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& \text { RETDEMENI: } \\
& \text { Secure Your Dreams }
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## Begin by Planning Today

Some say freedom is having enough money to spend your days doing what you really want to do. As you look toward the future and see yourself pursuing the activities you enjoy, do you think about money? If you do consider money, then time is on your side. You can accumulate the nest egg you need to secure your dreams!


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By planning today, you can design your future. Where do you want to live? Do you want to travel? How do you want to fill your days? Once you start to draw your picture, consider how much it may cost. Then calculate whether your financial plan is on target. To learn more about this planning process, select other titles in this series from the list at the end of this publication.

Some ask, "Why should I do without things I want today, for something as far in the future as retirement?" Fair question. Here's the trade off. Would you trade $\$ 5.48$ a day - the price of lunch out - for $\$ 1.5$ million in 45 years? It is possible to turn $\$ 5.48$ a day, $\$ 38.46$ a week, $\$ 167$ a month, or $\$ 2,000$ a year into more than $\$ 1.5$ million, if you invest regularly at a 10 percent rate of return for 45 years. Going without something today is the price of buying your freedom down the road.

The critical factor is time. If you begin at age 22, as in the example above, your time horizon provides considerably more opportunity than if you wait 10 years (See Time and Money, Chart 1 on page 2). As you study this chart, consider the varying amounts invested and accumulated by age 66. The person using the First Savings Plan turns $\$ 10,000$ into somewhat more than $\$ 600,000$ while the person using the Second Savings Plan must invest $\$ 70,000$ to accumulate somewhat less than $\$ 600,000$. The Third Savings Plan shows how saving $\$ 2,000$ a year grows to over $\$ 1.5$ million in 45 years.

If you are thirty something, you can still accumulate the necessary money to buy your freedom by acting now. You will have to commit more each month or year, but you are ahead of the people who wait until age 45,55 , or 62 to begin. Pay close attention to Chart 2 as you figure the amount you need to pay now for your future freedom.

Although the phrase "the time value of money" may sound rather dull, the concept itself is exciting. By regularly saving and investing a small amount of money today, you may be
able to build wealth and become independent in your retirement years, or earlier. The amount you accumulate is up to you, but the secret is to begin now!

## Time and Money (Chart 1)

## Starting Early Versus Starting Late*

| First Savings Plan |  |  | Second Savings Plan |  |  |  | Third Savings Plan |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Payment | Year End | Age | Payment | Year End | Age | Payment | Year End |
| 22 | \$2,000 | \$2,200 | 22 | \$0 | \$0 | 22 | \$2,000 | \$2,200 |
| 23 | 2,000 | 4,620 | 23 | 0 | 0 | 23 | 2,000 | 4,620 |
| 24 | 2,000 | 7,282 | 24 | 0 | 0 | 24 | 2,000 | 7,282 |
| 25 | 2,000 | 10,210 | 25 | 0 | 0 | 25 | 2,000 | 10,210 |
| 26 | 2,000 | 13,431 | 26 | 0 | 0 | 26 | 2,000 | 13,431 |
| 27 | 0 | 14,774 | 27 | 0 | 0 | 27 | 2,000 | 16,974 |
| 28 | 0 | 16,252 | 28 | 0 | 0 | 28 | 2,000 | 20,872 |
| 29 | 0 | 17,877 | 29 | 0 | 0 | 29 | 2,000 | 25,159 |
| 30 | 0 | 19,665 | 30 | 0 | 0 | 30 | 2,000 | 29,875 |
| 31 | 0 | 21,631 | 31 | 0 | 0 | 31 | 2,000 | 35,062 |
| 32 | 0 | 23,794 | 32 | 2,000 | 2,200 | 32 | 2,000 | 40,769 |
| 33 | 0 | 26,174 | 33 | 2,000 | 4,620 | 33 | 2,000 | 47,045 |
| 34 | 0 | 28,791 | 34 | 2,000 | 7,282 | 34 | 2,000 | 53,950 |
| 35 | 0 | 31,670 | 35 | 2,000 | 10,210 | 35 | 2,000 | 61,545 |
| 36 | 0 | 34,837 | 36 | 2,000 | 13,431 | 36 | 2,000 | 69,899 |
| 37 | 0 | 38,321 | 37 | 2,000 | 16,974 | 37 | 2,000 | 79,089 |
| 38 | 0 | 42,153 | 38 | 2,000 | 20,872 | 38 | 2,000 | 89,198 |
| 39 | 0 | 46,368 | 39 | 2,000 | 25,159 | 39 | 2,000 | 100,318 |
| 40 | 0 | 51,005 | 40 | 2,000 | 29,875 | 40 | 2,000 | 112,550 |
| 41 | 0 | 56,106 | 41 | 2,000 | 35,062 | 41 | 2,000 | 126,005 |
| 42 | 0 | 61,716 | 42 | 2,000 | 40,769 | 42 | 2,000 | 140,805 |
| 43 | 0 | 67,888 | 43 | 2,000 | 47,045 | 43 | 2,000 | 157,086 |
| 44 | 0 | 74,676 | 44 | 2,000 | 53,950 | 44 | 2,000 | 174,995 |
| 45 | 0 | 82,144 | 45 | 2,000 | 61,545 | 45 | 2,000 | 194,694 |
| 46 | 0 | 90,359 | 46 | 2,000 | 69,899 | 46 | 2,000 | 216,364 |
| 47 | 0 | 99,394 | 47 | 2,000 | 79,089 | 47 | 2,000 | 240,200 |
| 48 | 0 | 109,334 | 48 | 2,000 | 89,198 | 48 | 2,000 | 266,420 |
| 49 | 0 | 120,267 | 49 | 2,000 | 100,318 | 49 | 2,000 | 295,262 |
| 50 | 0 | 132,294 | 50 | 2,000 | 112,550 | 50 | 2,000 | 326,988 |
| 51 | 0 | 145,523 | 51 | 2,000 | 126,005 | 51 | 2,000 | 361,887 |
| 52 | 0 | 160,076 | 52 | 2,000 | 140,805 | 52 | 2,000 | 400,276 |
| 53 | 0 | 176,083 | 53 | 2,000 | 157,086 | 53 | 2,000 | 442,503 |
| 54 | 0 | 193,692 | 54 | 2,000 | 174,995 | 54 | 2,000 | 488,953 |
| 55 | 0 | 213,061 | 55 | 2,000 | 194,694 | 55 | 2,000 | 540,049 |
| 56 | 0 | 234,367 | 56 | 2,000 | 216,364 | 56 | 2,000 | 596,254 |
| 57 | 0 | 257,803 | 57 | 2,000 | 240,200 | 57 | 2,000 | 658,079 |
| 58 | 0 | 283,584 | 58 | 2,000 | 266,420 | 58 | 2,000 | 726,087 |
| 59 | 0 | 311,942 | 59 | 2,000 | 295,262 | 59 | 2,000 | 800,896 |
| 60 | 0 | 343,136 | 60 | 2,000 | 326,988 | 60 | 2,000 | 883,185 |
| 61 | 0 | 377,450 | 61 | 2,000 | 361,887 | 61 | 2,000 | 973,704 |
| 62 | 0 | 415,195 | 62 | 2,000 | 400,276 | 62 | 2,000 | 1,073,274 |
| 63 | 0 | 456,715 | 63 | 2,000 | 442,503 | 63 | 2,000 | 1,182,801 |
| 64 | 0 | 502,386 | 64 | 2,000 | 488,953 | 64 | 2,000 | 1,303,282 |
| 65 | 0 | 552,625 | 65 | 2,000 | 540,049 | 65 | 2,000 | 1,435,810 |
| 66 | 0 | 607,887 | 66 | 2,000 | 596,254 | 66 | 2,000 | 1,581,591 |
| Total | \$10,000 | \$607,887 | Total | \$70,000 | \$596,254 | Total | \$90,000 | \$1,581,591 |

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## Invest Each Pay Period

The key to reaching your goal is to make time work for you. By regularly investing small amounts over a period of years, you can achieve your goal. One way to do that is to invest the same amount from each paycheck. Then, let time go to work for you.

How much? In the table below, find the number closest to the number of years you plan to work for pay. Follow the row across to determine the "cost" per month of buying your freedom at various interest rates. For example, assume that a nest egg of $\$ 500,000$ will buy your freedom and that you will work 25 years to attain it. At an average rate of return of 8 percent over the period, the cost will be $\$ 105 \times 5=\$ 525$ per month. If you plan to work 30 years, the cost will be $\$ 335$ or $\$ 67$ x 5 per month.

## Monthly Investment to Achieve \$100,000 Lump Sum (Chart 2)

The number of working years before

| Retirement* | $5 \%$ |  | $6 \%$ |  | $8 \%$ |  | $10 \%$ |  |
| :---: | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 40 | $\$$ | 66 | $\$$ | 50 | $\$$ | 29 | $\$$ | 16 |
| 35 | $\$$ | 88 | $\$$ | 70 | $\$$ | 44 | $\$$ | 26 |
| 30 | $\$ 120$ | $\$ 100$ | $\$$ | 67 | $\$$ | $\$ 4$ | $\$$ | 16 |
| 25 | $\$ 168$ | $\$ 144$ | $\$ 105$ | $\$$ | 75 | $\$$ | 53 |  |
| 20 | $\$ 243$ | $\$ 216$ | $\$ 170$ | $\$ 132$ | $\$ 101$ |  |  |  |
| 15 | $\$ 374$ | $\$ 344$ | $\$ 289$ | $\$ 241$ | $\$$ | 200 |  |  |
| 10 | $\$ 644$ | $\$ 610$ | $\$ 547$ | $\$ 488$ | $\$$ | 435 |  |  |
| 5 | $\$ 1,470$ | $\$ 1,433$ | $\$ 1,361$ | $\$ 1,291$ | $\$ 1,224$ |  |  |  |

-This chart assumes that you are investing in a tax deferred investment and that principal and earnings stay in the investment tool for the number of years on the left. The numbers given here will yield a unit of $\$ 100,000$. For larger lump sums you will need to multiply. For example, to work toward a $\$ 200,000$ lump sum in 25 years at 8 percent you would need to invest $\$ 210$ per month. $(\$ 105 \times 2=\$ 210)$

## Where Could I Invest?

There are many options to suit individual personalities. You may want to learn more about Individual Retirement Accounts (IRAs), Roth IRAs, annuities, 401(k)s, and other types of tax deferred investments.

For more about planning your financial future:

- Investing For Your Future: A National Extension Home Study Course available on the Web at http://www.investing.rutgers.edu
- ISU Extension financial planning publications
- Financial books from the public library
- Consultations with financial advisors

Remember, when looking at investments, the higher the rate of return realized, the more risk you assume. Because you can potentially lose
your investment dollars, it is important to understand what you've invested in!

Many times people ask how to contact a financial professional, including a broker. First learn about the various types of financial advisors and the services they offer. There are registered investment advisers or stock brokers, representatives from financial institutions (banks, credit unions, and savings and loan associations), financial planners, insurance agents, accountants, and attorneys who specialize in financial issues. Some advisers offer several types of services. For example, a financial planner may also be a broker. Ask people you respect for recommendations. As you study, write down questions that you want to ask the financial advisor you are interviewing. For more information on choosing a financial planner see www.cfp.net/learn or www.sec.gov/ investor/pubs/roadmap/pick.htm.

## Where Will the Money Come From?

Are you thinking, "How can I save for retirement when I can't seem to make it to pay day?" This is a question asked by many people, but there are ways to "find" money to invest for retirement.

- Does your employer offer a pension or profit sharing plan? Consider participating in this benefit, especially if your employer matches your contribution.
- Do you live below your means or do you spend more than you make? If you spend more, look for ways to decrease expenses and/or increase income.
- Have you plugged your spending leaks? Leaks are items that you buy without thinking. These may include pop, candy, magazines, lottery tickets, cigarettes, beer, etc.
- Could you drive your car an extra year?
- Can you pay cash rather than charging items on your credit card and save the interest cost?

ISU Extension has additional publications that could be helpful as you plan your future.

- Retirement: Secure Your Dreams, Where Will Money for Your Nest Egg Come From? PM 1820
- Money Mechanics: Spending Plans, PM 1454A-B

If you would like to think about retirement planning in more depth, please read additional publications in this series:
Retirement: Secure Your Dreams
Picture Your Future, PM 1817A—features questions about your wants in retirement.
Retirement Income: How Much Do You Need? PM 1818A-focuses on the steps in determining the income you'll need for retirement.
Money Math, PM 1819-helps you calculate how your money will grow over time through compounding.
Growing Your Nest Egg: Risk and Return, PM 1821-describes ways to reduce investment risk.

Web sites you might want to visit:
www.extension.iastate.edu/investwisely/
www.extension.iastate.edu/finances
www.extension.org/personal+finance
Investor Home Study Course (an 11-part self-
study course on investing)
www.investing.rutgers.edu

Written by Ruth Freeman and reviewed by Barbara Wollan and Donna Donald, ISU Extension family resource management field specialists; Eugenia Hanlon, ISU Extension family life field specialist; Elizabeth Kiss, former ISU Extension family resource management state specialist; and Patricia Swanson, Certified Financial Planner and ISU Extension families specialist. Edited by Carol Ouverson, ISU Extension communication specialist. Designed by Jane Lenahan, ISU Extension graphic designer.

File: Economics 3


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[^0]:    *Adapted from the Time and Money Table from the ABCs of Managing Your Money. Assumes money is invested at the beginning of each year at a $10 \%$ annual rate of return and earnings are grown tax-deferred.

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