## **Financial Health For Tribal Producers**

# Managing Your Money Part 2: Using the MYFI Assist APP





United States Department of Agriculture National Institute of Food and Agriculture

This webinar is based upon work supported by USDA/NIFA under Award Number 2018-70027-28587



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Acknowledgments: Karli Salisbury, Kynda Curtis, Staci Emm and Carol Bishop.







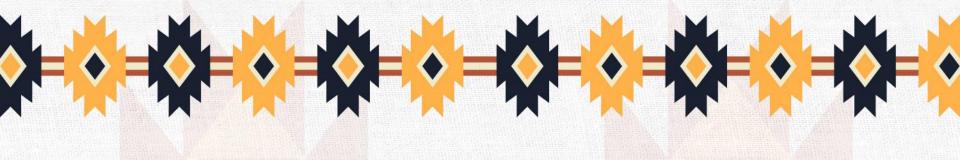


## **Key Concepts**

- What is included in an interest rate
- Introduction to MyFi Assist app and how to use it
- Finding current interest rates in your area
- Effects of time and interest rates

#### **Homework Assignment:**

Keep track of your income and expenses



# Interest Rates

## **Components of Interest Rates**

If you want to buy a soda.....

- At a movie theater: \$3-4
- At a gas station: about \$1.20
- At a grocery store: about \$0.60
- On sale at a grocery store: \$0.30

Why did you pay more?

## **Components of Interest Rates**

### You wanted it NOW!

- If you are going to wait, you would need to be compensated.
- This is just like interest.
- You are willing to pay more to have it now.
- So in order for the bank to give you money now, you have to pay for it.
- Or in order for you to let someone else use your money now, they need to pay you.

## **Interest Rates**

The three components are

- Time
- Inflation
- Risk

Time and inflation are the same for everyone

Risk is the only factor that varies from person to person

## **Interest Rates - Time**

# One component of an interest rate is time

- Someone is compensated for delaying the use of their money
- In the case of a loan, the bank is compensated
- In the case of savings, you are compensated

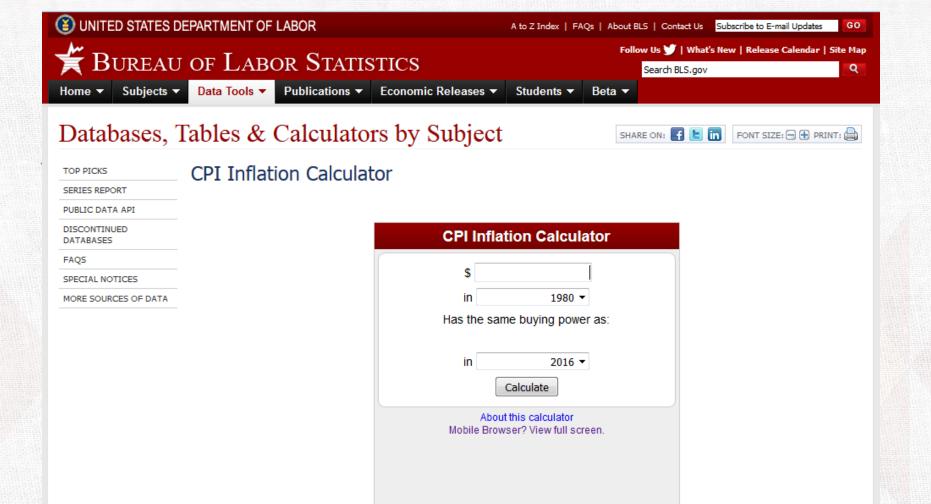
## **Interest Rates - Inflation**

When I was your age...

- In 1950 a candy bar cost \$0.05
- Was candy more or less expensive then?
- Just looking at the price we would say less expensive.
- However, inflation makes it more difficult to tell.
- Inflation means that everything becomes more expensive over time.
- Some things become more expensive faster, while others can be slower.

## **Inflation**

- To find out the value of something in today's dollars, use an inflation calculator.
- One is available at <u>www.bls.gov</u>: http://www.bls.gov/data/inflation\_calculator.htm



#### About the CPI Inflation Calculator

The CPI inflation calculator uses the average <u>Consumer Price Index</u> for a given calendar year. This data represents changes in prices of all goods and services purchased for consumption by urban households. This index value has been calculated every year since 1913. For the current year, the latest monthly index value is used.

## **Inflation**

- If you delay the use of your money, it will buy less in the future.
- You need to be compensated for the effects of inflation.
- Inflation is another component of interest rate.



## **CPI Inflation Calculator** 0.05 1950 ▼ Has the same buying power as: \$0.49 in 2016 ▼ Calculate About this calculator Mobile Browser? View full screen.

#### About the CPI Inflation Calculator

DISCONTINUED

SPECIAL NOTICES

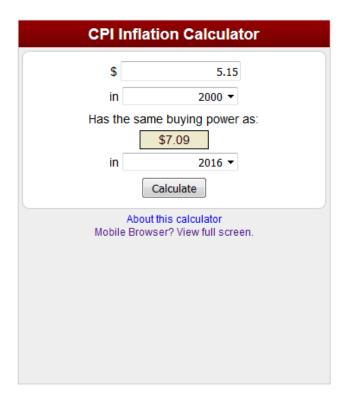
MORE SOURCES OF DATA

DATABASES FAQS

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SERIES REPORT PUBLIC DATA API DISCONTINUED DATABASES FAQS SPECIAL NOTICES MORE SOURCES OF DATA

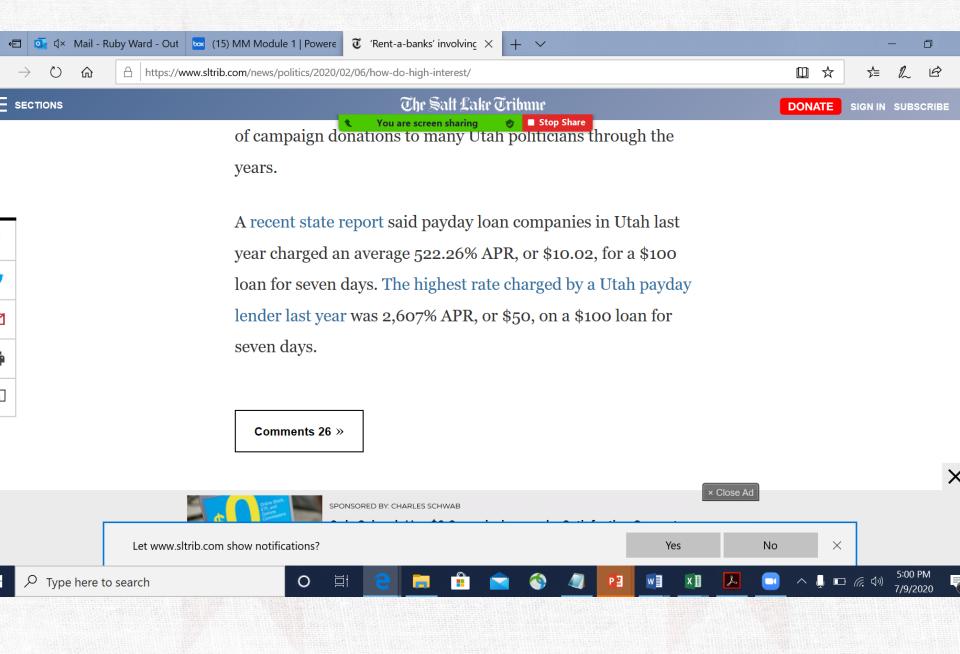


#### About the CPI Inflation Calculator

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## **Component of Interest Rates - Risk**

- The bigger the risk (chance) of no repayment, the bigger the payout should be.
- You need to be compensated for the risk of lending through a bigger return.
- This happens through a higher interest rate.
- If you are a bigger risk, the bank may charge a higher interest rate if they lend money to you.



## Risk

- · A credit score is a measure of risk.
- Find current interest rates for various loans
- There are places to check your credit score

## **Credit Scores vs. Interest Rates**

Credit Score	Interest Rate
720-850	3.606%
690-719	5.008%
660-689	6.781%
620-659	9.265%
590-619	14.614%
500-589	16.978%

- Example rates by credit score for Arizona
- 60-month new auto loan

Source: MyFico.com

## **Practical Use**

- What does all this really mean?
- Let's put it into practice



- MyFi Assist an app for "My Financial Assistant"
  - Free
  - Available in IOS and Android
  - Can be personalized to your situation

More information about the app and other materials are available at <a href="DiverseAg.org/Money">DiverseAg.org/Money</a>



## Choose or change your item and its value below:

Turn Preferences on/off



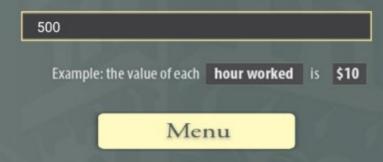


1. What is your item?



Examples: hours worked, head of calves, bales of hay, etc.

2. What is the value of this item?



## Personal Preferences – Ranch Example

- Input calves as the item of interest.
- In this example, each calf is valued at \$500.
- What is the monthly payment of a truck bought for \$30,000?
- The interest on the loan is 6%, and there is no down payment.
- Plan to pay the loan off in 4 years.



#### Paying for a Loan

When you use a loan or a credit card to buy something, you will pay back the amount of the loan plus interest and any fees. Fill in the information in the grey boxes below to find out the total cost of buying using credit.

What is the annual interest rate?

6

How many years will you take to pay the loan back?

4

How much do you owe or does the item cost?

30000

What is the amount of your down payment if any?

0

#### Calculate

Your monthly payment will be

\$704.55

The total amount you will pay in interest is After making all your payments you will pay 3,818.44 33,818.44

Your interest cost is equivalent to 13% of the original cost

You will need

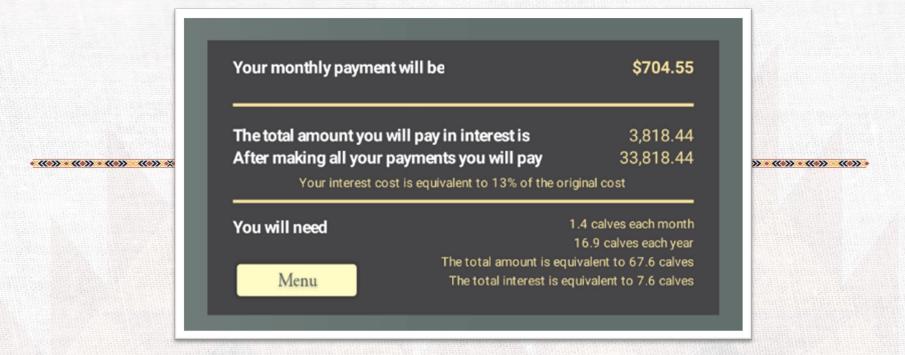
1.4 calves each month 16.9 calves each year

The total amount is equivalent to 67.6 calves
The total interest is equivalent to 7.6 calves

Menu

# Personal Preferences – Ranch Example

- You would like to purchase a pickup and need to borrow \$30,000 now. You will pay it off with monthly payments over 4 years. The interest rate is 6% annually.
- Use MyFi Assist, "Paying for a Loan"
  - Calculate the monthly payment
  - Calculate how many calves you would have to sell to make the truck payment.
  - What is the total you will pay for the pickup?



- The monthly payment for the truck is \$705.
- 17 calves per year must be sold in order to make the truck payment.
- Can the business justify buying this truck?
- We will look at the effects of buying this truck using a sensitivity analysis, break-even analysis, and a partial budget.

- Being informed of your options is the most important component of making an educated decision.
- Don't be pulled into the sales hype.
  - A salesman may sound like your best friend, but they are not.
- New Vs. Used
- How many more bales of hay or calves will you need to sell to cover it?
- Think about not just this decision but potential effect on other decisions.

## What does that mean for how much you pay?

## Borrow \$20,000 for a truck

<b>Credit Score</b>	<b>Interest Rate</b>	<b>Monthly Payment</b>
720-850	4.31%	\$454
690-719	6.03%	\$470
660-689	8.57%	\$494
620-659	11.37%	\$520
590-619	17.08%	\$578
500-589	19.32%	\$601

## What does that mean for how much you pay?

Credit	Interest	Monthly	Paid Each
Score	Rate *	<b>Payment</b>	Year
720-850	4.31%	\$454	\$5,452
690-719	6.03%	\$470	\$5,640
660-689	8.57%	\$494	\$5,924
620-659	11.37%	\$520	\$6,246
590-619	17.08%	\$578	\$6,935
500-589	19.32%	\$601	\$7,216

## How many calves do you have to sell? (500 lbs at \$2 per pound)

Credit	Interest	Monthly	<b>Paid Each</b>	<b>Head of</b>
Score	Rate *	<b>Payment</b>	Year	Calves
720-850	4.31%	\$454	\$5,452	5.5
690-719	6.03%	\$470	\$5,640	5.6
660-689	8.57%	\$494	\$5,924	5.9
620-659	11.37%	\$520	\$6,246	6.2
590-619	17.08%	\$578	\$6,935	6.9
500-589	19.32%	\$601	<b>\$7,216</b>	7.2

Sell 32% more calves with bad credit.

## What about the whole loan? (500 lbs at \$2 per cwt)

				Head of
Credit	Interest	Total	Interest	<b>Calves for</b>
Score	Rate	Paid	Paid	interest
720-850	4.31%	\$21,808	\$1,808	1.8
690-719	6.03%	\$22,560	\$2,560	2.6
660-689	8.57%	\$23,695	\$3,695	3.7
620-659	11.37%	\$24,982	\$4,982	5.0
590-619	17.08%	\$27,739	\$7,739	7.7
500-589	19.32%	\$28,865	\$8,865	8.9



Sometimes rather than purchasing products for cash, we charge them on credit cards or take out a loan. If not wached, credit card balances can get pretty big. Often we want to know how long (how many payments) it will take to pay off a loan or credit card balance. This can also be used to find out how long it will take to pay if you increased your payment each month, Fill in the information in the gray boxes below to find out how long it will take to pay off the credit card balance.

What is the annual interest rate?

12

What's the balance you owe today?

1800

How much will you pay each month?

25

#### Calculate

The total amount you will pay in interest is	\$0
After making all your payments you will pay	\$0
Your interest is equivalent to 0% of the orig	inal cost
You will need	\$0
Tou will freed	ŝc

## **Example 2**



- You want to pay off a credit card with a balance of \$1,800. The interest rate on the credit card is 12%.
- If you were to make the minimum monthly payments of \$25, how long would it take for you to pay it off?
- How long would it take to pay it off if you increased the monthly payments to \$75?

## MyFi Financial Assistant

## How long will it take to pay off my debt?

Sometimes rather than purchasing products for cash, we charge them on credit cards or take out a loan. If not wached, credit card balances can get pretty big. Often we want to know how long (how many payments) it will take to pay off a loan or credit card balance. This can also be used to find out how long it will take to pay if you increased your payment each month, Fill in the information in the gray boxes below to find out how long it will take to pay off the credit card balance.

What is the annual interest rate?

12

What's the balance you owe today?

1800

How much will you pay each month?

25

#### Calculate

# Time to pay off balance 127.93 Months The total amount you will pay in interest is After making all your payments you will pay 3,198.25 Your interest cost is equivalent to 88% of the original cost You will need 2.1 hours worked each month 25 hours worked each year The total amount is equivalent to 266.5 hours worked The total interest is equivalent to 116.5 hours worked

## **Example 2 Cont.**

- - If you were to make the minimum monthly payments of \$25, how long would it take to have you pay it off?
    - 128 months and \$1,398 in interest on the original balance.
  - How long would it take to pay it off if you increased the monthly payments to \$75?
    - 28 months and \$269 in interest on the original balance.

## **Paying Credit Cards**

- The interest rate on a credit card and the amount paid each month will determine how long it will take to pay off a credit card.
- Use MyFi Assist "Pay Off Credit Card."
- \$1,200 owed and you will pay \$50 each month
- How many months will it take if your interest rate is 5%, 10%, 15%, or 20%?

## **Paying Credit Cards**

- Use MyFi Assist "Pay Off Credit Card."
- \$1,200 owed and you will pay \$50 each month. You make \$12 per hour.
- How many months will it take if your interest rate is
  - 5% 25.3 months, work 106 hours
  - 10% 27 months, work 112 hours
  - 15% 28 months, work 120 hours
  - 20% 31 months, work 129 hours

## **Paying Credit Cards**

- Use MyFi Assist "Pay Off Credit Card."
- \$1,200 owed and you will pay \$50 each month
  - 5% 25.3 months, work 106 hours
  - 10% 27 months, work 112 hours
  - 15% 28 months, work 120 hours
  - 20% 31 months, work 129 hours
- Assume the rate is 20% and you make the minimum monthly payment of \$25
  - 97 months, work 203 hours
- Assume the monthly payment is \$21
  - 184 months, work 322 hours

## **Paying for Home Loans**

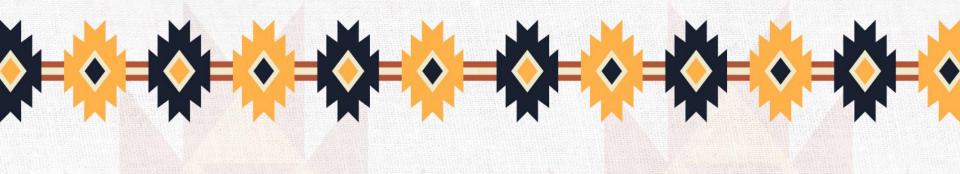
- MyFi Assist can also be used to look at home loans.
- The interest rate on a home loan does not vary as much as the interest rate on auto loans. Why?
  - The house provides collateral. With bad credit you may not get a loan, or the amount you can borrow will be significantly less.
  - Use "Paying for a Loan" to look at how much monthly payments would change with different interest rates and different down payment amounts.

## **Paying for Home Loans**

- MyFi Assist can also be used to look at home loans.
- Use "Paying for a Loan" to look at how much monthly payments would change with different interest rates and different down payment amounts.
- Use "Pay Off Credit Card" to look at how making larger payments can reduce the amount of time to pay off the mortgage.

## **Take Home Message**

- Lower credit scores mean higher interest rates.
- Higher interest rates means borrowing will cost you more.
  - · You will have to work more hours to pay for it
- If you make smaller credit card payments, it will take you longer to pay the balance off and you will end up paying more.



# Thank you!