



EARLY WARNING SIGNS:

IMPACT OF AGING
ON FINANCIAL
DECISION MAKING



NATIONAL ENDOWMENT FOR
FINANCIAL EDUCATION

ABOUT THIS EXECUTIVE SUMMARY

This summary presents key findings from Early Warning Signs of Impaired Financial Skills in Older Adults by Daniel Marson, J.D., Ph.D., professor of neurology and co-director of the Alzheimer's Disease Center at the University of Alabama at Birmingham (UAB).

The full report, available at www.nefe.org/early-warning-signs, documents new research funded by the National Endowment for Financial Education® (NEFE®) to identify very early financial skill declines in cognitively normal older adults through analyses of a unique longitudinal dataset funded by the National Institute of Aging of the National Institute of Health.

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INESCAPABLE TRUTH: FINANCIAL ABILITY DECLINES WITH AGE

IT IS INEVITABLE that people will see a decline in their financial skills and decision-making ability as they age. No one is exempt: Everyone experiences normal cognitive aging in their later years, which in turn affects various financial skills. The degree of cognitive decline and its effect on specific financial skills varies by individual. In some cases, normal cognitive aging may be compounded by other disorders, such as Alzheimer's disease, thereby accelerating cognitive decline and also financial skill decline. Thus, cognitive decline in aging could be as benign and gradual as commonplace forgetfulness, or as severe as full-blown dementia. The key is to be prepared for when — not if — this decline occurs.

Until this NEFE study, very little was known about the very early decline of financial skills and decision making in cognitively normal older adults.

This research identifies some of the earliest financial skill impairments in cognitively normal older adults. Because older adults become disproportionately vulnerable to weakening financial skills and to potential financial exploitation, NEFE wants to empower individuals and families by helping them to be alert to such early shifts in financial functioning. Knowing how to identify these warning signs can help friends, family, caretakers, clinicians and other engaged professionals — as well as the aging individuals themselves — be proactive instead of reactive about financial skill declines in everyday life and throughout the lifelong financial planning process.

UNCOVERING COGNITIVE AND FINANCIAL SKILL DECLINE

The age-related decline of financial skills becomes problematic when it causes detrimental consequences in a person's day-to-day life. Where once individuals and families were resigned to anxiously await the catastrophic fallout that could result from financial decline, we now can identify more subtle indicators of diminished financial capacity because researchers were able to analyze up to seven years of financial skill performance of older adults.



During the course of observing and periodically testing study participants over time, researchers identified two subsets of the larger dataset and used them for comparison:

- **Control-normals**, people who remained cognitively normal throughout each annual visit for up to seven years.
Sample size = 115
Age (mean) = 67.9
- **Control-decliners**, people who were cognitively normal at the beginning of the study, but at some later point showed cognitive decline and were diagnostically reclassified to have “mild cognitive impairment and/or dementia.”
Sample size = 23
Age (mean) = 71.5

Having both of these samples available was critical to identifying the very early financial declines in normal elderly that were the target of the study. Researchers determined that the baseline differences between the groups — when both control-normal and control-decliner groups were considered by an expert panel to be cognitively normal and free of disease — were the key indicators of early financial declines in older adults.

MEASURING FINANCIAL PERFORMANCE

Researchers measured financial skills in the study sample with the Financial Capacity Instrument (FCI), a robust and reliable performance measure of financial skills and decision making that examines 18 financial tasks, nine financial domains and overall financial capacity. The FCI also measures time to completion (in seconds) of designated financial tasks.

The FCI was used to track both stability and change in these financial skills over time in the samples of control-normals and control-decliners.

First, the study found that at baseline assessment, the cognitive-decliner group showed slower performance times on some FCI tasks in comparison to the cognitive-normal group.

Second, the study found at baseline assessment the cognitive-decliner group had lower performance scores on a number of FCI task and domain variables in comparison to the cognitive-normal group.

FCI DOMAINS AND TASKS	TASK DESCRIPTION
DOMAIN 1: Basic Monetary Skills	
Task 1a: Naming coins / currency	<i>Identify specific coins and currency</i>
Task 1b: Coin / currency relationships	<i>Indicate relative monetary values of coins / currency</i>
Task 1c: Counting coins / currency	<i>Accurately count groups of coins and currency</i>
DOMAIN 2: Financial Conceptual Knowledge	
Task 2a: Define financial concepts	<i>Define a variety of simple financial concepts</i>
Task 2b: Apply financial concepts	<i>Practical application / computation using concepts</i>
DOMAIN 3: Cash Transactions	
Task 3a: One-item grocery purchase	<i>Enter into simulated one-item transaction; verify change</i>
Task 3b: Three-item grocery purchase	<i>Enter into simulated three-item transaction; verify change</i>
Task 3c: Change / vending machine	<i>Obtain change for vending machine use; verify change</i>
Task 3d: Tipping	<i>Understand tipping convention; calculate / identify tips</i>
DOMAIN 4: Checkbook Management	
Task 4a: Understand checkbook	<i>Identify and explain parts of check and check register</i>
Task 4b: Use checkbook / register	<i>Enter into simulated transaction; pay by check</i>
DOMAIN 5: Bank Statement Management	
Task 5a: Understand bank statement	<i>Identify and explain parts of a bank statement</i>
Task 5b: Use bank statement	<i>Identify specific transactions on bank statement</i>
DOMAIN 6: Financial Judgment	
Task 6a: Detect mail fraud risk	<i>Detect and explain risks in mail fraud solicitation</i>
Task 6b: Detect telephone fraud risk	<i>Detect and explain risks in telephone fraud solicitation</i>
DOMAIN 7: Bill Payment	
Task 7a: Understand bills	<i>Explain meaning and purpose of bills</i>
Task 7b: Prioritize bills	<i>Identify bills; identify overdue utility bill</i>
Task 7c: Prepare bills for mailing	<i>Prepare simulated bills, checks, envelopes for mailing</i>
DOMAIN 8: Knowledge of Assets / Estate	<i>Indicate knowledge of asset ownership, estate arrangements</i>
DOMAIN 9: Investment Decision Making	<i>Understand investment options and returns; make decisions</i>
Overall Financial Capacity	<i>Overall functioning across all financial tasks and domains</i>

Based on suspicions that specific test items were more meaningful than other measures, the research team looked below the FCI task level to investigate actual test item differences between the two groups. By examining specific test items, researchers are able to understand and interpret declines in meaningful ways.

Ten specific FCI test items accounted for the greatest variances in performance results between the cognitive-normal and cognitive-decliner groups.

Description of Test Item	Task / Domain
1. Write payee name in check register record	4b / Checkbook Management
2. Which bill requires immediate attention	7b / Bill Payment
3. Meaning of bank statement interest rate	5a / Bank Statement
4. Detection of key risk in investment vignette	Investment Decisions
5. Bank statement: number gaps in check sequence	5b / Bank Statement
6. Select change = \$1 and \$0.55 in vending machine	3c / Cash Transactions
7. Medical deductible calculation problem	2b / Financial Concepts
8. Meaning of bank statement minimum balance	5a / Bank Statement
9. Explain numerical amount section of check	4a / Checkbook Management
10. Calculation of dollar return on investment choice	Investment Decisions



Third, researchers identified cognitive skills that appeared to underlie the group differences on performance of these financial test items as well as time to completion of the financial tasks. These cognitive skills include visual attention, working memory, processing speed, verbal comprehension, risk identification and arithmetic ability.

Using the ten test item group differences, the time-to-completion group differences and the cognitive skills analysis of the test items, researchers were able to identify early warning signs of financial decline in cognitively normal older adults.

EARLY WARNING SIGNS

WARNING SIGN 1:

Is the person taking longer to complete everyday financial tasks?

EXAMPLES:

- Slower preparing bills for mailing
- Slower completing check and check register
- Slower on composite of financial tasks

WARNING SIGN 2:

Is the person showing reduced visual attention to key details/facts in financial documents?

EXAMPLES:

- Cannot identify a bill that is overdue, that needs prompt attention
- Trouble identifying transactions in complex documents like a bank statement, such as gaps in check number sequence
- Difficulty completing payee section of check register

WARNING SIGN 3:

Is the person showing declines in everyday arithmetic skills related to his/her finances?

EXAMPLES:

- Difficulty calculating a medical deductible
- Calculating a return on a specific investment option
- Difficulty making correct change for a vending machine purchase when a dual task is involved (making change for \$1, and ensuring receipt of coins sufficient for \$0.55 soft drink purchase)

WARNING SIGN 4:

Is the person showing decreased understanding of financial concepts?

EXAMPLES:

- Difficulty understanding a medical deductible problem
- Difficulty understanding terms in a bank statement, such as a specific interest rate, minimum balance, and concept of gaps in check sequence
- Difficulty understanding key investment risk
- Difficulty explaining the “quantity” section of a check

WARNING SIGN 5:

Is the person having new difficulty identifying risks in an investment opportunity?

EXAMPLES:

- Trouble identifying key risk in an investment scenario
- Overemphasizing investment returns while overlooking risks

** Please note that to qualify as warning signs of financial decline, the above problems should represent a change from the older person's prior financial functioning.*

PRESERVING CAPACITY: FACTORS OF FINANCIAL RESILIENCY

As a secondary study objective, researchers also analyzed the previously described 10 discriminative FCI test items to understand resilience, or resistance, to financial decline in the control-normal group.

Findings include:

- Education level is a key factor of resiliency in retaining financial skills.
- The stronger a person's cognitive test performance is, the more resilient a person will be in carrying out FCI financial tasks. Cognitive test variables include written arithmetic skills, short-term verbal memory and semantic knowledge.
- African-Americans performed lower than white participants, perhaps reflecting educational disparities experienced by the African-Americans in the study sample, who for the most part were raised and educated in the Deep South during the early to middle decades of the 20th century.
- Age by itself is not a decisive factor for resilience in financial skills; nor is gender, genotype or medical variables.



IMPLICATIONS AND RECOMMENDATIONS

A scientific understanding of the loss of financial skills in aging adults can improve the well-being of older Americans and their families by increasing public awareness and detection of early financial declines in cognitively normal adults. The following checklist of early warning signs (downloadable as a printout on www.nefe.org/early-warning-signs) can help families, professionals and agencies identify early declines and take protective actions on behalf of vulnerable elderly before diminished financial decision making or exploitation occurs.

EARLY WARNING SIGNS: Impact of Aging on Financial Decision Making

It's inevitable that an average person will see a change in their ability to make financial decisions as they age. While there are varying degrees of cognitive decline for each individual, the key is to be prepared. Knowing how to identify early warning signs* can help friends, family and caretakers be proactive instead of reactive in the planning process.

 WARNING SIGN #1	<p>Taking Longer to Complete Financial Tasks</p> <p>EXAMPLES OF INCREASED SLOWNESS:</p> <ul style="list-style-type: none"> • Preparing bills for mailing • Completing check and check register • Filing income taxes
 WARNING SIGN #2	<p>Missing Key Details in Financial Documents</p> <p>EXAMPLES OF DIFFICULTY WITH REDUCED ATTENTION:</p> <ul style="list-style-type: none"> • Identifying a bill that is overdue and needs prompt attention • Scanning/finding details in complex documents like a bank statement • Completing sections of a check register
 WARNING SIGN #3	<p>Experiencing Difficulty with Everyday Math</p> <p>EXAMPLES OF DIFFICULTY WITH DECLINING MATH SKILLS:</p> <ul style="list-style-type: none"> • Determining a return on an investment • Calculating a medical deductible • Doing two related calculations at same time, especially making change • Figuring a tip in a restaurant
 WARNING SIGN #4	<p>Showing Decreased Understanding of Financial Concepts</p> <p>EXAMPLES OF DIFFICULTY WITH UNDERSTANDING:</p> <ul style="list-style-type: none"> • Health care concepts like medical deductible • Terms in a bank statement like interest rate and minimum balance
 WARNING SIGN #5	<p>Identifying Risks in Investment Opportunities</p> <p>EXAMPLES OF NEW DIFFICULTY:</p> <ul style="list-style-type: none"> • Identifying a key risk in an investment purchase • Emphasizing benefits/return and minimizing risks

* Please note that to qualify as warning signs of financial decline, the above problems should represent a change from the older person's prior financial functioning.

Also check out videos on www.nefe.org/early-warning-signs for tips on how families can better plan for the inevitable realities of advanced age.



Early Warning Signs of Financial Decline
Daniel Marson, J.D., Ph.D., pictured above



Helping Families Negotiate Aging Parents' Finances

5 FINANCIAL STEPS FOR LIFE IN YOUR 50s

1 TALK TO YOUR SPOUSE, partner or significant other to make sure you are in agreement on your financial goals and plans.

2 GET YOUR FINANCIAL HOUSE IN ORDER. Make an inventory of all financial accounts and assets and keep it in a safe place. Also, set up automatic payments for regular bills so they aren't forgotten or paid twice.

3 CHECK YOUR PAPERWORK. Prepare and/or review your tax statements, update your will and beneficiaries, and make sure that your financial power of attorney is valid and up to date.

4 ASSIGN ROLES. If you eventually want or need assistance from children or other family members, hold regular family meetings and ask if they are willing to take on the necessary responsibilities. Communicate clearly within the family who will be responsible for what tasks.

5 SEEK PROFESSIONAL ASSISTANCE. If needed, an outside review and advice from a lawyer and/or financial professional can greatly enhance the above family planning process and provide peace of mind for all involved.

As adults prepare for their own advanced years, they too can keep in mind the early warning signs. NEFE recommends adults in their 50s also take additional precautionary steps to ensure that their financial goals and wishes are understood and followed in the event their abilities to manage their own finances become diminished.

GOING FORWARD

These early warning signs provide insight into what to look for regarding early financial decline, and provide an opportunity to deliver more practical support for elders. Although seeing declines in ourselves and others is never an easy situation to acknowledge and address, a science-based awareness of weakening financial skills as part of the course of normal aging gives people a more informed platform to recognize and discuss potential consequences and solutions.

ABOUT THE METHODOLOGY

This study analyzes two unique financial capacity datasets, the Cognitive Observations in Seniors (COINS1 and COINS2) longitudinal datasets previously developed by Daniel Marson, J.D., Ph.D., of the Department of Neurology at University of Alabama at Birmingham. These datasets were collected as part of two earlier studies funded by the National Institute of Aging of the National Institutes of Health. As part of the NEFE study, the two datasets were analyzed and merged to form a sample of 138 participants who were identified by an expert panel as cognitively normal older controls at baseline, with a control-normal subgroup of 115 (cognitively stable over the seven-year COINS study period) and a control-decliner subgroup of 23 (cognitively normal at baseline but showing cognitive decline at a subsequent point over the seven-year period). During COINS data collection, researchers used the Financial Capacity Instrument, also designed and developed by Marson, to evaluate performance of a wide range of simple and complex financial skills over time in the two samples.

THE NATIONAL ENDOWMENT FOR FINANCIAL EDUCATION

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