



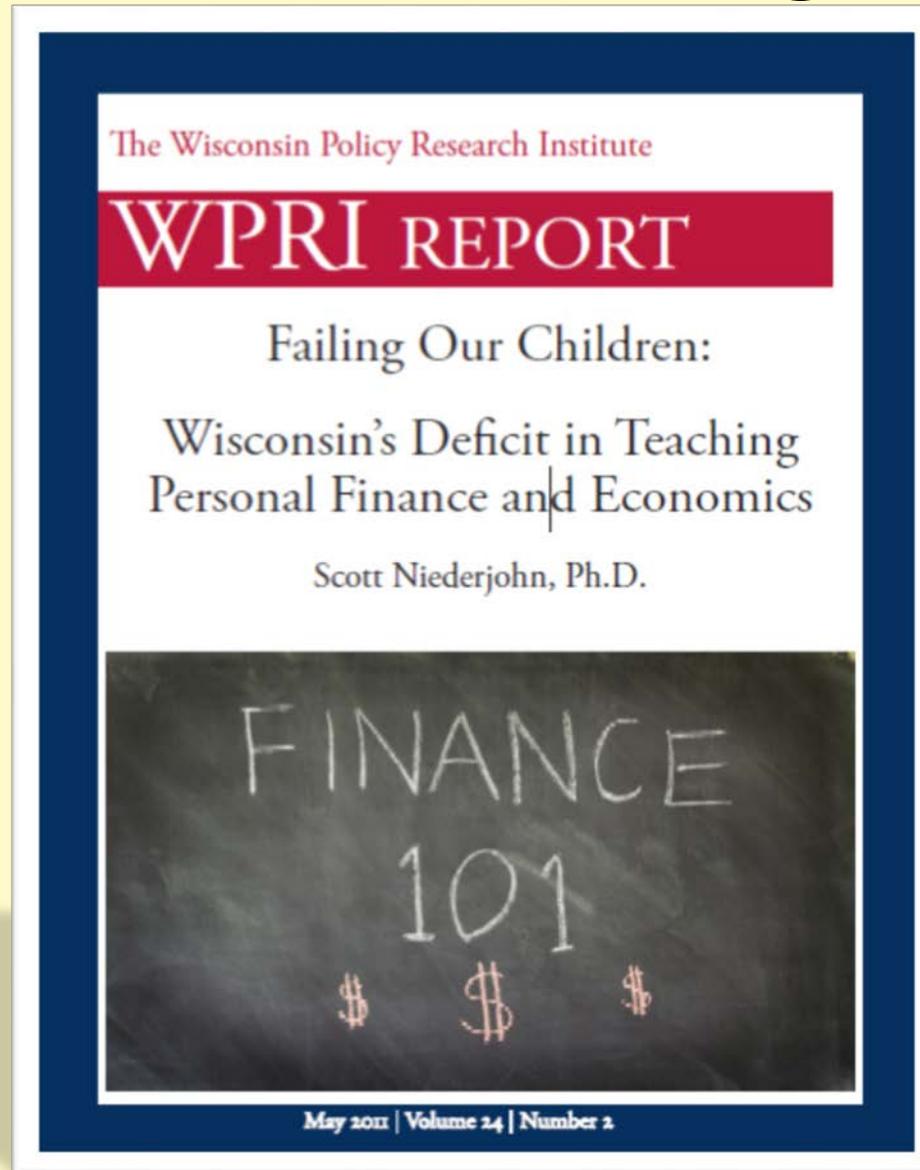
# The Millionaire Game

Ideas for Engaging Students in  
Financial Education

Scott Niederjohn, Ph.D.



# We've Come a Long Way



# Economic and Financial Literacy is Important

- Citizens must understand basic economics to:
  - Fully participate in our nation's market economy
  - Understand policy issues and cast informed votes in federal and state elections
- Citizens must understand personal finance to:
  - Plan for retirement
  - Make investment and savings choices
  - Purchase insurance
  - Buy a home



# Increasing Consumer Responsibilities



- About 90% of retirement plans today are defined contribution plans, not defined benefit plans.
- The Internet has increased the number of financial services offered to consumers.



## The Trouble with Retirement Planning

Nearly half of U.S. households didn't have a retirement savings account in 2013. Among households with accounts, far more had 401(k) plans than defined-benefit pensions.

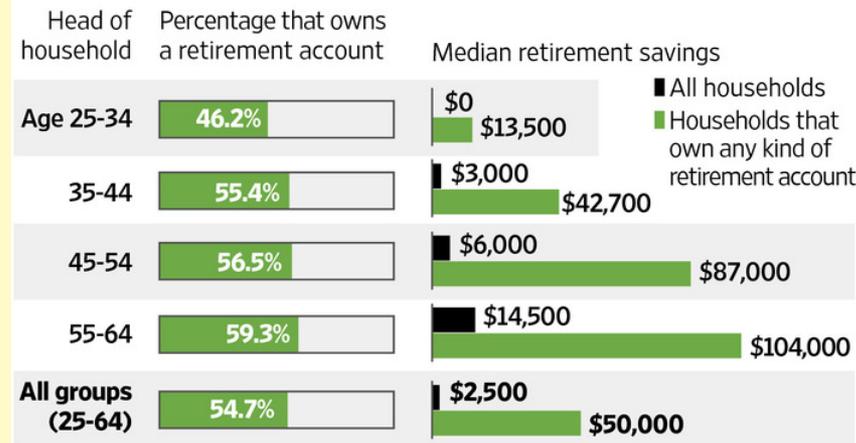
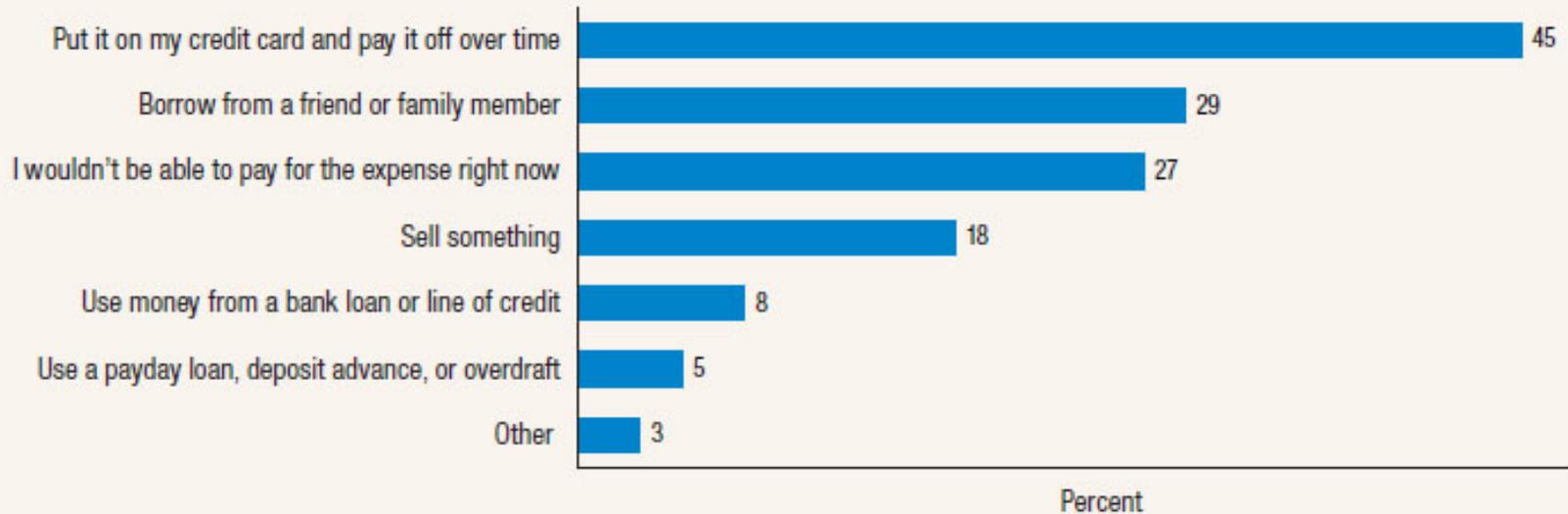


Figure 12. Ways that individuals will cover a \$400 emergency expense when not using cash or its functional equivalent



Note: Among those who would not pay the expense in full using cash or its functional equivalent. Respondents can select multiple answers.

# Financial Illiteracy and Young People

- Behavioral Indicators
  - The average Class of 2016 college graduate with student-loan debt has about \$37,000 to repay (*Wall Street Journal*).
  - About 12% of all student loan borrowers are at least 90 days behind in their payments (Pew Research Center).
  - 1 in 4 employees with a 401K receives the full employee match available (Financial Engines)



THE PEW RESEARCH CENTER  
FOR THE PEOPLE AND THE PRESS

WSJ

# Problems Caused by Economic and Financial Illiteracy

- 2008 Financial Crisis

- Consumers' lack of knowledge about mortgages, interest rates, debt and credit played a part.
- “Take the greed and the financial misrepresentation out of it, and the root cause of this crisis is massive levels of financial illiteracy” – John Bryant.
- 30% of people in the lowest quartile of financial literacy thought they had a fixed-rate mortgage when they actually had an adjustable-rate mortgage (Atlanta Federal Reserve Bank study).



# Have you seen places like these?

## EASY MONEY

Check Cashing • Check Loans



# PAYDAY LOANS

CHECK CASHING  
CHECK & TITLE LOANS  
ATM INSIDE

CHECKS  
CASHED

6612

CHECKS

CASHED

- OUT OF STATE
- PERSONAL
- TAX REFUNDS
- SOCIAL SECURITY
- COM-CHEK
- VA-COMP

- PAYROLL
- STATE DISABILITY
- UNEMPLOYMENT
- INSURANCE
- MONEY ORDERS
- CASHIER CHECKS

NOTICE  
CUSTOMER  
PARKING  
30  
MINUTES  
ONLY

# Need Cash?

Get up to  
**\$1500.00**  
**FAST!**

- No Credit Checks! • No Paper Hassles!
- Nothing to Fax!

**APPLY NOW!**

1500cash  
ADVANCE.com



# Of course you have!

“There are more check-cashing and payday lending storefronts than the combined number of McDonalds, Burger Kings, Wal-Marts, Sears, Target and J.C. Penney outlets combined.”

*(Shortchanged: Life and Debt in the Fringe Economy – Howard Karger)*

- FDIC Study (2013)
  - 7.7% of U.S. households are unbanked
  - 20% are underbanked
  - More than 50% of African American households are unbanked or underbanked
  - In WI, 15% of households are in one of these categories

# What does the State of Wisconsin say about Economic and Financial Education?

- Wisconsin Model Academic Standards
  - Social Studies
    - Geography
    - History
    - Political Science
    - **Economics**
    - Behavioral Sciences
  - Personal Financial Literacy
    - Income and education
    - Money management
    - Credit and debt management
    - Planning, saving and investing
    - Becoming a critical consumer
    - Community and financial responsibility
    - Risk management

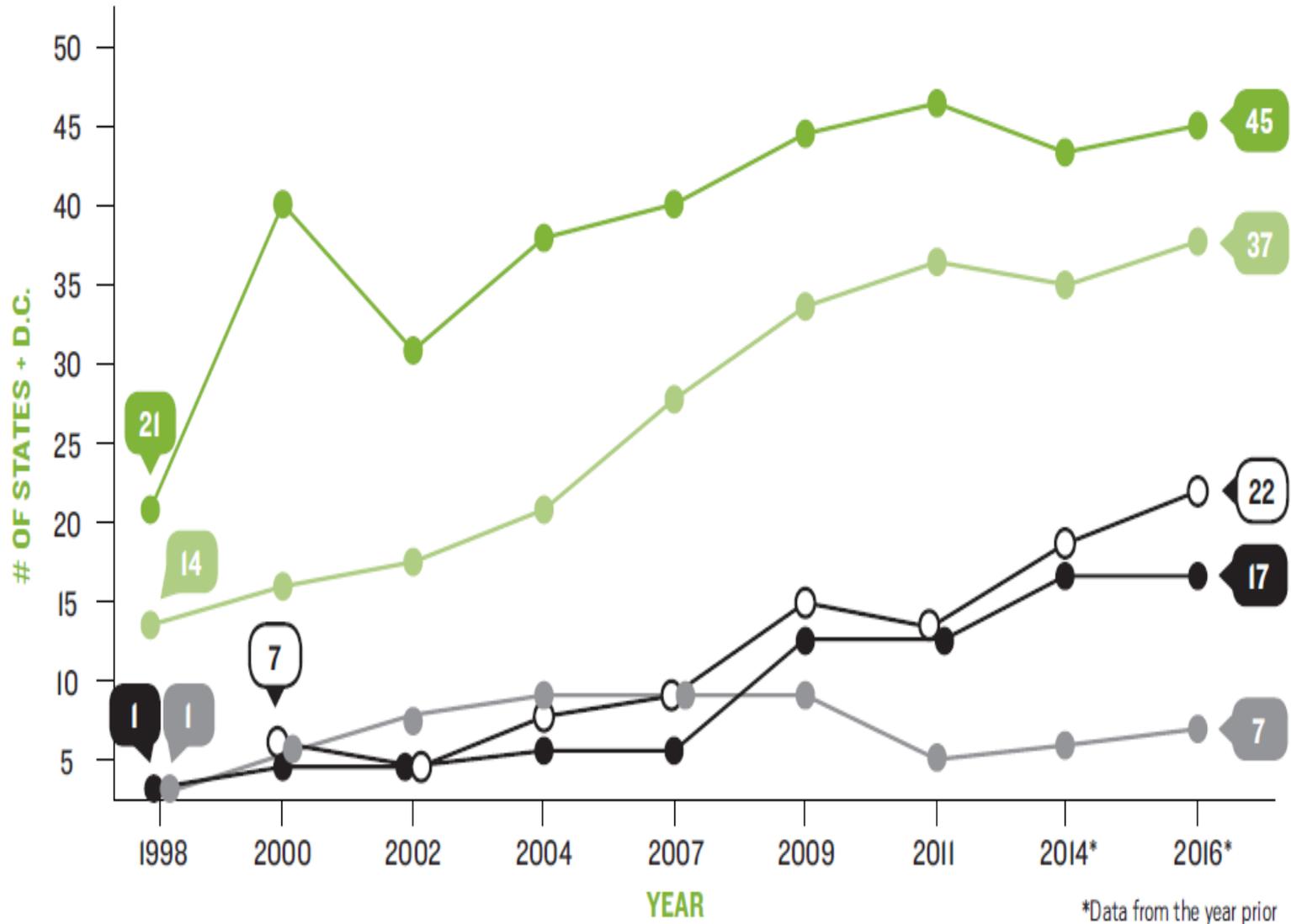


# DPI Course enrollments (2014-2015)

Enrollment in Grades 9-12	Number of Students
Algebra I	68,815
Algebra II	47,214
Geometry	62,943
English	180,483
Literature	76,580
Biology	82,166
Chemistry	45,275
U.S. History I	33,319
U.S. History II	33,003
Spanish	38,303
Concert Band	36,704
Economics	22,289

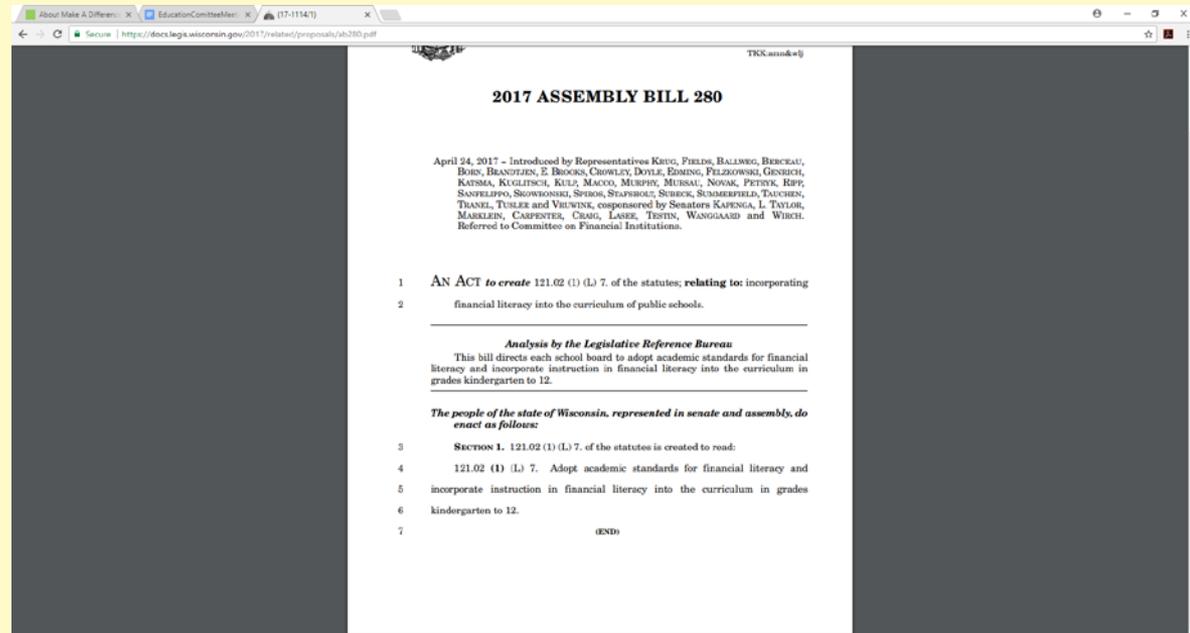


# HISTORICAL COMPARISON – PERSONAL FINANCE EDUCATION 1998-2016



# Legislation in Wisconsin

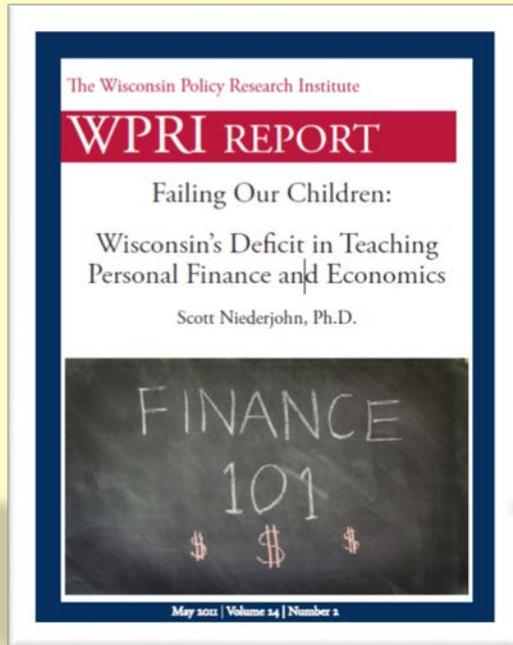
- Assembly bill 280
- Passed assembly and education committee
- Waiting to be scheduled in state senate
- <https://docs.legis.wisconsin.gov/2017/proposals/ab280>



# The Good News: Growing Trend in Personal Financial Literacy

Percentage of schools districts with a PFL graduation requirement

25% (2010)\*



49% (2013)\*

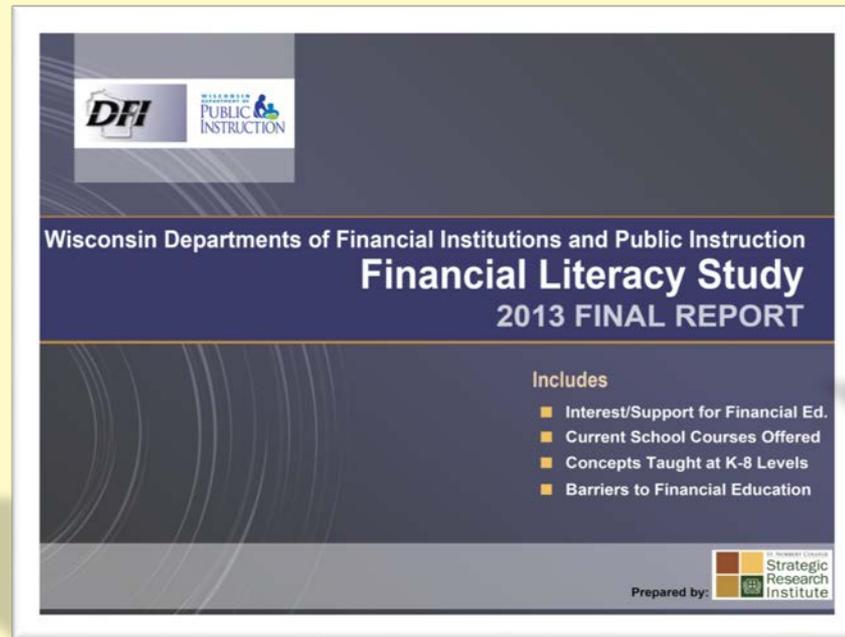
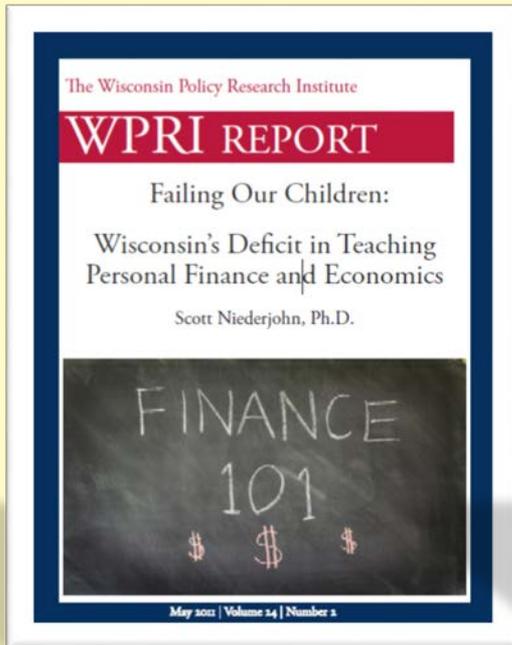


# Growing Trend in Personal Financial Literacy

Percentage of schools districts with a PFL graduation requirement

25% (2010)\*

49% (2013)\*



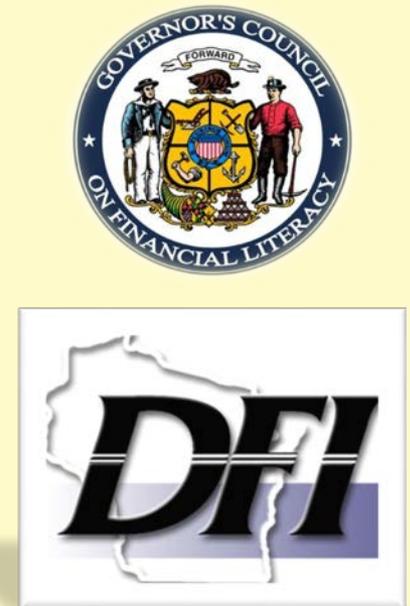
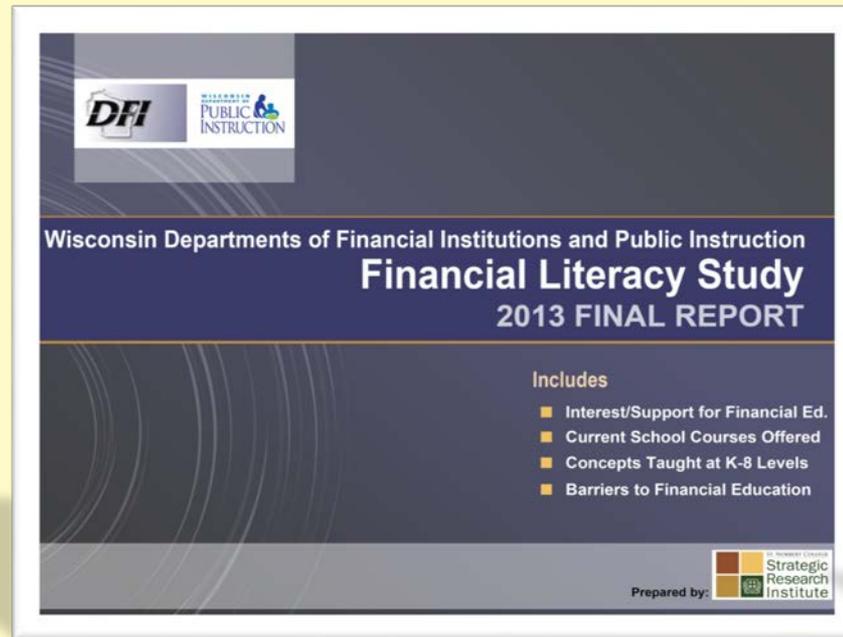
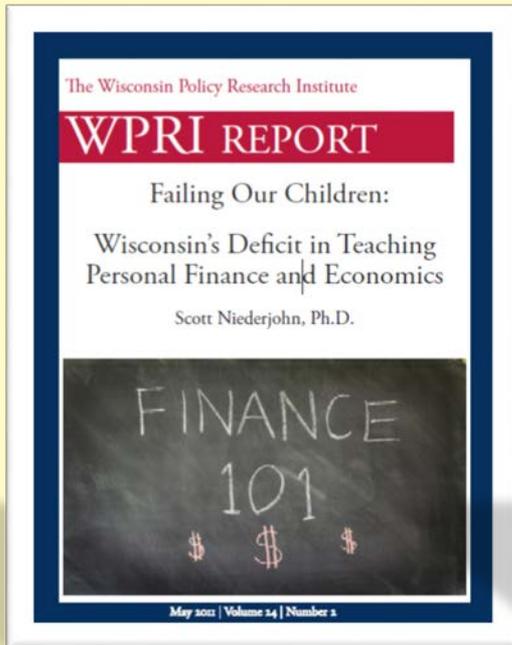
# Growing Trend in Personal Financial Literacy

Percentage of schools districts with a PFL graduation requirement

25% (2010)\*

49% (2013)\*

64% (2015)\*



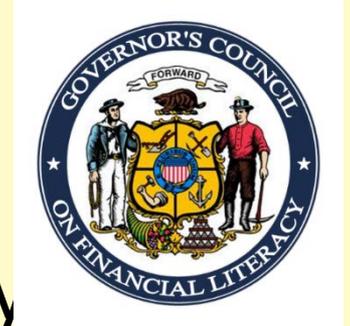


# ECONOMICS

## W I S C O N S I N

- Workshops, courses, Stock Market Simulation, Economics Challenge, and other programs for teachers
- Centers around the state
- Focus on teacher training
- Lambeau Field Conference each fall
- Standards-based curriculum
- Affiliated with national organization

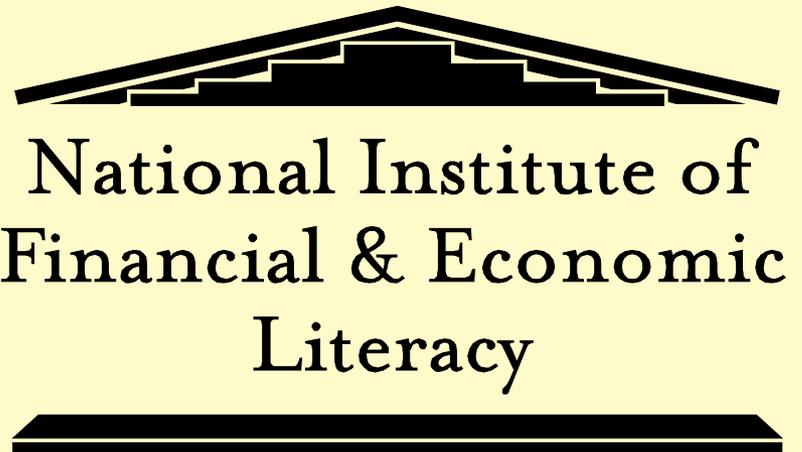
# DFI's Office of Financial Literacy



- State-wide leadership
- Governor's Council on Financial Literacy
  - “The Council’s mission will be to measurably improve the financial literacy of Wisconsin citizens.”
- National Institute on Economic and Financial Literacy (NIFEL)
- Grant program with DPI
  - Financial Literacy Innovation awards for teachers
  - \$30,000 to teachers and their school districts
  - Total: \$560,000** went to help districts that commit to requiring a PFL course for graduation

# NIFEL

- 3, one-week summer courses at Edgewood College for teachers
- Graduate credit-bearing
- Pre and post testing suggests knowledge and comfort with subject improves significantly
- Consider sponsorship from local schools



# The Millionaire Game



# Rules of the Game

- 5 true or false statements
- Hold up card with answer when I ask: +5 if correct, -5 if incorrect
- You may “millionaire” 3 times– double your bet
- One team member is responsible for holding up cards, another for keeping their team’s score
- And we’ll develop a few rules for a good financial future along the way

# Question 1



- An individual with assets valuing a million dollars or more is considered to be a millionaire.

# Question 1 Answer

False.

- Wealth is measured by comparing assets and liabilities.
- Assets are the values of what an individual owns: home, car, savings, cash value of life insurance, and so forth.
- Liabilities are the money an individual owes: mortgage, car loan, credit card debt and so forth.
- The difference between an individual's assets and liabilities is called net worth.

# Cases in Net Worth: Patrick

Patrick, age 23, owns nothing but a car. He has a car loan and a credit card balance.

- Value of car = \$7,865
- Balance on car loan = \$5,303
- Unpaid credit card balance = \$750

Patrick's net worth:

$$- \$7,865 - \$6,053 (\$5,303 + \$750) = \$1,812$$



# Cases in Net Worth: Matthew

- Matthew, age 38, is a doctor and makes \$142,000 per year

## What Matthew owns

House	\$416,000
Cars	\$ 84,450
Real estate	\$248,500

## What Matthew owes

Mortgage	\$ 362,000
Car loans	\$ 81,040
RE loans	\$ 204,970
Pers loans	\$ 53,700
Credit Cards	\$ 34,240

---

Totals	\$748,950
--------	-----------

Totals	\$735,950
--------	-----------



# Cases in Net Worth: Matthew

- Matthew's net worth is \$748,950 - \$735,950 or just \$13,000.
- He has a high income but low net worth.



# Cases in Net Worth: Ellie

Ellie, age 59, is a clerical worker who has been earning and saving a long time.

## What Ellie *owns*

House \$78,000

Car \$11,820

Ret \$88,500

## What Ellie *owes*

Mortgage \$12,500

Car Loan \$ 8,770

Cr Card \$ 1,140

---

Totals \$178,320

\$22,410

# Cases in Net Worth: Ellie

- Ellie's net worth is \$178,320- \$22,410 or \$155,910.
- She has a higher net worth than the medical specialist, Matthew.



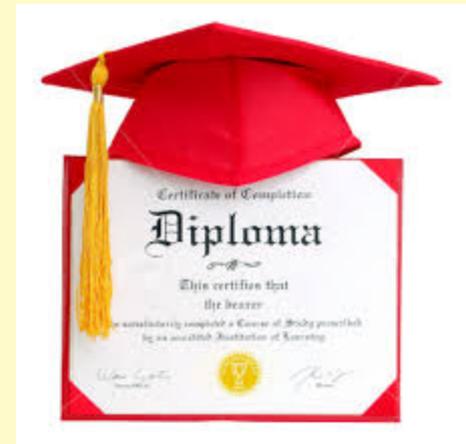
# Question 2

- Most millionaires are college graduates.



# Question 2 Answer

- True.
- 4 of 5 millionaires are college graduates.
- 18% of millionaires have Master's Degrees.
- 8% have law degrees.
- 6% have medical degrees.
- 6% have Ph.Ds.



# Level of Education and Median Income

(2015, 25 years and over, full-time wage and salary workers: BLS)

Educational Attainment	Median Yearly Salary
Less than a high school diploma	\$25,376
High school graduate, no college	\$34,736
Some college or associate degree	\$39,572
Bachelor's degree	\$57,252
Advanced degree	\$72,072

70%  
♀

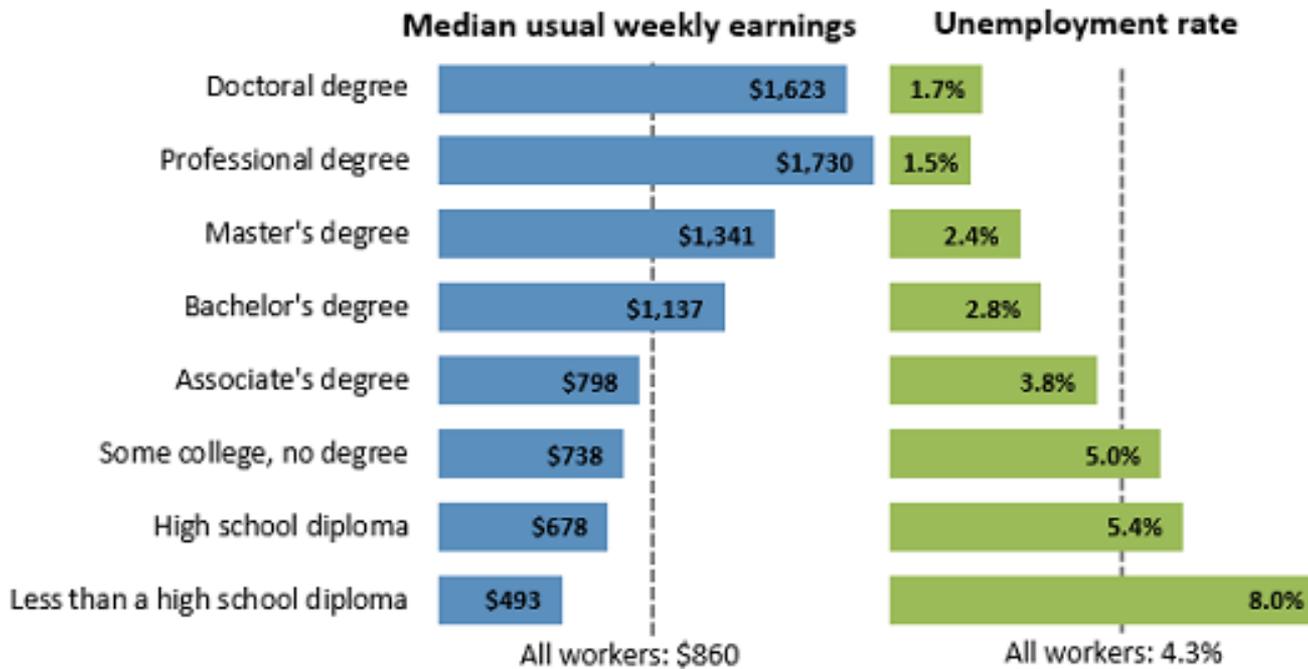
How much more women with a bachelor's degree earned than women with only a high school diploma

69%  
♂

How much more men with a bachelor's degree earned than men with only a high school diploma

# Education and Unemployment

## Earnings and unemployment rates by educational attainment, 2015



Note: Data are for persons age 25 and over. Earnings are for full-time wage and salary workers.

Source: U.S. Bureau of Labor Statistics, Current Population Survey

# Rule 1

- Get a good education.



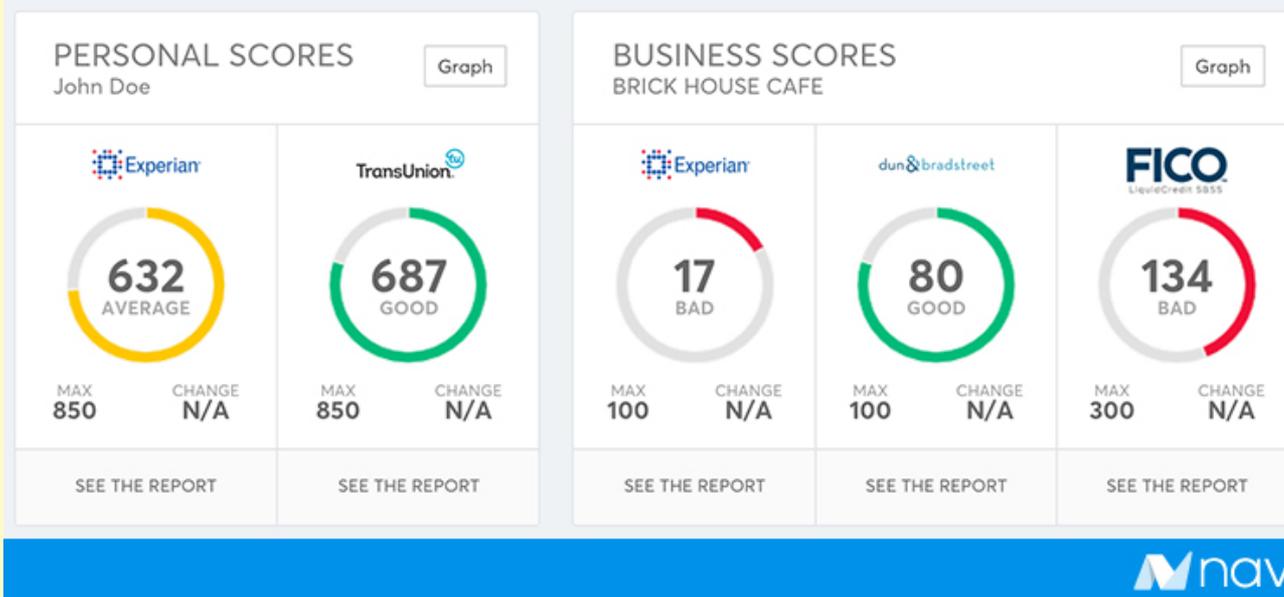
# Question 3

- Your credit score (FICO score) is primarily determined by your income.



# Question 3 Answer

- False.
- Your credit score has nothing to do with your income.

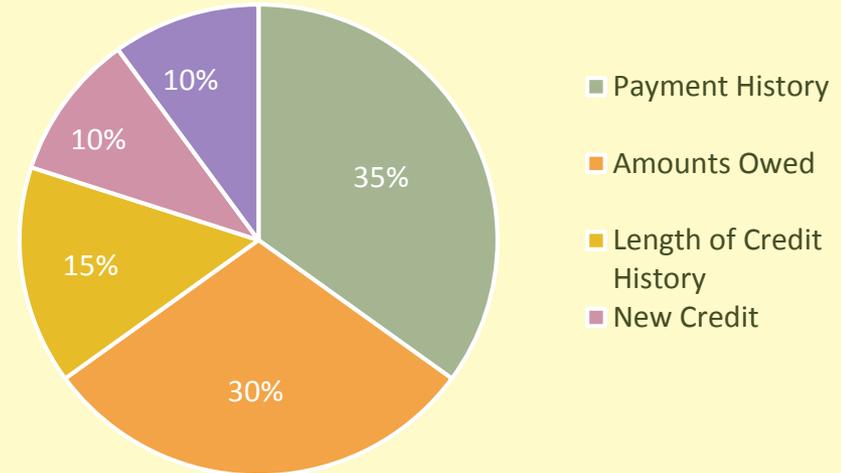


# What is a credit score?

- Your credit score is a statistical method of assessing risk. It is a number which represents an estimate of an individual's financial creditworthiness at a particular point in time and is used to predict the relative likelihood that an individual will repay a credit obligation.
- Scores range from 300 – 850
- Most people score in the 600s and 700s

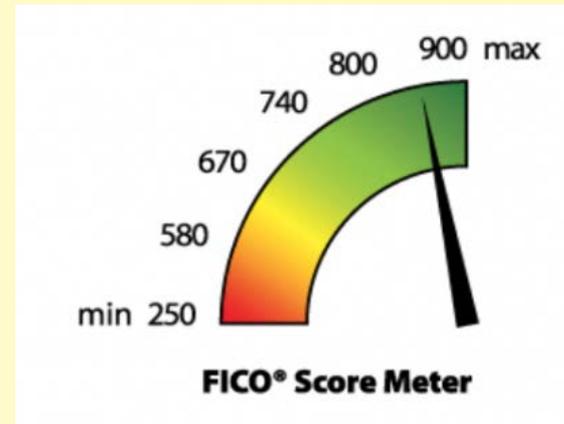
# FICO Scores

- **FICO scores are calculated based on your rating in five general categories:**
- **35%:** Based on payment history (on-time pays or delinquencies) More weight on current pay history
- **30%:** Capacity
- **15%:** Length of credit
- **10%:** Accumulation of debt in the last 12-18 months
  - Number of inquiries
  - Opening dates
- **10%:** Mix of credit
  - Installment (raises) vs. revolving (lowers)
  - Number of finance company loans the lower the score



# How to Improve the Scores

- Pay down on credit cards
- Do not close credit cards because capacity will decrease and history is lost
- Continue to make payments on time (older late pays will become less significant with time)
- Slow down on opening new accounts
- Acquire a solid credit history with years of experience



# Question 4



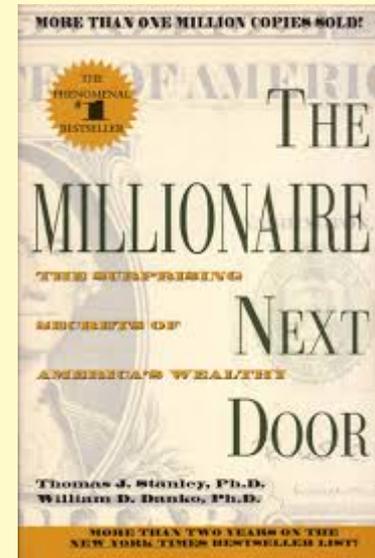
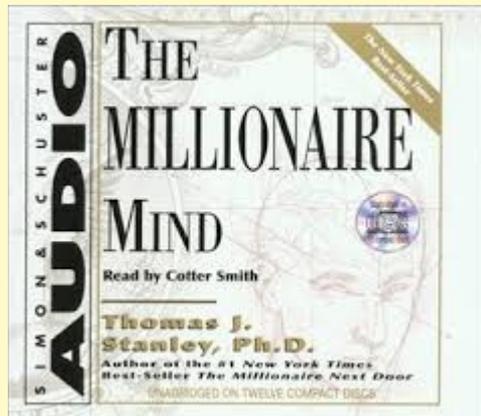
- Most millionaires drive expensive new cars.



False: Most millionaires spend under \$30,000 for a car. Only 23% of millionaires drive a current-year (new model) car.

# Characteristics of Millionaires

- They live *below* their means.
  - Live in *modest* homes.
  - Drive *used* cars.
  - Shop at stores that offer *good value*.
- They invest heavily in their children's *education* - - and not more than that.
- They spend *time* on financial planning.



# Don't Buy Stuff You Cannot Afford



# Rule 2

- Live below your means.



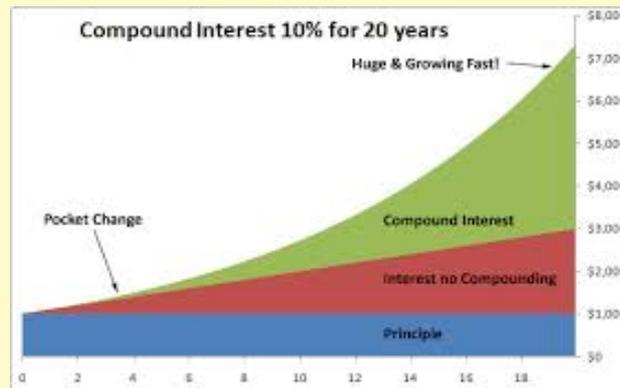
# Question 5



- At age 22, you decide not buy a latte and a muffin each day. You invest this \$5.00 a day at 8% annual interest until you are 65. At age 65, your savings from not having your latte is over \$675,000.

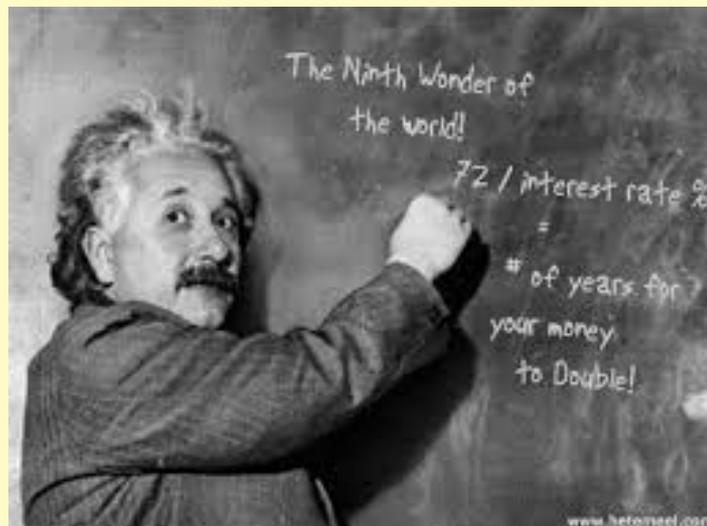
# Question 5 Answer

- True:
- <http://www.econedlink.org/tool/2/Compound-Interest-Calculator>
- Because of the power of compound interest, small savings can make a difference.
- 8% is the average annual return on mutual funds over the past 30 years.
- It pays to resist temptation and live below your means.



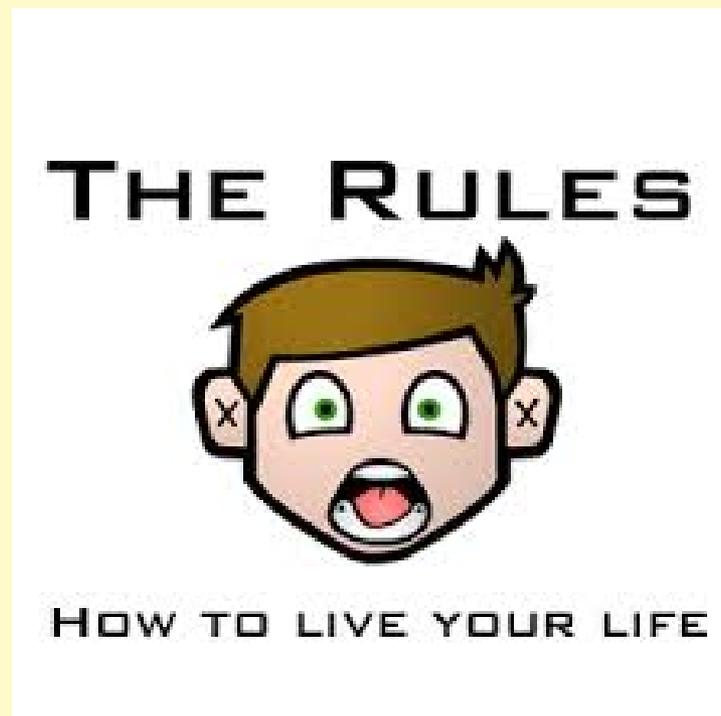
# The Magic of Compounding

- When you save, you get interest.
- When you take the interest out and spend it, it stops growing.
- But if you leave the interest in so it can grow you start to earn *interest on the interest you earned*.
- Interest on interest is money you didn't work for – your money made it for you!
- Rule of 72:  $72 / \text{interest rate} = \text{years to double money}$



# Rule 3

- Start early.



# Rules for Improving Your College Financial Life

- Rule 1: Get a good education
- Rule 2: Live below your means
- Rule 3: Start saving early

# Questions and Prizes



# Sources of Standards-Based Curriculum

- [https://store.councilforeconed.org/shopping\\_product\\_detail.asp?pid=52408](https://store.councilforeconed.org/shopping_product_detail.asp?pid=52408)
- <https://www.econedlink.org/>
- <http://clearinghouse.jumpstart.org/>

- Questions or Comments