taxnotes®

Volume 158, Number 7 ■ February 12, 2018

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by Jed Bodger

Reprinted from *Tax Notes*, February 12, 2018, p. 879

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In this report, Bodger takes a closer look at the Tax Cuts and Jobs Act, with a particular focus on how the law will affect superheroes.

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I. Introduction

"Avengers, Assemble!" is the battle cry shouted by the leader of the Avengers — the indefatigable Captain America — to summon the mighty warriors into battle in the Marvel Comics universe. The Avengers are Earth's foremost costumed superhero organization, along with the Justice League in the DC Comics universe. The Avengers and the Justice League are teams of superheroes dedicated to safeguarding the world from any threat beyond the power of conventional peacekeeping forces or anything that any single Avenger or Justice League member cannot handle alone.[1]

For the first time in four decades, we are at a precipice where we need an assemblage of mighty heroes ready to battle for tax interpretation and compliance purposes. On December 22, 2017, the president signed into law P.L. 115-97 (the Tax Cuts and Jobs Act), the first major federal tax reform since the 1980s. In such a moment, there is but one battle cry to bring the dedicated tax world together to handle the massive changes emanating from title 26 of the U.S. Code: Tax Avengers, Assemble!

This report examines some of the major changes within the act, with a particular focus on how they will affect superheroes.[2] First, it looks at the business provisions and how those changes will influence businesses within comic books. Stark Industries, owned and operated by billionaire industrialist Tony Stark (Iron Man), will benefit from corporate rate reduction. But beware, Stark. While one hand giveth, the other taketh away, as will be the case with the limitation on net operating losses and the elimination of the domestic production activity deduction (DPAD). Second, the report looks at the introduction of a new passthrough income deduction and

[1] *See* Stan Lee and Jack Kirby, *Avengers*, vol. 1, no. 1 (1963) (first appearance of the Avengers); and Gardner Fox, *The Brave and the Bold*, vol. 1, no. 28 (1960) (first appearance of the Justice League).

[2] The intention of this report is not to provide a deep dive into all the provisions of the act, but to highlight some of the changes made by the act and show how they might affect the superhero world. There are clearly additional provisions of the act and other considerations that would affect each of the examples.

considers how it will affect Nelson & Murdock, a law firm run by Franklin "Foggy" Nelson and Matt Murdock (Daredevil), as well as the provision's impact on Jennifer Walters (She-Hulk), an attorney at a large and prestigious law firm. Next, it examines the effect of the full expensing provisions on Bruce Wayne (Batman), who should be able to take an immediate deduction for the myriad toys and gadgets he uses in his fight against crime. Also, comic book scientists like Bruce Banner (Hulk) and Reed Richards (Mr. Fantastic) are likely going to be incredibly thankful that the corporate alternate minimum tax was eliminated, which would have otherwise reduced their research credit under the AMT rules.

Next, the report examines the impact of some of the changes to individual taxation. Diana Prince (Wonder Woman) will now be able to take a larger deduction for the operation of her invisible jet. And individual rate reform and expansion of the personal exemption and the child tax credit will benefit May Parker, who is raising her nephew, Peter Parker (Spider-Man) in New York City. The report also reviews changes to the 529 plan rules and explains how those modifications may help Xavier's School for Gifted Youngsters, run by Charles Xavier (Professor X), and its students. Finally, the report examines the act's changes to the alimony rules to see how they will affect Henry "Hank" Pym (Ant-Man) and his ex-wife, Janet van Dyne (the Wasp).

Excelsior![3]

II. Corporate Provisions

A. Corporate Rate Reduction

Business interests are special, especially when they produce the kind of power and wealth that Stark Industries does. Stark has his company positioned to continue to be the leading weapons manufacturer on the planet and primed for a jump into the future based on earnings and product offerings. Thank goodness the act has given him an opportunity to reduce his effective tax rate, reduce his overall tax liability, and benefit from corporate rate reduction. Even a superhero like Iron Man can get powered up for that result.

The Tax Cuts and Jobs Act made the most dramatic corporate rate reduction in the U.S. tax code in more than 30 years. The crown jewel of the act, from the administration's perspective, is the reduction of the corporate tax rate from a marginal rate of 35 percent down to just 21 percent. This represents a 40 percent reduction in the corporate tax rate.[4]

Also, the corporate AMT, a parallel tax system with lower rates and fewer tax breaks, has been repealed, meaning that corporations' use of tax benefits (to the extent they continue to exist under the act) will not be minimized by the AMT.

Stark Industries is an American global aerospace, defense, security, and advanced technologies company with worldwide interests. Headquartered in Los Angeles, Stark Industries employs thousands of people and has facilities in more than 30 different countries and on all seven continents. Stark is the company's president and CEO.[5]

Stark Industries is a titan of industry, having shown itself to be a global commerce superpower over the years. Under the leadership of Howard Stark (Tony's father), Stark Enterprises became the world leader in the development of munitions, with its corporate office in Long Island, New York. It quickly branched out to other scientific fields, including aeronautics, robotics, microtechnology, and "fringe science." With increasing expansion, the company soon became known as Stark Industries and moved its headquarters to Los Angeles.[6]

A centerpiece of American commerce within the Marvel Comics universe, Stark Industries will see a significant competitive bump based on the corporate rate reduction.

If we assume that Stark Industries is on par with Boeing, which reported $94.57 billion in revenue and $4.89 billion in net earnings in 2016, and we use net earnings as a substitute for taxable income, Stark Industries will see a significant

[3] The catchphrase of Lee, the creator and co-creator of comic properties such as the Fantastic Four, Spider-Man, the X-Men, Daredevil, Hulk, Thor, the Avengers, and many more.

[4] 35 percent (prior marginal tax rate) - 21 percent (new marginal tax rate) = 14 percent. 14 percent (rate reduction) ÷ 35 percent (prior marginal rate) = 40 percent reduction in tax rate.

[5] Lee and Robert Bernstein, *Tales of Suspense*, vol. 1, no. 43 (1963).

[6] Matt Fraction, *Invincible Iron Man*, vol. 1, no. 5 (2008).

reduction in its tax bill. If the company had made $4.89 billion in taxable income in each of 2017 and 2018, it would have paid $1.71 billion in federal income tax in 2017 and only $1.03 billion in 2018. That represents a 40 percent reduction in overall income tax liability. Perhaps more importantly, it represents $685 million in cash savings — enough money for Iron Man to buy an assortment of arc reactor supplies or a vibranium mine.

Table 1. Stark Industries Tax Calculation (dollars in millions)

		2017	2018
Revenue		$94,571	$94,571
Deductions		$89,676	$89,676
Net earnings (proxy for net taxable income	A	$4,895	$4,895
Tax rate	B	35%	21%
Tax due	[A x B] = C	$1,713	$1,028
Net after-tax earnings	[A - C] = D	$3,182	$3,867
Tax savings	C1 - C2		$685

Although the corporate rate reduction is great for the company's bottom line, Stark should be aware that because of the modified NOL deduction rules, NOLs will not benefit Stark Industries as much as they used to.

Under prior law, NOLs could be carried back two years and carried forward 20 years.[7] That allowed companies in a loss position to carry back losses to prior years and obtain an immediate refund of tax previously paid. Under the act, NOLs are now limited to 80 percent of taxable income, and although they may be carried forward indefinitely, they may not be carried back.

That may affect Stark Industries' cash position if it was counting on a refund in coming years based on taxes previously paid. If fortunes turn for Stark Industries and it begins to incur losses, it would be able to use its NOLs only in later years with sufficient taxable income.

Further, based on the increased expenditure provisions in the act (see discussion below on full expensing for Batman), more capital-intensive companies like Stark Industries may produce NOLs. Thankfully, the weapons Stark Industries produces are in great demand, and the company maintains excellent revenue and positive net taxable income, thus Stark Industries has incredibly strong revenue and will likely be able to use any NOLs in a short period. Here's hoping other capital-intensive companies will be as lucky.

Stark should also be aware that the DPAD went away December 31, 2017.[8] Policy discussions aside — that is, whether eliminating a tax break tied to the production of goods within the United States is a "job creator" — Stark Industries likely benefited from a DPAD previously, so its elimination will destroy a deduction the company has taken advantage of. So much for only cosmic good coming to corporations from the act.

B. Passthrough Qualified Business Income

Even superheroes need an attorney at times. Walters and the Nelson & Murdock law firm provide the services needed in the rough-and-tumble world that superheroes inhabit. As partners in law firms, they all have previously been subject to tax at their individual rates for their passthrough income. However, the act has changed the taxation of passthrough business income. Could it have also given a super benefit to our heroes?

Arguably the most interesting — and confusing — provision of the act is the deduction for qualified business income (QBI) of passthrough entities, which is determined through myriad calculations codified in new section 199A.[9] In theory, the deduction is designed to reduce the effective tax rate on QBI from the highest marginal personal tax bracket of 37 percent to 29.6 percent.

The apparent intention is to ensure that tax on income from passthrough activities maintains a beneficial rate advantage compared with corporate tax rates when full distribution of corporate earnings to shareholders is also subject

[7] Section 172 (assuming no section 382 limitation on the losses).

[8] Act section 13305 (former section 199).

[9] Act section 11011.

to the second layer of tax. Although that working theory seems straightforward, section 199A is incredibly complex and too new to have been fleshed out through regulations or case law. Therefore, several questions remain open until Treasury or the Tax Court can provide guidance on contested issues. However, this report looks at some of the provisions and their application in the superhero world.

1. Mechanics of the passthrough deduction.

The act provides a new temporary deduction under new section 199A for some business income of individuals (as well as trusts and estates) earned for tax years beginning in 2018; however, those benefits sunset after 2025.[10]

For tax years beginning after December 31, 2017, the act generally allows a deduction against an individual's domestic QBI from a partnership, S corporation, or sole proprietorship.[11] The deduction is equal to the sum of (1) the lesser of (a) the taxpayer's combined QBI or (b) 20 percent of the excess of taxable income over the sum of any net capital gain and (2) the lesser of (a) 20 percent of qualified cooperative dividends or (b) taxable income less net capital gain.[12]

The first step for taxpayers is to determine their QBI. QBI will be the ordinary income minus ordinary deductions earned from a passthrough entity.[13] This does not include the wages earned by the individual. Section 199A(c)(1) confirms that the intention is to capture income earned in a qualified trade or business, as defined in section 199A(d).

Combined QBI (for our simplified purposes) is defined as the lesser of (1) 20 percent of the taxpayer's QBI or (2) the greater of (a) 50 percent of the Form W-2 wages paid by the business and allocable to the taxpayer or (b) 25 percent of the Form W-2 wages paid by the business and allocable to the taxpayer plus 2.5 percent of the unadjusted basis of all qualified property.[14] In short, the deduction against passthrough income from section 199A is subject to a limitation based on either wages paid or wages paid plus a capital multiplier. Thus, there are two factors to evaluate for analysis of the deduction: payroll and property.[15]

A taxpayer's Form W-2 wages roughly equal the sum of wages subject to wage withholding, elective deferrals, and deferred compensation paid by the partnership, S corporation, or sole proprietorship during the tax year.[16] Form W-2 wages will be only those wages paid by a passthrough entity that are reported on a payroll tax return.[17] The member's allocable share of the business's Form W-2 wages will be determined based on whether the passthrough entity is an S corporation, a partnership, or a limited liability company taxed under subchapter K.

For S corporations, sections 1366 and 1377 require all allocable items from an S corporation to be allocated pro rata based on share ownership.[18]

For partnerships and LLCs, the allocation is a little more complicated, insofar as allocations may be made in any manner as long as there is substantial economic effect.[19] Section 199A requires that Form W-2 wages be allocated in the same method as the partnership wage deduction, as included on Schedule K-1, line 1, of the entity's Form 1065.

Once Form W-2 wages for the entity are determined, the individual is permitted to calculate her deduction as the lesser of (1) 20 percent of QBI or (2) 50 percent of Form W-2 wages.[20] The 50 percent of wages limitation does

[10] *See* Act section 11011.

[11] Section 199A(a). This report does not address tiered partnerships and flow-through entities. Section 199A(f)(4)(B) provides that Treasury will issue regulations on how to compute this deduction.

[12] This report ignores the limitations on cooperative dividends and taxable income less net capital gains, but those provisions will be important in calculating the appropriate deduction for many taxpayers.

[13] Section 199A(c).

[14] Section 199A(b).

[15] Although the definition of qualified property will be important in determining the deduction for most businesses, let's assume that the people discussed below are renting and have little in the way of depreciable property, so only the payroll factor applies for these purposes.

[16] Section 199A(b)(4).

[17] Section 199A(b)(4)(C).

[18] Sections 1366 and 1377.

[19] Section 704(b).

[20] *See supra* note 15.

not apply for a taxpayer with income of $315,000 or less for married individuals filing jointly ($157,500 for other individuals), and there is a phase-in limitation over the next $100,000 of taxable income for married individuals filing jointly ($50,000 for other individuals). This means the applicable deduction when income does not cross the $315,000 (married) or $157,500 (single) thresholds is simply 20 percent of QBI. The difference between 20 percent of QBI and the Form W-2 wage limitation is phased out over the next $100,000 of taxable income for married individuals filing jointly ($50,000 for other individuals), leaving only the Form W-2 wage limitation as the available deduction when income exceeds the phase-in thresholds of $415,000 (married filing jointly) and $207,500 (single filers). Simple, right?

Once you have calculated limitations, there is a requirement that the business not be a "specified trade or business." Section 199A(d)(1) excludes two specific trades or businesses: (1) the business of being an employee and (2) a specified service trade or business.[21] Specified service trades or businesses are defined by reference to section 1202(e)(3)(A).[22] That provision defines specified service trades or businesses as any trade or business activity involving the performance of services in the fields of health, law, accounting, actuarial science, performing arts, consulting, athletics, financial services, or brokerage services; any trade or business whose principal asset is the reputation or skill of at least one of its owners or employees (excluding engineering and architecture); or any business that involves the performance of services that consist of investment and investment managing trading or dealing in securities, partnership interests, or commodities.

Section 199A adjusts the defined professions enumerated in section 1202(e) for these purposes by removing architects and engineers from the excluded professions.[23] Although specifically noted within section 199A as excluded from the benefits set out therein, specified trade or business activities are still permitted a deduction under section 199A when the taxpayer's passthrough income does not exceed $315,000 (for married individuals filing jointly) or $157,500 (for other individuals). When income exceeds both the income limitation and the phase-in limitation ($100,000 for married individuals filing jointly and $50,000 for other individuals), specified service trades or businesses are not allowed any deduction under section 199A. Thus, it is only within the phase-in limitation that the Form W-2 wage calculation becomes relevant regarding a specified trade or business.

Because attorneys and the legal profession are included in the definition of specified trade or business under section 199A, let's look at a few famous comic book attorneys to see how that would play out in their world.

2. Comic book attorneys.

a. Under the income threshold (Nelson and Murdock).

Nelson and Murdock (Daredevil) are perpetual bachelors and best friends, as well as graduates of Columbia University School of Law. After graduation, they formed the law firm Nelson & Murdock, of which they are the principal partners. For the sake of this discussion, let's assume that Nelson and Murdock each hold a 50 percent interest in firm profits.[24]

Further, assume that the firm earned $350,000 in fees in 2018, paid $100,000 in ordinary business expenses (rent, supplies, etc.), and paid $50,000 to their secretary Karen Page for administrative services, it would have $200,000 of QBI,[25] with Nelson and Murdock each having an allocable interest of $100,000 in that QBI.

As a general starting point to calculating the deduction under section 199A, one needs to determine the lesser of 20 percent of QBI or 50 percent of Form W-2 Wages. Twenty percent of each of Nelson and Murdock's QBI would be

[21] Section 199A(d)(1).

[22] Section 199A(d)(2)(A).

[23] *Id*. This report demurs on analysis about why those professions enumerated in section 1202(e) were explicitly removed, but you likely don't need to be a super sleuth to make your own determination.

[24] Lee, *Daredevil*, vol. 1, no. 1 (1964).

[25] Calculations here have been simplified to exclude the standard deduction that Nelson and Murdock would each be entitled to. It appears that section 199A requires the calculation of threshold taxable income to the individual, which would include either the standard deduction or itemized deduction.

$20,000 ($100,000 x 20 percent = $20,000). Next, the allocable share of their Form W-2 wages would be $25,000, and each would have a deduction of $12,500 (($50,000 Form W-2 wages x 50 percent to determine each partner's share) x 50 percent reduction under section 199A = $12,500). Therefore, the lesser of the two factors would be their deduction against QBI, or $12,500.

However, because each of the partners is under the $157,000 income threshold for individuals, both Nelson and Murdock will apply a deduction of $20,000 against their QBI because the Form W-2 wage limitation is not triggered. Thus, each will have gross QBI of $100,000 and a deduction of $20,000 for a net QBI of $80,000, and they will each pay $17,600 of tax on that QBI (($100,000 - $20,000 section 199A deduction) x 22 percent marginal tax bracket).[26] This would take Nelson and Murdock's effective tax rate from the stated marginal rate of 22 percent down to 17.6 percent.

Sadly, Nelson & Murdock is not the most successful law firm in the comic universe. Let's look at how a more successful attorney could be affected by the act.

b. Over the income threshold (She-Hulk).

Walters may not be as familiar to most readers as her cousin, Banner, but she is a force in the Marvel Universe, spending her days practicing law at the prestigious firm of Goodman, Lieber, Kurtzberg & Holliway as a member of its renowned superhuman law division.[27] Walters is unmarried. For the sake of this discussion, assume that she is a partner in the firm and that her compensation is based on a partner draw rather than a salary.

Further assume that Walters's allocable share of QBI from the law firm is $187,500 (which exceeds the $157,000 individual deduction threshold). Because she earns an income within the phase-in threshold ($157,500 + $50,000 = $207,500), she must walk through section 199A to determine her allocable QBI deduction. Suppose Walters's distributive share of Form W-2 wages for the firm is $40,000. Her deduction would be 20 percent of her QBI if she were under the individual threshold ($157,500), or the lesser of 20 percent of QBI ($37,500) or 50 percent of Form W-2 wages ($20,000) if she were over the threshold. However, Walters is in a specified trade or business and therefore would not be entitled to a deduction if she made an amount exceeding the phase-in threshold ($207,500). Because she is within the phase-in threshold, she must apply the additional requirements of section 199A(d)(3) to the calculation to determine her QBI deduction.

Once Walters determines what her QBI deduction would be without regard to the phase-in limitation ($187,500 x 20 percent = $37,500), she must then compare it with the Form W-2 limitation she would otherwise be subject to if her income exceeded the $157,500 threshold amount ($40,000 x 50 percent = $20,000). Once Walters crosses that threshold, she is subject to the phase-in rules under section 199A(b)(3)(B) and (d)(3)(A). Therefore, the next $50,000 of income is phased in by reducing her available deduction under section 199A. Walters has $30,000 more than the threshold limit ($187,500 - $157,500 = $30,000), which is not more than the $50,000 phase-in cap.[28] She must calculate her allocable percentage of income within the phase-in limitation.

Walters's QBI deduction is reduced proportionally based on the excess income over the threshold but below the phase-in limit ($30,000 excess ÷ $50,000 phase-in limit = 60 percent of phase-in limit used; 100 percent - 60 percent = 40 percent applicable percentage).[29] However, Walters is engaged in a specified service business and thus loses a portion of her benefit because she is required to compute her applicable percentage (as shown above) and then apply it to QBI as well as to Form W-2 wages to recompute her QBI deduction.[30] This means that Walters now has $75,000 of QBI (40 percent of $187,500) and $16,000 of Form W-2 wages (40 percent of $40,000). She is also forced to fully recompute her deduction and the phase-in limitation based on her applicable percentage.

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[26] This example applies the actual marginal rate for Nelson and Murdock. If we assumed the highest marginal tax rate applied, the tax owed would be $29,600 ($100,000 - $20,000 section 199A deduction = $80,000 x 37 percent = $29,600 of tax on $100,000 of income), demonstrating the total rate reduction for the highest marginal rate of 37 percent down to 29.6 percent in the presence of the full 20 percent deduction.

[27] Dan Slott, *She-Hulk*, vol. 1, no. 1 (2004).

[28] Section 199A(d)(3).

[29] *See* Table 2 calculation.

[30] Section 199A(d)(3)(B).

Table 2. She Hulk — Deduction for Qualified Business Income of Passthrough Entities

She Hulk Allocations:	Qualified business income (QBI)	$187,500
	W-2 Wages	$40,000
	Less threshold	$157,500
	Excess taxable income	$30,000
Step 1		
Determine standard QBI deduction and "excess amount"		
	20% of QBI [QBI x 20% = A] or	$37,500
	50% of W-2 wages [W-2 x 50% = B]	$20,000
	"Excess amount" (199A(b)(3)(B)(ii)) (excess of QBI deduction over W-2 Wages) [A - B = C]	$17,500
Step 2		
Phase in limit calculation	QBI [x]	$187,500
	QBI threshold [y]	$157,500
	Excess taxable income [x - y = D]	$30,000
	Excess taxable income [D]	$30,000
	Divided by phase in range [E]	$50,000
	Percentage [D ÷ E = F]	60%
Step 3		
Applicable percentage calculation	Starting percentage [z]	100%
	Less percentage above [F]	-60%
	Applicable percentage [z - F = G]	40%
Step 4		
Applicable percentage application to QBI and W-2 wages	Applicable percentage QBI [QBI x G = H]	$75,000
	Applicable percentage W-2 wages [W-2 x G = I]	$16,000
Step 5		
Determine deduction after applicable percentage	Lesser of	
	20% of QBI [H x 20% = J] or	$15,000
	50% of W-2 wages [I x 50% = K]	$8,000
	"Excess amount" of applicable percentage [J - K = L]	$7,000
Step 6		
Phase in Calculation of Benefit Limitation after Applicable Percentage	Phase in limitation loss [L x F = M]	-$4,200
Step 7		
Final Deduction Calculation	QBI Deduction [J]	$15,000
	Phase in limitation Loss [M]	-$4,200
	Final deduction [J - M = N]	$10,800

Thus, Walters has applicable QBI of $75,000, with a 20 percent deduction being $15,000. Fifty percent of her applicable Form W-2 wages is $8,000 ($16,000 x 50 percent = $8,000). She now has to go back through the entire calculation to determine how much of the benefit will be reduced and what her remaining deduction will be.

The difference between Walters's tax benefit if she were not subject to the overall limitation ($157,500 for individuals or $315,000 for married filing jointly) and her limitation based on Form W-2 wages as adjusted by her applicable percentage is $7,000 ($15,000 - $8,000 = $7,000). This is the amount of benefit that Walters would have taken through her 20 percent deduction compared with her Form W-2 limited deduction after application of her applicable percentage.

Now Walters must determine how much of that $7,000 excess benefit she has used up through the phase-in range. She has used up 60 percent of the phase-in, and thus her limitation on the excess benefit is $4,200 ($7,000 x 60 percent = $4,200). Walters must reduce her 20 percent of QBI deduction by this phase-in limitation, leaving her with a $10,800 QBI deduction ($15,000 - $4,200 = $10,800). Thus, Walters has $187,500 of QBI and a $10,800 QBI deduction, leaving $176,700 of taxable QBI ($187,500 - $10,800 = $176,700) at a tax rate of 32 percent, for $56,544 of total tax ($176,700 x 32 percent = $56,544) and an effective tax rate of 30.16 percent on her QBI ($56,544 ÷ $187,500 = 30.16 percent).

Maybe this provision is better left to Walters's cousin — "HULK SMASH!"

For Walters, Nelson, and Murdock, section 199A may not provide the benefits they were expecting. Let's hope they all have competent tax counsel and return preparation professionals.

C. Full Expensing of Capital Acquisitions

The art of stalking evildoers and defending Gotham City requires lots of equipment to stay one step ahead of the villains. Through the research and development functions of Wayne Enterprises, Batman is able to ensure he has access to all the latest gadgets and gizmos. Because many items are expended (explosively or otherwise) during crime-fighting sprees, Batman is constantly having to replace the capital assets necessary to exact his brand of justice. Thankfully, the Tax Cuts and Jobs Act has thrown up a bat signal to the Dark Knight in the form of full expensing of capital expenditures.

Full expensing is another business-friendly aspect of the act. The new law amends section 168(k) to provide 100 percent bonus depreciation for qualified property in the year of acquisition.[31] Qualified property is property identified in section 168(k) (which includes property subject to the modified accelerated cost recovery system, water utility property, and computer software covered by section 197) that is originally used by the taxpayer and placed into service within a specified period.[32] The act removes the former requirement under section 168(k) that the property's original use commence with the taxpayer.[33] As such, capital expenditures, even for used equipment, may now be fully expensed in the year of acquisition.

This may provide some benefit to crime fighters who, like Batman, rely on gadgets rather than superpowers. Assuming that Batman's crime-fighting activity is a business or trade and not merely a hobby, his expenditures related to crime fighting are ordinary and necessary business expenses under section 62. Further assume that the Batmobile[34] is destroyed in a particularly fierce clash with the Joker. The acquisition of a replacement Batmobile would qualify for full expensing under revised section 168(k). Batman should also be able to immediately expense the acquisition of a new utility belt,[35] a new Batcopter,[36] and all the other Bat-centric tools used in his primary business of fighting crime.

Batman can now take advantage of full expensing for used equipment as well. If, for example, Batman sold an old Batmobile to his former protégé, Nightwing, and then reacquired that Batmobile at a later date, that capital expenditure would be eligible for full expensing, regardless of whether Batman depreciated the Batmobile when he first owned it. I leave to your analysis whether this creates an opportunity for abuse between nonrelated "friendly" parties. Either way, the full expensing Bat-Signal now shines brightly in the tax night.

[31] Act section 13201.

[32] *See* reg. section 1.168(k)-1(b)(3).

[33] Act section 13201.

[34] Bill Finger, *Detective Comics*, vol. 1, no. 27 (1939).

[35] Fox, *Detective Comics*, vol. 1, no. 31 (1939).

[36] Finger, *Detective Comics*, vol. 1, no. 171 (1951).

D. Research Expenditures

As two of the smartest minds in the galaxy, Banner (Hulk) and Richards (Mr. Fantastic, founding member of the Fantastic Four) have consistently pushed the envelope of technological advances through their continued scientific work. Each has worked with gamma rays and been subjected to cosmic radiation. Richards's development of the Fantastic Four's experimental spacecraft provided significant tax savings through the qualified research expenditure and the research credit. Look out, heroes — is there a barrier in your way? While not expressly addressed in comic lore, it can be assumed that Banner and Richards each perform these services for a corporation capable of supporting their research and development activities.

After some tense moments in the run-up to release of the House-Senate conference report and ultimate passage of the Tax Cuts and Jobs Act, Banner and Richards were sweating bullets, with Banner teetering on a permanent transformation into the Incredible Hulk. You see, Banner and Richards are research scientists — Banner is a nuclear physicist, and Richards is a "scientific genius."[37] Both spend countless hours and dollars developing and researching various techniques, methods, and improvements to scientific study, often performing experiments at Avengers Tower and the Baxter Building, respectively. Those activities arguably constitute qualified research that generates deductions under section 174 and credits under section 41 and would thereby reduce their effective corporate tax rate.

Banner and Richards were especially apprehensive when the Senate passed its version of the tax bill because it retained the corporate AMT. Under the AMT structure, a corporation is required to calculate both its regular tax and what would be due under the AMT, and then pay the greater of the two to Treasury. The intention of the AMT was to ensure that Treasury collected at least some tax revenue from corporations that benefited from tax breaks. The corporate AMT provided a tax rate of 20 percent, but because of the higher corporate tax rate (up to 35 percent), it rarely applied. However, when corporate tax rates and AMT tax rates are equivalent — or closer than they have been historically — calculation of the corporate AMT would effectively limit any benefits garnered by the research credit and other provisions.

Removal of the research credit would have been a major loss for both Banner and Richards. For example, the experimental spacecraft Richards and the rest of the Fantastic Four were in when they gained their superpowers[38] and the Fantasti-Car in which the team travels while on Earth[39] would have certainly been qualified research expenditures and likely given rise to a research credit to offset tax liability. Retention of the corporate AMT in its prior form would have all but eliminated those deductions and credits for Richards and Banner.

Thankfully for them, the act repealed the corporate AMT effective for tax years beginning after December 31, 2017.[40] Now, any corporate AMT credit carryovers to tax years after that date generally may be used to the extent of the taxpayer's regular tax liability (as reduced by some other credits).[41] For tax years beginning in 2018, 2019, and 2020, to the extent that corporate AMT credit carryovers exceed regular tax liability — as reduced by some other credits — 50 percent of the excess corporate AMT credit carryovers are refundable. Any remaining corporate AMT credits will be fully refundable in 2021. Effectively, the repeal of the corporate AMT saves the research credit.

Banner's anger has thus subsided, ensuring — at least for now — that he won't permanently turn into the Incredible Hulk.

III. Individual Provisions

A. Private Plane Benefits

Ah, the luxury of having a private plane, especially an invisible one. Prince (Wonder Woman) zips around the world in her invisible jet.[42] A peak engineering marvel of the Amazons, the invisible jet has been at Prince's disposal for

[37] Lee, *Incredible Hulk*, vol. 1, no. 1 (1962); and Lee, *Fantastic Four*, vol. 1, no. 1 (1961).

[38] Lee, *Fantastic Four*, vol. 1, no. 1 (1961).

[39] Lee, *Fantastic Four*, vol. 1, no. 3 (1962).

[40] Act section 12001.

[41] Act section 12002.

[42] William Moulton Marston, *Sensation Comics*, vol. 1, no. 1 (1942).

years, typically hangared near Washington.[43] The downside is that it needs consistent upkeep. Thankfully, the act has come to the rescue.

Prior law levied an excise tax on amounts paid for taxable transportation, typically through a 7.5 percent ad valorem excise tax applied to the amount paid and a flat dollar amount for each flight segment. Taxable transportation typically means air transportation originating and landing in the United States.[44] In an internal legal memorandum,[45] the IRS concluded that when a management company maintained control of an aircraft to provide management services — including all necessary elements for providing air transportation — the aircraft's owner was required to collect and remit the applicable federal excise tax for the transportation under sections 4261 and 4271.[46] That memorandum resulted in increased IRS audit activity on aircraft management companies.

New section 4261(e)(5) provides that "no tax shall be imposed by this section or section 4271 on any amounts paid by an aircraft owner for aircraft management services."[47] The definition of aircraft management services is expansive. It includes administrative services, flight planning, weather forecasting, maintenance, storage, fueling, safety, and "such other services as are necessary to support flights operated by an aircraft owner."[48]

Thanks to the act, Prince can now pay for her aircraft maintenance services without having to pay the ad valorem excise tax of 7.5 percent on those amounts. "Merciful Minerva"[49] for these tax savings!

B. Effect of Individual Tax Reforms

Peter (Spider-Man) is an underage ward of Aunt May. Since the death of her husband, Ben, she has been Peter's sole caregiver,[50] providing for him as he attends Midtown High School in New York City.[51] Peter was working as an intrepid school reporter when he was bitten by a radioactive spider, giving him superpowers.[52]

May claims Peter as a dependent, but the high cost of living in New York City makes life difficult for her. However, with passage of the act, as in any superhero episode, hope springs eternal. Will the act come to the rescue just when things seem to be at their darkest or would May be better off under the old tax law? Tax Spidey-senses are tingling.

The act will change the applicable deductions for May. Although she has never been shown as having a job, assume May is retired and that her primary income is Social Security retirement benefits. If May earned the payroll cap for her years of employment, her monthly Social Security benefit for an earner over age 66 would have been $2,687 in 2017.[53] Assuming she achieves the same benefit for 2018, May will have $32,244 in taxable income in 2018. If May's late husband was similarly situated when he died, she will have access to his full benefits in the same amount for 2018.[54] This will give May $64,488 of total taxable income in 2018.[55]

Under prior tax law, in 2017 May would have a standard deduction of $12,700 for surviving spouses,[56] a $1,250 increase to the standard

[43] Fox, *All-Star Comics*, vol. 1, no. 8 (1941).

[44] *See* H.R. Rep. No. 115-466, at 395 (2017) (conference committee report with joint explanatory statement).

[45] ILM 201210026.

[46] *See* H.R. Rep. No. 155-466, at 396.

[47] Act section 13822.

[48] Section 4261(e)(5)(B)(i) through (vi).

[49] Wonder Woman's catchphrase, from Robert Kanigher, *Wonder Woman*, vol. 1, no. 91 (1957).

[50] Lee and Steve Ditko, *Amazing Fantasy*, vol. 1, no. 15 (1962) (Uncle Ben shot by burglar).

[51] Marvel Universe Wiki, "Midtown High School" ("also known as Public School 108 when he was bitten by the radioactive spider that granted him his powers").

[52] Lee and Ditko, *supra* note 50.

[53] Penelope Wang, "What's the Maximum Social Security Benefit in 2017?" *Money Magazine*, Feb. 6, 2017.

[54] Social Security Administration, "Survivors Planner: How Much Would Your Benefit Be?" (Dec. 26, 2017).

[55] For purposes of this report, I disregard the fact that Social Security benefits are taxable based on a formula, with a maximum of 85 percent of the benefits being subject to tax. In this case, something like $4,000 would be taxable because May doesn't have any other sources of income. For purposes of example only, assume that the full amount of Social Security benefits is taxable to May.

[56] This assumes time has stood still in the comic universe and that Ben's death was recent rather than in 1962, since the surviving spouse deduction is available only for the year of death and the two following years. For years after that period, May will be filing as the head of household, and the calculation would continue in the same manner, but with head of household rates rather than married filing jointly rates.

deduction because she is elderly, and a $4,050 personal exemption for herself and for Peter.[57] May had net taxable income of $42,438 in 2017 ($64,488 - $12,700 - $1,250 (elderly deduction) - $4,050 (for May) - $4,050 (for Peter)).

Under the act, May's standard deduction increases from $12,700 to $24,000 plus the $1,250 deduction for the elderly in 2018. However, she loses the personal exemption for herself and Peter, leaving her net taxable income of $39,238 in 2018 ($64,488 - $24,000 - $1,250 = $39,238).

Also, in 2017 May was eligible for the child tax credit ($1,000) because Peter was 15 years old when he was bitten by the radioactive spider that gave him his powers, and he is a descendant of a relative with the same principal abode of the taxpayer.[58]

Under the act, the child tax credit is temporarily increased to $2,000 until 2025, and it applies to dependent qualifying children who have not yet attained the age of 18 during the tax year.[59] May should be able to take this credit against her calculated tax liability for the years in which Peter continues to live with her and has not yet reached age 18 (which they seem to reach more slowly in the comic book world).[60]

The act altered the rate structure under section 61, effective for 2018. May's $42,428 of net taxable income for 2017 was subject to a 25 percent tax bracket, resulting in $10,610 in taxes due for that year. But her $39,238 of total taxable income in 2018 is within the 12 percent marginal income tax bracket[61] and thus results in approximately $4,700 in taxes owed for 2018. When the child tax credit is applied, May's 2017 liability reduces to $9,610, while her 2018 liability reduces to approximately $2,700. The act gives May a tax savings of $6,900.[62]

Table 3. Calculation of Aunt May's Tax Liability

	2017	2018
Social Security income	$64,488	$64,488
Standard deduction	$12,700	-$24,000
Elderly increase	-$1,250	-$1,250
Personal exemption (May)	-$4,050	$0
Personal exemption (Peter)	-$4,050	$0
Net taxable income	$42,438	$39,238
Tax at 25%	$10,610	
Tax at 12%		$4,709
Child tax credit	-$1,000	-$2,000
Net tax	$9,610	$2,709
Benefit of Tax Cuts and Jobs Act		$6,901

May should be aware that the rate structure and many of the other benefits described above will phase out after 2025, at which point her taxes will revert to the 2017 rate structure.[63] Therefore, her $6,900 benefit is short-lived, but a benefit nonetheless. Hopefully she can put those funds to good use to prepare for the increased tax bill in the out-years — or possibly to ensure that Peter has some additional film for his camera.

Further, May's individual federal tax benefit is also likely limited by her residence in New York, and the reduction of the state and local tax deduction, with its new cap at $10,000. However, it is unlikely that May is an itemizer, so the SALT discussion may be left for another day.

C. Expansion of Section 529 Plan Programs

Education, as important to superheroes as it is to mere mortals, is something that has always been appreciated by Xavier (Professor X). But private education carries a hefty bill in most instances. It would be helpful if there were a way to subsidize or help pay for that education. That is where the Tax Cuts and Jobs Act comes in. Under the act, "It's clobberin' time!"[64]

[57] Rev. Proc. 2016-55, 2016-45 IRB 707.

[58] Section 152(c)(2)(B) (defining qualifying child to include Peter as the nephew of May); Lee and Ditko, *supra* note 50 (indicating that Peter was 15 at the time of the spider bite); and section 24 (providing the child tax credit for dependent children up to 17 years old).

[59] Act section 11021.

[60] If Peter were determined not to be a qualifying child of May's under the attribution rules of section 152(c)(2)(B), May would be eligible only for a $500 credit against tax rather than the $2,000 benefit.

[61] Act section 11001.

[62] *See* Table 3.

[63] Act section 11001; section 61; H.R. Rep. No. 155-466, at 13.

[64] Lee, *Fantastic Four*, vol. 1, no. 22 (1964) (in which the Thing says his catchphrase "It's Clobberin' Time" for the first of many, *many* times).

Beginning in 2018, taxpayers will be able to use section 529 plans to fund not only college but also K-12 education.

Section 529 plans, tax-advantaged savings plans designed to encourage saving for future college costs, have been expanded to include elementary and secondary school expenses.[65] The act amends section 529 by adding section 529(c)(7), which provides that "qualified higher education expense" includes attendance at an elementary or secondary public, private, or religious school.[66] The amount eligible for withdrawal and expenditure in a given year under new section 529(c)(7) is capped at $10,000.[67]

The primary benefit of section 529 plans comes from the fact that earnings accumulate within the account tax free over time. Thus, when parents are able to contribute to a section 529 plan, the earnings are not taxed, and withdrawal of the funds to pay for qualified higher education expenses is not considered income to the family. The expansion of the section 529 plan rules to include primary and secondary education will open up tax benefits to those who choose to pay for K-12 education at a school such as Xavier's School for Gifted Youngsters.

Xavier is the mutant son of a wealthy nuclear researcher,[68] and he is a telepath with incredible mental powers. Growing up, Xavier was not only gifted as a mutant — he was also incredibly intelligent, attending Bard College in his early teens and graduating from Harvard University when he was only 16 years old.[69] After inheriting his family fortune, Xavier realized his life's passion and work by opening his school for the "gifted" (that is, other mutants).

Xavier's first student was 11-year-old Jean Grey, who had been traumatized when she telepathically experienced the emotions of a dying friend.[70] Fred Duncan, an FBI agent investigating the growing number of mutants, introduced Xavier to a young Scott Summers (Cyclops).[71] Summers was invited to move into the school and became Xavier's second student. During the following months, Xavier recruited other students, who together formed the original X-Men.[72]

Using his ancestral home as a boarding school, Xavier trains mutants to harness and use their powers, while also providing them a conventional elementary and secondary education. Now parents of young mutants can start to plan for their children's specialized education at an earlier age, and investments held in section 529 plans can grow and provide a tax deferral to those parents as they pay the tuition at Xavier's school.

Mutatis mutandis.[73]

D. Repeal of Alimony Deduction

Divorce is hard. In the comic universe, divorce can mean splitting alliances, dividing assets, and possibly making alimony payments. By Odin's beard,[74] the act has stepped in and altered the alimony universe!

Pym is a biochemist who discovered a rare group of subatomic particles, now known as the Pym particles. Pym was able to manipulate the particles into two separate serums: one that would reduce the size of persons and objects, and one that would increase their size back to normal (and eventually enable people to grow into giants).[75] Pym tested the reducing serum on himself and discovered it was more powerful than he had expected, reducing him to the size of an insect while retaining his full human-size strength. He thus became Ant-Man.[76] Pym met and fell in love with van Dyne and later

[65] Act section 11032.

[66] Section 529(c)(7); and Act section 11032.

[67] Section 529(e)(3)(A)(2); and Act section 11032.

[68] Lee, *X-Men*, vol. 1, no. 12 (1965).

[69] Chris Claremont, *Excalibur*, vol. 3, no. 14 (2005).

[70] *Bizarre Adventures*, vol. 1, no. 27 (1981); and Sean McKeever, *X-Men Origins: Jean Grey*, vol. 1, no. 1 (2008).

[71] Lee, *X-Men*, vol. 1, nos. 2 and 3 (1963); and Stuart Moore, *X-Men Origins: Cyclops*, vol. 1, no. 1 (2010).

[72] Lee, *X-Men*, vol. 1, no. 1 (1963).

[73] School motto, meaning changing only those things which need to be changed.

[74] Catchphrase of Thor, whose first appearance was in Lee and Larry Liebner, *Journey Into Mystery*, vol. 1, no. 83 (1962).

[75] Lee and Liebner, *Tales to Astonish*, vol. 1, no. 27 (1962).

[76] *Id*.

introduced her to the Pym particles, enabling her to become the Wasp, a superhero with abilities like Ant-Man's, but with the additional ability to fly and shoot energy bolts when in her shrunken form.[77] After a series of convoluted misadventures and delusions, Pym kidnapped van Dyne (at which point she agreed to marry him).[78] They later married at Avengers Tower.[79]

The marriage deteriorated over time, and Pym inexcusably struck van Dyne. She confirmed the abuse to the Avengers and requested a divorce.[80] Based on Pym's actions, it can be assumed that van Dyne's request was summarily granted and that she was granted alimony.

Under prior law, alimony was deductible by the payer and includable in the recipient's gross income.[81] So the spouse receiving the alimony payments had to pay taxes on them as if they were any other form of earned income.[82] Meanwhile, the payer spouse could deduct the alimony payments as long as they (1) were made in cash or check, (2) were received by or for a former spouse, (3) were made under a court order or divorce agreement, (4) did not include child support or property division under the divorce, and (5) were not included in a joint tax return filed by the two spouses. Further, the liability ceased at the death of the receiving spouse, and there had to be no cohabitation between the former spouses.[83]

The act reverses the treatments of alimony payments. It repeals the deductibility of alimony payments for the payer spouse and eliminates its inclusion in the income of the recipient spouse.[84] The act strikes section 215 and makes conforming amendments, including removing alimony from the definition of gross income under section 61.[85] The joint explanatory statement indicates that the change was made to conform the code with the decision in *Gould*.[86]

Based on this revision, Pym will have more taxable income, and van Dyne will receive nontaxable income in the form of alimony payments. This will be a significant change for both parties. Van Dyne could receive smaller alimony payments, since those amounts will no longer be taxable and she will need less in alimony payments to achieve the same tax-effected result as before. Pym will lose the deduction for alimony payments, increasing his taxable income at the end of the day. Thus, alimony payments will no longer be the Pym particles that reduce the size of Pym's overall tax bill.

IV. Conclusion

Obviously, this is a somewhat tongue-in-cheek look at the new federal tax law, but its discussed effects are real. Further, each of these characters likely has additional tax implications to consider, so they would be wise to seek out a comic book tax professional to help them structure their affairs.

Sadly, I'm unaware of any tax attorneys in comic lore, but they could seek out Louis Tully, the tax professional in *Ghostbusters* (you know, the guy who lives next door to Dana Barrett, aka the Keymaster).[87] For more interesting tax news, stay tuned — same tax time, same tax channel. ■

[77] Lee and H.E. Huntley, *Tales to Astonish*, vol. 1, no. 44 (1963); and Kurt Busiek, *Avengers*, vol. 3, no. 31 (2000).

[78] Roy Thomas, *Avengers*, vol. 1, no. 59 (1968).

[79] Thomas, *Avengers*, vol. 1, no. 60 (1969).

[80] James Shooter, *Avengers*, vol. 1, no. 213 (1981).

[81] Sections 61, 62, 71, and 215.

[82] Reg. section 1.71-1.

[83] Section 62(a)(10); reg. section 1.62-1T(c)(11).

[84] Act section 11051.

[85] *Id.*

[86] H.R. Rep. No. 115-466, at 100 (indicating that "the intent of the provision is to follow the rule of the United States Supreme Court's holding in *Gould v. Gould* [245 U.S. 151 (1917)], in which the Court held that such payments are not income to the recipient").

[87] *See* Benjamin Willis, "5th Ghostbuster Stud & Tax Lawyer!" (Jan. 2, 2018).