr>
<tr>
<td>Q2-inflation</td>
<td>74.5%</td>
</tr>
<tr>
<td>Q1-interest</td>
<td>87%</td>
</tr>
</tbody>
</table>
Proportions of High and Low *Objective* Financial Knowledge among those with Never Missed Debt Payment
Proportions of High and Low *Subjective* Financial Knowledge among those with Never Missed Debt Payment

- **High Subjective Financial Knowledge and Mortgage Repayment**
  - High Suj. FK (5-7): 34.7%
  - Low Suj. FK (1-4): 24.6%

- **High Subjective Financial Knowledge and Credit Card Repayment**
  - High Suj. FK (5-7): 88.6%
  - Low Suj. FK (1-4): 65.0%
Descriptive Results - Financial Education and Repayment Behavior

Credit Card Payment
- Yes, Participated: 86.9%
- No, Did not Participate: 85.8%

Mortgage Payment
- Yes, Participated: 34.2%
- No, Did not Participate: 33.1%
Logit Results: Objective Financial Knowledge & Mortgage Payment Behavior

Quiz Questions:
• Interest: 23% more likely
• Inflation: 51% more likely
• Mortgage: 95% more likely
• Stock: 53% more likely
• Bond: 17% less likely
• Compound Interest: 5% less likely
Logit Results: Financial Education, Age, Income & Mortgage Payment Behavior

- **Age**: (Age 68+): Age 28-37: 53% more likely; Age 38-47: 125% more likely; Age 48-57: 91% more likely; Age 58-67: 41% more likely

- **Income**: (Income of $100,000+): less than $25,000: 80% less likely; $25,000-$49,999: 63% less likely; $50,000-$74,999: 37% less likely; $75,000-$99,999: 30% less likely
Logit Results:
Objective Financial Knowledge & Credit Card Payment Behavior

Quiz Questions:
• Bonds: 16% more likely
• Compound Interest: 26% more likely
• Interest: 30% less likely
Logit Results: Subjective Financial Knowledge, Ability, Self-Efficacy, Risk Tolerance, & Credit Card Payment Behavior

- Subjective Financial Knowledge: 17% more likely
- Subjective Financial Ability: 2% more likely
- High Self-Efficacy: 148% more likely
- High Risk Tolerance: 40% more likely
Logit Results:
Financial Education, Age, Income & Credit Card Payment Behavior

• **Age:** (Age 68+): Age 18-27: 61% less likely; Age 28-37: 66% less likely; Age 38-47: 73% less likely; Age 48-57: 68% less likely

• **Income:** (Income of $100,000+): less than $25,000: 88% less likely; $25,000-$49,999: 74% less likely; $50,000-$74,999: 55% less likely; $75,000-$99,999: 30% less likely
Discussion

• **Hypothesis 1** supported; financial knowledge is positively associated with debt repayment behaviors.

• **Hypothesis 2** was supported; high financial ability is positively associated with debt repayment behavior.

• **Hypothesis 3** was not supported; receiving financial education is positively associated with debt repayment behaviors.

• **Hypothesis 4** was supported; younger individuals are less likely to display positive debt repayment behavior than older individuals.

• **Hypothesis 5** was supported; low-income individuals are less likely to display positive debt repayment behaviors than higher income individuals.
Implications

Financial Educators/Counselors:
• Continue Building Individuals Financial Knowledge
• Target Vulnerable Populations

Policy Makers:
• Should Financial Education be Mandatory?
• Quality of Education
• Quantity of Education
Conclusion

• Complex Financial Decisions
• High Levels of Objective Financial Knowledge
• Subjective Financial Knowledge
• Subjective Financial Ability
• High Self-Efficacy
Contact Info

Ellie Hansen
Utah State University
ellie.hansen@usu.edu

Dr. Yoon Lee
Utah State University
yoon.lee@usu.edu

Questions or Comments?