

# Attitude

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The longer I live, the more I realize the impact of attitude on life. Attitude to me, is more important than facts. It is more important than the past, than education, than money, than circumstances, than failures, than successes, than what other people think or say or do. It is more important than appearance, giftedness or skill. It will make or break a company.... a church.... a home. The remarkable thing is we have a choice everyday regarding the attitude we will embrace for that day. We cannot change our past.... we cannot change the fact that people will act in a certain way. We cannot change the inevitable. The only thing we can do is plan on the one string we have, and this is our attitude.... I am convinced that life is 10% what happens to me and 90% how I react to it. And so it is with you.... We are in charge of our attitudes.

# How **CECL** Will Impact Your Credit Union & What You Can Do to Prepare For It

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TCT Risk Solutions, LLC

# Current ALLL Methodology

1

Let's start by examining common methodology used today:

- Accounting Standards Codification (ASC)
- Loss Allowance Based on Incurred Losses(GAAP)

2

ASC 450-20 Loss and Gain Contingencies (formerly FAS 5)

- Homogeneous Pools

3

ASC 310-10 Receivables (formerly FAS 114)

- Individually Identified Loans

## Base Line of Current Practices

# Basic Assumptions

Incurred Loss assumes that the past period is a predictor of the future year.

This assumes that economic factors remain stable.

It also assumes that members' credit status remain stable.

# How Does Incurred Loss Work

Consider a single  
pool of Auto Loans

Assume a 1-Year  
incurred loss period

Calculate an  
incurred loss rate

1

Calculate the rolling average balance for the past year

2

Calculate net charge offs for the past year

3

Divide net charge-offs by rolling average balance to calculate Loss Rate

4

Multiply Loss Rate times the current balance to calculate ALLL requirement

# How Does Incurred Loss Work

1. Calculate the rolling average balance for the past year

	Jan	Feb	Mar	Apr	May	Jun
<b>Balance</b>	<b>\$ 10,000,000</b>	<b>\$ 10,200,000</b>	<b>\$ 10,320,000</b>	<b>\$ 10,256,000</b>	<b>\$ 10,750,000</b>	<b>\$ 10,780,000</b>
Jul	Aug	Sep	Oct	Nov	Dec	Rolling Avg.
<b>\$ 10,850,000</b>	<b>\$ 10,925,000</b>	<b>\$ 11,050,000</b>	<b>\$ 11,075,000</b>	<b>\$ 11,125,000</b>	<b>\$ 11,120,000</b>	<b>\$ 10,704,250</b>

2. Calculate net charge offs for the past year

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Avg. C/O
<b>C/O</b>	\$ 3,500	\$ -	\$ 1,750	\$ 1,200	\$ 560	\$ -	\$ -	\$ 1,200	\$ 750	\$ -	\$ -	\$ 2,500	\$ 955
<b>Recoveries</b>	\$ 250	\$ 250	\$ 500	\$ -	\$ -	\$ -	\$ -	\$ 600	\$ 150	\$ -	\$ -	\$ 1,200	\$ 246
<b>Net C/O</b>	\$ 3,250	\$ (250)	\$ 1,250	\$ 1,200	\$ 560	\$ -	\$ -	\$ 600	\$ 600	\$ -	\$ -	\$ 1,300	\$ 709

# How Does Incurred Loss Work

3. Divide net charge-offs by rolling average balance to calculate Loss Rate

Net C/O	\$ 8,510
Rolling Avg.	\$ 10,704,250
Loss Factor	0.080%

4. Multiply Loss Rate times the current balance to calculate ALLL requirement

Balance	\$ 11,120,000
Loss Rate	0.080%
ALLL Req.	\$ 8,840.526

## Basic Assumptions

Losses will remain consistent with the past 12 months.

Recoveries will remain consistent with the past 12 months.

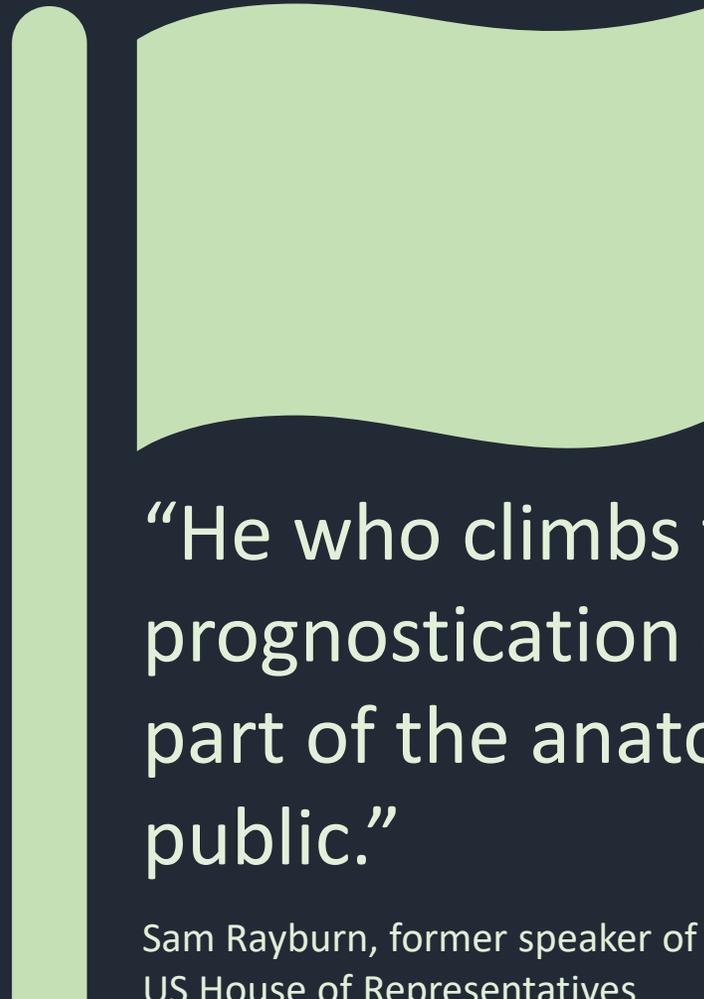
Net losses will remain steady for the next 12 months.

Net, we assume that loss will not exceed \$8,840.53 over the next 12 months

How Does  
Incurred  
Loss Work

# Expected Credit Losses

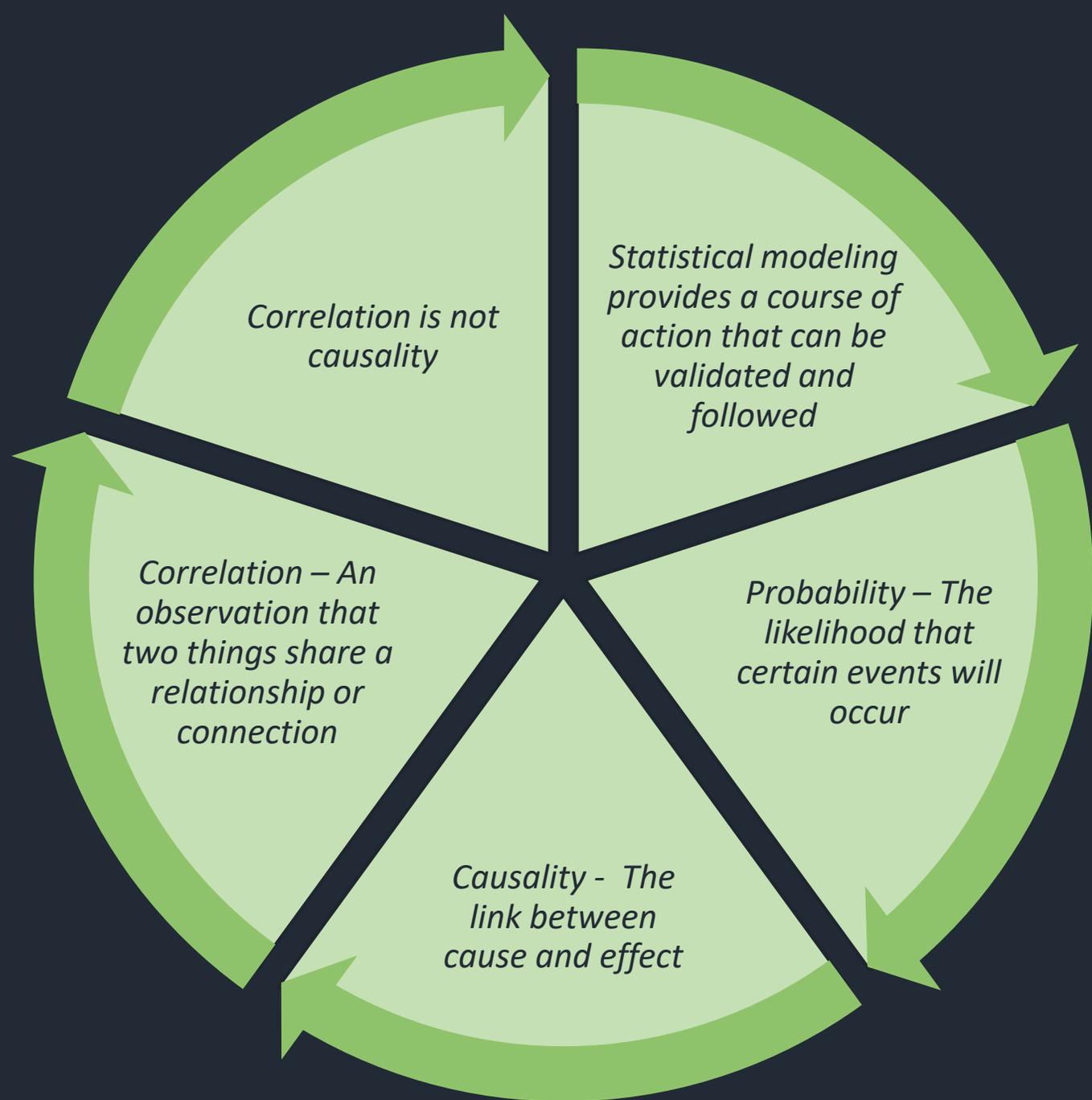
Predictions of future  
events can be  
troublesome



“He who climbs the flagpole of  
prognostication exposes only one  
part of the anatomy to the general  
public.”

Sam Rayburn, former speaker of the  
US House of Representatives

# Expected Credit Losses



# Expected Credit Losses

Our goal is to identify causal links that can be used as predictors of expected outcomes

The outcome we are examining is loan loss

If we can identify statistically valid predictors then we can use them to predict future losses

Some potential factors may be:

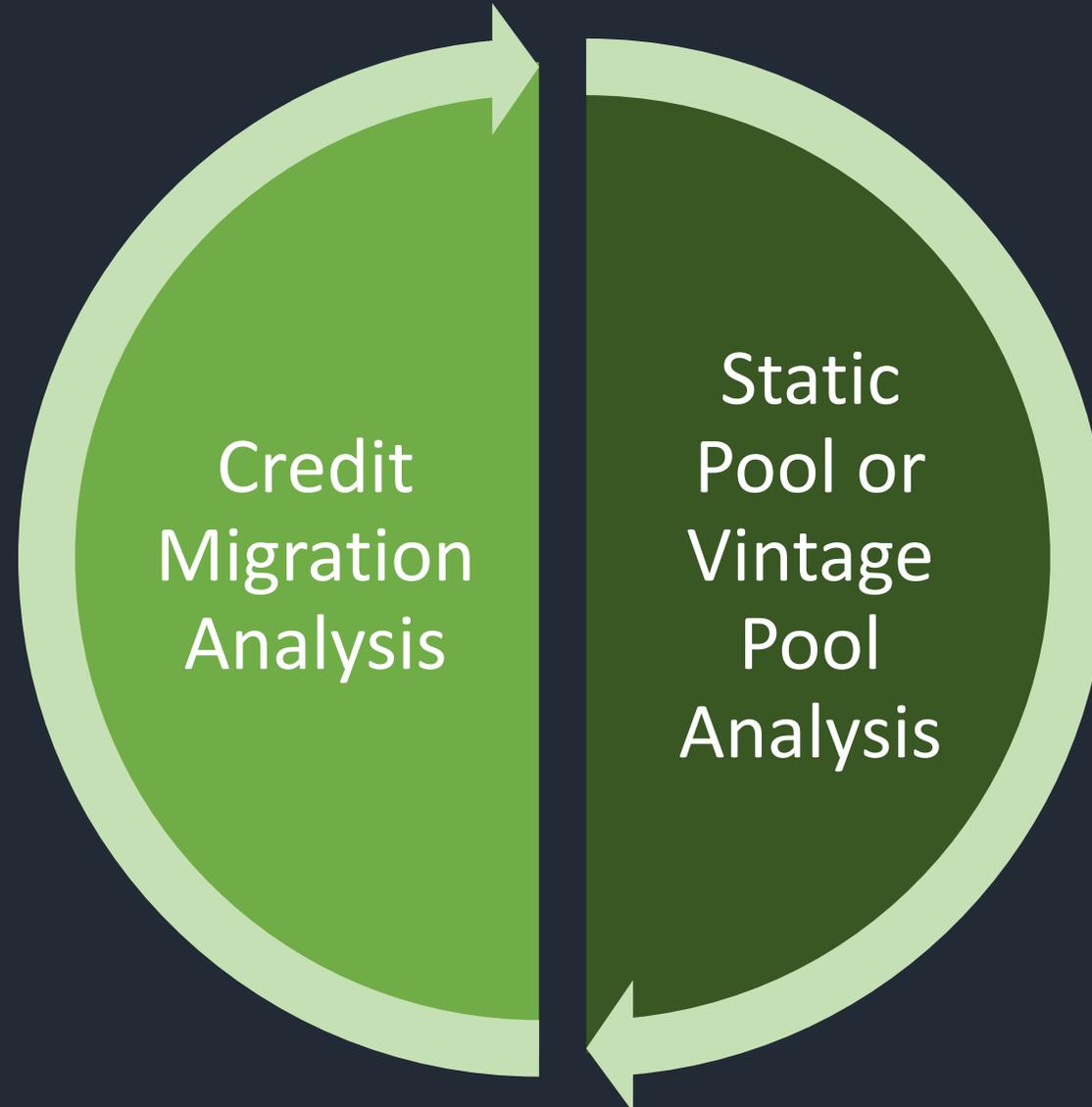
- Employment status
- Delinquency status
- Charge offs
- LTV
- Income or DTI
- Collections

# Regression Analysis Outcomes

The most significant predictors are:

- Change in Credit Score
- Advanced Delinquency
- Change in Economic Condition
  - Change in Cash Flow
  - Unsecured Balances

# Potential Methods for Calculation



# Static Pool Analysis

Establish base period (homogeneous period)

What is Homogeneity?

# Static Pool Analysis

Collect information on all similar loans in base period

- Loan pools are created for homogeneous loans
  - Any change to any variable closes a pool
    - This results in creation of a new pool
  - This process repeats for every loan type

# Static Pool Analysis

Maintain data tracking on all loans for each static pool

- We must identify data that predicts performance
- We must collect that data for each and every pool
- We must maintain each data pool independently
  - We must analyze data and interrelate pools

# Static Pool Analysis

Update the data as economy changes

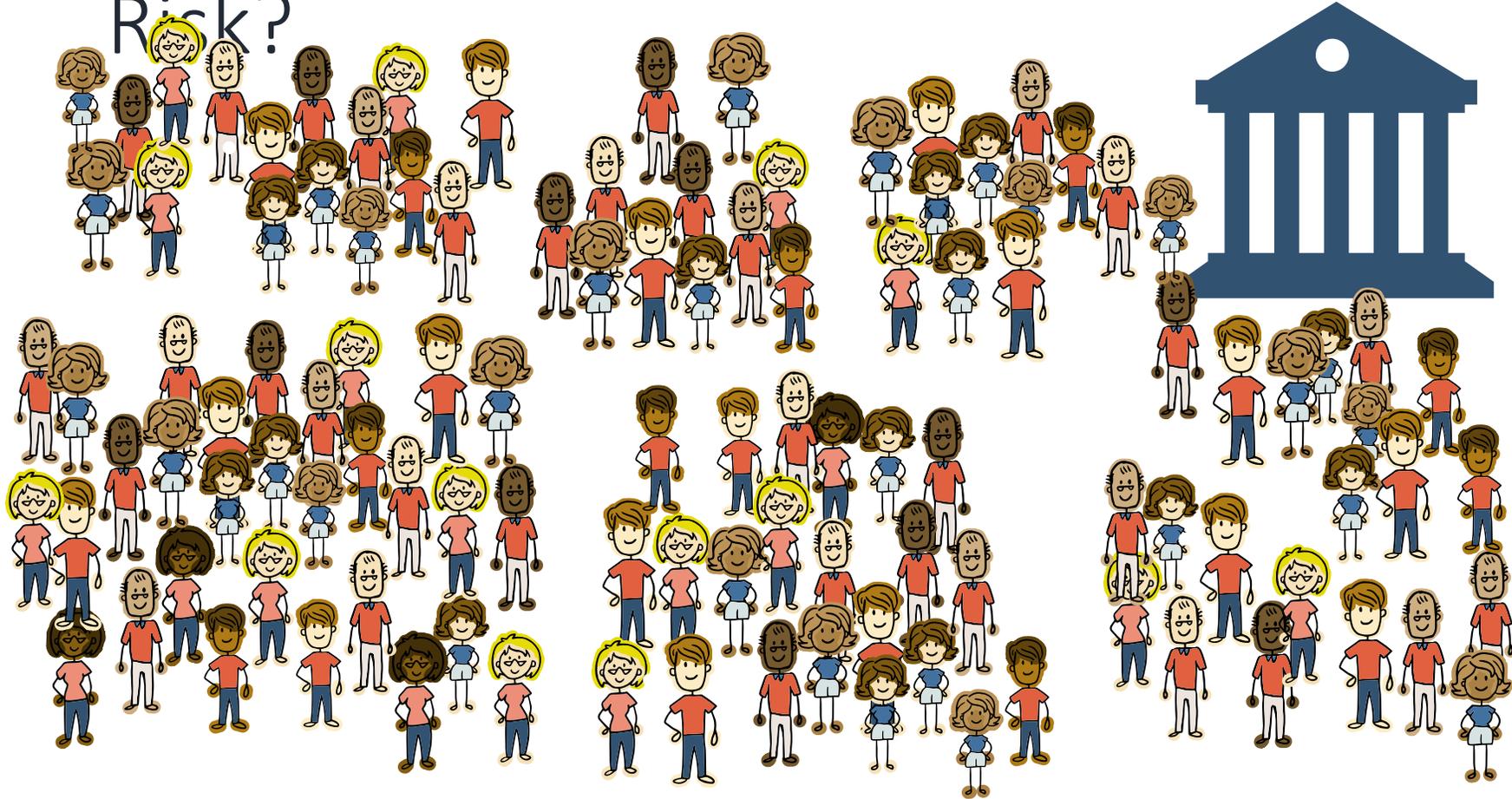
- Data collection continues as long as loan are active
  - Data collection must coincide with environment
  - Independent verification of data may be required

# Static Pool Analysis

Repeat for all loan types

- Changing factors such as policies, staffing, economy, pricing, training or underwriting can trigger new pools
- That means extensive data collection, maintenance and analytics

# Who Is Putting the Credit Union at Risk?





Are you as overwhelmed by all  
these requirements as we are?

# Static Pool Analysis

As conditions (economy, policies, staffing, skills) change create new pools



This means you could have  
hundreds of pools in your  
combined data base

# Static Pool Analysis

Requires significant data collection and storage



Requires sophisticated statistical analysis



Only focuses on deteriorating loans

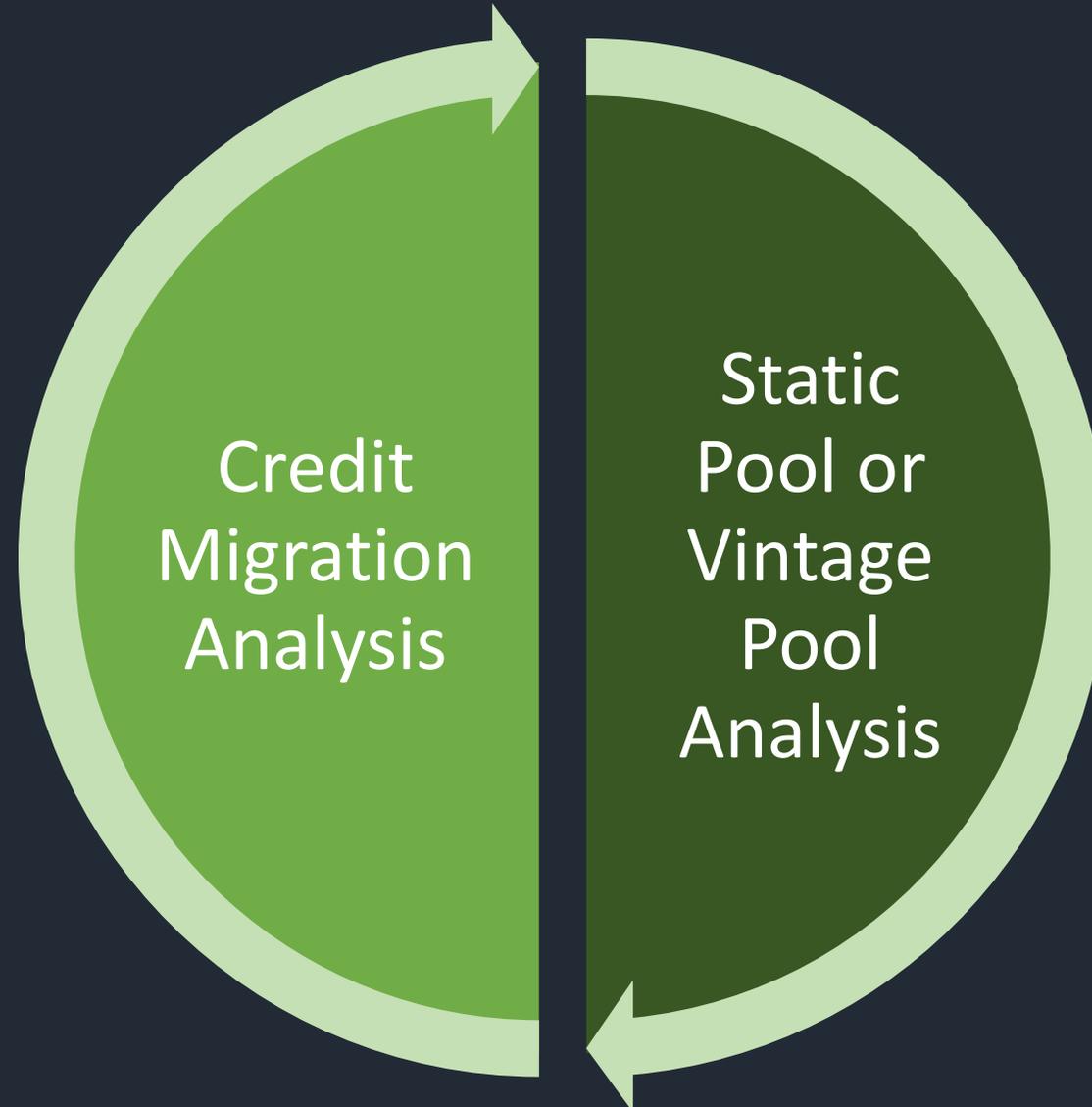
# Statistical Application

- Create Regression Lines predicting loss expectations
  - *Need data collected over life of loans*
  - *Must correlate or connect multiple pools*
  - *Must be updated on a regular basis*

# Direct Implications of Static Pool

- Static Pool or Vintage Pool Analysis
  - *Unidirectional - Fails to account for multiple movements*
  - *Time Specific – Requires multiple pools to account for variable changes (economy, policy, staffing, etc.)*
  - *Single Application – Focused on ALLL only*

# Potential Methods for Calculation



# Credit Migration

Valid and Robust Response to CECL

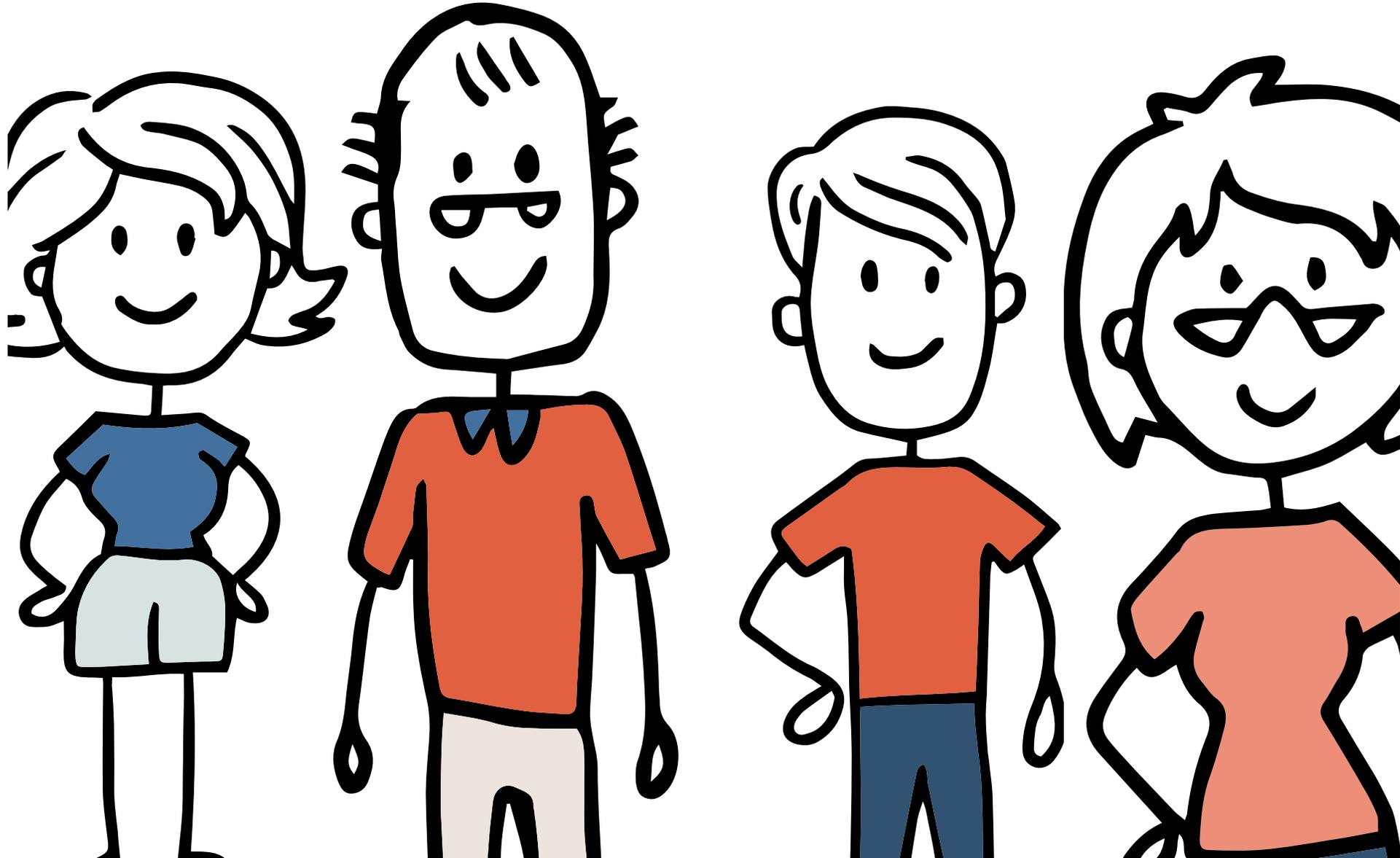
Added Value from Portfolio Management?

Understanding your Loan Portfolio	Credit risk can Increase or Decrease Which risk pools are improving impairing?
Identifying Potential Problems	Isolate impaired loans and react to them early Understand the risk in your pools then adjust underwriting and management practices
Identifying Emerging Opportunities	Recognize Members that are making smart decisions Proactively offer ways to help your members Understand which pools of loans allow for more risk
Applying Precision in Allowance Calculation	Statistically based calculation Compliant with regulations

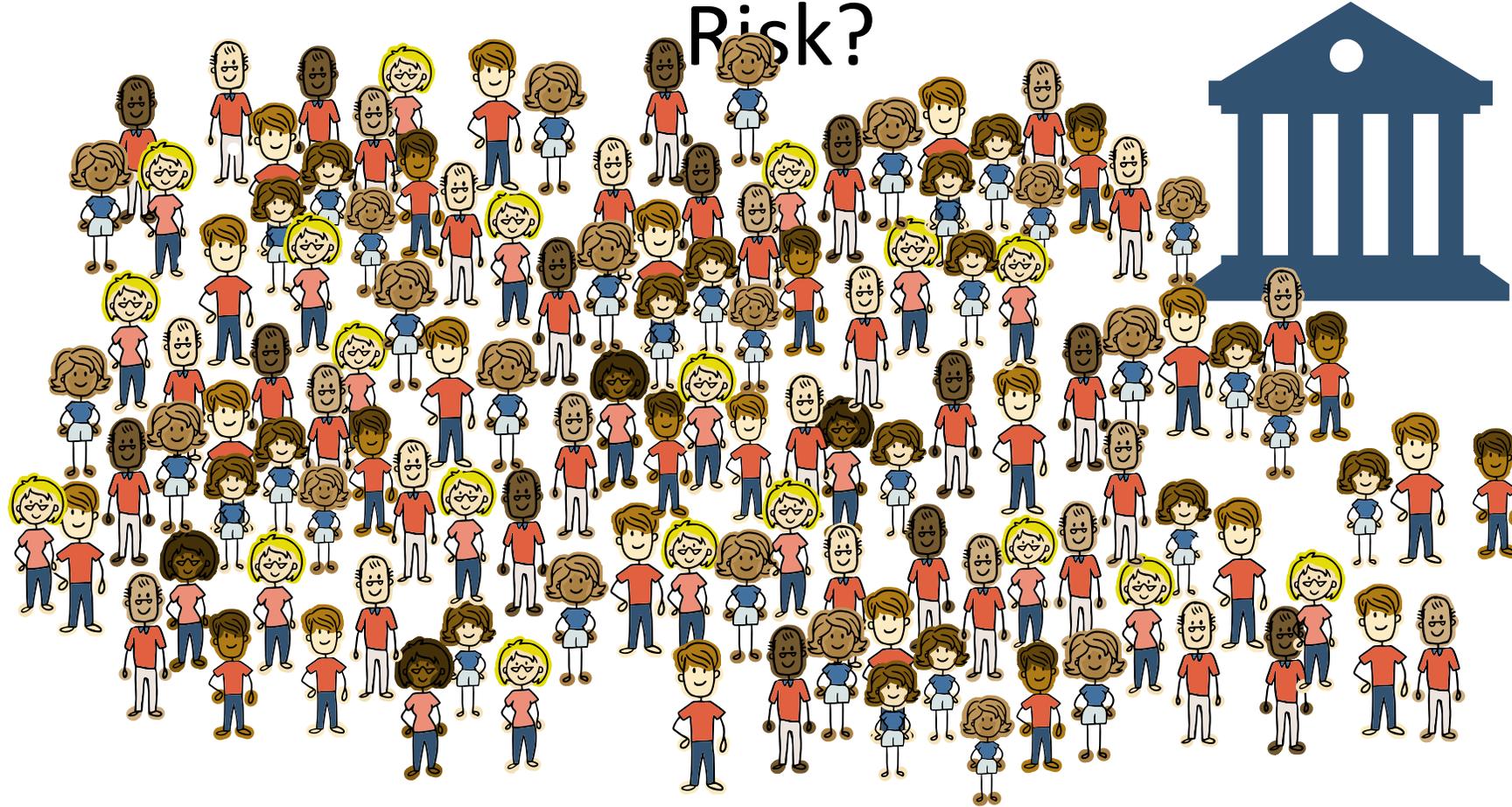
# Credit Migration

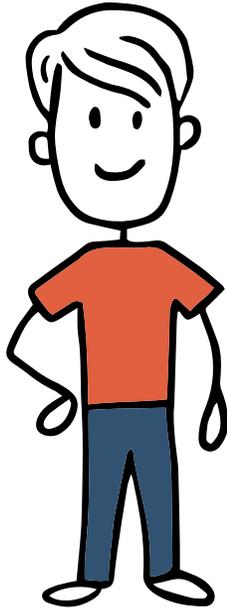


# WHAT IS CREDIT MIGRATION & WHY SHOULD YOU CARE?



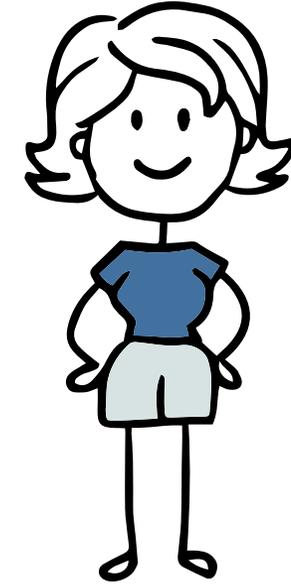
# Who Is Putting the Credit Union at Risk?





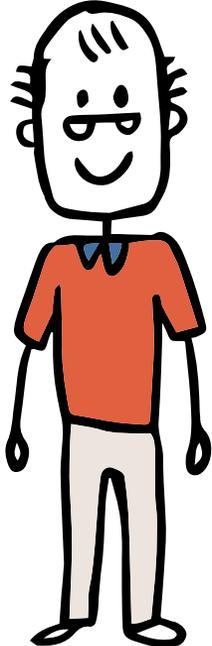
In this presentation we will tell the story of four individuals that represent credit union members.

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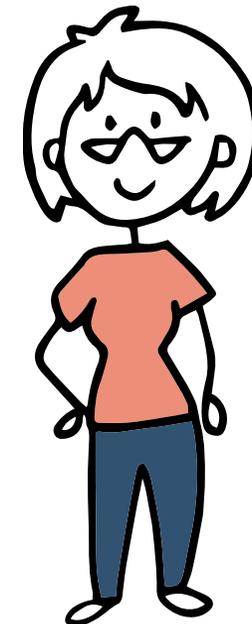


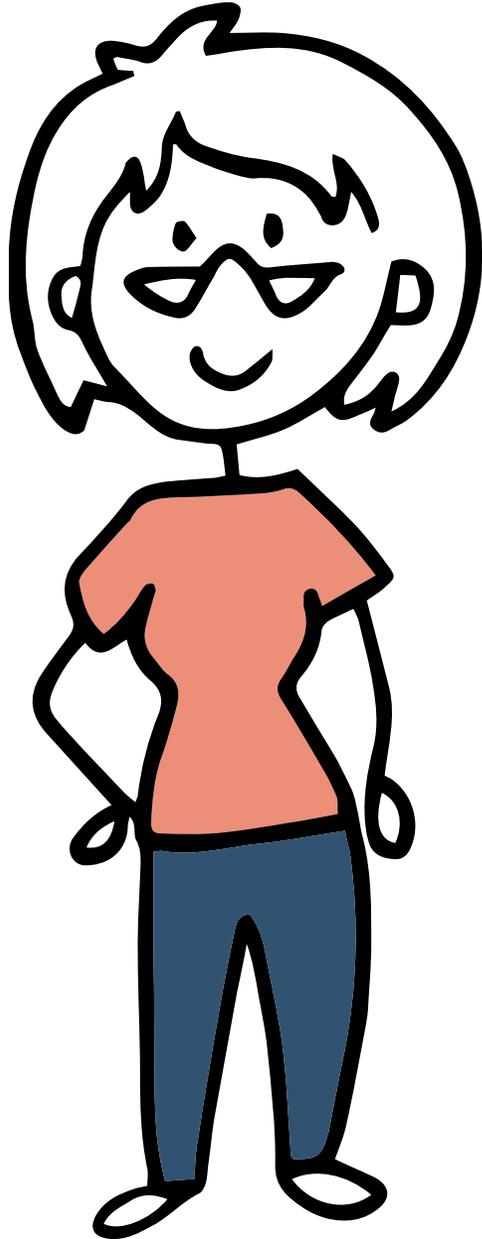
Understanding their stories will help us improve our lending and serve our members better.

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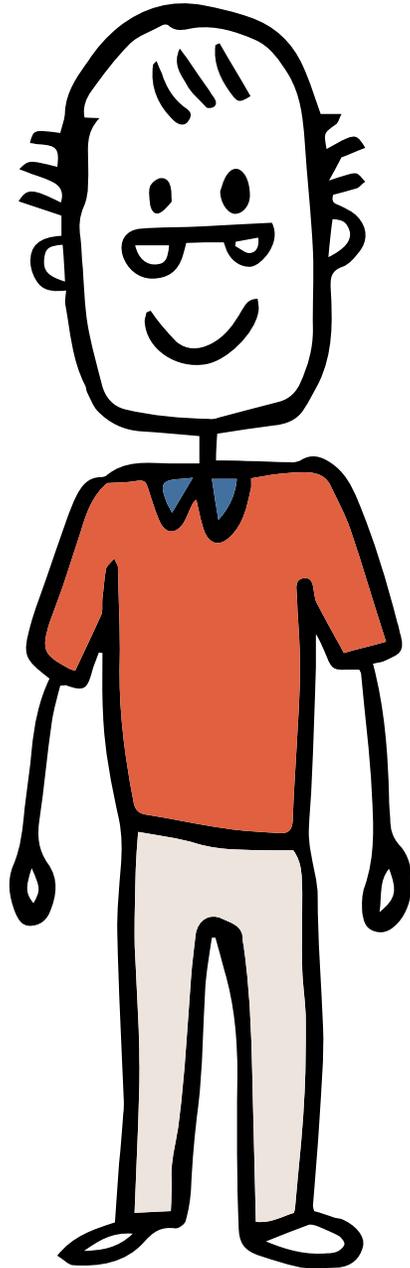
Sit back and enjoy the story of  
**CREDIT MIGRATION**





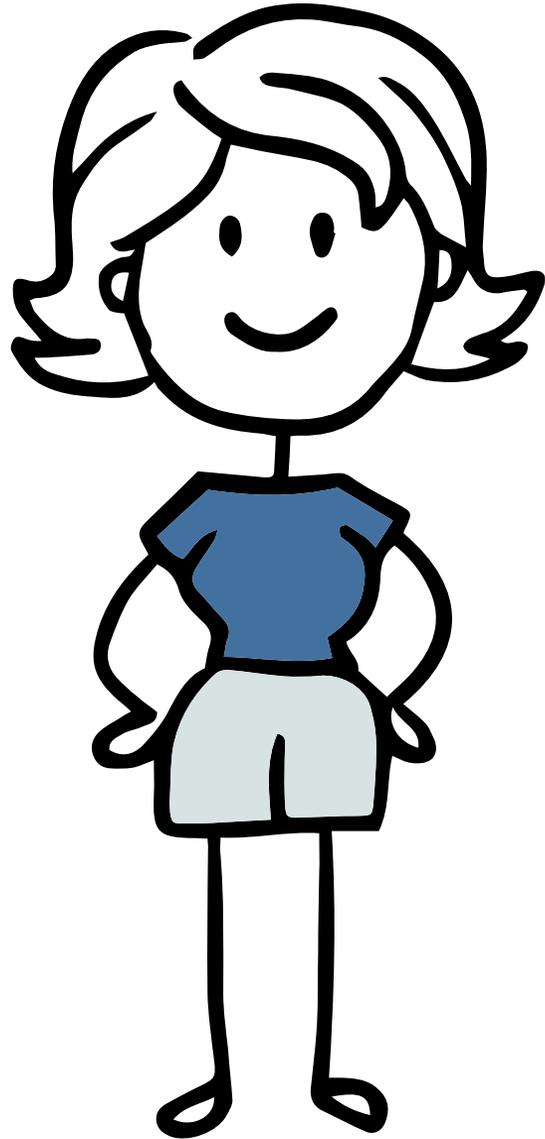
# Ruth

Good ole' Ruthie has a high B credit score. She never gets too wild. She buys the same things month after month, she never overspends. Good Ole' Ruthie is still a high B today!



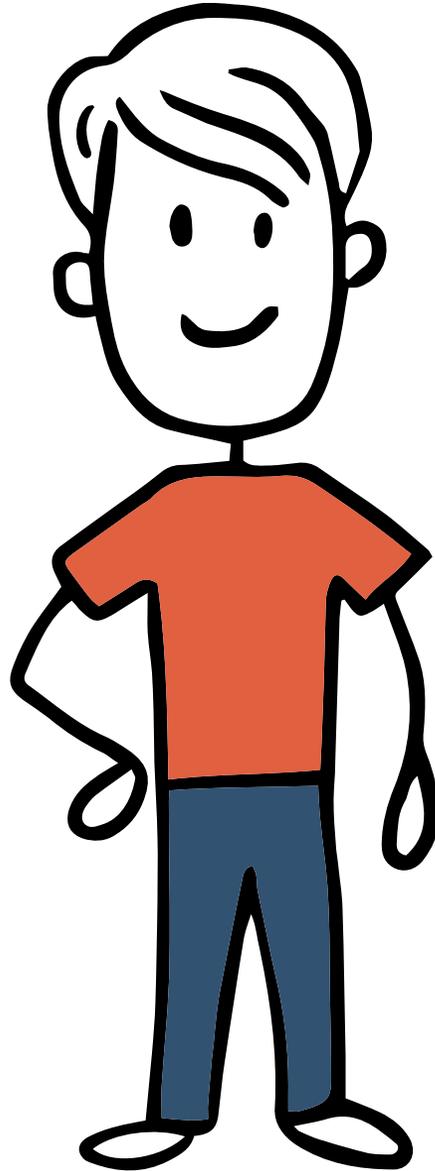
# Henry

When Henry first came to your Credit Union, he had A+ credit. Several months ago, Henry lost his job, but he didn't change his lifestyle. He started living off of credit cards and today his credit score is a D.



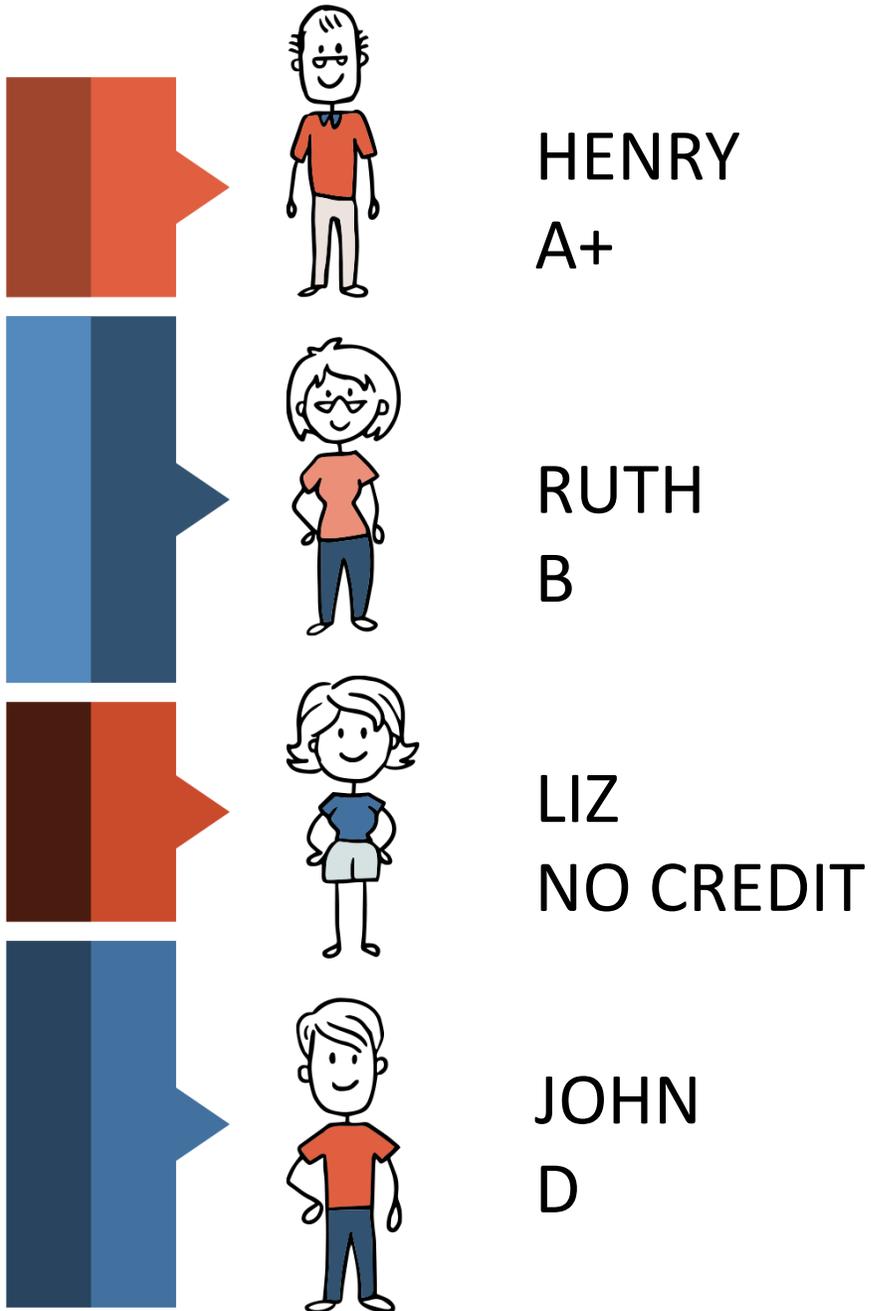
# Liz

Liz is a credit newbie. Your credit union decides to take a chance and approve her for a car loan. Over the past few months she has built her credit up to an impressive A+.

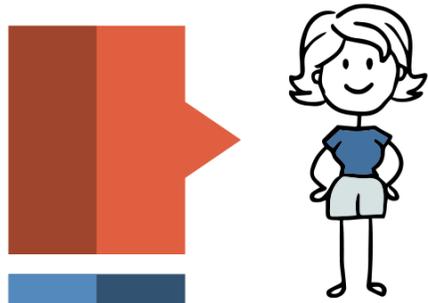


# John

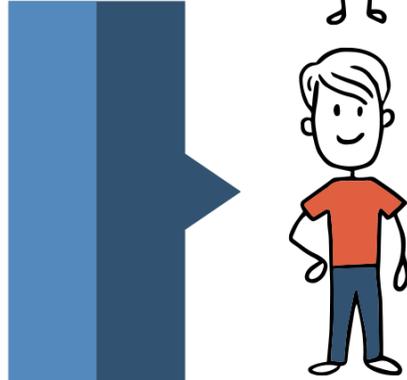
Was down on his luck when your credit union financed a car loan for him. His credit was a D. However, his luck turned around and he was able to find a job, make payments on time and even save a buck or two. Today his credit score is an A.



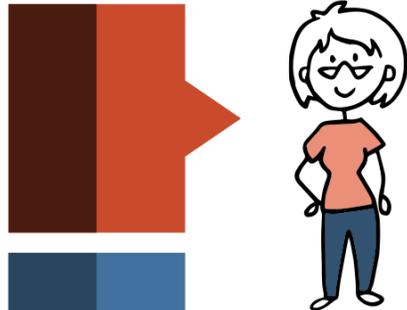
This was  
their credit  
scores a  
year ago.



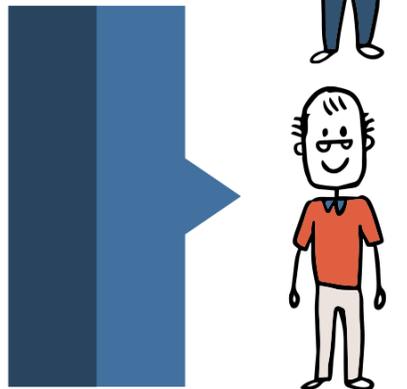
LIZ  
NO CREDIT TO A+  
**IMPROVED**



JOHN  
D TO AN A  
**IMPROVED**

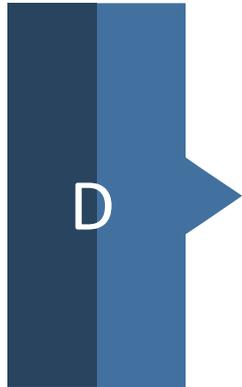
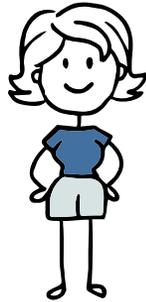
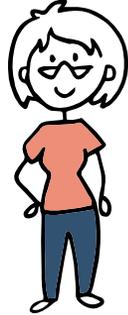
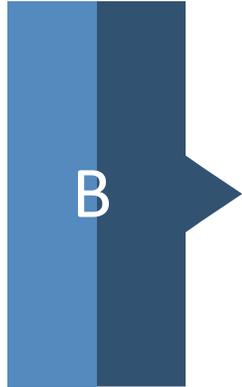
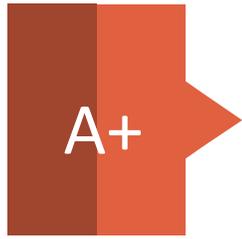


RUTH  
B CREDIT SCORE  
**STABLE**

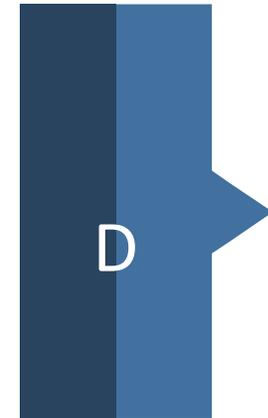
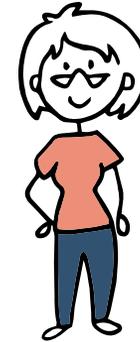
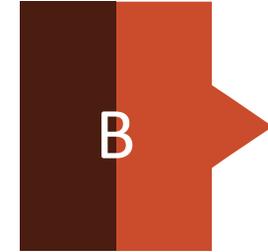
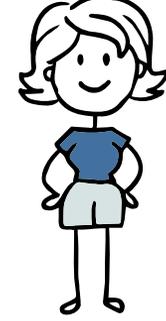
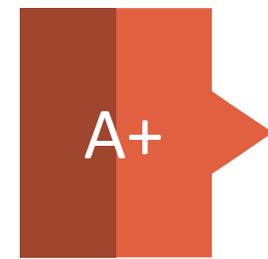


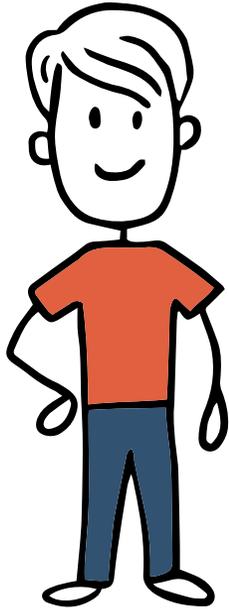
HENRY  
A+ TO D  
**IMPAIRED**

This is  
where they  
are today.



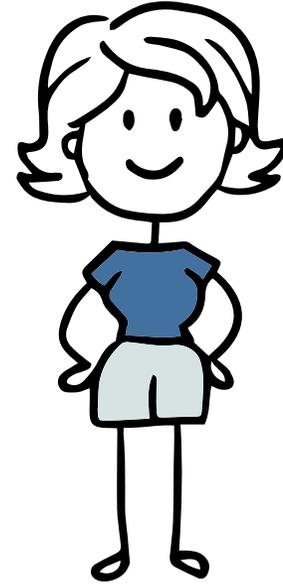
Are you still offering services based on their credit scores a year ago?





Individuals come to your credit union for loans from all different walks of life.

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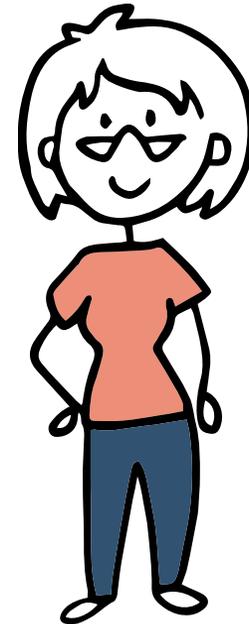


You serve people of varying ages, ethnicities, occupations and financial situations.

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Our job as lenders is to examine those differences and make good decisions to balance risk and member services.



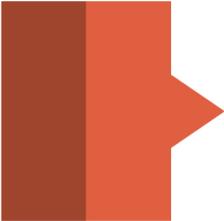
# Understand Your Credit Portfolio

Sample Credit Union Risk Change By Credit Score For Period Ending 11/30/2012										
Dollar		Original FICO Grades								Grand Total
Current FICO		A+	A	B	C	D	E	Not Reported		
A+	740+	\$ 33,886,855	\$ 4,911,282	\$ 1,696,945	\$ 425,522	\$ 105,543	\$ 63,014	\$ 3,184,419	\$ 44,273,580	
A	690-739	\$ 7,886,015	\$ 11,359,190	\$ 5,212,544	\$ 857,840	\$ 146,917	\$ 147,464	\$ 1,828,060	\$ 27,438,030	
B	660-689	\$ 1,857,191	\$ 4,601,064	\$ 10,527,101	\$ 2,055,535	\$ 1,333,417	\$ 158,714	\$ 537,630	\$ 21,070,652	
C	630-659	\$ 910,286	\$ 910,852	\$ 2,541,847	\$ 2,547,064	\$ 886,367	\$ 848,199	\$ 268,658	\$ 8,913,273	
D	600-629	\$ 17,970	\$ 123,766	\$ 1,503,642	\$ 2,480,152	\$ 715,706	\$ 525,812	\$ 526,391	\$ 5,893,438	
E	<600	\$ 91,237	\$ 610,842	\$ 1,026,951	\$ 2,088,359	\$ 717,708	\$ 643,272	\$ 563,043	\$ 5,741,413	
Not Reported		\$ 75,089	\$ 29,047	\$ 481,778	\$ 189,437	\$ -	\$ 300	\$ 472,982	\$ 1,248,632	
Grand Total		\$ 44,724,643	\$ 22,546,043	\$ 22,990,809	\$ 10,643,908	\$ 3,905,658	\$ 2,386,776	\$ 7,381,182	\$ 114,579,017	
Loans Not Risk Rated and Adjustments									\$ 29,805,954	
Total in Portfolio									\$ 144,384,972	
Percent		Original FICO Grades								Grand Total
Current FICO		A+	A	B	C	D	E	Not Reported		
A+	740+	75.77%	21.78%	7.38%	4.00%	2.70%	2.64%	43.14%	38.64%	
A	690-739	17.63%	50.38%	22.67%	8.06%	3.76%	6.18%	24.77%	23.95%	
B	660-689	4.15%	20.41%	45.79%	19.31%	34.14%	6.65%	7.28%	18.39%	
C	630-659	2.04%	4.04%	11.06%	23.93%	22.69%	35.54%	3.64%	7.78%	
D	600-629	0.04%	0.55%	6.54%	23.30%	18.32%	22.03%	7.13%	5.14%	
E	<600	0.20%	2.71%	4.47%	19.62%	18.38%	26.95%	7.63%	5.01%	
Not Reported		0.17%	0.13%	2.10%	1.78%	0.00%	0.01%	6.41%	1.09%	
Grand Total		100%	100%	100%	100%	100%	100%	100%	100%	

Migration matrix for total portfolio

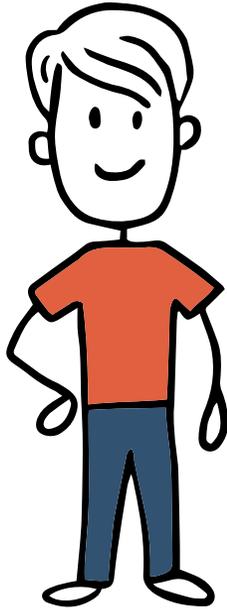
Original FICO vs. Current FICO

# Understand Your Credit Portfolio



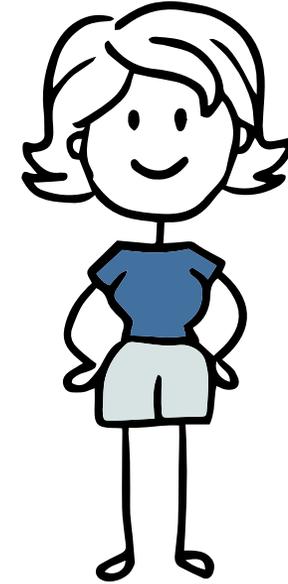
Sample Credit Union Risk Change By Credit Score For Period Ending 11/30/2012									
Auto New									
Dollar		Original FICO Grades							Grand Total
Current FICO	A+	A	B	C	D	E	Not Reported		
A+ 740+	\$ 1,924,155	\$ 190,017	\$ 125,943	\$ -	\$ -	\$ -	\$ 24,552	\$ 2,264,668	
A 690-739	\$ 360,661	\$ 447,450	\$ 88,585	\$ 40,169	\$ -	\$ -	\$ 59,465	\$ 996,330	
B 660-689	\$ 34,572	\$ 162,575	\$ 383,054	\$ 116,649	\$ 2,693	\$ -	\$ 36,524	\$ 736,068	
C 630-659	\$ 13,286	\$ 78,506	\$ 148,554	\$ 211,129	\$ 58,047	\$ -	\$ 64,065	\$ 573,588	
D 600-629	\$ -	\$ 5,813	\$ 97,333	\$ -	\$ 118,488	\$ 48,928	\$ 66,947	\$ 337,508	
E <600	\$ 19,031	\$ 9,807	\$ 57,657	\$ 78,748	\$ 94,839	\$ 24,611	\$ 24,402	\$ 309,095	
Not Reported	\$ -	\$ -	\$ -	\$ 4,118	\$ -	\$ -	\$ 85,936	\$ 90,054	
<b>Grand Total</b>	<b>\$ 2,351,706</b>	<b>\$ 894,168</b>	<b>\$ 901,126</b>	<b>\$ 450,813</b>	<b>\$ 274,068</b>	<b>\$ 73,538</b>	<b>\$ 361,891</b>	<b>\$ 5,307,311</b>	
Loans Not Risk Rated and Adjustments									\$ -
<b>Total in Portfolio</b>									<b>\$ 5,307,311</b>
Percent		Original FICO Grades							Grand Total
Current FICO	A+	A	B	C	D	E	Not Reported		
A+ 740+	81.82%	21.25%	13.98%	0.00%	0.00%	0.00%	6.78%	42.67%	
A 690-739	15.34%	50.04%	9.83%	8.91%	0.00%	0.00%	16.43%	18.77%	
B 660-689	1.47%	18.18%	42.51%	25.88%	0.98%	0.00%	10.09%	13.87%	
C 630-659	0.56%	8.78%	16.49%	46.83%	21.18%	0.00%	17.70%	10.81%	
D 600-629	0.00%	0.65%	10.80%	0.00%	43.23%	66.53%	18.50%	6.36%	
E <600	0.81%	1.10%	6.40%	17.47%	34.60%	33.47%	6.74%	5.82%	
Not Reported	0.00%	0.00%	0.00%	0.91%	0.00%	0.00%	23.75%	1.70%	
<b>Grand Total</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	

Migration matrix for EACH unique risk pool

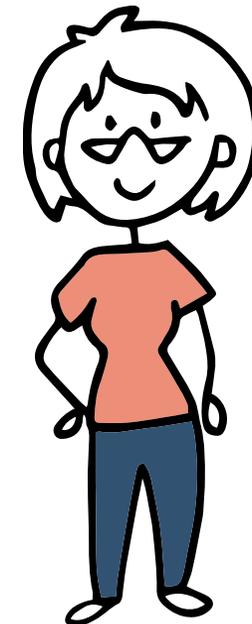
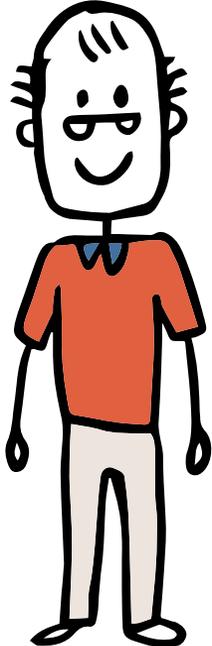


Credit unions create lending policies and underwriting procedures to direct the evaluation of risk for each member and guide the loan approval process.

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One thing we need to understand is that the member's financial condition may change after the loan has been either approved or denied.



# Ruth

## IDENTIFYING UNCHANGED LOANS



Risk Change By Credit Score								
For Period Ending MM/DD/20YY								
Dollar		Original Credit Grade						
Current Credit Grade		A+	A	B	C	D	E	Not Reported
A+	740+	\$ 44,240,499	\$ 2,713,196	\$ 931,327	\$ 355,450	\$ 75,223	\$ 16,765	\$ 10,308,316
A	700-739	\$ 6,145,533	\$ 16,186,948	\$ 1,411,524	\$ 662,827	\$ 268,604	\$ 15,176	\$ 2,667,577
B	655-699	\$ 1,368,899	\$ 3,219,075	\$ 9,696,516	\$ 869,699	\$ 200,292	\$ 135,009	\$ 2,283,109
C	625-654	\$ 1,142,494	\$ 1,114,459	\$ 1,813,307	\$ 5,461,271	\$ 461,091	\$ 113,156	\$ 779,646
D	570-624	\$ 498,987	\$ 723,410	\$ 939,349	\$ 1,149,676	\$ 2,757,908	\$ 212,973	\$ 697,122
E	< 570	\$ 90,753	\$ 339,731	\$ 286,460	\$ 387,434	\$ 350,146	\$ 488,383	\$ 603,848
Not Reported		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,465,214
Total		\$ 53,487,165	\$ 24,296,820	\$ 15,078,483	\$ 8,886,357	\$ 4,113,264	\$ 981,462	\$ 19,804,831

What should we do? Nothing 😊

Identifying Potential Problem Loans: I'm in quicksand, but I'm on a good horse



# Henry



IDENTIFYING IMPAIRED LOANS

## Risk Change By Credit Score

For Period Ending MM/DD/20YY

Dollar		Original Credit Grade						
		A+	A	B	C	D	E	Not Reported
Current Credit Grade								
A+	740+	\$ 44,240,499	\$ 2,713,196	\$ 931,327	\$ 355,450	\$ 75,223	\$ 16,765	\$ 10,308,316
A	700-739	\$ 6,145,533	\$ 16,186,948	\$ 1,411,524	\$ 662,827	\$ 268,604	\$ 15,176	\$ 2,667,577
B	655-699	\$ 1,368,899	\$ 3,219,075	\$ 9,696,516	\$ 869,699	\$ 200,292	\$ 135,009	\$ 2,283,109
C	625-654	\$ 1,142,494	\$ 1,114,459	\$ 1,813,307	\$ 5,461,271	\$ 461,091	\$ 113,156	\$ 779,646
D	570-624	\$ 498,987	\$ 723,410	\$ 939,349	\$ 1,149,676	\$ 2,757,908	\$ 212,973	\$ 697,122
E	< 570	\$ 90,753	\$ 339,731	\$ 286,460	\$ 387,434	\$ 350,146	\$ 488,383	\$ 603,848
Not Reported		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,465,214
<b>Total</b>		<b>\$ 53,487,165</b>	<b>\$ 24,296,820</b>	<b>\$ 15,078,483</b>	<b>\$ 8,886,357</b>	<b>\$ 4,113,264</b>	<b>\$ 981,462</b>	<b>\$ 19,804,831</b>

# Henry

IMPARIED LOANS



Loan Type	Balance	Original FICO	Original Grade	Current FICO	Current Grade	Open Date	Rate	Limit
Unsecured	\$ 500	759	A+	617	D	2/8/2013	14.99%	\$ 5K

Act early and minimize risks

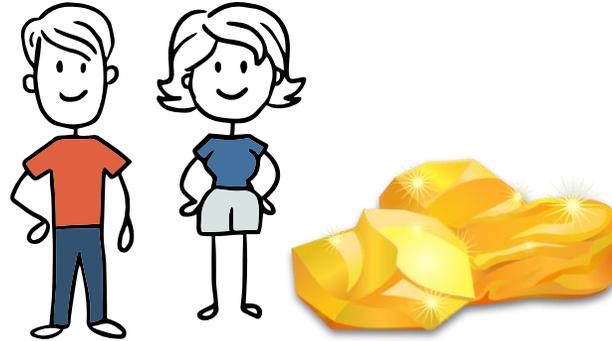
- Quality cashflow and lifestyle
- Trauma to cashflow
- Switch from cashflow to unsecure debt
- Declare bankruptcy

Identifying Emerging Opportunities: There's gold in them thar' hills!



# John & Liz

IDENTIFYING IMPROVED LOANS



## Risk Change By Credit Score

For Period Ending MM/DD/20YY

Dollar		Original Credit Grade						
Current Credit Grade		A+	A	B	C	D	E	Not Reported
A+	740+	\$ 44,240,499	\$ 2,713,196	\$ 931,327	\$ 355,450	\$ 75,223	\$ 16,765	\$ 10,308,316
A	700-739	\$ 6,145,533	\$ 16,186,948	\$ 1,411,524	\$ 662,827	\$ 268,604	\$ 15,176	\$ 2,667,577
B	655-699	\$ 1,368,899	\$ 3,219,075	\$ 9,696,516	\$ 869,699	\$ 200,292	\$ 135,009	\$ 2,283,109
C	625-654	\$ 1,142,494	\$ 1,114,459	\$ 1,813,307	\$ 5,461,271	\$ 461,091	\$ 113,156	\$ 779,646
D	570-624	\$ 498,987	\$ 723,410	\$ 939,349	\$ 1,149,676	\$ 2,757,908	\$ 212,973	\$ 697,122
E	< 570	\$ 90,753	\$ 339,731	\$ 286,460	\$ 387,434	\$ 350,146	\$ 488,383	\$ 603,848
Not Reported		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,465,214
<b>Total</b>		<b>\$ 53,487,165</b>	<b>\$ 24,296,820</b>	<b>\$ 15,078,483</b>	<b>\$ 8,886,357</b>	<b>\$ 4,113,264</b>	<b>\$ 981,462</b>	<b>\$ 19,804,831</b>

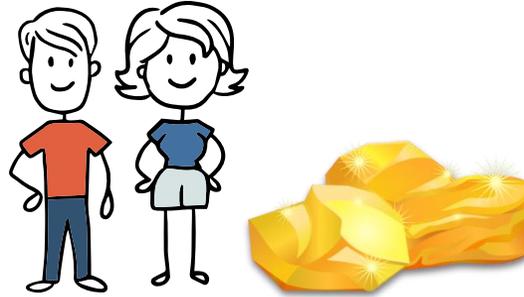
IDENTIFYING IMPROVED  
LOANS

Credit Grade Improved 3/31/2013												
Memb er #	Loan Suffix	Loan Type	Loan Pool	Current Balance	Original Credit Score	Original Credit Grade	Current Credit Score	Current Credit Score	Open Date	Interest Rate	Days DQ	Original Loan Amount
1746	10	2	Real Estate	\$ 31,769.96	692	B	789	A+	10/1/2005	4.25%	0	\$ 47,000.00
1005	10	2	Real Estate	\$ 25,517.11	557	E	677	B	4/19/2006	4.25%	0	\$ 50,000.00
1006	10	2	Real Estate	\$ 35,168.30	533	E	663	C	3/13/2009	4.78%	0	\$ 44,000.00
1007	10	9	Real Estate	\$ 15,989.59	563	E	632	D	5/31/2007	8.05%	0	\$ 30,500.00
1019	10	6	Unsecured	\$ 1,865.61	563	E	675	B	2/16/2011	7.50%	0	\$ 5,000.00
1029	10	6	Unsecured	\$ 8,159.77	590	E	669	C	5/23/2012	9.00%	0	\$ 10,000.00
1030	10	6	Unsecured	\$ 14,862.62	571	E	650	C	5/3/2012	8.73%	0	\$ 18,021.94
1034	10	6	Unsecured	\$ 4,286.21	554	E	650	C	4/8/2011	7.50%	0	\$ 10,000.00
1950	10	1	Vehicle	\$ 16,772.08	697	B	707	A	10/13/2012	2.00%	0	\$ 17,684.20
2322	10	1	Vehicle	\$ 36,732.12	733	A	749	A+	2/18/2013	3.49%	0	\$ 37,178.40
2326	10	1	Vehicle	\$ 22,699.08	720	A	801	A+	12/10/2012	1.90%	0	\$ 24,240.37
2329	10	1	Vehicle	\$ 28,045.15	735	A	744	A+	11/8/2012	2.00%	0	\$ 29,584.82
2330	10	1	Vehicle	\$ 15,868.89	706	A	772	A+	11/2/2012	1.90%	0	\$ 18,150.00
2335	10	1	Vehicle	\$ 34,567.82	738	A	757	A+	10/9/2012	1.99%	0	\$ 36,907.00
1000	1000	5	Vehicle	\$ 4,475.05	597	E	750	A+	10/12/2010	11.15%	0	\$ 6,261.17
1001	1001	5	Vehicle	\$ 3,902.40	554	E	630	D	7/23/2010	8.29%	0	\$ 6,546.45
1002	1002	5	Vehicle	\$ 3,608.73	597	E	604	D	7/27/2007	13.31%	0	\$ 10,029.61
1003	1003	4	Pledge	\$ 81,915.45	577	E	770	A+	8/25/2006	3.75%	0	\$ 100,000.00
1008	1008	6	Unsecured	\$ 9,555.28	578	E	721	A	11/24/2010	16.00%	0	\$ 12,751.98
1009	1009	6	Unsecured	\$ 1,629.90	591	E	705	A	6/9/2010	0.00%	0	\$ -
1010	1010	6	Unsecured	\$ 423.48	569	E	720	A	3/28/2008	15.00%	0	\$ 500.00



# John & Liz

Here's where you mine for



Loan Type	Balance	Original FICO	Original Grade	Current FICO	Current Grade	Open Date	Rate
New Auto	\$18,432	645	C	787	A+	4/18/12	6.50%

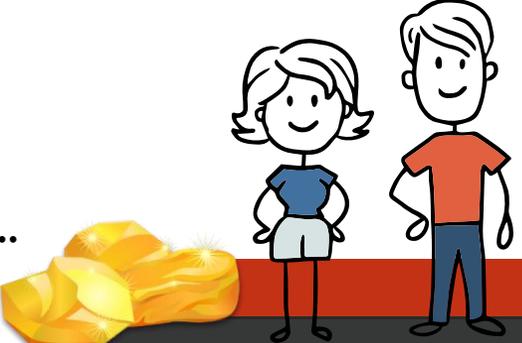
## So, how do we do it?

Liz and John are the best target group for marketing your services and for referrals to their friends.

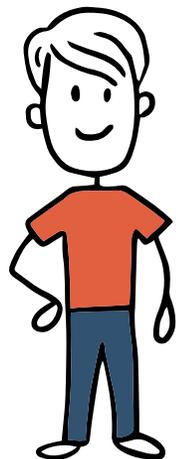
Check out these improved FICO opportunities...

Additional Services Extended to Member
VISA
HELOC
DEBIT CARD

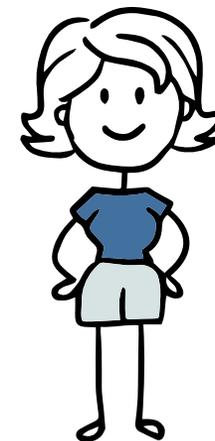
Impact For Credit Union
\$37,500 in new loan balances
\$1,000 interchange income for debit transactions



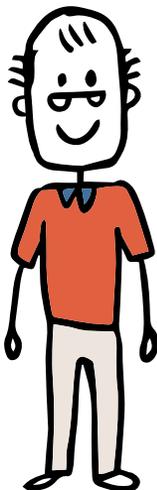
Impact For Member
Reduced interest rate and interest cost on loans
Enhanced ability to financial services



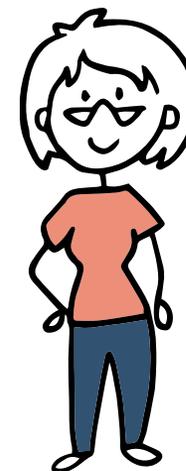
Credit migration is a win-win.  
Members with financial problems are identified earlier so they can be helped.

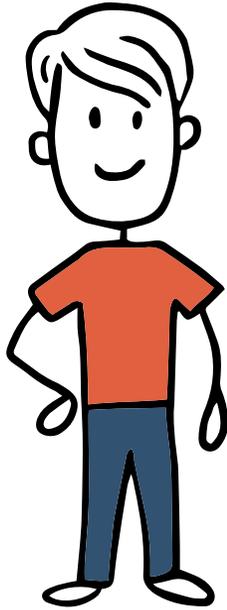


Members with improved financials receive improve access of credit.



Credit Union reduces losses, increases income and helps more members.

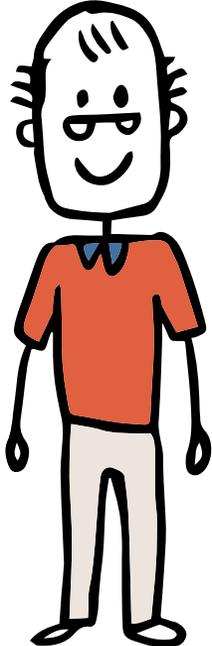




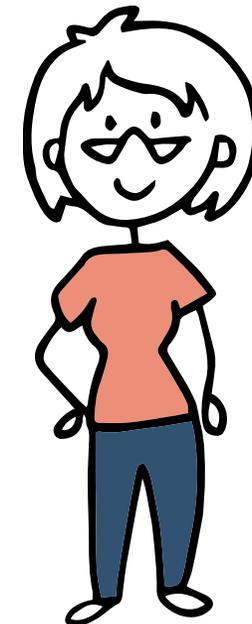
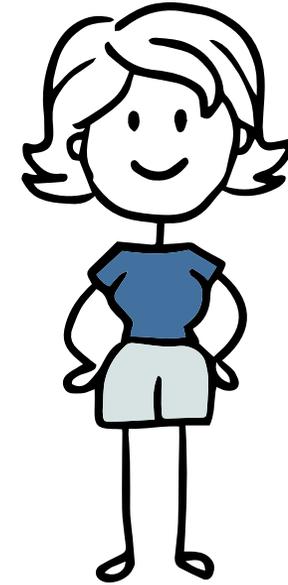
Credit migration is a win-win.

Members with financial problems are identified earlier so they can be helped.

Members with improved financials receive improve access of credit.



Credit Union reduces losses, increases income and helps more members.



## What are the bottom line impacts?

- Loan yields increase by **34** basis points by enhancing C,D and E lending
- Delinquencies declined to **0.35%**
- Charge-off ratio declined to **0.16%**
- Loan to share increased to **83%**

These factors combine to enhance income and strengthen equity



# Moving from Incurred to Expected Loss

Start with risk  
based  
methodology

Existing pools  
and incurred  
losses by pool

**Sample CU**  
**ALLL Amount Needed Calculation**

Period Ending 3/31/12

Visa	Balance	Indiv. Ident. Lns. Bal.	Ln Loss Calc Balance	Loss Rate	ALLL Amount	ALLL Amount
<b>Total</b>	\$ 785,164.07	\$ -	\$ 785,164.07	2.47%	\$	19,367.74
<b>Unsecured</b>	Balance	Indiv. Ident. Lns. Bal.	Ln Loss Calc Balance	Loss Rate	ALLL Amount	ALLL Amount
<b>Total</b>	\$ 806,320.57	\$ -	\$ 806,320.57	3.90%	\$	31,470.10
<b>New Auto</b>	Balance	Indiv. Ident. Lns. Bal.	Ln Loss Calc Balance	Loss Rate	ALLL Amount	ALLL Amount
<b>Total</b>	\$ 3,969,638.65	\$ 103,006.94	\$ 3,866,631.71	0.18%	\$	6,977.06
<b>Used Auto</b>	Balance	Indiv. Ident. Lns. Bal.	Ln Loss Calc Balance	Loss Rate	ALLL Amount	ALLL Amount
<b>Total</b>	\$ 1,679,782.66	\$ 66,592.23	\$ 1,613,190.43	1.74%	\$	28,082.43
<b>Real Estate</b>	Balance	Indiv. Ident. Lns. Bal.	Ln Loss Calc Balance	Loss Rate	ALLL Amount	ALLL Amount
<b>Total</b>	\$ 5,346,172.03	\$ 265,049.18	\$ 5,081,122.85	0.00%	\$	-
<b>All Other</b>	Balance	Indiv. Ident. Lns. Bal.	Ln Loss Calc Balance	Loss Rate	ALLL Amount	ALLL Amount
<b>Total</b>	\$ 1,519,992.75	\$ 34,193.30	\$ 1,485,799.45	0.91%	\$	13,532.31
<b>MBL</b>	Balance	Indiv. Ident. Lns. Bal.	Ln Loss Calc Balance	Loss Rate	ALLL Amount	ALLL Amount
<b>Total</b>	\$ 167,796.35	\$ -	\$ 167,796.35	0.00%	\$	-
<b>Participation Loans</b>	Balance	Indiv. Ident. Lns. Bal.	Ln Loss Calc Balance	Loss Rate	ALLL Amount	ALLL Amount
<b>Total</b>	\$ 339,851.87	\$ -	\$ 339,851.87	0.27%	\$	925.22
	Balance	Indiv. Ident. Lns. Bal.	Ln Loss Calc Balance			Total ALLL Amount
<b>ALLL Amount Needed-FAS 5</b>	\$14,614,719	\$468,842	\$14,145,877			\$ 100,354.87
<b>Environmental Factor</b>						
<b>ALLL Amount Needed-Environmental Factor</b>						\$ (3,010.65)
<b>FAS 114-Individually Identified Loans</b>			Amount at Risk	% Reserved	ALLL Needed	
Impaired Loans			\$ 138,149.18	2%	\$ 2,762.98	
TDR & Modifications			\$ 34,193.30	50%	\$ 17,096.65	
Delinquent Loans			\$ 92,365.58	75%	\$ 69,274.19	
Repo/Foreclosure/Charge Off			\$ 56,785.74	100%	\$ 56,785.74	
<b>ALLL Amount Needed-Special Funding</b>						\$ 145,919.56
<b>Total ALLL Amount Needed</b>						\$ 243,263.78
<b>PLL Balance</b>	Period Ending 3/31/12					\$ 315,764.58
<b>Adjustment (Overfunded)</b>						\$ (72,500.80)

ALLL  
—  
Homogeneous  
Pools

# Allowance Calculation

By 2022 we must change to Current Expected Credit Loss Model (CECL)

Must employ a statistically valid methodology to estimate probable future losses

Methodology must consider likelihood of loss or no loss

# Risk Based ALLL w/Credit Migration

Maintain existing pools

Divide pools balances into credit grade ranges

Create unique loss ratios for each grade within each pool

Monitor changing credit scores for movement in pools

Calculated ALLL requirement for each grade within each pool

# ALLL – Homogeneous Pools

Sample CU ALLL Amount Needed Calculation Period Ending 3/31/12						
Visa	Ln Loss Calc Balance	Loss Rate	ALLL Amount	ALLL Amount	ALLL Amount	Comparison
A+	\$ 259,369.55	0.00%	\$ -	Risk Based	Pooled Method	
A	\$ 168,938.10	0.00%	\$ -			
B	\$ 138,468.94	0.86%	\$ 1,197.27			
C	\$ 100,397.26	0.00%	\$ -			
D	\$ 17,814.59	11.38%	\$ 2,028.07			
E	\$ 100,175.61	13.64%	\$ 13,662.42			
Missing	\$ -	0.00%	\$ -			
<b>Total</b>	<b>\$ 785,164.07</b>	<b>2.47%</b>	<b>\$ 16,887.76</b>	<b>\$ 19,367.74</b>	<b>\$ (2,479.98)</b>	
<b>Unsecured</b>	<b>Ln Loss Calc Balance</b>	<b>Loss Rate</b>	<b>ALLL Amount</b>	<b>ALLL Amount</b>	<b>ALLL Amount</b>	<b>Comparison</b>
A+	\$ 282,089.23	0.00%	\$ -	Risk Based	Pooled Method	
A	\$ 242,048.59	0.00%	\$ -			
B	\$ 119,065.98	7.94%	\$ 9,456.25			
C	\$ 126,613.88	7.74%	\$ 9,803.43			
D	\$ 9,941.55	18.84%	\$ 1,872.55			
E	\$ 26,561.36	23.75%	\$ 6,308.24			
Missing	\$ -	0.00%	\$ -			
<b>Total</b>	<b>\$ 806,320.57</b>	<b>3.90%</b>	<b>\$ 27,440.48</b>	<b>\$ 31,470.10</b>	<b>\$ (4,029.62)</b>	
<b>All Other</b>	<b>Ln Loss Calc Balance</b>	<b>Loss Rate</b>	<b>ALLL Amount</b>	<b>ALLL Amount</b>	<b>ALLL Amount</b>	<b>Comparison</b>
A+	\$ 1,010,677.61	0.00%	\$ -	Risk Based	Pooled Method	
A	\$ 191,354.97	0.00%	\$ -			
B	\$ 198,588.23	0.00%	\$ -			
C	\$ 60,805.07	0.00%	\$ -			
D	\$ 17,620.90	0.00%	\$ -			
E	\$ 6,334.44	21.40%	\$ 1,355.76			
Missing	\$ 418.23	0.00%	\$ -			
<b>Total</b>	<b>\$ 1,485,799.45</b>	<b>0.91%</b>	<b>\$ 1,355.76</b>	<b>\$ 13,532.31</b>	<b>\$ (12,176.56)</b>	
<b>MBL</b>	<b>Ln Loss Calc Balance</b>	<b>Loss Rate</b>	<b>ALLL Amount</b>	<b>ALLL Amount</b>	<b>ALLL Amount</b>	<b>Comparison</b>
<b>Total</b>	<b>\$ 167,796.35</b>	<b>0.00%</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	
<b>Participation Loans</b>	<b>Ln Loss Calc Balance</b>	<b>Loss Rate</b>	<b>ALLL Amount</b>	<b>ALLL Amount</b>	<b>ALLL Amount</b>	<b>Comparison</b>
<b>Total</b>	<b>\$ 339,851.87</b>	<b>0.27%</b>	<b>\$ 925.22</b>	<b>\$ 925.22</b>	<b>\$ -</b>	
	<b>Ln Loss Calc Balance</b>		<b>Total ALLL Amount</b>	<b>Total ALLL Amount</b>	<b>Difference</b>	
<b>ALLL Amount Needed-FAS 5</b>	<b>\$14,145,877</b>		<b>\$ 83,416.44</b>	<b>\$ 100,354.87</b>	<b>\$ (16,938.43)</b>	