# Economics Unit 5 (Personal Finance) Summary 

## SSEPF1 Apply rational decision making to personal spending and saving choices.

A rational decision making model refers to a process individuals, firms, and governments use to evaluate the costs and benefits associated various options when making a choice. The model consists of the possible options evaluated against a set of desirable criteria identified by the decision maker who chooses the option most closely aligned to the criteria. Two life choices demanding a rational decision making model include major spending decisions and major saving decisions.
a. Use a rational decision making model to evaluate the costs and benefits of post-high school life choices (i.e., college, technical school, military enlistment, workforce participation, or other option).

All high school students choose a post-high school path. Using a rational decision making model makes the costs and benefits of this choice easier to evaluate. The example provided below used a free downloadable excel file from the website Launch Excel. In the example, the hypothetical student chose his or her own criteria and assigned a score based on his or her own research. The student also chose the weights for the criteria according to his or her own values and priorities. While this example identified a formal union apprenticeship program as the best choice for life after high school, the results will vary greatly from student to student. For instance, the student creating the example believed they could stay near family for college and technical school. If this were a student in a rural area, the score on "closeness to family" could be much lower. Similarly, a genius might score "easiness of path" for college a 4 or 5 .


## Economics Unit 5 (Personal Finance) Summary

b. Create a budget that includes a savings or financial investment plan for a future goal.

A budget is a document listing all the income a person makes each monthly and the expenses a person must pay each month. A budget allows people to make a plan for the money they earn, keep track of their spending, and plan for future expenses. The example below used a free, online excel budget template from Smartsheet. The original template contained additional categories and was modified to reflect the expenses of a hypothetical college student. As you can see the student has budgeted 10 percent of income for general savings to use in case of unexpected expenses and has a specific savings goal category, his or her spring break trip.


## SSEPF2 Explain that banks and other financial institutions are businesses that channel funds from savers to investors.

Banks and other financial institutions are businesses. Like other businesses, banks must be profitable to operate. While banks collect revenue from a variety of activities, their traditional source of revenue comes from their role as a financial intermediary. This means taking the deposits from one group of customers and loaning a portion of deposits to other customers. Banks make revenue by charging borrowers a higher rate of interest than they are paying to depositors. This is called the "spread".
a. Compare services offered by different financial institutions, including banks, credit unions, payday lenders, and title pawn lenders.

There are many types of financial institutions and they offer a variety of services. Potential customers must compare services to determine which option fits their needs. The financial institutions detailed in this course include banks, credit unions, payday lenders, and title pawn lenders.

Bank-For most consumers, banks provide a safe means to store earnings. Typically, banks also offer direct deposit (where a person's paycheck goes directly into his or her account), check-writing services, debit and credit cards, loans of all sorts (personal, home equity, business), and a host of other services.

## Economics Unit 5 (Personal Finance) Summary

Credit Union-Credit unions provide services similar to a bank; the main difference is that a credit union only provides these services to its members. Members own and control the institution. Credit unions often offer higher interest rates on deposits and lower interest rates on loans than banks.

Payday Loan Company-Suppose you need \$50 on Wednesday but won't get paid by your job until Friday. To solve this temporary problem, a payday loan company will give out small loans in return for a portion of the upcoming paycheck. This means the person will get $\$ 50$ on Wednesday, but come Friday, $\$ 55$ of his or her paycheck will go to the payday loan company. Payday loan companies generally charge much higher interest on loans than other institutions.

Title Pawn Lender - Title pawn lenders provide short-term loans to individuals facing a gap between their income and expenses. Usually, those accessing loans through title pawn lenders lack access to other types of short-term loans like credit cards. Title pawn lenders make loans based on an individual's collateral. Collateral is an item of value one owns like a car. Lenders can sell the collateral to cover the value of an outstanding loan if the borrower cannot repay. Like payday loans, the fees associated with title pawn loans are usually much higher than those a bank would charge. In the case of title pawn loans, the inability to repay the loan could result in the loss of the vehicle put up as collateral.

## b. Explain reasons for the spread between interest charged and interest earned.

Commercial banks, and other financial institutions offering loans, are businesses. They must make a profit if they expect to continue operating. One primary way banks make profits is by taking the money deposited by bank customers and loaning out a portion to people who want to borrow. By charging interest on the loans, banks make money. The more money on deposit, the more loans they can make, which is why some banks offer very generous checking account services. The interest on the loans is always more than the interest paid out to depositors. If banks did not have this "spread" between interest earned and interest charged, they would go out of business very quickly. NOTE: As provisions of the Glass-Steagall Act have eroded, commercial banks have increasingly added very lucrative investment banking services to the traditional role of taking deposits and making loans. Banks also earn interest on required and excess reserves they deposit with the Federal Reserve.
c. Give examples of the direct relationship between risk and return.

The relationship between risk and return is that the higher the potential return offered by a savings or investment opportunity, the more risky the savings or investment usually is. Therefore, if someone offers a $20 \%$ return and no risk, the person is most likely not being very honest. The options below give an idea of the relationship between risk and return:
d. Evaluate the risk and return of a variety of savings and investment options, including: savings accounts, certificates of deposit, retirement accounts, stocks, bonds, and mutual funds.

Savings Accounts - Savings accounts are bank accounts in which people put savings to which they need easy access. The Federal Deposit Insurance Corporation (FDIC) most types of bank deposits up to $\$ 250,000$. There is virtually no risk that the depositor will lose his or her money. The only risk comes from inflation risk. This means that the interest earned on the savings is less than the rate of inflation. Therefore, money held in a very low interest savings account is likely to erode in value over time. Since savings accounts are very low risk, the rate of return is very low as well. Most bank pay less than 1\% interest on savings.

## Economics Unit 5 (Personal Finance) Summary

Certificates of Deposit - Certificates of Deposit (CDs) are products offered by banks. Buying a CD means you will earn a higher rate of return than on a regular savings account. The higher rate of return results from the saver agreeing to keep the funds in the CD for a specified period, usually between 1 months to 10 years. The longer the period, the higher the interest rate. People who save in CDs and need to withdraw their funds early will pay a fee for early withdrawal.

Retirement Accounts - Saving for retirement is a key goal for many people in the United States. Very few employers offer traditional defined benefit pensions and most retirees will need to live off their savings to maintain their standard of living. There are a number of retirement account options for workers. The most common account is a 401 K . This is provided through an employer which will sometimes offer a percentage of matching funds. Individuals can also establish their own Individual Retirement Accounts through an investment bank. They usually have a choice between a Roth IRA and a traditional IRA. Roth IRAs allow contributors to pay taxes today and withdraw the funds they contributed tax-free in the future. The contributor will still have to pay taxes on any "gains" they withdraw from their account in retirement. A traditional IRA allows contributors to put money away before taxes are paid. The taxes are paid on the money when it is withdrawn during retirement. All of these retirement account options offer portfolios with mixed investment options. People can chose high risk, high return stock funds or low risk, low return bond funds. Finally, the U.S. government has a program called MyRA for workers whose employers do not have a 401 K . It allows workers to contribute up to $\$ 15,000$ before having to roll it over into an account with an investment bank. The funds can be withdrawn as needed without penalty and are guaranteed by the U.S. government, causing the return to be small.
U.S. Treasury Bonds - Purchasing a U.S. Treasury Bond means you have loaned the U.S. government money. The government pays you a guaranteed rate of return. Since the U.S. government repays its debts, the rate of return is low. For example, the interest rate on a 5 -year treasury bond on April 27, 2017 was $1.822 \%$. The interest rate on 10 -year treasury bonds was $2.3 \%$. Bonds are safe but also carry an inflation risk if interest paid is not higher than the inflation rate.

Stock Mutual Funds - While individual company stock is relatively risky, many people choose to play the stock market by purchasing mutual funds. Mutual funds provide more protection against loss because the investment is spread across many different companies rather than just one company. You may also select funds that reflect specific levels of risk or your values. Long term investing tends to give a greater return in the stock market than short-term investing. Over a 20 -year period, the stock market returns on average $7-8 \%$. However, when holding stocks for only 5 to 10 years, the average rate of return drops to 1-2\%.

Stock - Purchasing stock of individual companies is one of the more risky ways to invest. When purchasing stock in large stable companies (blue chip stocks), your investment could be safer, but your rate of return is likely to be lower. If you invest in companies with a shorter history or a brand new product, the potential return is generally high if the company succeeds, but you are much more likely to lose your investment because of the high rate of new business failures.

## Economics Unit 5 (Personal Finance) Summary

## SSEPF3 Explain how changes in taxation can have an impact on an individual's spending and saving choices.

Government assesses taxes on individuals and firms in an economy to pay for public goods and services. Some common taxes paid by individuals include income, property, and sales tax. When the government increases taxes, individuals will have less of their income to save and spend. When government decreases taxes, individuals will have more income to save and spend.

## a. Define progressive, regressive, and proportional taxes.

Taxes can fall into three categories: progressive, regressive, and proportional. The category into which a tax falls determines how it will affect people who make higher or lower incomes.

A Progressive tax rate increases as income increases, meaning the wealthy pay a higher percentage of their earnings than people less financially well-off. The U.S. federal income tax is a progressive tax. For example, a progressive tax might have a tax rate of $1 \%$ for every $\$ 10,000$ earned annually, with a maximum tax rate of $50 \%$. This system would lead to the following example.

Progressive Income Tax Example

| Income | Tax Rate | Calculation | Total Tax |
| :--- | :--- | :--- | :--- |
| $\$ 10,000$ | $1 \%$ | $\$ 10,000 \times .01$ | $\$ 100$ |
| $\$ 30,000$ | $3 \%$ | $\$ 30,000 \times .03$ | $\$ 900$ |
| $\$ 200,000$ | $20 \%$ | $\$ 200,000 \times .20$ | $\$ 40,000$ |
| $\$ 500,000$ | $50 \%$ | $\$ 500,000 \times .50$ | $\$ 250,000$ |

In the example, people earning $\$ 30,000$, or three times as much as those earning $\$ 10,000$, would have to pay nine times the amount in taxes ( $\$ 900$ compared to $\$ 100$ ). Those earning $\$ 200,000$, more than six times as much as those earning $\$ 30,000$, would have to pay more than forty-four times as much in taxes. While this may seem excessive, the rationale is that a progressive tax takes more money from those who can afford to pay it. Opponents of progressive taxes argue that higher tax rates for high income earners is a disincentive to engage in productive activity.

A Regressive tax is a tax rate that decreases as income increases. Consider a tax that imposes a flat rate of $\$ 1,000$ annually regardless of income. For someone earning only $\$ 3,000$ a year, this tax would be huge, accounting for one-third of all earnings. To someone earning $\$ 50,000$ a year, the tax rate is not as large, accounting for only $2 \%$ of annual income. Most sales taxes are regressive because lower income people tend to spend a greater proportion of their income on sales taxed items than higher income people.

A Proportional tax, also known as a flat tax, does not change with respect to changes in income. If the proportional tax rate is $15 \%$, then everyone pays $15 \%$, regardless of whether he or she makes $\$ 10,000$ or $\$ 570,000$. The FICA tax workers pay to fund Social Security and Medicare is proportional. Everyone pays the same percentage of their income to this tax up to a specified income cap.

## Economics Unit 5 (Personal Finance) Summary

## b. Explain how an increase in sales tax affects different income groups.

Sales tax refers to a consumption tax levied on people when they make certain kinds of purchases, such as buying a book or eating out at a restaurant. Not all goods and services are subject to a sales tax; doctor visits, for example, are free of taxes. Like the different types of income taxes, a change to the sales tax affects different income groups in different ways. Since all consumers purchase essential goods like food, a high sales tax on food would affect poor people more than wealthy people because both groups will be paying the same tax rate for the same good. For this reason, economists usually classify sales tax as a regressive tax because it takes a greater percentage of income from a low-income person than from a high-income person. This is one reason why food is often not subject to a sales tax. However, food served at a restaurant typically is subject to a sales tax, since eating out is a luxury.
c. Explain the impact of property taxes on individuals and communities.

Property tax refers to a tax on real estate people own. The tax, levied by local governments like counties or cities, is on the value of the real estate. Periodic appraisals of a property's value indicate whether the tax on the property will rise or fall. Increases in property value are cause for celebration by those ready to sell their property. However, for those who wish to remain in their homes, increased property values translate to increases in property taxes. If property taxes increase drastically, lower income people may no longer be able to afford the taxes on their homes. Delinquent taxes accrue interest and fees increasing the total bill owed. Various entities can use the delinquent tax bill to start the foreclosure process even properties fully owned with no mortgage. For this reason, owners of previously low value properties can lose their homes as property values rise and they are unable to afford the tax bill. This is gentrification. Gentrification occurs when high-income property owners replace low-income property owners in an area. Since taxes assessed on the property's value are without regard for the income of the owner, these taxes are regressive.

## SSEPF4 Evaluate the costs and benefits of using credit.

Credit refers to borrowing money. People borrow money for a variety of reasons. When considering a loan, borrowers identify the benefits and the cost of using credit. If the benefits of using credit outweigh the costs, taking a loan is rational. If the costs of borrowing outweigh the benefits, the loan should be avoided.
a. Describe factors that affect credit worthiness and the ability to receive favorable interest rates including character (credit score), collateral, and capacity to pay.

As a rule, we should spend only what we earn and avoid borrowing. However, some purchases are very difficult to make without the use of credit and the benefits of making those purchases using credit may outweigh the costs in the long-run.

For example, if someone cannot go to college without a student loan, the higher future income potential and lower risk of unemployment may make the student loan a wise idea. If someone lacks a reliable car to get them to a great job, the benefits of a low-interest car loan may outweigh the costs because of the higher income earned at the new job.

The key is to be wise in borrowing. Do not borrow more than you need and make sure the payments are affordable given your income. If you want to secure a loan from a financial institution like a bank, your

## Economics Unit 5 (Personal Finance) Summary

credit rating must be good. Credit worthiness is a measure of a variety of factors used to determine whether a person will repay a loan. While there is no guarantee a person making $\$ 400,000$ annually will pay a $\$ 2,000$ loan, evaluation of their credit worthiness indicates they have the income required to handle the loan. Annual earned income is a major factor in determining credit worthiness. If income is high, lenders believe the borrower can use some of that income for debt repayment. However, the amount of current debt is another big factor affecting credit worthiness. Making \$400,000 a year is less attractive to lenders if you already owe $\$ 500,000$.

The "Three C's of Credit" are character, capacity, and collateral. Since most lenders do not know potential borrowers personally, they evaluate a potential borrower's character using the information on the borrower's credit report. A credit report is available through three main private companies: Transunion Equifax, and Experian. It details a person's borrowing and repayment history for the last seven years reported to the company's by a person's previous and current lenders. Potential lenders request credit reports on potential borrowers to assess the borrower's character and capacity.

A potential borrower who has "paid as agreed" on all credit accounts has good credit character. The credit report also shows some aspects of capacity. While income is one factor in assessing capacity, the amount it takes to service current debt is also a concern. If debt to income ratio is high, the borrower may not be able to handle additional debt payments.

Finally, collateral is something of value a borrower can use to back the loan if the borrower can no longer pay the scheduled payments. For example, a home mortgage is available to people with lower incomes because the bank can seize the home if the mortgage is not paid.

Many people obtain a credit card to start building a positive credit history. To get low interest rates for borrowing and sometimes even to get a job, people need a good credit report and good credit score. In some cases, no credit history affects people negatively just as a poor credit history does. A credit score is a number calculated by the credit reporting companies based on a variety of factors. While the exact calculation is proprietary, the companies release general guidelines about how the score is calculated. Payment history, amount of open credit used, and the number of open credit accounts are some of the factors determining a credit score. By making small purchases and paying the entire amount each month, a potential borrower shows a lender how they use credit wisely. The image below shows a general breakdown of a credit score.

https://www.flickr.com/photos/cafecredit/29132289382
Using credit wisely and sparingly is essential to a healthy financial life. Some people find they are unable to make wise credit use decisions. Using credit cards impulsively, some find they are unable to pay the entire amount owed month and begin to accrue high amounts of interest on the unpaid balance. As the balance owed increases, it takes years to pay the loan for a small purchase. If borrowers have late

## Economics Unit 5 (Personal Finance) Summary

payments, interest rates skyrocket and lenders charge late fees. Current law requires credit card companies to show borrowers the difference in total payments they will make if they pay only the minimum payment due versus paying the debt within three years. The image below shows an example as it looks on a credit card statement. This borrower will save $\$ 204$ by paying the bill in three years and far more if paying the balance in full.

//www.keywordsuggests.com/s9170VYz|****si91FqCXC19h9WlqZKCv7JXZ**Z2QCo/
b. Compare interest rates on loans and credit cards from different institutions.

Wise potential borrowers shop for the best interest rates on loans. While the exact rate offered to a borrower will vary with the borrower's character, capacity, and collateral, the internet allows borrowers to compare the best rates offered by different financial institutions. The table below looks at a snapshot of rates for a variety of loan products available from different lenders in April 2017.

| Lender | 30-year Fixed <br> Rate Mortgage | 5-year Fixed Rate <br> Auto Loan | Home Equity Lump Sum <br> Fixed Rate Loan | Credit Card (no <br> annual fee) |
| :--- | :--- | :--- | :--- | :--- |
| Institution A | $4.0 \%$ <br> $4.081 \%$ APR | $3.24 \%$ | $4.79 \%$ | $13.74 \%-23.74 \%$ <br> variable annual <br> percentage rate |
| Institution B | $4.125 \%$ |  |  |  |
| $4.2182 \%$ APR | $2.49 \%$ | $4.49 \%$ | $11.99 \%-21.99 \%$ <br> variable annual <br> percentage rate |  |
| Institution C | $4.125 \%$, <br> $4.186 \%$ APR | $3.12 \%$ | $4.75 \%$ | $17.90 \%-26.74 \%$ <br> variable annual <br> percentage rate |

Assuming the borrower qualified for the best rates available, a wise decision would be Lender A for the mortgage and Lender B for the three remaining products.
c. Define annual percentage rate and explain the difference between simple and compound interest rates, as well as fixed and variable interest rates.

The annual percentage rate (APR) is the annual rate charged for borrowing funds. Expressed as a percentage, APR represents the actual yearly cost of the borrowed funds over the full term of the loan. In the table for SSEPF4b, although the stated interest rates for Lender $B$ and $C$ were the same for mortgages, Lender C had a higher APR making it a more expensive loan.

Interest rates on loans are fixed or variable. A fixed interest rate on a loan will not rise or fall during the term of the loan. Obtaining a fixed interest rate when rates are low is usually desirable. When rates are

## Economics Unit 5 (Personal Finance) Summary

high, borrowers may choose a variable interest rate in the hope that rates will fall in the future. Sometimes, lenders will only offer fixed rates to their best customers. Lenders sometimes offer risky borrowers variable rates. If the borrower proves the ability to make the payments, the person can refinance for a fixed rate in the future.

Interest is also simple or compound. Simple interest applies only to the original amount borrowed called the principal. Compound interest applies to both the principal of the loan as well as accrued interest on the principal. Compound interest makes a loan more expensive and is less desirable for borrowers than simple interest loans.

SSEPF5 Describe how insurance and other risk-management strategies protect against financial loss.
Insurance is a product purchased to guard oneself against life's risks, specifically the financial losses associated with these risks. One may not be able to avoid dying, but one can avoid leaving loved ones in financial ruin by purchasing life insurance. The law requires people to buy certain type of insurance while other types are voluntary. The scope of this standard is to identify type of insurance and the costs and benefits associated with each type.
a. List and describe various types of insurance such as automobile, health, life, disability, and property.

This course requires identification and description of five types of insurance: automobile, health, life, disability, and property. Most states in the U.S. require automobile owners to maintain a certain level of automobile insurance coverage. The required coverage is liability insurance. Liability insurance covers the other vehicle(s) when you are at fault in a car accident. If an owner wants coverage for their own vehicle, then they need to purchase collision insurance as well. Vehicles purchased with a loan from a financial institution require collision insurance until paid in full. It is important for vehicle owners to know the level of insurance required by law may not adequately cover all damages in an accident. The other driver can sue the at fault driver for any additional damages.

Health insurance pays for medical services. As of April 2017, federal law required people to have a certain level of health insurance or pay an annual penalty when filing federal taxes. Health insurance plans vary widely from those protecting against catastrophic care to plans paying for routine wellness visits.

Life insurance provides a monetary payment to a designated beneficiary when the insured person dies. The beneficiary is one who experiences financial harm from the death of the person covered by the policy such as a spouse, a parent, or a child.

Disability insurance provides people with income in case they become injured or are unable to work at a job. Many employers offer disability insurance as an option in worker benefits packages. Short-term disability covers temporary work restrictions such as the period of recovery from childbirth or surgery.

Property insurance takes a variety of forms. The most common types are homeowners and renters insurance. Homeowners insurance pays for damages sustained to your real estate property and for injuries to others that happen on your property. Renters insurance protects your personal property assets when you live in a rental property instead of a home you own.

## Economics Unit 5 (Personal Finance) Summary

b. Explain the costs and benefits associated with different types of insurance, including deductibles, premiums, shared liability, and asset protection.

In general, all insurance policies allow a person or business to pay a relatively small amount of money (a premium) in the present to purchase asset protection against the possibility of a future financial loss caused by an unforeseen event. Assets protected range from one's home to one's health. Most insurance policies include a deductible stipulating the amount of money the insured must pay when filing a claim with the insurance company. In most cases, the higher the premium is, the lower the deductible is. This is true in reverse as well. Purchasing insurance involves shared liability between the insurer and the insured. This means that the insurance company assumes a pre-determined amount of financial liability for a claim that the insured might file. The insurance company is obligated to pay for the loss since the insured has paid premiums for the financial protection. In some cases, people pay insurance premiums for years and never file a claim. However, most people know they would be unable to cover a catastrophic loss themselves and are willing to pay for the peace of mind insurance provides.

## SSEPF6 Describe how the earnings of workers are determined in the marketplace.

In the United States, supply and demand determine the earnings of workers. The exception is minimum wage laws at the federal, state, and local level. Minimum wage is a price floor. If equilibrium wage falls below the price floor, employers are bound to paying the legal wage. In most cases, minimum wage affects only markets for the least skilled workers. The labor market is a resource market. Employers demand workers and workers supply their labor. The intersection of the labor demand and supply curves indicated the equilibrium wage in the market. Like a product market, changes in the economy shift the supply of and demand for labor altering the equilibrium wage.
a. Identify skills that are required to be successful in the workplace, including positive work ethic, punctuality, time management, teamwork, communication skills, and good character.

Successful workers practice key behaviors known as soft skills. Soft skills every worker needs include: work ethic, punctuality, time management, teamwork, communication skills, and good character. Work ethic refers to how seriously one pursues the expectations associated employment. People with good work ethic practice all the soft skills listed above. When at work, people with good work ethic spend their time pursuing the goals of the job and producing excellent results to the best of their ability. Examples of poor work ethic include spending work hours pursuing personal interests, finding ways to avoid work, letting coworkers perform one's assigned job functions, doing the minimum amount of work required to get by, and/or not following the rules outlined by the employer.

Actor Woody Allen once said, "Ninety percent of success is just showing up." Punctuality means arriving on time and ready to work at the established time. Many employers of young workers lament how many lose their jobs due to lack of punctuality.

Most workers divide their work time among many different tasks and responsibilities. Workers with good time management skills efficiently organize their work hours to accomplish all objectives with minimal stress.

Today's workplace is increasingly flat. This means rather than many layers of managers, many people work on teams lead by peers or lead teams of peers. These teams are often cross-functional meaning

## Economics Unit 5 (Personal Finance) Summary

they are composed of people with different skill sets. Teamwork is part of most jobs. Team members need to work well with each other, support each other, and perform their assigned tasks well.

Excellent verbal and written communication skills help workers perform their jobs well. This means knowing how to get your ideas across to someone else and using appropriate style, grammar, and/or spelling. These skills help everyone understand what is expected and keep people motivated. Poor verbal and written communications skills cause workers to be viewed negatively and can cause conflict. In dangerous or high-risk environments, poor communication skills could put lives at risk.

Good character refers to doing the right thing every time. Today's workers often enjoy a lot of freedom in how and where they work. Working remotely requires discipline to stay on task and meet goals. Employers need workers who behave ethically. Poor character traits include stealing from an employer, lying, plagiarizing the work of others, and treating coworkers or customers poorly.

## b. Explore job and career options and explain the significance of investment in education, training, and skill development as it relates to future earnings.

Since societies are constantly changing, and their economies - and marketplace demands - change as well. At some point in the 20th century, people who excelled at selling typewriters could probably have demanded a high salary for their work. Today, this expertise is no longer in demand, so work would be hard to get and at a much lower wage than it once was.

In general, the three factors determine the wage a worker can expect. The strength of demand for workers in the market, the number of workers supplying their labor in the market, and the amount of specialized knowledge, skills, training, and licenses are required to do the job.

As a rule, the more knowledge, skills, education, and training a worker has, the higher the wage the worker can expect assuming their education applies to a field with strong employer demand. The chart below from the Bureau of Labor Statistics shows the correlation between level of education and median weekly wages. It also shows how likely people in each education level are to be unemployed.

Earnings and unemployment rates by educational attainment, 2015


[^0]
## Economics Unit 5 (Personal Finance) Summary

The Bureau of Labor Statistics provides a tool called the Occupational Outlook Handbook. Students can research careers using this online guide. As you can see from the example below, the handbook describes the occupation, indicates educational requirements, estimates potential growth or decline in number of jobs available, and gives the 2016 median pay. This tool provides students with a good place to start their career research.

```
OCCUPATIONAL OUTLOOK HANDBOOK Search Handbook |l|ol
```


## Computer and Information Technology >

Information Security Analysts

| Summary | What They Do | Work Environment | How to Become One | Pay | Job Outlook | State \& Area Data | Similar Occupations | More Info |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Summary |  |  |  |  |  |  |  |  |
| Quick Facts: Information Security Analysts |  |  |  |  |  |  |  |  |
| 2016 Medi | Pay |  | \$92,600 per year $\$ 44.52$ per hour |  |  |  | * |  |
| Typical Ent | $r$-Level Educatio |  | Bachelor's degree |  |  | a 5 cos |  |  |
| Work Expe | ence in a Relate | Occupation ? | Less than 5 years |  |  |  |  |  |
| On-the-job | Training ? |  | None |  |  |  |  |  |
| Number of | obs, 2014 ? |  | 82,900 |  |  |  |  |  |
| Job Outloo | 2014-24 |  | 18\% (Much faster than | verag |  |  |  |  |
| Employment | Change, 2014-2 |  | 14,800 |  |  |  |  |  |
| What Information Security Analysts Do |  |  |  |  |  | $2$ |  |  |
| Information security analysts plan and carry out security measures to protect an organization's computer networks and systems. Their responsibilities are continually expanding as the number of cyberattacks increases. |  |  |  |  |  | Information sec company's com | analysts work to pro er systems. | ect a |
| Work Environment |  |  |  |  |  |  |  |  |
| Most information security analysts work for computer companies, consulting firms, or business and financial companies. |  |  |  |  |  |  |  |  |
| How to Become an Information Security Analyst |  |  |  |  |  |  |  |  |
| Most information security analyst positions require a bachelor's degree in a computer-related field. Employers usually prefer to hire analysts with experience in related occupation. |  |  |  |  |  |  |  |  |
| Pay. |  |  |  |  |  |  |  |  |
| The median Job Outioo | nnual wage for | ormation security an | ysts was \$92,600 in Ma | 2016. |  |  |  |  |
| Employment of information security analysts is projected to grow 18 percent from 2014 to 2024, much faster than the average for all occupations. Demand for information security analysts is expected to be very high, as these analysts will be needed to create innovative solutions to prevent hackers from stealing critical information or causing problems for computer networks. |  |  |  |  |  |  |  |  |


[^0]:    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

