## Topic 2

1 So, What Do I Owe?
Taxable Income \& Basics Of Figuring Tax Liability

Megan had a great week. She turned 16 four days ago and today she got a job at a local bakery. She is so excited that now she will have extra money to spend however she wants, without having to ask her parents. But when she told her Granny about the job, Granny said: "That's great. But don't forget about paying income tax." She didn't know what Granny was talking about, but now she's asking her friends Ashley, Katelynn, Max, and Robin if they know anything about paying income tax.

Megan: I am so ready for this job! But my Granny has me all worried about paying income tax. Do you guys know anything about that?

## Katelynn: You are so lucky! I can't wait till I turn 16!

Megan: Yes, I'll be making tons of money! I mean I've babysat, shoveled snow for the neighbors, and gotten an allowance from my parents before, but never anything like this! Fifteen dollars an hour? I'm rich! she laughs.)
Max: Yeah the money's nice. But if you have to pay income taxes on the money you make, you won't get to keep it all.

Megan: I forgot about that part.
Ashley: My Friend Jill's Dad is an accountant and he talked to us about income taxes at a "Career Day" assembly at my old school. According to him, you should even be paying taxes on that babysitting and snow shoveling income you get. Luckily, though some other things are not taxable.
Katelynn: That sounds important. What else did he say?
Ashley: Hmm...let me see what I can remember...
Well, the first thing he said is: It's the law! Just like everybody else, you must pay income taxes on your income.

Robin: That sounds simple enough-but wait a minute, what is income?
Ashley: Exactly! Here's where it gets complicated and that's why accountants get paid the big bucks! And why I'm going to be an accountant.
Max: Yeah, but can you help us now?
Ashley: Well, I remember he said something about some income not being taxable because what is income for tax purposes is not the same as what you and I might think is income- Or even what economists think of as income. Wait a minute, what do they think?
Katelynn: I'm checking my phone. Well, according to economics4U.com income is something you get over a set time period-like one year-and it consists of two things that occur in that time period: increase in net wealth or worth + consumption (the value of goods and service you've purchased) Ashley: Well, that helps exactly zero amount. What exactly is net worth or wealth?

[^0]Robin: Well, the web page says: Net wealth or net worth is:
The value of all assets minus the value of all liabilities (debts).
Max: It gives an example: let's say all you own are three assets
Katelynn: Three what???
Megan: An asset, according to that webpage, is a thing, resource or quality that has economic value. So Katelynn, the money in your purse is an asset and so is the purse.
Katelynn: Ok I got assets, but what is net worth?
Robin: My phone says that net worth looks at just a single moment in time. It measures your wealth or worth at that moment by adding up the value of all your assets and subtracting out the value of all your debts (or liabilities). It's like a snapshot while income is like a video because it covers a period of time.

Max: Ok, as I was saying: let's say you own five assets with a total value of $\$ 4,000$ :
a savings account with $\$ 500$,
your phone worth $\$ 200$,
your clothes worth $\$ 1,000$,
your car worth $\$ 2,000$ and
$\$ 300$ cash (I know where you keep your piggy bank!).
Let's say you also have one debt or liability which is the $\$ 1,000$ you still owe on your car. Your net worth is $\$ 3,000$ (the sum of your assets $\$ 4,000$ minus the $\$ 1,000$ liability).

Ashley: So if I buy a $\$ 300$ guitar with my cash my net worth doesn't change.
Max: Right! You just changed the particular assets you own but not their value. So, since your net worth didn't increase, you have no income from that change.

Megan: Well, what if all the income I get this year is $\$ 500$ but I spend it all on food so at the end of the year it is all gone? This means I have no income because I have not increased my net worth. So I don't have to pay income tax. Ha!
Ashley: Sorry-you still have economic income because economic income measures how much better off you've been during the period of time. And remember, that includes not just your increase in net wealth over the year but also whatever you consumed. So you still have $\$ 500$ of income. HaHa!
Megan: But wait a minute. Didn't Ashley say that what's economic income is not always income for tax purposes? Help me out here. I don't mind paying taxes-after all, taxes give government the money to pay for lots of stuff we need. BUT, I don't want to pay more taxes than I have to.
Ashley: You're right. Jill's dad did say something about that. He used a lot of terms-like gross income, exclusions, deductions, taxable income. I can't remember all of it.

Max: Well, maybe Jill's dad will talk to us. Please ask him Ashley.

## One week later at the office of Miguel Alvarez, CPA (aka Jill's Dad).

Mr. Alvarez: I'm really impressed that you all want to learn whether you have to pay income tax. That's very responsible of you. And, by the way, if you do have to pay and don't, there can be some serious consequences. So, it's smart of you too.

Katelynn: We don't feel very smart. It's all so confusing.

Mr. Alvarez: Don't feel bad; many adults with college educations don't understand income taxes either. But you're smart because you're trying to figure out what they all mean. Maybe this will help you keep it straight. I know you learned about tax bases because Jill told me.
Robin: Yeah, a tax base is the thing that is being taxed.
Mr. Alvarez: Exactly. Well, the income tax is a little complicated because the tax base is taxable income, not plain old income.

Max: well, that's annoying. Why don't they just call it the taxable income income tax?
Katelynn: Frankly, Max, that sounds a little stupid and it's no clearer.
Mr. Alvarez: Well, I can show you how you figure out your taxable income and your tax liability. There are some technical terms, but be patient. I'll explain the terms and show you the few steps you need to do it.

First let's figure taxable income. There are 4 steps to that

## Taxable Income

1. List items of economic income.
2. Take out Exclusions (what tax law says are not Gross Income)
3. What's left is your Gross Income
4. Then subtract out your deductions.
5. What's left is your Taxable Income.

The first step is to list your items of economic income. Do you know what that is?
Robin: We looked it up last week. It seems that economists say income is anything that increases net worth or was consumed during the year, but tax law doesn't include everything.

Max: And I remember something about sometimes what's economic isn't income for tax purposes-like gifts.
Mr. Alvarez: You're both right. Gifts are called exclusions because they are excluded from income for tax purposes.

Max: I knew that-you just didn't let me get it out.
Mr. Alvarez: Sorry. There are other exclusions too-like certain scholarships, food stamps, money you get because you're the beneficiary of life insurance, the value of health insurance that an employer pays for an employee, or even the pizza that your employer gives you occasionally at work.
Gross income is a little narrower than economic income because it has some exclusions. So they're related but not exactly the same.
Robin: Sort of like they're twins, but fraternal twins, not identical ones!
Ashley: Okay, so we've done steps $1 \& 2$ on your chart and gotten to gross income, but what's next?
Mr. Alvarez: Remember the tax base-what you pay taxes on-isn't gross income but taxable income. So, the next step is to subtract out or deduct certain amounts. These amounts are called deductions.

There are several types of deductions. Some are necessary to accurately calculate income. Remember the economic definition of income-it's . .
$\underline{\text { Katelynn: the increase in a person's net worth-how much more of value they had at the end of the year }}$ than they had at the beginning-plus whatever they consumed (used up, ate).

Mr. Alvarez: Exactly. Let's say that Megan rents a store where she sells used clothing and she sold $\$ 6,000$ worth of them this year. But she had to spend $\$ 4,000$ to do that - expenses such as the cost of getting the old clothes in the first place, rent for the store, electricity for the store, maybe hiring Robin part-time to help her.
Does she really have a $\$ 6,000$ increase in her net worth?
Ashley: No-just $\$ 2,000$ because she spent $\$ 4,000$ to get it.
Mr. Alvarez: Exactly.
Robin: So, say I bought a Wonder Woman comic book for $\$ 3$ and it became a collector's issue and I sold it to Max for $\$ 10$. I think my income-or increase in net worth-would be only $\$ 7$. Three dollars out of the $\$ 10$ was merely changing the form of my net worth from comics to cash.

Mr. Alvarez: Right. There are some deductions everyone can take-if the deductions apply to them and they keep records-like a check or receipt-or other evidence to show they paid the expense in case the IRS wants to see them.

These include the expenses business owners have in order to produce their income. These expenses must be subtracted (deducted) from gross income in order to accurately figure out what their income is.
Ashley: Like if I sell a pair of earrings I made for $\$ 25$ but it cost me $\$ 8$ in materials to make them. Then I can subtract the $\$ 8$ from my gross income of $\$ 25$.
Mr. Alvarez: Exactly. There are other deductions that all taxpayers can take that have nothing to do with accurately computing income and everything to do with government policies. For example, people who contribute to certain retirement plans can deduct the amount they of the contribution because Congress has decided that it's important for people to save for retirement.

Then there are other deductions, however, that sometimes you can take and sometimes you can't-like allowing a deduction for donations to charities.

Megan: Talk about confusing! How do we know when we can and when we can't take those deductions?
Mr. Alvarez: That depends on whether the taxpayer takes the standard deduction or itemizes.

## Ashley, Katelynn, Megan, Robin, and Max: Groan

Mr. Alvarez: Sorry! More technical terms, I know. The tax laws tell you all about that as well as other facts about deductions. But I know the laws are hard to find and harder to read. The IRS makes it easier for you by printing out instructions for the tax forms you have to submit and also by publishing pamphlets on various topics-such as deductions. But I'm going to make it even easier for you by just giving you the basics:

The standard deduction is the amount taxpayers can take if they don't want to list all these deductions they are allowed by law-such as interest on home mortgages, or education or medical expenses-or donations to charities.

Taxpayers can take the standard deduction instead of itemizing-or listing-each deduction they're entitled. Not only do taxpayers have to file a more complicated tax form if they take these itemized deductions, but they also have to keep records that show they actually paid them.
Robin: So what's the point of the standard deduction?
Mr. Alvarez: It does two things. One it helps make sure that taxpayers have the ability to pay by letting them have some income to help pay for necessities like food, clothing, housing without paying tax on that income. Second, it eliminates some complexity because taxpayers get to reduce their taxable income (by taking the standard deduction) without having to keep records of those expenditures and list them for the IRS.
Megan: Which is better?
Mr. Alvarez: It depends on taxpayers' individual situations. The standard deduction is easier. As I saidyou don't have to list a lot of expenses one by one. And you don't have to find (and keep) the receipts for them because the IRS might ask you for them.
But, if the amount of the deductions you're entitled to by law is greater than the standard deduction. . .
Katelynn: Then it's worth the trouble of listing them.
Max: So, then you'd choose to itemize deductions?
Mr. Alvarez: Yes! I've simplified it a bit. But you've got the basic concept right: For example, let's say you put $\$ 2,000$ in a qualified retirement plan and make a charitable deduction of $\$ 500$. The $\$ 2,000$ contribution to the retirement plan is one of the deductions you can regardless of whether you itemize, but the charitable deduction isn't. It is what's called an itemized deduction. To take it you need to give up taking the standard deduction and just take the deductions you have-here $\$ 200+\$ 500$ or $\$ 2500$.

In this case, you would not itemize because the itemized deduction is less than the standard deduction you'd have to give up. So here you'd take the standard deduction AND also can take the $\$ 2,000$ deduction. It reduces your taxable income the most-and is simpler than itemizing also.
Ashley: How much is the standard deduction?
Mr. Alvarez: Good question. The answer depends on who you are and how you file your tax returns.
For 2023, if you are a single, unmarried individual, your standard deduction is $\$ 13,850$-at least for the next couple of years. But if you are a married couple filing a joint return, your standard deduction is $\$ 27,700$-that's twice the amount a single taxpayer gets.
And if you're a single parent supporting some children, then it's $\$ 20,800$.
Some people get more-like taxpayers who are at least 65 years old; and some who are dependent on others for support get less-like children.
Robin: Like us?
Mr. Alvarez: Yep. You would only get $\$ 1,250$ or whatever you earned plus $\$ 400$-if that's more than $\$ 1050$.

And I'm still not done yet. Notice I said those amounts were the standard deductions in 2023. But for 2024 they will be different. That's because of COLA .
Katelynn: Now you're joking. Surely it can't matter whether I drink Pepsi or Dr. Pepper-or how much.

Ashley: Well, the diet stuff you drink shouldn't increase anything because it's tasteless.
Mr. Alvarez: I'm a coca cola man myself. But I'm talking about COLA—an acronym for Cost of Living Adjustment. Inflation can cause the price of basic goods and services needed to live to go up-like rent, and food, and clothes and so on.

In other words, inflation means that the dollar isn't worth as much today as it used to be worth. For example, if inflation is at $2 \%$ this year, it takes $2 \%$ more money to buy the same thing this year than last. So, if you had to pay $\$ 10$ for a movie ticket last year, at $2 \%$ inflation, you'd have to pay $\$ 10.20$ this year. When you add up that $2 \%$ for everything you buy, that's a lot of money. So, the standard deduction, for example, isn't worth as much today as it was last year. Congress decided to fix that for the standard deduction and some other tax provisions-such as the tax rates-by automatically adjusting them (that is increasing them) for inflation.
Megan: Well I'm glad we don't have to figure out the amount. But how do we find out what it is?
Katelynn: My dad goes to the chiropractor for adjustments when he throws his back out of whack, but where do we go to figure out these COLA tax adjustments?
Mr. Alvarez: Don't worry about figuring out what that adjustment is. The IRS figures it out for you.
So once you figure out what your standard deduction is, you compare its dollar amount to the dollar amount of deductions you'd get if you would itemize. And then take the greater of the two.
Max: So if your standard deduction is $\$ 12,000$ and your itemized deductions are only $\$ 8,000$, then you'd take the standard deduction?

Mr. Alvarez: Right. So, putting it all together, there are four basic steps to figuring out taxable income:

1. Figure out your gross income which is all your income minus exclusions.

2 Figure out any deductions you have (and don't forget COLA).
3 Decide whether to take the standard deduction or to itemize.
4. Find your taxable income by subtracting your deductions (standard or itemized) from your gross income.

Maybe some numbers would help you out. Let's say that grown-up Robin is an employee of BuildIt, Inc. where she works as an architect and earns $\$ 61,000$. BuildIt also pays for her health insurance (which would cost $\$ 10,000$ a year). Let's assume that Robin makes a $\$ 1,000$ contribute to a qualified retirement fund. She also makes a $\$ 200$ donation to charity. Robin, what would your gross income be-assuming no other income?
Robin: $\$ 61,000$-because I know that the value of the health insurance is excluded from my gross income even though it is income from an economic standpoint.
Mr. Alvarez: perfect! Can you figure out your deductions, and whether you should itemize or take the standard deduction?
Robin: Well, the only possible deductions you mention are the $\$ 1,000$ contribution to the retirement fund and the $\$ 200$ charitable donation. I can deduct the $\$ 1,000$ regardless of whether I take the standard deduction or list - or as you say itemize - all my deductions. That gets my taxable income down to $\$ 60,000$. I only have the $\$ 200$ itemized deduction and that's not enough to exceed my standard deduction of $\$ 13,850$ (of course assuming I haven't drunk any COLA). So I'll take the standard deduction which will give me a taxable income of $\$ 46,150$. And you didn't ask but, I'd find my tax liability by multiplying my taxable income of $\$ 46,150$ by my tax rate. Or I would if I knew know what the rate is.

Mr. Alvarez: Well, you did such a good job that I'll tell you. Your tax liability this year, 2023 would be $\$ 5,460.50$. You paid $10 \%$ on the first $\$ 11,000$ of income; $12 \%$ on the amount from $\$ 11,001$ to $\$ 44,725$ and $22 \%$ on the amount over that. So, your highest or marginal rate is $22 \%$ but your average tax rate is only $11.8 \%$. (your tax liability divided by your taxable income: $5,460.50 / 46,150$ ).
But. . .
Ashley: Always, always a "but." I'm tired of butting heads with buts.
Mr. Alvarez: Sorry, but the devil is in the detail. That $\$ 5,460.50$ is really your tentative tax liability because you may get some credits that reduce the tax you actually have to pay.
Megan: I like that kind of but!
Mr. Alvarez: Robin would get credit for income taxes that BuildIt withheld from Robin's paycheck and paid to the Treasury already. Employers have to do this, by law. So if BuildIt had withheld $\$ 5,000$, Robin would get credit for that and only owe $\$ 460.50$, because she's already paid the $\$ 5000$ BuildIt withheld. People can also get other credits too. For example, most people can get a child tax credit for each child they support under 17. Right now, that's $\$ 2,000$ for each such child.
Katelynn: What if you don't owe that much in taxes? In our example, Robin would only owe $\$ 460.50$ (after the credit for withheld income taxes). So if Robin were entitled to one child tax credit, would she get $\$ 1,539.50$ from the government?
Max: Sounds too good to be true.
Mr. Alvarez: Well maybe yes and maybe not. Generally, people can only use a tax credit to offset what taxes they owe. So, under the general rule Robin would only get $\$ 460.50$ of a child credit-bringing her tax liability down to zero! The remaining $\$ 1,539.50$ would be lost.

BUT: a couple of credits are refundable-meaning that even if a taxpayer has zero tax liability, they can still get the credit-in effect, the government pays money to the taxpayer. That is true for part of the child credit-up to $\$ 1,400$ per child as a refundable child tax credit (depending on their earned income).
Robin: So we should add two more steps to your four to determine our income tax liability
Mr. Alvarez: Right again. Altogether, there are six basic steps to figuring out income tax liability and how big a check you need to write to the government:

1. Figure out your gross income (income minus exclusion).

2 Subtract out any deductions you have (and don't forget COLA) that you can take even if you take the standard deduction.

3 Figure out your itemized deductions. Then decide whether to take the standard deduction or to itemize. [Remember some deductions you can take even if you don't itemize and just take the standard deduction-such as the deduction for contributions to a qualified retirement plan.]
4. Find your taxable income by subtracting your deductions from your gross income.
5. Find your tentative income tax liability by multiplying your taxable income by your tax rate.
6. Subtract any credits from your tentative tax liability.

The result is the amount you still owe the government. Or maybe you're entitled to a refund from the government.

Taxable Income

Items of Income<br>(Exclusions)<br>Gross Income<br>(Deductions)<br>Taxable Income<br>To figure tax liability:<br>Multiply<br>Tax rate times taxable income<br>This equals your<br>Tentative Tax Liability<br>Subtract out Tax Credits<br>and you get:<br>Final Tax Liability.<br>Write out a check (or send electronic payment) to:<br>U.S. Treasury

Ashley: I really want to know more about how to get that refund. Maybe you can tell us about that sometime.

Mr. Alvarez: Sure. Meanwhile, if you want to look at an actual income tax form, you can go check out the IRS's website www.irs.gov. It has all the forms and instructions for them that taxpayers need. https://www.irs.gov/forms-instructions You would need the form 1040 and its instructions. The website also has lots of other information, including some publications that explain various aspects of income tax. (They all thank Mr. Alvarez and leave.)


[^0]:    ${ }^{\circ}$ Marjorie E. Kornhauser2013-14 TaxJazz ${ }^{\text {TM }}$ The Tax Literacy Project ${ }^{\text {TM }}$

