

How Does Section 179 Expensing Impact State Individual Income Tax Revenue: a Case of Iowa

Mandy Jia

Mandy.Jia@iowa.gov

Iowa Department of Revenue

FTA Revenue Estimation and Tax Research Conference
September 25, 2017

Disclaimer: The views expressed here are those of the author and do not necessarily represent the views of, and should not be attributed to, Iowa Department of Revenue.

Note: This project is in preliminary stages. Suggestions are welcome and encouraged.

Motivation

- Section 179 deduction claimed by farmers and small businesses impacts Iowa state revenue.
- Iowa has coupled with enhanced federal Section 179 tax years 2010 through 2015, but not coupled beginning tax year 2016.
- The purpose of the project is to improve forecast of revenue impact if Iowa couples with federal Section 179 limits in the future.



Outline

- Brief Background
- 1. Distribution of claims among individual taxpayers
 - Farmers
 - Schedule E filers (rental, S corps, partners, etc.)
 - Schedule C filers (sole proprietors)
- 2. Take-up rates of the deduction
- 3. Estimated fiscal impacts
- Planned future work

Scope of this Analysis

- Section 179 expensing only
 - “bonus depreciation” is not discussed
- Individual income taxpayers only
 - For S corps and partnerships:
Partners or shareholders level, not entity level
 - C corps are excluded
- Iowa residents only
 - Nonresidents are excluded
- Electronic filers only
 - Paper filers are excluded

**Without special notification, statistics reported here are for Iowa residents electronic filers only.*

What is Section 179 Expensing?

- **Depreciation**: When a business purchases assets, the costs of assets can be deducted over a number of years (the asset life time).
 - Each year the share of the cost of the assets can be deducted as depreciation (MACRS).
- **Section 179 expensing** allows taxpayers to deduct the full costs of certain assets in the first year put in service, i.e., “expensing” the cost fully in the first year, up to a limit.
 - the most accelerated form of depreciation

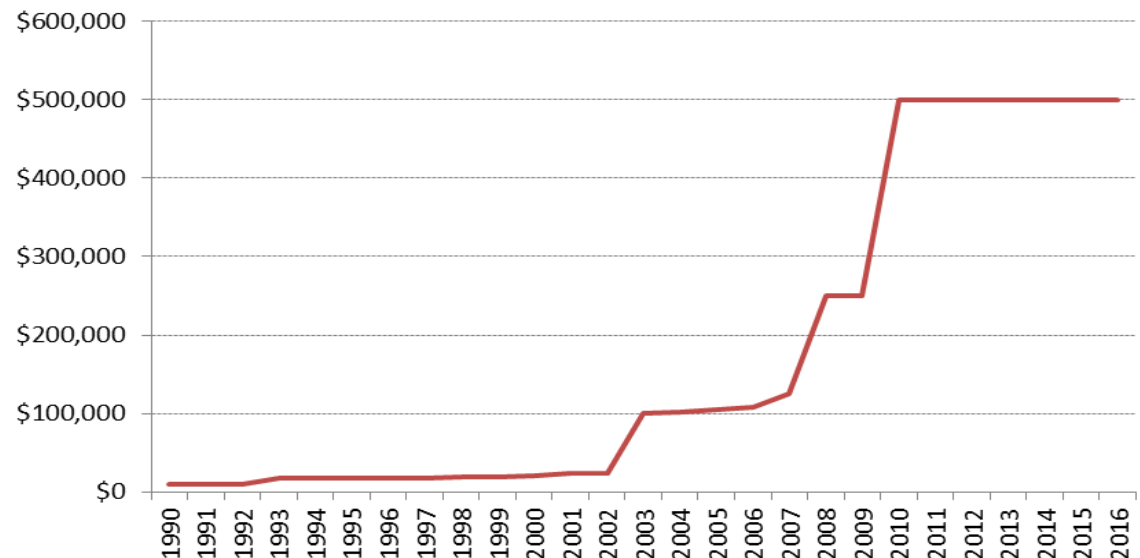
Benefits of Section 179 Expensing for Taxpayers

- Reducing the cost of the assets
 - Increasing net present value of depreciation allowance (*loosely speaking*)
 - Lowering the marginal effective tax rate (Hall and Jorgenson, 1967) (*theoretical*)
- Cash flow benefits
 - Increasing cash flow in the first year
- Eliminating depreciation recordkeeping requirements

Federal Section 179 Deduction has been Expanding

- Section 179 deduction was enacted in 1958 to reduce the tax burden on small business owners.
- December 2015 The PATH Act permanently extended an enhanced “Section 179” deduction (\$500K/\$2 million and indexed) for 2015 and beyond.

Federal Section 179 Deduction Dollar Limitation



Parameters of Section 179 Deduction

- Federal: deduction is capped by
 - Dollar limitation per taxpayer (\$500,000 for 2016)
 - Investment phase-out threshold (\$2,010,000 for 2016)
 - Business income limit
 - Iowa: deduction is capped by
 - Dollar limitation per taxpayer (\$25,000 for 2016)
 - Investment phase-out threshold (\$200,000 for 2016)
 - Business income limit
 - The federal deduction amount disallowed due to Iowa de-coupling can be depreciated using MACRS*
- * except for pass-through partners or shareholders

Data Sources

➤ Data sources:

- Individual-level IRS and Iowa Individual Tax Returns (**Form 1040**)
- Individual-level IRS and Iowa Depreciation and Amortization (**Form 4562**)
 - Section 179 expensing
 - Bonus depreciation
 - MACRS

➤ Time period: TY 2012-TY 2016

- Limitation of data before 2012
- 2016 data are preliminary

I. Distribution among Individuals

Definitions of Individual Taxpayers Types

- Schedules for individuals to report depreciation:
 - **Schedule F**: farming
 - **Schedule E**: rental, royalties, S corps, partnerships, estates, trusts, etc.
 - **Schedule C**: Sole proprietorship business
- There is some overlap between these filers. Therefore, the categories used here are as follows:
 - **Farmers**: anyone who filed Schedule F
 - **Schedule E filers**: who filed Schedule E but not Schedule F
 - **Sole proprietors**: who filed Schedule C but not included in the above two categories

Year Characteristics: TY 2012-TY 2016

➤ TY 2012 was a big year for various income sources.

Annual Growth Rates of Income or Economic Statistics for Iowa

| Tax Year | Taxable Farm Income | Schedule E Income | Sole Proprietors Income | GDP | Personal Income |
|-------------|---------------------|-------------------|-------------------------|-----------|-----------------|
| 2011 | 42% | 15% | 6% | 5% | 8% |
| 2012 | 77% | 26% | 9% | 6% | 5% |
| 2013 | -28% | -2% | -1% | 3% | 2% |
| 2014 | -47% | 5% | 5% | 5% | 3% |
| 2015 | -73% | 0% | 4% | 4% | 4% |
| 2016 | -109% | 0% | 0% | 2% | 2% |

Distribution of federal Section 179 Deduction across Individual Types

- Farmers accounted for 53%-73% of the total amount of Section 179 deduction claimed by Iowa individual taxpayers.

| <i>Section 179 Deduction on Federal Returns</i> | <i>TY 2012</i> | <i>TY 2013</i> | <i>TY 2014</i> | <i>TY 2015</i> | <i>TY 2016*</i> | <i>TY 2012</i> | <i>TY 2013</i> | <i>TY 2014</i> | <i>TY 2015</i> | <i>TY 2016*</i> |
|---|---------------------------|----------------|----------------|----------------|-----------------|---------------------|----------------|----------------|----------------|-----------------|
| | <i>Million of Dollars</i> | | | | | <i>Distribution</i> | | | | |
| Farmers | \$1,979 | \$1,937 | \$1,370 | \$1,037 | \$775 | 73% | 71% | 62% | 55% | 53% |
| Schedule E filers | \$630 | \$706 | \$711 | \$729 | \$592 | 23% | 26% | 32% | 39% | 41% |
| Sole Proprietors | \$95 | \$99 | \$114 | \$112 | \$93 | 4% | 4% | 5% | 6% | 6% |
| Totals | \$2,705 | \$2,742 | \$2,195 | \$1,878 | \$1,459 | 100% | 100% | 100% | 100% | 100% |

* TY 2016 is incomplete.

USDA's Farm Classification

➤ Residence farms:

- Less than \$350,000 in gross cash farm income
- Principal operator is either retired or has a primary occupation other than farming

➤ Intermediate farms:

- Less than \$350,000 in gross cash farm income
- Principal operator whose primary occupation is farming

➤ Commercial farms:

- Farms with \$350,000 or more gross cash farm income and nonfamily farms

Distribution of federal Section 179 Deduction Across Individual Types

| | TY 2012 | TY 2013 | TY 2014 | TY 2015 | TY 2016* | TY 2012 | TY 2013 | TY 2014 | TY 2015 | TY 2016* |
|--------------------------|---------------------------|---------|---------|---------|----------|---------------------|---------|---------|---------|----------|
| Farmers | <i>Million of Dollars</i> | | | | | <i>Distribution</i> | | | | |
| Gross income<\$350K | \$620 | \$586 | \$508 | \$461 | \$374 | 31% | 30% | 37% | 44% | 48% |
| \$350K<Gross income<\$1M | \$843 | \$767 | \$496 | \$348 | \$259 | 43% | 40% | 36% | 34% | 33% |
| Gross income>=\$1M | \$516 | \$584 | \$367 | \$228 | \$142 | 26% | 30% | 27% | 22% | 18% |
| Schedule E filers | | | | | | | | | | |
| Gross income<\$350K | \$510 | \$562 | \$549 | \$524 | \$435 | 81% | 80% | 77% | 72% | 73% |
| \$350K<Gross income<\$1M | \$72 | \$87 | \$98 | \$123 | \$99 | 11% | 12% | 14% | 17% | 17% |
| Gross income>=\$1M | \$48 | \$57 | \$63 | \$83 | \$58 | 8% | 8% | 9% | 11% | 10% |
| Sole Proprietors | | | | | | | | | | |
| Gross income<\$350K | \$73 | \$76 | \$82 | \$83 | \$73 | 76% | 76% | 72% | 74% | 79% |
| \$350K<Gross income<\$1M | \$16 | \$17 | \$21 | \$20 | \$14 | 16% | 17% | 19% | 18% | 15% |
| Gross income>=\$1M | \$7 | \$7 | \$10 | \$9 | \$6 | 7% | 7% | 9% | 8% | 6% |
| Totals | | | | | | | | | | |
| Gross income<\$350K | \$1,203 | \$1,223 | \$1,139 | \$1,068 | \$882 | 44% | 45% | 52% | 57% | 60% |
| \$350K<Gross income<\$1M | \$930 | \$872 | \$615 | \$490 | \$372 | 34% | 32% | 28% | 26% | 26% |
| Gross income>=\$1M | \$571 | \$647 | \$440 | \$320 | \$206 | 21% | 24% | 20% | 17% | 14% |

* TY 2016 is incomplete.

II. Take-Up Rates

U.S. Estimation by Kitchen and Knittel (2016)

- Kitchen and Knittel (2016) focuses on U.S. business taxpayers
- SOI data from IRS, 2002-2014
- $Take - up\ rate = \frac{Section\ 179\ deduction}{Basis\ of\ all\ eligible\ properties}$
- Replicate their method of calculating Section 179 property eligible basis:
 - Reported capped **Section 179 deduction** amount
 - Reported **bonus depreciation** amount
 - Reported **MACRS basics** of properties with 20 years or less recovery period
 - Imputed **software basis** (other depreciation*16%)
 - Reported **carryover** amount of Section 179 from prior years

Section 179 Take-Up Rates: Iowa Individuals All Types

| All Individuals | TY 2012 | TY 2013 | TY 2014 | TY 2015 | TY 2016* |
|---|---------|---------|---------|---------|----------|
| <u>Number of Individual Filers</u> | | | | | |
| Number with eligible 179 basis | 123,184 | 124,063 | 122,510 | 116,606 | 105,443 |
| Number claiming 179 deduction | 77,997 | 76,315 | 74,082 | 67,753 | 58,122 |
| <u>Take-up percentage (using number)</u> | | | | | |
| Relative to eligible basis | 63% | 62% | 60% | 58% | 55% |
| <u>Millions of dollars</u> | | | | | |
| Total basis eligible for 179 | \$4,888 | \$4,950 | \$4,294 | \$4,017 | \$3,368 |
| Total 179 deduction claimed | \$2,718 | \$2,755 | \$2,209 | \$1,891 | \$1,473 |
| <u>Take-up percentage (using amount)</u> | | | | | |
| Relative to eligible basis | 56% | 56% | 51% | 47% | 44% |


Data Source: Iowa residents IRS Form 1040 and 4562. *TY 2016 is incomplete.

Section 179 Take-Up Rates: Iowa Individuals All Types Compared to United States, TY 2014

| All Individuals | TY 2012 | TY 2013 | TY 2014 | TY 2015 | TY 2016* | TY 2014 U.S. (Kitchen&Knittel,2016) |
|---|---------|---------|---------|---------|----------|---|
| <u>Number of Individual Filers</u> | | | Iowa | | | |
| Number with eligible 179 basis | 123,184 | 124,063 | 122,510 | 116,606 | 105,443 | |
| Number claiming 179 deduction | 77,997 | 76,315 | 74,082 | 67,753 | 58,122 | |
| <u>Take-up percentage (using number)</u> | | | | | | |
| Relative to eligible basis | 63% | 62% | 60% | 58% | 55% | 57% |
| <u>Millions of dollars</u> | | | | | | |
| Total basis eligible for 179 | \$4,888 | \$4,950 | \$4,294 | \$4,017 | \$3,368 | |
| Total 179 deduction claimed | \$2,718 | \$2,755 | \$2,209 | \$1,891 | \$1,473 | |
| <u>Take-up percentage (using amount)</u> | | | | | | |
| Relative to eligible basis | 56% | 56% | 51% | 47% | 44% | 48% |

Data Source: Iowa residents IRS Form 1040 and 4562. *TY 2016 is incomplete.

Iowa Section 179 Take-Up Rates: Farmers

| <i>Farmers (Schedule E filers)</i> | TY 2012 | TY 2013 | TY 2014 | TY 2015 | TY 2016* |
|--|---------|---------|---------|---------|----------|
| <u>Number of Farmers</u> | | | | | |
| Number with eligible 179 basis | 51,615 | 51,516 | 49,883 | 47,933 | 44,951 |
| Number claiming 179 deduction | 35,779 | 33,666 | 31,441 | 27,942 | 24,403 |
| <u>Take-up percentage (using number)</u> | | | | | |
| Relative to eligible basis | 69% | 65% | 63% | 58% | 54% |
|  | | | | | |
| <u>Millions of dollars</u> | | | | | |
| Total basis eligible for 179 | \$3,630 | \$3,590 | \$2,895 | \$2,536 | \$2,140 |
| Total 179 deduction claimed | \$1,979 | \$1,937 | \$1,370 | \$1,037 | \$775 |
| <u>Take-up percentage (using amount)</u> | | | | | |
| Relative to eligible basis | 55% | 54% | 47% | 41% | 36% |

Declining farm income

Data Source: Iowa residents IRS Form 1040 and 4562. *TY 2016 is incomplete.

Factors Associated with Selecting Section 179 Expensing in Literature

- Kitchen and Knittel (2016)
 - State conformity (+)
 - Loss situation (-)
 - Net operating loss (-)
 - Larger gross receipts (+)
 - Longer asset life (+)
 - Manufacturing and mining firms (+)
- *Risk of recaptured Depreciation (-)*

Cross-Sectional Sample Statistical Description

| Average in sample | Farmers | Schedule E Filers | Sole Proprietors |
|--|---------|-------------------|------------------|
| Selecting Section 179 deduction (1=yes,0=no) | 62% | 57% | 59% |
| Bonus depreciation indicator (1=yes,0=no) | 8% | 9% | 8% |
| Mortgage or interest paid indicator (1=yes,0=no) | 68% | 26% | 31% |
| Average asset life (years) | 9.1 | 8.2 | 7.0 |
| Gross income (Million \$) | 0.28 | 0.10 | 0.08 |
| Loss indicator (1=yes, 0=no) | 50% | 23% | 31% |
| <hr/> | | | |
| Number of Observations | 239,907 | 173,889 | 106,025 |
| McFadden's R2 | 0.143 | 0.175 | 0.098 |
| Mean of Dependent Variable | 0.623 | 0.572 | 0.587 |

Only those who had eligible Section 179 basis are included in the sample TY2012-TY2014.

Cross-Sectional Probit Estimation for Selecting Section 179 Deduction (Farmers Only)

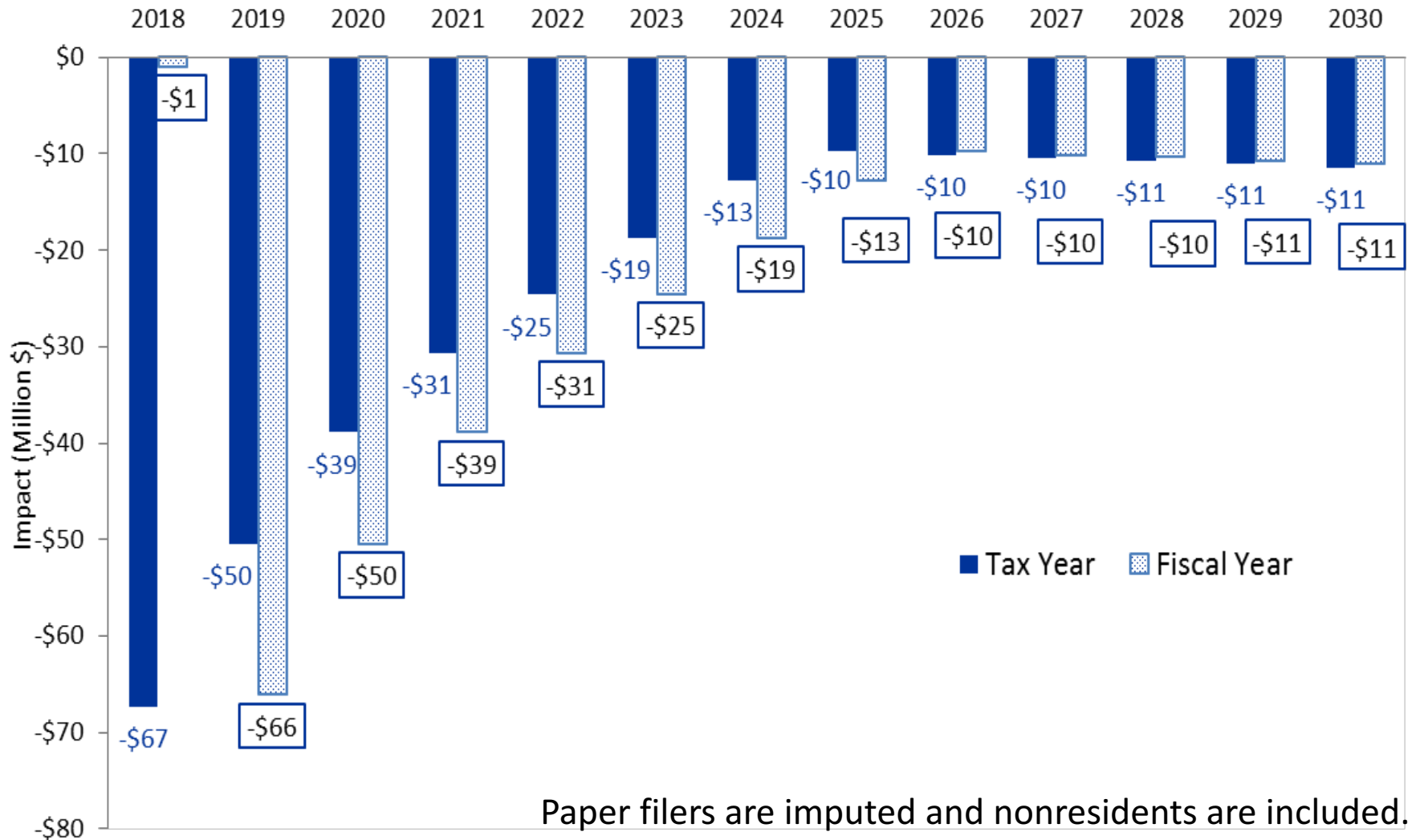
Dependent Variable: Selecting Section 179 deduction =1; else =0

| | Farmers | |
|--|--------------------|-----------------------|
| Independent Variables | Coefficient | Standard Error |
| Loss indicator (1=yes, 0=no) | -1.053 | 0.006 |
| Bonus depreciation indicator (1=yes,0=no) | -0.340 | 0.010 |
| Average asset life (years) | 0.011 | 0.001 |
| Gross income (Million \$) | 0.051 | 0.003 |
| Mortgage or interest paid indicator (1=yes,0=no) | 0.225 | 0.006 |
| Year effect? | Yes | |
| Number of Observations | 239,907 | |
| McFadden's R2 | 0.143 | |
| Mean of Dependent Variable | 0.623 | |

III. Estimated Fiscal Impacts

*Paper filers are imputed and nonresidents are included.

Fiscal Impact of Iowa Coupling Federal Section 179 Permanently



Estimates Under Proposals Raising Iowa's Section 179 Limits

| Proposal | Proposed Iowa Dollar Limitation | Proposed Iowa Phase Out Threshold | Total Impact TY 2018 (Million \$) | Total Number of Taxpayers with Lower Tax Liability | Share of Farmers with Lower Tax Liability by Number | Share of the Impact on Farmers by Dollar Amount |
|----------|---------------------------------|-----------------------------------|-----------------------------------|--|---|---|
| A | \$50,000 | \$200,000 | -\$17.3 | 17,022 | 48% | 49% |
| B | \$100,000 | \$400,000 | -\$35.6 | 17,457 | 49% | 49% |
| C | \$250,000 | \$1,000,000 | -\$52.4 | 17,561 | 49% | 46% |
| D | \$520,000 | \$2,070,000 | -\$67.3 | 17,571 | 52% | 44% |

Current Iowa Section 179 deduction has dollar limitation at \$25,000 and phased out threshold at \$200,000.

Paper filers are imputed and nonresidents are included.

Planned Future Work

- Add the following parts:
 - Examine further about taxpayers investment behavior under law changes
 - Using panel data structure
 - Using information on each property
 - Estimate proposals on pass-through amount exceeding Iowa limits for shareholders and partners
 - Current law: “lose it”
 - Proposals: allowing MACRS or allowing carry forward

Summary

- Farmers accounted for 53%-73% of the total Section 179 deduction amount claimed by Iowa individual taxpayers.
- Iowa farmer's Section 179 take-up rate is associated with
 - loss position (-)
 - claiming bonus depreciation (-)
 - average asset life years (+)
 - gross income (+)
 - paying mortgage (+)
- Fiscal impact of Iowa coupling federal law reflects the timing pattern of accelerated depreciation.