

# STRATEGIES AND EVIDENCE FOR DEDUCTION OF BUSINESS EXPENSES UNDER INTERNAL REVENUE CODE SECTION 168(K), 179, AND 274

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# ABSTRACT

The Tax Cuts and Jobs Act (TCJA) of 2017 amended the Internal Revenue Code of 1986. TCJA (2017) increased the annual maximum amount of immediate expense of Section 179 to one million dollars, and the phase-out threshold to two and a half million dollars. TCJA (2017) amended Section 168(k) to allow a 100 percent additional first-year depreciation deduction for qualified property acquired and placed in service after September 27, 2017, and before January 1, 2023. The Coronavirus Aid, Relief, and Economic Security (CARES) Act of 2020, now allows taxpayers to also elect additional first-year depreciation deduction for qualified improvement property. Through statistical analyzes of "IRS Corporation Depreciation Data" from 2010 to 2016, this paper adds value to the literature by informing readers the popularity of Section 179 and 168(k) in which sectors of businesses. The tax code change itself has implications on actual tax liabilities for businesses. Businesses can change their practices, for example avoiding newly disallowed entertainment expenses, to account for the change in the tax code. This paper further contributes to the literature by (1) providing a summary of the latest details of Section 168(k), 179 and 274, (2) suggesting proactive tax strategies in terms of business expenses deduction to mitigate a taxpayer's potential Federal corporation income tax liabilities, (3) demonstrating the application of Section 168(k), 179 and 274 through real-life numerical case examples.

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**KEYWORDS**: Depreciation, Entertainment, Internal Revenue Code, Section 168(k), Section 179, Section 274, The Tax Cuts and Jobs Act

# **INTRODUCTION**

ongress and the president enacted the landmark Tax Cuts and Jobs Act (TCJA) on December 22, 2017. TCJA (2017) made changes to the tax laws that have a major impact on how business is conducted in the United States. This study does not attempt a comprehensive analysis of the changes in the U.S. tax code, but instead focuses on some key areas that affect most business operations. Specifically, this study examines how the Internal Revenue Code (IRC) Section 179 immediate expenses deductions and Section 168(k) special depreciation allowances helps business owners to reduce their corporation tax liabilities. Depreciation is one of the most common business expense deductions. To encourage capital expenditures, legislators increased the allowable depreciation deductions under Section 179 and 168(k). The overall effect of TCJA (2017) still needs to be empirically researched. Based on the Data Book for 2018 published by the Internal Revenue Service (IRS) (IRS, 2019c), corporations only paid 7.60 percent of the total \$3.5 trillion of federal taxes collected by the IRS in 2018 (IRS, 2019c, Table 1, p. 3). Comparatively, individual income taxes accounted for 56.90 percent and employment taxes accounted for 32.70 percent of the total federal taxes collected in 2018 (IRS, 2019c, Table 1, p. 3). According to the data of Collections and Refunds by Type of Tax published by the IRS (IRS, 2020e), the percentage of

corporation income tax in terms of the total annual amount of gross federal taxes collected decreased from 11.50 percent in 2014 to 7.60 percent in 2018. At the same time, the percentage of individual income taxes in terms of the total annual amount of gross federal taxed collected increased from 53.60 percent in 2014 to 56.90 percent in 2018.

To encourage business capital expenditures, TCJA (2017) not only increased the annual maximum amount of Section 179 immediate expense to one million dollars but also increased the phase-out threshold to two and a half million dollars. Further, TCJA (2017) also amended section 168(k) and related provisions to allow a 100 percent additional first-year depreciation deduction for qualified property acquired and placed in service after September 27, 2017, and before January 1, 2023. The Coronavirus Aid, Relief, and Economic Security (CARES) Act, became law on March 27, 2020. The CARES Act now allows taxpayers to elect additional first-year depreciation for qualified improvement property. Though Section 168(k) and 179 allow taxpayers to accelerate deductions for qualifying purchases of property, plant, and equipment, whether taxpayers have utilized allowable deductions under each Section to their best advantage still needs to be empirically researched. Prior literature suggests that firms with similar characteristics will practice similar tax avoidances strategies. To date no empirical research study has explored whether firms electing Section 168(k) are distinct groups with unique characteristics.

The lack of empirical research regarding the characteristics of the firms electing Section 179 and 168(k) motivates this paper to examine (1) how widespread is the use of Sections 179 and 168(k) in terms of the percentage share of annual total amount of depreciation claimed on Form 4562; (2) what are the characteristics of the firms that elect Section 179 and 168(k). Through statistical analyzes of "IRS Corporation Depreciation Data" from 2010 to 2016, this paper adds value to the literature by informing readers of the prevalence of Sections 179 and/or 168(k) among different sectors of businesses. The tax code change itself has implications not only on actual tax liabilities for businesses but also on how businesses operate. Many firms, especially in the manufacturing sector and hospitality sector, benefited from the provisions of TCJA (2017) that expanded the additional first-year depreciation of Section 168(k) as well as the annual maximum amount of immediate expense deduction of Section 179. These two tax breaks are valuable for capital-intensive manufacturers and hotel operators, who can benefit from the tax-saving opportunities due to the time value of money.

After interviewing business owners, the authors developed ten strategies for maximizing the amount of business expenses deductions as permitted under Section 168(k), 179 and 274 respectively. The authors developed the ten strategies from a business owner's perspective. This authors also provide three actual cases examples to explain this paper's ten suggested strategies. Each of the three cases is based on realworld scenarios albeit embedded with fictitious numbers. The authors also provide explanations as to why manufacturers favor Section 168(k) additional first-year depreciation, while hotel operators favor immediate expense of qualified improvement to nonresidential real property and property used predominantly for furnishing under Section 179. As a result, this paper contributes to literature through the ten strategies as well as case examples demonstrating how business owners plan strategically to maximize deductions of business expenses under Section 168(k), 179 and 274. This paper assumes and defines the following: (1) all the property, other than qualified improvement, described is personal property, (2) all the property described is of 100 percent business use, (2) all the property is acquired and placed in service in the same tax year or in 2019, (3) the term taxpayer described signifies an individual operating a C corporation (due to the fact that tax laws apply differently in S Corporations and Partnerships), and (4) the taxpayer would like to maximize business expense deductions as permitted under Section 168(k), 179 and 274 in the current tax year. The authors present the remainder of this paper in the following order. The next section provides a literature review and some background. The third section describes ten tax strategies for maximizing the amount of business expenses deduction as permitted under Section 168(k), 179 and 274. The fourth section presents data and methodology. The fifth section provides results. The sixth section

presents three real-life cases to illustrate the calculation of the business expenses deductions. The final section provides a conclusion.

#### LITERATURE REVIEW AND BACKGROUND

Prior literature examines numerous aspects of the IRC and its implications for businesses. Hanlon and Heitzman (2010) present a review of tax research in four main areas of the literature: (1) the informational role of income tax expense reported for financial accounting, (2) corporate tax avoidance, (3) corporate decision making, and (4) taxes and asset pricing. Within the domain of corporate tax avoidance and tax shelters, Wide and Wilson (2018) provide a broad review of corporate tax planning literature of the last decade. There are ample publications describing how public firms learn from each other regarding the corporate practice of tax avoidance. Prior studies (for example see Davis and Greve 1997; Gulati and Westphal 1999; Reagans and McEvily 2003; Brown 2011; Chiu et al. 2013; Larcker et al. 2013; Cai et al. 2014; Brown and Drake 2014) support the notion that public firms in similar industries, especially those having interlocking board of directors and sharing the same industry specified auditors, practiced similar corporate policies such as financial disclosures and tax avoidance.

Davis and Greve (1997) investigate two popular corporate practices of the 1980s and find that the corporate practice of poison pills spread through a board-to-board process; while the corporate practice of golden parachutes spreads more slowly through geographic proximity. Gulati and Westphal (1999) suggest that firms having a common auditor will imitate each other's corporate practices more quickly. However, Reagans and McEvily (2003) find the speed in which corporate practices spread among firms depends on the characteristics of both the firm's connection to other firms and the type of knowledge being shared across the connections. In regard to the type of knowledge being shared across firms, Brown (2011) finds that connections via board interlocks increase the chance of adopting tax shelters such as employing corporate-owned life insurance shelters as vehicles of tax avoidance. Chiu et al. (2013) find that a firm is more likely to manage earnings when the firm has common directors with another firm that had previously practiced earnings management. Larcker et al. (2013) document that firms with stronger connections to other firms, through interlocking boards of director have higher risk-adjusted returns and higher profitability than firms with weaker connections. Further, Cai et al. (2014) propose that connections between firms through director interlocks can hasten the process of imitating another firm's cessation of providing earnings guidance. Brown and Drake (2014) highlight the important fact that implementation of common corporate practices such as tax-saving strategies are more pronounced in board connections between firms with similar characteristics. This paper also expects that firms with similar characteristics will behave in similar pattern, in terms of business operational changes, in their responses towards amendment of the IRC enacted by TCJA (2017).

Most of the changes introduced by the TCJA (2017) went into effect on January 1, 2018, and hence did not affect the 2017 tax year. Prior literature has a large array of empirical studies regarding the deductibility of business expenses deductibility prior to the enactment of TCJA 2017. Bank (2014) explains why taxpayers cannot deduct all the business interest expenses incurred in a tax year. Bank (2014) hypothesizes that legislators in 1909 were worried that without a cap on the business interest expenses deduction, corporations would become over-leveraged. This would lead to wider economic swings and weaker economic growth. Following the same logic, TCJA (2017) further restricts taxpayers' ability to deduct business interest expenses incurred in a tax year. TCJA (2017) amends Section 163(j) to disallow a deduction for net business interest expense in a taxable year in excess of the sum of (1) the taxpayer's business interest income for the year; (2) 30 percent of the taxpayer's adjusted taxable income for the year; and (3) the taxpayer's floor plan financing interest expense for the year (IRS, 2018c). The most notable modifications to the tax law enacted by the TCJA (2017), for tax years beginning after 2017, is the cap of the corporation tax rate at 21 percent and the repeal of alternative minimum tax on business. While many individual tax provisions under the TCJA (2017) will expire on 2025, most of the business tax provisions

under the TCJA (2017) will not automatically expire. TCJA (2017) provides additional tax incentives to businesses, for example Section 179 immediate expense deductions and 168(k) special depreciation allowances. Changes in tax laws often have consequences on the economy as well as society. For example, Binner and Day (2015) find that tax policy changes in mortgage interest deduction can significantly influence taxpayers' behavior regarding homeownership. Changes to the business tax provisions not only affect public firms, as discussed in preceding paragraphs, but also influence private business owners ranging from sole proprietors, partnerships to S corporations. Unfortunately, most of the prior literature in tax research focuses on public firms. A lack of studies exists on the tax behavior of private businesses. This paper discusses the effect of changes to business tax provisions from the perspective of business owners that include both private and public.

Depreciation and entertainment business expenses are two common business expense deductions. This paper discusses new business expenses deductions opportunities under Section 168(k) and Section 179 from the perspective of all business owners (i.e. sole proprietors, partnerships, C corporations, S corporations). TCJA (2017) introduces new limitations on some business expenses deductions. Entertainment business expenses deduction, under Section 274, is an example of limitation newly introduced by TCJA (2017). In fact, TCJA (2017) disallows all entertainment business expenses deduction (IRS, 2018b) but still allows a 50 percent deduction of business meals. This paper discusses this new limitation on deductions of business meals under Section 274 from the perspective of business owners. A recent experimental study by Austin et al. (2020) Finds that (1) individuals tend to evade taxes more during episodes of tax increases, (2) an individual who knows that a tax decrease is only temporary (compared to another individual who does not know about the temporary tax decrease), will be less likely to evade taxes and will not evade taxes more after the period of tax decrease, and (3) when there is uncertainty regarding whether a tax decrease is temporary, all individuals' tax behavior is roughly equivalent.

This paper predicts firms will also adapt quickly to a "gain state" by taking advantage of the additional business deductions, offered by TCJA (2017), to reduce their tax liabilities. TCJA (2017) is a multifaceted and still relatively new. Tax strategies to mitigate tax liabilities, in regard to the changes of the tax law as amended by TCJA (2017), still need to be empirically researched. Decker and Ray (2017) provide an example of how researchers contribute to the practical world by suggesting tax strategies to help farmers to mitigate their tax liabilities. This paper also discusses comprehensive and holistic tax strategies, to maximize the deductibility of numerous business expenditures in an effort to reduce a business taxpayer's potential Federal corporation income tax liability under Section 179, 168(k) and 274. Due to the complexity of TCJA (2017), both the Department of Treasury and the IRS have been proactively issuing guidance to the public in regard to the implementation of the new tax law changes. The next few paragraphs provide a brief summary of the latest guidance regarding Sections 179, 168(k) and 274.

#### Internal Revenue Code Section 179

In lieu of just taking Modified Accelerated Cost Recovery System (MACRS) depreciation deductions, a taxpayer can elect Section 179 to deduct the cost of qualifying property purchased and placed in service during a tax year. TCJA (2017) increased the annual maximum amount (or called the ceiling amount) that a taxpayer can immediately expense under Section 179, in tax years beginning after 2017, from \$500,000 to \$1,000,000 and also increased the phase out amount of Section 179 from \$2,000,000 to \$2,500,000. On March 23, 2020, the Treasury Department and the IRS issued Publication 946 titled "How to Depreciate Property" for use in preparing 2019 Returns (IRS, 2020d). In 2019 tax year, the total amount a taxpayer can elect to deduct under Section 179 is \$,1020,000 and the phase out amount of Section 179 is \$2,550,000. To qualify for the Section 179 deduction, the property that a taxpayer elects to deduct must meet all the following requirements: (1) the property must be an eligible property, (2) the property must be acquired for business use, (3) the property must be acquired by purchase, and (4) the property is not an excepted property that does not qualify under Section 179. If a taxpayer places qualifying property in service for only a part

of a 12-month tax year, the taxpayer can still elect to deduct full amount of that property under Section 179 (IRS, 2020d, p. 18). Section 179 allows taxpayers to pick and choose which assets to expense immediately. Table 1 helps readers to appreciate the types of property that qualifies for the Section 179 deduction.

The definition of Section 179 property now includes tangible personal property used in connection with furnishing lodging. For example, beds and furniture for use in hotels and apartment buildings (IRS, 2020d, p. 16). Tangible personal property of Section 179 also includes cellular telephones, telecommunications equipment, portable air conditioners, and portable heaters. Taxpayers may also elect to include improvements to nonresidential real property placed in service after the date the property was first placed in service such as roofs, heating, ventilation and air-conditioning property, fire protection and alarm systems, security systems. Under Section 179, a taxpayer can immediately expense up to \$25,500 of the cost of any heavy sport utility vehicle (SUV) and certain other vehicles placed in service for business use in tax years beginning in 2019 (IRS, 2020d, p. 18).

After utilizing the full amount of \$25,500 under Section 179, a taxpaver can use Section 168(k) bonus depreciation to recover the remaining cost of the SUV placed in service for business use in 2019. Readers should take notice that the above-mentioned SUV must have a manufacturer's gross vehicle weight rating (GVWR) above 6,000 pounds and not more than 14,000 pounds. In 2019, the phase out amount for Section 179 is \$2,550,000. The Section 179 deduction ceiling amount of \$1,020,000 is reduced dollar for dollar, when Section 179 property placed in service during 2019 exceeds \$2,550,000. For example, if a taxpayer placed in service machinery costing \$2,600,000 in 2019, then the phase out amount is \$50,000 (\$2,600,000 - \$2,550,000). Therefore, the total amount the taxpayer can elect to deduct under Section 179 is only \$970,000 (\$1,020,000 - \$50,000) as reduced by the phase out amount (IRS, 2020d, p. 18). Furthermore, Section 179 deduction is also subject to the business income limitation. The total amount of the elected Section 179 deduction cannot exceed the taxable income from the active conduct of trade or business during the year. The amount of Section 179 deduction is generally the cost of the qualifying property. But the total amount a taxpayer can elect to deduct under section 179 is subject to a dollar limit (equal or less than \$2,550,000 in 2019) and a business income limit. Both the above-mentioned dollar limits and business income limits apply to each taxpayer or each tax return (except for married filing joint or separate returns) but not to each business (IRS, 2020d, p. 17). A taxpayer can carry over, for an unlimited number of years, the cost of any qualified Section 179 property placed in service (in tax years beginning after 2015) that exceeded the business income limitation (IRS, 2020d, p. 20). A firm cannot use Section 179 deductions in a tax year to create or increase tax losses. Table 1 highlights definitions of key terms, mentioned in the IRS Publication 946, about section 179.

Key Terms	Definition of Key Terms	Sources
1. Eligible Property	One of the following types of depreciable property: (1) tangible personal property; (2) other tangible property (except buildings and structural components) used as an integral part of manufacturing or of furnishing transportation, communications,	IRS (2020d, p. 16)
	electricity, gas, water, or sewage disposal services; (3) single-purpose agricultural (livestock) or horticultural structures; (4) storage facilities (except buildings and structural components) of petroleum; (5) off-the-shelf computer software; and (6) qualified Section 179 real property.	
2. Tangible Personal Property	Tangible property is any tangible property that is not real property which includes (1) machinery and equipment; (2) property contained in or attached to a building (other than structural components) such as refrigerator, counters, office equipment; (3) gasoline storage tanks and pumps at retail service stations; (4) livestock; (5) portable air conditioners or heaters; (6) certain property used predominately to furnish lodging except as provided in Section 50(b)(2).	IRS (2020d, p. 16)
3. Off-the-shelf Computer	Off-the shelf computer software is computer software that is readily available for	IRS (2020d, p. 16)
Software	purchase by the public. The software is subject to nonexclusive license and has not been substantially modified.	
4. Qualified Section 179 Real Property	Any qualified real property that is (1) qualified improvement property as described in Section 168(e)(6); (2) improvements to nonresidential real property placed in service (after the date the nonresidential real property was first placed in service) such as roofs, heating, ventilation, and air-conditioning property, fire protection and alarm systems, and security systems.	IRS (2020d, p. 16)
5. Qualified Improvement	Any improvement to an interior portion of a building that is nonresidential real property if the improvement is placed in service after the date the building was first placed in service. But, qualified improvement does not include enlargement of the building, elevator, escalator, internal structural framework of the building.	IRS (2020d, p. 16)
6. Excepted Property	A taxpayer cannot elect the Section 179 deduction for the following property: (1) leased property (except corporate lessor), (2) property used predominately outside the United States, (3) property used by certain tax-exempted organizations, (4) property used by governmental units or foreign persons.	IRS (2020d, p. 17)

Table 1: Section 179 Key Terms and Definitions

Table 1 provides summary of key terms of Section 179 as defined in the IRS Publication 946.

#### Internal Revenue Code Section 168(k)

A taxpayer can take a special depreciation allowance to recover part of the cost of qualified property placed in service during the tax year. The special depreciation allowance applies only for the first year a taxpayer places the property in service. This special depreciation allowance is an additional deduction that a taxpayer can take after any Section 179 deduction and before regular depreciation under the Modified Accelerated Cost Recovery System (MACRS) (IRS, 2020d, p. 23). Section 168(k) allows an additional first year ("bonus") depreciation deduction in the placed-in-service year of qualified property. TCJA (2017) increased the Section 168(k) additional first-year depreciation from 50 percent to 100 percent. Bonus depreciation is mandatory for all taxpayers that qualify. Taxpayers can elect out of bonus depreciation annually on a property class basis, for example for all of their five-year class property, but still claim bonus depreciation for all of their seven-year property acquisition. Under Section 168(k), a taxpayer can take an additional first-year depreciation deduction of 100 percent of the cost of qualified property placed in service during 2019, 2020, 2021 and 2022. Eligible assets include those with a depreciable life of 20 years or less which encompasses personal property such as automobiles, machinery, office furniture and fixtures. The percent of Section 168(k) additional first-year depreciation deduction will begin to wind down from 80 percent in 2023 to zero percent in 2027 and thereafter (2019a). Land and buildings are not eligible for additional first-year depreciation. Further, any property used in trades or businesses that is not subject to the limitation of net business interest expenses under Section 163(j) is also not eligible for additional firstyear depreciation. Table 2 summaries the latest rules of Section 168(k).

Table 2:	Latest	Rules	of Section	168(k)
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Key Areas	Detail Rules	Sources
1. Eligibility Requirements	To elect Section 168(k) additional first-year depreciation, the property must meet four requirements: (1) the depreciable property must be of a specified type; (2) the original use of the property must commence with the taxpayer or used depreciable property must meet the requirements of Section $168(k)(2)(E)(ii)$ ; (3) the depreciable	IRS (2019a, p. 50122)
2. Acquisition of Used Property	property must be placed in service by the taxpayer within a specified time period or must be planted or grafted by the taxpayer before a specified date; and (4) the depreciable property must be acquired by the taxpayer after September 27, 2017. A taxpayer can elect Section 168(k) additional first-year depreciation if used property acquired by the taxpayer meets the following five requirements: (1) the used property was not used by the taxpayer or a predecessor at any time prior to such acquisition; (2) the used property was not acquired from a related party or component member of a controlled group; (3) the taxpayer's basis in the used property is not determined in whole or in part by the seller's adjusted basis in the property; (4) the taxpayer's basis in the used property is not related	IRS (2019a, p. 50112)
3. Qualified Property	to property acquired from a decedent; and (5) the cost of the used property does not include the basis of property determined by the reference to the basis of other property held at any time by the taxpayer. Qualified property must be one of the following (1) MACRS property that has a recovery period of 20 years or less; (2) computer software as defined in Section 167(f)(1); (3) water utility property as defined in Section 188(e)(5); (4) a qualified film or television production as defined in Section 181(d); (5) a qualified live theatrical production as defined in Section 181(e); (6) a specified plant as defined in	IRS (2019a, p. 50109)
4. Percent of Additional First- Year Depreciation	Section 168(k)(5)(B). 100 percent for qualified property placed in service during 2019, 2020, 2021, 2022 80 percent for qualified property placed in service during 2023 60 percent for qualified property placed in service during 2024 40 percent for qualified property placed in service during 2025 20 percent for qualified property placed in service during 2026 zero percent for qualified property placed in service during 2027 and thereafter	IRS (2019a, p. 50120)
5. Excepted Property	Qualified property acquired after September 27, 2017 does not include any of the following: (1) property placed in service, or planted or grafted, and disposed of in the same year; (2) property converted from business use to personal use in the same tax year acquired; (3) property required to be depreciated under the Alternative Depreciation System (ADS); (4) property for which a taxpayer elected not to claim any special depreciation allowance.	IRS (2020d, p. 25)

Table 2 provides summary of Section 168(k) as mentioned in the IRS Proposed Rule "Additional First-Year Depreciation Deduction"

The Coronavirus Aid, Relief, and Economic Security (CARES) Act, became law on March 27, 2020. The CARES Act classifies qualified improvement property (certain improvements to the interior of nonresidential real property) as 15-year property for depreciation purposes. The changes apply retroactively to property placed in service in 2018. As a result, taxpayers now can claim additional first-year additional depreciation for qualified improvement property. Qualified improvement property means any improvement to an interior portion of a building which is nonresidential real property if such improvement is placed in service after the date such building was first placed in service.

#### Internal Revenue Code Section 274

Under prior law, before December 22, 2017, a taxpayer could deduct fifty percent of entertainment, amusement, or recreation expenses incurred for the activities that were directly related to the active conduct of the taxpayer's trade or business. TCJA (2017) amended Section 274 to disallow deduction of expenditures for entertainment effective for amounts paid or incurred after 2017. Section 1.274-2(b)(1)(i) of the Income Tax Regulations provides that the term "entertainment" means any activity which is of a type generally considered to constitute entertainment, amusement, or recreation (IRS, 2018b, p. 3). TCJA (2017) does not specifically address the deductibility of expenses for business meals (IRS, 2018). McBride (2018) suggests that when the Tax Cuts and Jobs Act eliminated the deduction for entertainment, the Act also eliminated the deduction for business meals. McBride (2018) therefore calls for a statutory fix of the deductibility of expenses for business meals. On October 15, 2018, the Treasury Department and the IRS

published Notice 2018-76 providing transitional guidance on the deductibility of expenses for certain business meal expenses under Section 274 (IRS, 2018b). On January 20, 2020, the Treasury Department and the IRS issued Publication 463 titled "Travel, Gift, and Car Expenses" for use in preparing 2019 Returns (IRS, 2020a). Taxpayers can refer to Publication 463, issued by the IRS, for guidance on business meals.

On February 20, 2020, the Treasury and the IRS issued a proposed rule titled "Meals and Entertainment Expenses Under Section 274" for public comments (IRS, 2020b). The proposed regulations substantially incorporate the temporary guidance in Notice 2018-76 (IRS, 2018b) addressing business meals provided during or at an entertainment activity. On March 4, 2020, IRS issued Publication 535 titled "Business Expenses" for use in preparing 2019 Returns (IRS, 2020c). Taxpayers can refer to Publication 535, issued by the IRS, for guidance on food and beverages *de minimis* fringe benefit. Table 3 presents key points of IRS Publication 463 and 535 in regard to the deduction of business entertainment and meal expenses.

Entertainment and Meal Expenses	Deducting Business Expenses	Sources
1. Club Dues Membership Fees	No deduction	IRS (2020a, p. 10)
2. Sporting Event Tickets	No deduction	IRS (2020a, p. 10)
3. Hunting, Fishing, Vacation Trips	No deduction	IRS (2020a, p. 10)
4. Entertainment Facility Expenses	No deduction	IRS (2020a, p. 10)
5. Business Meals Purchased Separately	Deduct 50% of the costs of business meals if taxpayer or an employee is present and the food or beverages are not considered lavish or extravagant	IRS (2020a, p. 10)
6. Costs of Furnishing Meals to Employees	Deduct 50% of the costs (nondeductible after 2025)	IRS (2020c, p. 9)
7. Office Holiday Parties or Annual Picnics	Deduct 100% of the cost	IRS (2020c, p.9)
8. Food and Beverages <i>De Minimis</i> Fringe Benefit	Deduct 50% of the cost (if expenses excludable from	IRS (2020c, p. 9)
	Employee income as fringe benefit)	

Table 3 shows taxpayers can no longer deduct any business expenses related to activities considered entertainment, and can only deduct 50 percent of the cost of qualified business meals or meals for the convenience of employer.

Table 3 highlights that taxpayers can no longer deduct entertainment facility expenses. An entertainment facility is any property a taxpayer owns, rents, or uses for entertainment. Examples of entertainment facility include a yacht, car, swimming pool, suite in a vacation resort (IRS, 2020a, p. 10). After 2017, taxpayers can still deduct 50 percent of an allowable business meal expense if (1) the expense is an ordinary and necessary expense under Section 162(a) paid or incurred during the taxable year in carrying on any trade or business; (2) the expense is not lavish or extravagant under the circumstances; (3) the taxpayer, or an employee of the taxpayer, is present at the furnishing of the food or beverages; (4) the food and beverages are provided to a current or potential business customer, client, consultant, or similar business contact; and (5) when food and beverages are provided during or at an entertainment activity, the food and beverages must be purchased separately from the entertainment (IRS, 2018b, p. 6). Table 3 also shows that a taxpayer can deduct 50 percent of the costs of furnishing food and beverages *de minimis* fringe benefit to employees. According to Section 132(e)(2), operation of eating facility for employees qualifies as a *de minimis* fringe if (1) the facility is located on or near the business premises of the employer, and (2) revenue derived from the facility normally equals or exceeds the direct operating costs of the facility (IRS, 2020c, p. 9).

#### **Strategies**

#### Tax Strategy #1 - Elect Section 179 and Section 168(k) for Qualified Improvement Property

As shown in Table 1, a taxpayer can immediately deduct the cost of any improvement to an interior portion of a building which is nonresidential real property if such improvement is placed in service after the date such building was first placed in service. Improvements do not qualify if they are attributable to the enlargement of the building, any elevator or escalator or the internal structure framework of the building (IRS, 2020d, p. 16). As previously discussed, CARES Act (2020) allows taxpayers to elect for additional

first-year depreciation of qualified improvement property under Section 168(k). Section 179 allows for the immediate expensing of qualified improvement property in the long run (assuming the absence of tax law changes), but Section 168(k) additional first-year depreciation will no longer be available after 2026.

# Tax Strategy #2 - Elect Section 179 Immediate Expenses of Improvement to Nonresidential Real Property: Roofs, Heating, Ventilation, Fire System

As highlighted in Table 1, Section 179 specifically allows a taxpayer to immediately expense the cost of improvements made to nonresidential real property placed in service (after the date of the nonresidential property was first placed in service). This includes the cost of roofs, heating, ventilation, air conditioning, fire protections and alarm systems, and security systems. Thus, a taxpayer should consider making these necessary improvements sooner rather than later to take advantage of the immediate tax write-off. Of course, taxpayers need to plan for the timing of when to acquire the mentioned above property because the amount of Section 179 immediate expense is capped at \$1,020,000 in 2019. Note that Section 179 only applies to improvements as opposed to initial acquisitions of roofs, heating, ventilation, air conditioning, fire protections and alarm systems, and security systems.

#### Tax Strategy #3 - Elect Section 179 Immediate Expenses of Property to Furnish Lodging

As presented in Table 1, Section 179 now allows taxpayers to immediately expense the cost of property used predominately to furnish lodging. Beds and furniture for use in hotels and apartment rentals, as per the definition of Section 179 property, are eligible for immediate expense (IRS, 2020d, p. 16). Business operators in the hospitality industry should take advantage of the expanded definition of Section 179 property used predominately to furnish lodging. Business operators in the hospitality includes property used predominately to furnish lodging. Business operators in the hospitality industry should refer to the latest "Cost Segregation Guide" for hospitality industry, published by the IRS, to determine whether an asset is a depreciable personal property.

#### Tax Strategy #4 - Elect 100 Percent Section 168(k) Bonus Depreciation in 2019, 2020, 2021 and 2022

As delineated in Table 2, taxpayers can elect additional first-year depreciation, under Section 168(k), to recover 100 percent of the cost of qualified property during the tax years of 2019, 2020, 2021, and 2020. Unfortunately, the additional first-year depreciation starts to decrease at a rate of 20 percent from 80 percent in 2023 to zero percent in 2027 and thereafter. Consequently, taxpayers should utilize the generous 100 percent additional first-year depreciation by acquiring and placing in service qualified property of Section 168(k) during the tax years of 2019, 2020, 2021, and 2022. Section 168(k) additional first-year depreciation is no longer available after December 2026. Taxpayers should plan accordingly before the deletion of Section 168(k) additional first-year depreciation.

#### Tax Strategy #5 - Elect Section 168(k) Bonus Depreciation of MACRS Property of 20 Years or Less

As shown in Table 2, property required to be depreciated under the ADS is not eligible for the additional first-year depreciation deduction of Section 168(k). Instead, qualified property under Section 168(k) includes MACRS property that has a recovery period of 20 years or less. Business owners, especially those in the manufacturing sector, benefit significantly from Section 168(k) because assets used in production are mostly MACRS property of 20 years or less (IRS, 2020d, p. 100-102). A manufacturer, after acquiring and placing in service assets used in production during 2019, must first elect Section 179 immediate expenses and then Section 168(k) additional first-year depreciation deduction to recover full amount of the acquisition cost. Unlike Section 179 which has a cap of \$1,020,000 in 2019, Section 168(k) does not have a deduction limitation. In other words, a manufacturer can recover the total cost of a purchased asset, used in production, by electing both Section 179 Section 168(k) simultaneously. Please see this paper's case two for numerical explanation.

# Tax Strategy #6 - Elect Section 168(k) Bonus Depreciation of Acquired Used Property

TCJA (2017) expanded the definition of qualified property for bonus depreciation under Section 168(k) to include used property acquired by purchase (from an unrelated party) as long as the acquiring taxpayer had never previously used the acquired property (IRS, 2019a, p. 50112). Table 2 shows the five requirements that a taxpayer must meet to elect Section 168(k) additional first-year depreciation for used property acquired and placed in service during a tax year. If there is a substantial difference in an asset's price between new and used condition, for tax reasons, a taxpayer should consider acquiring the used asset considering the more generous definition of qualified property under Section 168(k).

#### Tax Strategy #7 - Elect Section 168(k) Bonus Depreciation of Sport Utility Vehicle

In 2019, under Section 179, a taxpayer can expense immediately up to \$25,500 of the cost of any heavy sport utility vehicle (SUV) and certain other vehicles (between GVWR 6,000 pounds and 14,000 pounds) placed in service for business use (IRS, 2020d, p. 18). A taxpayer can also use the bonus depreciation of Section 168(k) to recover the remaining cost of the mentioned above SUV. For example, a taxpayer plans to buy a new Lincoln 2019 Navigator, which has more than 6,000 pounds of GVWR, at a cost of \$76,185. The taxpayer can recover the full cost of purchase in 2019 by electing both Section 179 immediate expense and Section 168(k) bonus depreciation.  $= [$25,500 \ $179 \ expense and ($76,185 - $25,500) \ $50,685 \ $168(k) \ bonus \ depreciation]$ 

# Tax Strategy #8 - Replace Entertainment with 50 Percent Deductible Business Meals and \$25 Gift

TCJA (2017) disallowed entertainment expenses effective for amounts paid or incurred after 2017. A taxpayer still can deduct 50 percent of business meals, if the business meals meet the five requirements stipulated by the IRS (IRS, 2018b, p. 6). The Taxpayer or an employee must attend the non-lavish business meal with a current or potential business customer. In addition, the taxpayer must purchase the above-mentioned business meal separately from the entertainment by having different receipts. A taxpayer can also deduct 100 percent of the cost of a gift of not more than twenty-five dollars to each person during a tax year (IRS, 2020a, p. 12). Incidental costs such as packaging and mailing are not included in determining the cost of a gift for the purpose of the twenty-five dollars limit. Since entertainment expenses are no longer deductible, taxpayers should consider giving gifts of not more than twenty-five dollars to each customer during a tax year to enhance business relationship.

#### Tax Strategy #9 - Raise Employees' Pay to Compensate 50 Percent Deduction of Meals for Employees

As presented in Table 3, a taxpayer is only permitted to deduct 50 percent of the costs of furnishing meals or food and beverages *de minimis* fringe benefit to employees (IRS, 2020c, p. 9). TCJA (2017) also disallowed the deduction of expenses incurred or paid after 2017 for providing any transportation, or reimbursement to employee, in connection with travel between employee's residence and place of employment (IRS, 2019b, p. 21). Employers can still deduct 100 percent of transportation expense for ensuring the safety of employees or for qualified bicycle commuting reimbursements. As a result, of these changes in the tax law, employees have reduced benefits in terms of (1) subsidiarized meals, (2) food and beverages in the work area, (3) reimbursement for transportation from residences to place of employment. Given the importance of retaining skilled employees who are hard to replace, taxpayers should consider increasing employees' base pay to compensate for discontinuation of (1) subsidized meals, food, and beverages in work area; and (2) reimbursement of transportation between place of residence and work.

#### Tax Strategy #10 - Organize 100 Percent Deductible Annual Party or Picnic

As highlighted in Table 3, a taxpayer is allowed a deduction for 100 percent of the cost of holiday parties and picnics for company employees. Thus, in order to boost the esprit de corps, a taxpayer should consider sponsoring office holiday parties and picnics. However, neither the holiday party nor the picnic should neither be lavish and extravagant.

# DATA AND METHODOLOGY

Depreciation is one of the most common types of business deductions. To encourage capital expenditures, legislators enacted Sections 179 and 168(k) to allow business owners to recover the full cost of capital expenditure in the year of purchase. In general taxpayers first utilize the annual amount of Section 179 immediate expenses, then section 168(k) special depreciation allowance for qualified property, and depreciate any other amount under the MACRS system. In order to take advantage of Section 179, a taxpayer is required to elect Section 179 by completing the proper forms. It is not automatic. On the other hand, Section 168(k) special depreciation allowance for qualified property, by informing the IRS. Dyreng, Hanlon & Maydew (2010) suggest that individual executives have substantial economic magnitude effects on their public firms' tax avoidance practices that cannot be explained by the characteristics of the firm. Similar to executives of public firms, due to time value of money concept, private business owners will also play a significant role in tax planning by electing the maximum deductible amount allowed under Section 179 and Section 168(k).

Edwards, Schwab & Schevlin (2016) find that when firms are experiencing increased financial constraints, e.g., there is an increase in both the cost and the difficulty in obtaining external sources of funding, most firms will engage in more tax planning activities to generate internal funding through cash tax savings. Findings of Edwards, Schwab & Schevlin (2016) suggest that business owners would also take advantage of Section 179 and Section 168(k) to reduce cash outflows for taxes paid. Prior literature (for example see Reagans and McEvily 2003; Brown and Drake 2014) demonstrates that the spread of corporate tax practices is more pronounced among firms with similar characteristics. This paper predicts that the publications of the IRS regarding (1) Section 179 expense deductions and (2) Section 168(k) special depreciation allowance for qualified property can be classified into different groups with statistical monetary differences. However, whether or not business owners actually elect Section 179 immediate expenses and/or Section 168(k) special depreciation allowances still needs to be empirically researched.

Further, to the authors' best knowledge, no study has explored the research question of the characteristics of firms electing Section 179 and/or Section 168(k). Unfortunately, as of writing this paper, the IRS has only published "IRS Corporation Depreciation Data" up to 2016, which includes both private and public corporations. Further, data about the depreciation expenses of sole proprietorships, partnerships and S corporations is not available on the IRS Web site or in IRS publications. It is beyond of the scope of this paper to propose reasons of why firms behave in a particular pattern of depreciation expenses. Instead this paper focuses on fact findings which add value to the literature by informing readers regarding (1) how widespread is Section 179 and or Section 168(k) in terms of the total depreciation claims by C corporation in each of the seven tax years between 2010 to 2016 (7 years is the normal time frame of tax records keeping), (2) what groups of firms are electing Section 179 and Section 168 (k) respectively. Readers can then use this paper's results to compare the firms' depreciation behavior in the post TCJA (2017) era after IRS has published data of 2017, 2018 and 2019 in the near future. This paper research question (RQ) is as follow:

*RQ1a:* C corporations claiming Section 179 expenses deductions comprise of different groups with statistical monetary differences.

*RQ1b:* C corporations claiming Section 168 special depreciation expenses comprise of different groups with statistical monetary differences.

Table 4 shows amounts (in thousands of dollars) of C Corporation Section 179 expense deduction and total depreciation claimed on Form 4562 from "IRS Corporation Depreciation Data." Panel B of Table 4 shows the calculated percent of all sectors' Section 179 expense deduction to the total depreciation in each year. Table 5 presents amounts (in thousands of dollars) of C Corporation special depreciation allowance for qualified property and total depreciation claimed on Form 4562 from "IRS Corporation Depreciation Data." Similarly, panel B of Table 5 shows the calculated percent of all sectors' Section 168(k) special depreciation allowance to the total depreciation in each year. According to the IRS, total depreciation in a year includes Section 179 expense deduction; special depreciation allowance for qualified property; property subject to section 168(f)(1) election; ACRS deduction; and MACRS deduction.

(1) (2) (3) (4) (5) (6) (7)	\$ \$ \$ \$ \$ \$ \$ \$	2010 1,248,823 86,993 26,342 1,045,299 1,545,133 1,710,386 457,922	\$ \$ \$ \$ \$	<b>2011</b> 1,453,441 111,608 20,218 969,543 1,383,355	\$ \$ \$ \$ \$	<b>2012</b> 2,073,735 266,532 21,412 1,253,585	\$ \$ \$ \$	<b>2013</b> 2,230,690 240,559 27,992	\$ \$ \$	<b>2014</b> 1,877,930 239,245 29,377	\$ \$ \$	<b>2015</b> 1,226,843 163,169 24,104	\$ \$ \$	1,007,725 67,021 30,096
(2) (3) (4) (5) (6)	\$ \$ \$ \$ \$	86,993 26,342 1,045,299 1,545,133 1,710,386	\$ \$ \$	111,608 20,218 969,543 1,383,355	\$ \$	266,532 21,412	\$	240,559		239,245		163,169		67,021
(3) (4) (5) (6)	\$ \$ \$ \$	26,342 1,045,299 1,545,133 1,710,386	\$ \$	20,218 969,543 1,383,355	\$	21,412	•	,	\$	<i>´</i>	\$	<i>,</i>	\$	,
(4) (5) (6)	\$ \$ \$	1,545,133 1,710,386	\$	1,383,355		1,253,585	¢	-				24,104		
(5) (6)	\$ \$	1,710,386		<i>, ,</i>	\$		Э	1,600,477	\$	1,701,232	\$	2,079,875	\$	2,052,651
(6)	\$	· · ·	\$			1,966,816	\$	2,122,368	\$	2,090,954	\$	2,153,911	\$	2,132,334
(7)		457,922		1,460,378	\$	2,039,308	\$	2,309,178	\$	2,358,361	\$	2,161,262	\$	2,116,097
	\$		\$	550,299	\$	622,664	\$	760,100	\$	682,727	\$	738,535	\$	700,798
(8)		208,921	\$	130,131	\$	216,107	\$	219,785	\$	256,146	\$	243,206	\$	255,134
(9)	\$	283,469	\$	189,326	\$	311,322	\$	305,653	\$	318,269	\$	292,872	\$	287,896
(10)	\$	304,608	\$	206,308	\$	301,213	\$	368,897	\$	332,222	\$	407,576	\$	352,979
(11)	\$	1,006,827	\$	633,059	\$	901,536	\$	923,910	\$	901,685	\$	886,844	\$	897,775
(12)	\$	200,578	\$	110,479	\$	256,682	\$	268,311	\$	285,852	\$	283,004	\$	288,029
(13)	\$	281,891	\$	252,284	\$	315,741	\$	382,483	\$	476,225	\$	478,192	\$	468,209
(14)	\$	40,078	\$	24,263	\$	53,691	\$	32,950	\$	41,425	\$	45,823	\$	42,976
(15)	\$	708,175	\$	493,923	\$	561,578	\$	717,159	\$	536,247	\$	475,340	\$	404,006
(16)	\$	71,020	\$	57,052	\$	84,376	\$	96,896	\$	139,826	\$	163,687	\$	133,405
(17)	\$	192,799	\$	155,080	\$	258,449	\$	210,510	\$	315,667	\$	290,994	\$	321,326
(18)	\$	253,393	\$	201,474	\$	350,202	\$	334,231	\$	300,775	\$	276,390	\$	248,246
Subtotal	\$	9,672,657	\$	8,402,221	\$	11,854,949	\$	13,152,149	\$	12,884,165	\$	12,391,627	\$	11,806,703
Total Dep	\$6	525,751,102	\$7	52,425,942	\$6	513,804,813	\$6	521,038,571	\$6	58,884,773	\$6	596,386,021	\$7	20,580,588
Panel B: Rat	tio c	of Section 17	9 Ex	pense Dedu	ctio	ns to Total D	epr	eciation by Y	ear					
Ratio		<b>2010</b> 1.55%		<b>2011</b> 1.12%		<b>2012</b> 1.93%	•	<b>2013</b> 2.12%		<b>2014</b> 1.96%		<b>2015</b> 1.78%		<b>2016</b> 1.64%

Table 4: Section 179 Expense Election Use

Table 4 Panel A reprints amounts (in thousands of dollars) of C Corporation Section 179 Expense Deduction and Total Depreciation claimed on Form 4562 from "IRS Corporation Depreciation Data" (https://www.irs.gov/statistics/soi-tax-stats-corporation-depreciation-data). The following definitions apply to both Table 4 and 5. Sectors include: (1) Agriculture, Forestry, Fishing and Hunting; (2) Mining; (3) Utilities; (4) Construction; (5) Manufacturing; (6) Wholesale and Retail Trade; (7) Transportation and Warehousing; (8) Information; (9) Finance and Insurance; (10) Real Estate and Rental and Leasing; (11) Professional, Scientific, and Technical Services; (12) Management of Companies (Holding Companies); (13) Administrative and Support and Waste Management and Remediation Services; (14) Educational Services; (15) Health Care and Social Assistance; (16) Arts, Entertainment, and Recreation; (17) Accommodation and Food Services; (18) Other Services. Total Dep means total depreciation of all sectors in a year which includes section 179 expense deduction; special depreciation allowance for qualified property; property subject to section 168(f)(1) election; ACRS deduction; and MACRS deduction.

Sectors	2010	2011	2012	2013	2014	2015	2016
(1)	\$ 739,422	\$ 1,539,454	\$ 665,958	\$ 714,335	\$ 663,687	\$ 822,963	\$ 848,242
(2)	\$ 8,724,270	\$ 24,384,580	\$ 16,786,030	\$ 14,124,610	\$ 15,802,074	\$ 8,864,778	\$ 2,676,542
(3)	\$ 30,823,600	\$ 49,197,945	\$ 44,026,438	\$ 32,263,663	\$ 34,876,913	\$ 36,733,307	\$ 40,546,807
(4)	\$ 1,447,634	\$ 2,846,870	\$ 1,700,967	\$ 1,600,928	\$ 1,693,866	\$ 1,640,983	\$ 1,747,844
(5)	\$ 47,498,714	\$ 92,727,048	\$ 62,394,371	\$ 61,555,462	\$ 56,539,569	\$ 59,083,015	\$ 66,510,637
(6)	\$ 33,513,551	\$ 56,383,101	\$ 35,364,820	\$ 34,682,114	\$ 40,038,674	\$ 43,146,937	\$ 45,219,536
(7)	\$ 8,615,322	\$ 20,375,819	\$ 12,129,435	\$ 10,417,464	\$ 12,955,526	\$ 19,207,786	\$ 16,469,145
(8)	\$ 26,101,894	\$ 42,363,830	\$ 23,338,921	\$ 21,945,227	\$ 19,571,368	\$ 22,306,772	\$ 22,017,671
(9)	\$ 10,266,284	\$ 9,789,362	\$ 7,289,005	\$ 9,428,726	\$ 11,542,770	\$ 6,763,489	\$ 9,139,918
(10)	\$ 12,143,539	\$ 23,177,068	\$ 13,708,916	\$ 11,802,095	\$ 13,718,439	\$ 14,310,995	\$ 15,042,459
(11)	\$ 3,311,589	\$ 6,965,968	\$ 3,602,557	\$ 3,640,469	\$ 3,159,246	\$ 3,352,000	\$ 4,483,743
(12)	\$ 6,944,337	\$ 12,103,458	\$ 7,918,396	\$ 7,176,536	\$ 7,209,007	\$ 9,095,921	\$ 11,871,592
(13)	\$ 1,448,747	\$ 2,797,218	\$ 1,711,527	\$ 1,581,403	\$ 1,679,221	\$ 1,856,952	\$ 1,603,058
(14)	\$ 833,761	\$ 974,187	\$ 463,151	\$ 311,043	\$ 310,280	\$ 200,719	\$ 201,824
(15)	\$ 2,507,335	\$ 4,161,782	\$ 2,273,915	\$ 2,315,091	\$ 2,454,591	\$ 2,351,877	\$ 2,537,938
(16)	\$ 692,605	\$ 1,112,366	\$ 638,601	\$ 566,213	\$ 715,523	\$ 743,056	\$ 792,840
(17)	\$ 2,283,192	\$ 4,082,208	\$ 2,569,146	\$ 2,590,501	\$ 2,561,146	\$ 2,785,707	\$ 2,965,427
(18)	\$ 520,718	\$ 765,040	\$ 457,501	\$ 414,083	\$ 412,208	\$ 520,923	\$ 575,253
Subtotal	\$198,416,514	\$355,747,304	\$237,039,655	\$217,129,963	\$225,904,108	\$233,788,180	\$245,250,470
Total Dep	\$625,751,102	\$752,425,942	\$613,804,813	\$621,038,571	\$658,884,773	\$696,386,021	\$720,580,588
Panel B: R	atio of Section 16	8(k) Special Dep	reciation Allowa	nce to Total De	preciation by Yea	r	
Ratio	<b>2010</b> 31.71%	<b>2011</b> 47.28%	<b>2012</b> 38.62%	<b>2013</b> 34.96%	<b>2014</b> 34.29%	<b>2015</b> 33.57%	<b>2016</b> 34.04%

Table 5: Section 168(k) Special Depreciation Allowance Use

Table 5 Panel A reprints amounts (in thousands of dollars) of C Corporation Special Depreciation Allowance for Qualified Property and Total Depreciation claimed on Form 4562 from "IRS Corporation Depreciation Data" (https://www.irs.gov/statistics/soi-tax-stats-corporation-depreciation-data). See notes to Table 4 for definition of Sectors and Total Dep.

Calculating the subtotal of each sector's Section 179 immediate expenses from 2010 to 2016, the authors first rank the 18 sectors from the smallest subtotal amount to the largest subtotal amount and then divide them into three groups (smallest amount, medium amount, and largest amount). A similar procedure is performed on firms for section 168(k) data. Table 6 shows the details of the groups for Section 179 and Section 168(k) separately.

Table 6: Group	os of C Corpo	orations: Sec	ction 173 and	d Section	168(k)
· 1	1				

Section 173 Sectors Ranking	2010 to 2016
Group 1	
(3) Utilities	\$ 179,541
(14) Educational Services	\$ 281,206
(16) Arts, Entertainment, and Recreation	\$ 746,262
(2) Mining	\$ 1,175,127
(8) Information	\$ 1,529,430
(12) Management of Companies (Holding Companies)	\$ 1,692,935
Group 2	
(17) Accommodation and Food Services	\$ 1,744,825
(18) Other Services	\$ 1,964,711
(9) Finance and Insurance	\$ 1,988,807
(10) Real Estate and Rental and Leasing;	\$ 2,273,803
(13) Administrative and Support and Waste Management and Remediation	\$ 2,655,025
Services	
(15) Health Care and Social Assistance	\$ 3,896,428
Group 3	+ - ) )
(7) Transportation and Warehousing	\$ 4,513,045
(11) Professional, Scientific, and Technical Services	\$ 6,151,636
(4) Construction	\$10,702,662
(1) Agriculture, Forestry, Fishing and Hunting	\$11,119,187
(5) Manufacturing	\$13,394,871
(6) Wholesale and Retail Trade	\$14,154,970
Section 168(k) Sectors Ranking	φ1 i,15 i,570
Group 1	
(14) Educational Services	\$ 3,294,965
(18) Other Services	\$ 3,665,726
(16) Arts, Entertainment, and Recreation	\$ 5,261,204
(1) Agriculture, Forestry, Fishing and Hunting	\$ 5,994,061
(13) Administrative and Support and Waste Management and Remediation	\$12,678,126
Services	\$12,070,120
(4) Construction	\$12,679,092
Group 2	\$12,079,092
(15) Health Care and Social Assistance	\$18,602,529
(17) Accommodation and Food Services	\$19,837,327
(11) Professional, Scientific, and Technical Services	\$28,515,572
(12) Management of Companies (Holding Companies)	\$62,319,247
(9) Finance and Insurance	\$64,219,554
(2) Mining	\$91,362,884
Group 3	\$91,302,004
(7) Transportation and Warehousing	\$100,170,497
(1) Real Estate and Rental and Leasing	\$100,170,497 \$103,903,511
(8) Information	\$105,905,511
(3) Utilities	\$177,043,083
(6) Wholesale and Retail Trade	\$208,408,073
(5) Manufacturing	\$288,348,733
	1 .0440.0U0.010

Table 6 shows the three groups of sectors according to their ranking of monetary subtotal of either Section 179 or Section 168(k) for the period of 2010 to 2016.

# RESULTS

The authors performed ANOVA one factor analysis on the three groups to test whether the means of the three groups are not all equal. If the statistical results of the ANOVA show at least one of the means is different, then the authors performed F-Test Two-Sample for Variances analysis to determine if variance between two groups are equal. Finally, the authors performed t-Tests to determine whether the means between two groups of corporations are statistically equal. Due to the length of this paper, the authors only show the t-Test results to address RQ1 a and RQ1 b. From table 6, three groups of sectors are ranked according to their monetary subtotal of Section 179 expense deductions during the period from 2010 to 2016. Table 7 shows the statistical test of differences in monetary amount between groups of C Corporation Section 179 expense deductions (2010 to 2016).

Table 7: Statistical Test of Differences of Groups of C Corporation Section 179 Expense Deductions (2010-2016)

From Table 6	Section 179 Expense Deductions (2010-2016)	t-Value	p-Value	Significance (2-tailed)
Group 1 vs. Group 2	Group 1 (n=42) vs. Group 2 (n=42)	-8.6574	0.0000	***
Group 1 vs. Group 3	Group 1 (n=42) vs. Group 3 (n=42)	-13.8347	0.0000	***
Group 2 vs. Group 3	Group 2 (n=42) vs. Group 3 (n=42)	-11.4061	0.0000	***

Table 7 reports the t-test analysis of statistically significant differences in monetary amount of Section 179 <u>expenses deductions</u> (2010-2016) between groups of C corporations as shown in Table 6. \*\*\* Statistical significance at the 0.01 level.

From Table 6, three groups of sectors are ranked according to their monetary subtotal of Section 168(k) special depreciation allowance during the period from 2010 to 2016. Table 8 shows the statistical test of differences in monetary amount between groups of C Corporation Section 168(k) special depreciation allowance (2010 to 2016).

Table 8: Statistical Test of Differences of Groups of C Corporation Section 168(k) Special Depreciation Allowance (2010-2016)

From Table 6	Section 168(k) Special Depreciation Allowance (2010-2016)	t-Value	p-Value	Significance (2-tailed)
Group 1 vs. Group 2	Group 1 (n=42) vs. Group 2 (n=42)	-7.5367	0.0000	***
Group 1 vs. Group 3	Group 1 (n=42) vs. Group 3 (n=42)	-10.8638	0.0000	***
Group 2 vs. Group 3	Group 2 (n=42) vs. Group 3 (n=42)	-8.6336	0.0000	***

Table 8 reports the t-test analysis of statistically significant differences in the monetary amount of Section 168(k) special depreciation allowance (2010-2016) between groups of C corporations as shown in Table 6. \*\*\* Statistical significance at the 0.01 level.

#### Results of Research Question 1 a

The authors use the data in Table 4 and the groups in Table 6 to conduct independent-sample t-tests and report the following results. An independent-sample t-test was conducted to compare the amount of Section 179 immediate expenses deductions of group one and group two from 2010 to 2016. Results of Independent-samples t-tests (2 tailed) is [t(42) = -8.6574 p = 0.0000]. A significant difference exists in the amount of Section 179 immediate expenses deductions between group one and group two from 2010 to 2016. Another independent-sample t-test was conducted to compare the amount of Section 179 immediate expenses deductions between group one and group two from 2010 to 2016. Another independent-sample t-test was conducted to compare the amount of Section 179 immediate expenses deductions of group one and group three from 2010 to 2016. Results of the Independent-samples t-tests (2 tailed) is [t(42) = -13.8347 p = 0.0000]. A significant difference exists in the amount of Section 179 immediate expenses deductions between group one and group three from 2010 to 2016. Finally, an independent-sample t-test was conducted to compare the amount of Section 179 immediate expenses deductions of group two and group three from 2010 to 2016. Results of Independent-samples t-tests (2 tailed) is [t(42) = -11.4061 p = 0.0000]. A significant difference exists in the amount of Section 179 immediate expenses deductions between group two and group three from 2010 to 2016. Results of Independent-samples t-tests (2 tailed) is [t(42) = -11.4061 p = 0.0000]. A significant difference exists in the amount of Section 179 immediate expenses deductions between group two and group three from 2010 to 2016. Results of Independent-samples t-tests (2 tailed) is [t(42) = -11.4061 p = 0.0000]. A significant difference exists in the amount of Section 179 immediate expenses deductions between group two and group three from 2010 to 2016.

#### Results of Research Question 1 b

The authors use the data in Table 5 and the groups in Table 6 to conduct independent-sample t-tests and report the following results. An independent-sample t-test was conducted to compare the amount of Section 168(k) special depreciation allowances of group one and group two from 2010 to 2016. Results of Independent-samples t-tests (2 tailed) is [t(42) = -7.5367 p = 0.0000]. A significant difference exists in the amount of Section 168(k) special depreciation allowances between group one and group two from 2010 to 2016. Another independent-sample t-test was conducted to compare the amount of Section 168(k) special depreciation allowances between group one and group two from 2010. Results of Independent-samples t-tests (2 tailed) is [t(42) = -10.8638 p = 0.0000]. A significant difference exists in the amount of Section 168(k) special depreciation allowances between group one and group three from 2010 to 2016. Results of Independent-samples t-tests (2 tailed) is [t(42) = -10.8638 p = 0.0000]. A significant difference exists in the amount of Section 168(k) special depreciation allowances between group one and group three from 2010 to 2016. Finally, an independent-sample t-test was conducted to compare the amount of 168(k) special depreciation allowances of group two and group three from 2010 to 2016. Results of Independent-sample t-tests (2 tailed) is [t(42) = -8.6336 p = 0.0000]. A significant difference exists in the amount of Section 168(k) special depreciation allowances between group one and group three from 2010 to 2016. Results of Independent-samples t-tests (2 tailed) is [t(42) = -8.6336 p = 0.0000]. A significant difference exists in the amount of Section 168(k) special depreciation allowances between group two and group three from 2010 to 2016. Results of Independent-samples t-tests (2 tailed) is [t(42) = -8.6336 p = 0.0000]. A significant difference exists in the amount of Section 168(k) special depreciation allowances between group two and group three from 2010 to 2016.

#### **Overall Results**

Table 4 B shows that the subtotal of Section 179 immediate expenses is roughly between 1 percent to 2 percent of the total depreciation claimed by all C corporations in tax years from 2010 to 2106. Readers should note that between 2010 to 2016, taxpayers were only allowed to immediate expense up to a maximum of \$500,000 in each tax year under Section 179. Table 5 B shows that the subtotal of section 168 special depreciation allowance is roughly between 31 percent to 47 percent of the total depreciation claimed by all C corporations in tax years from 2010 to 2106. Readers should note that between 2010 to 2016, taxpayers were only allowed to claim special depreciation allowance of up to 50 percent of the cost of qualified property in each tax year under section 168(k). Cumulatively, between 2010 to 2016, C corporations claimed between 32 percent to 49 percent of the total depreciation in each tax year from Section 179 and/or Section 168. Results shows that Section 179 and Section 168(k) are quite widespread among C corporations. Statistical analysis, as well as independent-sample t-tests, show that there is a significant difference in the monetary amount among the three groups in Table 6 for both situations of Section 179 and 168(k). The groups of sectors in Table 6 shows some interesting phenomenon. The six sectors in group one of Section 179 becomes one of the sectors in group three of section 168(k).

Readers should note that tax laws before TCJA (2017), between 2010 to 2016, only a C corporation could immediately expense up to \$500,000 under section 179 and deduct the 50% special depreciation allowances of the qualified properties under section 168(k) in each tax year. The utilities sector has regular large annual capital investments, which means utilities corporations can immediately expense \$500,000 of capital investment and deduct 50 percent of the remaining costs of investments annually. But, not too many utilities C corporations exist which explains why the subtotal of Section 179 immediate expenses of the utilities sector is small. On the other hand, many wholesale and retail trade C corporation exist. As a result, the sector of the wholesale and retail trade rank within group three in both categories of Section 179 and 168(k).

#### Illustrative Case Examples of Suggested Tax Strategies

Unfortunately, the IRS has yet to published "IRS Corporation Depreciation Data" of 2017, 2018, and 2019. As a result, the authors cannot analysis how tax laws changes affect the pattern of depreciation expenses between pre and post TCJA (2017). Nevertheless, the authors have discussed this issue with multiple business owners and based on these interviews the following real-life numerical case examples were developed to illustrate tax strategies responding to the unique requirements for deductions under Section 168(k), 179 and 274. Of course, each business has its own unique tax situation, and it is difficult to suggest

a one-size fits all tax strategy for all business tax situations. For discussion purposes, this paper's case examples make the following simplifying assumptions: (1) the taxpayer in each of the cases is a C corporation entity called Challah, (2) the C corporation is not an enterprise zone business, (3) the C corporation is not subject to Section 163(j) interest deduction limitation only because of its small size of gross receipts (4) the C corporation has a large enough business income to absorb all the amount of Section 179 immediate expense deduction, (5) the C corporation does not have any carryover qualified Section 179 real property deductions from prior years, (6) the C corporation does not have any carryover net operating losses, and (7) the C corporation would like to reduce its potential Federal corporation tax labilities by deducting the maximum amount under Section 168(k), 179 and 274 simultaneously. Readers should check with local State tax authority in regards to adoption of Section 179 deductions. For example, in the State of California, the California's maximum dollar limitation for the Section 179 deduction is \$25,000 and the threshold amount for property placed in service in the current year is \$200,000. The State of California does not conform to the new Section 168 rules. California provides its own set of depreciation rules and requires modification for bonus depreciation deducted at the Federal level under Section 168.

#### Case #1 - Entertainment, Business Meals, Food and Beverages for Employees (Strategies #8, 9, And 10)

During 2019, Challah Corporation paid (1) a \$5,000 sport club membership fee, (2) a \$800 skybox rental, (3) \$2,000 for sporting event tickets, (4) \$12,000 for a suite rental in a vacation resort, (5) \$56,000 in business meals purchased separately, (6) \$2,500 in gifts of \$25 to one hundred business associates, (7) \$48,000 for the cost of operating an eating facility for employees, (8) \$10,800 for food and beverages *de minimis* fringe benefit, (9) \$1,450 for office holiday parties, and (10) \$680 for annual picnics. Challah had met all the conditions required to deduct the allowable amount under Section 274. Table 9 shows the tax-deductible amount for the mentioned above business expenses as per Section 274.

Table 9: Case #1 Deductible Amount of Entertainment, Business Meals, and Food and Beverages

Entertainment and Meal Expenses	Deducting Business Expenses	Tax Deductible
1. \$ 5,000 Club Dues Membership Fees	No deduction	\$0
2. \$ 800 Skybox Rental	No deduction	\$0
3. \$ 2,000 Sporting Event Tickets	No deduction	\$0
4. \$12,000 Suite Rental in Vacation Resort	No deduction	\$0
5. \$56,000 Business Meals Purchased Separately	Deduct 50% of the costs of business meals if taxpayer or an employee is present and the food or beverages are not considered lavish or extravagant	\$28,000
6. \$ 2,500 Gift of \$25 each to 100 associates	Deduct 100%	\$ 2,500
7. \$48,000 Costs of Furnishing Employees' Meals	Deduct 50% of the costs (nondeductible after 2025)	\$24,000
8. \$10,800 Food and Beverages <i>De Minimis</i> Fringe Benefit	Deduct 50% of the cost (if expenses excludable from Employee income as fringe benefit)	\$ 5,400
9. \$ 1,450 Office Holiday Parties	Deduct 100% of the cost	\$1,450
10. \$ 680 Annual Picnics	Deduct 100% of the cost	\$ 680

Table 9 shows the amount Challah can deduct in 2019 for business meals, gift, employee's meals, fringe benefit, office parties, and picnics.

# Case #2 - Manufacturer Placed in Service MACRS Property of 20 Years or Less (Strategies #4, 5, and 6)

Challah Corporation is a manufacturer of electric motors. Challah Corporation has a factory building which does not require frequent qualified property improvement. But, Challah Corporation needs regular replacement of machineries to keep up with changes in the production of advanced models of electric motors. During 2019, Challah Corporation acquired and placed into service \$3,000,000 of Section 179 property for use in its manufacturing business (all assets are 7-year MACRS assets). Challah Corporation wants to recover the entire \$3,000,000 by electing Section 179 immediate expense first then Section 168(k) additional first-year depreciation. The \$3,000,000 stipulated under Section 179 in 2019. The maximum amount that Challah can immediately expense, under Section 179 in 2019, is only \$570,000 due to the phase out deduction of \$450,000. But Challah Corporation can elect Section 168(k) additional first-year

depreciation to recover the remaining cost \$2,430,000 of the 7-year MACRS assets acquired and placed in service during 2019. Table 10 illustrates full recovery of \$3,000,000 in 2019.

Table 10: Case #2 Cost Recovery of \$3,000,000 (7-Year MACRS Assets) Under Section 179 and 168(k)

Description	Amount	Calculation
7-Year MACRS Assets Placed in Service	\$3,000,000	
2019 Section 179 Phase Out Amount	\$2,550,000	
Amount exceeded Phase Out Amount	\$ 450,000	(\$3,000,000 - \$2,550,000) = \$450,000
Maximum Section 179 Deduction	\$ 570,000	(\$1,020,000 - \$450,000) = \$570,000
Electing Both Section 179 and 168(k)		
Section 179 Expense	\$ 570,000	
Additional first-year depreciation	\$2,430,000	(\$3,000,000 - \$570,000) = \$2,430,000
Total Cost Recovery Deduction	\$3,000,000	(\$2,430,000 + \$570,000) = \$3,000,000

Table 10 shows how recovery of \$3,000,000 cost of 7-year MACRS assets placed in service during 2019 under Section 179 and 168(k).

#### Case #3 Hotel Qualified Improvement Property, Property Furnishing Lodging (Strategies #1, 2, 3, and 7)

Challah Corporation operates a hotel near a metropolitan international airport. Challah Hotel, located in a single building, has 279 air-conditioned rooms featuring flat-screen televisions. Customers enjoy a complimentary continental breakfast and 24 hours roundtrip complimentary airport shuttle. Challah Hotel has a roof-top swimming pool, a fitness center, an indoor parking lot, and a small restaurant. Section 179 which allows immediate expense of qualified property improvement and property used predominately to furnish lodging, is potentially very beneficial to Challah Hotel. Due to heavy customer traffic, Challah Hotel requires frequent qualified property improvement to the interior of the building. Beds and furniture for use in the hotel's room also need constant upgrade. Challah Hotel also needs an enhanced computer system to prevent hacking and to coordinate the management, marketing, and occupancy rates of the hotel.

In order to evaluate the tax impact of alternative strategies and fully utilize the maximum amount of \$1,020,000 (that a taxpayer can expense immediately under Section 179 in 2019), Challah Hotel proactively plans its tax strategy. Challah Hotel's tax strategies are to ensure that: (1) the total amount of qualified property placed during 2019 does not exceed \$2,550,000 which is the maximum amount allowed under Section 179 in 2019, (2) Challah Hotel can expense immediately \$1,020,000 by avoiding any phase out deduction, (3) Challah Hotel can recover all the cost of qualified improvement property placed in service during 2019 in the same year, and (4) Challah Hotel can also recover all the cost of MACRS property under 20 years or less placed in service during 2019 in the same year by electing both Section 179 and 168(k). During 2019, Challah Corporation acquired and placed in service (1) \$178,000 qualified improvement property of the interior of the hotel's building; (2) \$125,000 improvement cost of the hotel's roof, (3) \$83,000 improvement cost of the hotel's heating, ventilation, and air-conditioning property; (4) \$46,000 improvement cost of the hotel's fire protection and alarm systems; (5) \$27,000 improvement cost of hotel's security systems; (6) \$76,185 Lincoln 2019 Navigator SUV; (7) \$480,000 cost of property used predominately to furnish eighty hotel rooms; (8) \$18,600 hotel's office equipment (7-Year MACRS assets); (9) \$250,000 information systems including computers, peripheral equipment and data handling equipment (5-Year MACRS assets). Challah Hotel has met all the requirements for deduction as stipulated in Section 179 and 168(k) for all mentioned above costs. By electing Section 179 immediate expense first and the additional first-year depreciation of Section 168(k), Challah can recover all the mentioned above costs in 2019 as shown in Table 11.

Description	Amount	Calculation
Section 179 Expense		
1. Qualified Improvement Property (Interior of Hotel Building)	\$ 178,000	
2. Improvement Cost of Hotel's Roof	\$ 125,000	
3. Improvement Cost of Hotel's Heating, Ventilation and Air Conditioning	\$ 83,000	
4. Improvement Cost of Hotel's Fire Protection and Alarm Systems	\$ 46,000	
5. Improvement Cost of Hotel's Security Systems	\$ 27,000	
6. Cost of Lincoln 2019 Navigator SUV \$76,185	\$ 25,500	2019 Section 179 SUV \$25,500
7. Property Used Predominately to Furnish Hotel's Rooms	\$ 480,000	
8. Hotel's Office Equipment (7-Year MACRS assets)	\$ 18,600	
9. Hotel's Information Systems (5-Year MACRS assets)	\$ 36,900	
Total Section 179 Expense	\$1,020,000	2019 Ceiling of Section 179
Additional First-Year Depreciation	· · ·	e
Lincoln 2019 Navigator SUV	\$ 50,685	(\$ 76,185 - \$25,500) = \$50,685
Hotel's Information Systems (5-Year MACRS assets)	\$ 213,100	(\$250,000 - \$36,900) = \$213,100
Total Cost Recovery Deduction	\$1,283,785	

Table 11: Case #3 Cost Recovery of Property Placed in Service Under Section 179 and 168(k)

Table 11 shows how Challah Hotel recovers \$1,283,785 of various business expenses.

Several reasons exist which explain why Challah Hotel would like to recover, in the same year, all the costs of qualified improvement property placed in service during a tax year. First, Challah Hotel is generating taxable income in 2019 and in the imminent future years. However, hotel industry undergoes boom and bust. Challah Hotel will like to renovate during booming years since Section 179 immediate expense deduction is subject to business income limitation. Secondly, there is always a need of Challah Hotel to renovate the interior of the hotel building and to refurnish some hotel's rooms annually. Section 179 has been generously allowing \$1,020,000 in 2019 and in the future tax years for Challah Hotel to expense immediately for property placed in service such as: qualified improvement property; costs of improvement to roofs, ventilation systems; and costs of property used predominately for furbishing lodging. Thirdly, Section 168(k) additional first-year depreciation is temporary and will no longer be available after 2026. Therefore, Challah Hotel has to plan strategically in compliance of Section 179 deduction; while maximizing the usage of Section 168(k) additional first-year depreciation simultaneously.

#### **CONCLUDING COMMENTS**

Tax laws such as Section 179 and 168(k) have stringent requirements for taxpayers to comply with before taxpayers can elect for immediate expenses or additional first-year depreciation. This paper contributes to the literature by providing readers with the latest update of the changes to Sections 179, 168(k) and 274. For example, The Coronavirus Aid, Relief, and Economic Security (CARES) Act of 2020, now allows taxpayers to also elect additional first-year depreciation deduction for qualified improvement property. Through statistical analysis of "IRS Corporation Depreciation Data" from 2010 to 2016, this paper reports the following findings: (1) cumulatively, between 2010 to 2016, C corporations claimed between 32 percent to 49 percent of the total depreciation in each tax year from Section 179 and/or Section 168, (2) the above mentioned results suggest that Section 179 and Section 168(k) are quite popular among C corporations, (3) results of independent-sample t-test shows that there is a significant difference in the monetary amount between the three groups of business sectors in both Section 179 and 168(k) scenarios, (4) groups in the data sets of Section 179 and 168(k) comprise of different business sectors depending on the nature of business operations and the ease of entry into the business sector.

This paper contributes to the literature by suggesting ten strategies to readers for maximizing deductible business expenses under Sections 168(k), 179 and 274. To operationalize the ten strategies discussed in this paper, the authors provide three real-world cases embedded with fictitious numbers for illustration purposes. These cases illustrate that Section 179 and 168(k) have different incentives to encourage taxpayers to incur capital expenditures. For example, capital intensive manufacturers favor Section 168(k) while hotel operators favor Section 179. The authors admit several limitations of the paper. Each taxpayer

or business has different unique situations. The ten strategies and the three cases mentioned in this paper may not be applicable to every tax situation. Further, when a taxpayer prepares a tax return the taxpayer must comply with a myriad of IRC sections not just Section 168(k), 179 and 274 as discussed in this paper. Many future research opportunities exist. The authors are in the process of providing strategies to readers on other tax topics introduced by the TCJA 92017) such as qualified business income deduction.

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